# B-A IS 50 IN '77-1/4 as old as our countr





## BURSTEIN-APPLEBEE

**BROKERS - DISTRIBUTORS** 

Electrical Supplies -- Radio Automotive Specialties Hardware Specialties

511 EAST 14TH ST. KANSAS CITY

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**MISSOURI** 

To Keen Operators In The Electrical and Radio Trade

This will introduce "Joe" Burstein and "Merl" Applebee.

Both experienced, shrewd, former "managers," "buyers" and "head salesmen." They know Electrical Goods, Radio and Automotive lines upwise—downwise—sidewise—and across.

They've engineered the success of several of America's representative wholesale concerns—but they took a notion to go it alone—in a different, newer, snappier business—and here they are.

"Joe" and "Merl" present this Cut Price List. It's plumb full of Hot Buys. Look it over. If the items are not keen bargains tell Joe and Merl. If the prices ARE winningly low signify your approval by saying "Aye" and sending an ORDER.

"Joe" and "Merl" work THIS way. They watch for SNAPS. They have lookouts East-West-North and South. If a factory has a surplus Joe and Merl are after it—if they can buy at Joe and Merl's ideas of PRICE. And they are after choice Bankrupt stocks too. But the goods they buy must be GOOD. Must be fresh, nationally known merchandise in original factory cartons.

And Joe and Merl BUY the same way as they SELL—for CASH. They have the money (or can swing it) for ANY deal no matter HOW large—if the price is RIGHT. They are swift traders. Merchandise in—then out-in-a-hurry—small margin stuff—but LOTS of volume.

You can benefit big through these special buys. But you have to order at once when you read these lists for the goods are here today and there tomorrow—offered subject to prior sale.

Today is always a better day than tomorrow when prices touch bottom like they do in this Price List.

Thanks for the order you send—if you send one. And in the near future you'll get ANOTHER Price List from.

Yours very truly,

BURSTEIN-APPLEBEE CO.

"Joe" and "Merl."

Service That Will Save You Money

\*These copies of B-A's first recorded mailing pieces are dated Nov. 30, 1927

Keen Prices Make Interesting Reading LOUD SPEAKERS AND UNITS Utah, Thorola Baldwin, O'Niel, Temp Cannon Ball, Magnavoz, Acme, B. T. Special Leaders 40% and 5% from List Dubilier Micadons Calvin Coolidge is President

of the United States

Charles Lindbergh flies the Atlantic Ocean to Paris

Gene Tunney defeats Jack Dempsey

10,000,000 radio receivers are in use

Al Jolson stars in the first "talkie" movie — "The Jazz Singer"

The Modern Way BURSTEIN & AT

EANS CUT PRICES

# burstein-applebee

**ANNUAL CATALOG 771** 

## **Technics** anasonic

## UNCOMPROMISING

#### **MODEL SA-5060 AM/FM STEREO RECEIVER**



**FET FRONT END** "FLAT GROUP DELAY" CERAMIC **FILTERS** 

PLL MULTIPLEX CIRCUITRY

A true high-fidelity instrument despite its economical pricing. The SA-5060 features many design elements associated with much more expensive equip-

The SA-5060 uses direct coupled OCL, the same as Technics' best receivers, for assured solid power output and high damping. It delivers a respectable 12 watts per channel from 40 Hz to 20 KHz at 8 ohms, with 0.9% total har-

monic distortion.
In the FM section features include an FET front end, "Flat Group Delay" ceramic filters in the IF strip, a Phase Lock Loop multiplex circuit, a high linearity detector, interstation muting and a linear signal strength meter. The combination of these features results in high sensitivity and selectivity, low distortion and exceptional performance at a modest price. Front panel controls for 

Model SA-5160 FM/AM Stereo Receiver delivers 25 watts per channel, minimum RMS, both channels driven, at 8 ohms from 30 Hz to 20 KHz, with no more than 0.5% total harmonic distortion. FM muting, mode, main and remote switches. Dimensions: 5-19/32"H. x 16-17/32"W. x 13-31/32"D. 



Technics by Panasonic



#### **MODEL SA-5360 AM/FM STEREO RECEIVER**

7-STAGE IF SECTION

4-POLE DUAL GATE MOS FET

HIGH DAMPING FACTOR

CLICK-STOP TONE/BALANCE/VOL-UME

A high performance receiver with many extra features. The power output of 38 watts per channel, minimum RMS, both channels driven at 8 ohms from 20 Hz to 20 KHz, with no more than 0.3% total harmonic distortion exceeds minimum requirements for most power-hungry speakers. Clarity and definition of FM are results of 7 stage IF section with 6 "Flat Group Delay" ceramic filters. In stereo FM, Phase Lock Loop circuitry results in superior separation and low distortion. 4-pole dual gate MOS FET for high sensitivity and selectivity. Bass, treble, and balance controls are 11-step click-stop. 41-step click-stop volume control. Two tuning meters. Main and remote speaker switches. Loudness, high filter, FM muting, mode, tape monitoring switches.

Specifications: Amplifier damping 40(8 ohms), Intermodulation Distortion 0.5%, Input sensitivity and impedance: Phono 2.5 mV/47 kilohms, Aux. 150 mV/40 kilohms, Tape playback 150 mV/40 kilohms. FM sensitivity 1.9 uV, Capture Ratio 1.5 dB. FM signal to noise 73 dB. Dimensions: 5-19/32"H x 16-17/32"W x 13-31/32"D.

50A1012-3. Model SA-5360. Shpg. wt. 21.8 lbs. Each ... \$299.95

Technics Model SA-5460 FM/AM Stereo Receiver offers 65 watts mini-

#### **MODEL SA-5560 AM/FM STEREO RECEIVER**

HI/LOW FILTER SWITCHES

STOP VOLUME CONTROL

FM MULTIPLEX HIGH BLEND SWITCH RESETTABLE 41-POSITION CLICK-

The SA-5560, in every respect a first-rate receiver, will satisfy the most demanding audiophile seeking an uncompromising performance instrument. It combines substantial power output and low distortion (85 watts per channel, minimum RMS, both channels driven at 8 ohms from 20 Hz to 20 KHz, with no more than 0.1% total harmonic distortion) with superb FM performance. Plat Group Delay ceramic filters in the IF section, sophisticated PLL stereo multiplex circuitry, and OCL amplified design maintain exceptional performance with respect to sensitivity, selectivity, solid power output, separation and other performance characteristics.

and other performance characteristics.

Controls include: speaker switch with positions for main, remote, and main plus remote, click-stop bass, treble, balance, and volume, high and low filters, loudness switch, FM muting, FM high blend, two tape monitor circuits with dubbing capabilities, stereo/mono mode switch, tuning knob and function selector with positions for AM, FM Auto, Phono and Aux. Zero-center and signal strength tuning meters. An automatic electronic circuit with relays and fusing are used to safeguard speakers.

Specifications: Power output 85 watts, minimum RMS per channel at 8 ohms from 20 Hz to 20KHz with no more than 0.1% total harmonic distortion. Amplifier damping 55(8 ohms), Intermodulation distortion 0.1%. Input sensitivity and impedance; Phono 2.5 mV/47 kilohms, Aux. 150 mV/35 kilohms FM sensitivity 1.8 uV. Crature Ratio 1.5 dB. FM signal to Noise 75 dB. Stereo







#### MODEL SA-5760 AM/FM STEREO RECEIVER

- INPUT IMPEDANCE SELECTOR
- CLICK-STOP VOLUME LEVEL CONTROL
- TWO TAPE DECK CAPABILITY
- 44,000uf FILTERING CAPACI-

Far ahead of its time, the SA-5760 is solidly in a class with the finest separates . . . even ahead of many. Combines enormous power output with outstandingly low distortion. The prestige model for the audiophile who will accept no compromise, the SA-5760 will deliver not less than 165 watts per channel of continuous sine wave (RMS) power, into an 8 ohm load from 20Hz to 20KHz, with no more than 0.08% total harmonic distortion.

Rock-steady stability is achieved with a total of 44,000 microfarads of filtering capacitance, plus a massive power transformer weighing 22 lbs.

A front-panel switch selects 25, 50 or 100 kilohms as input impedance for matching to the characteristics of any phono cartridge or for the subtle tailoring of high frequency response. Precise volume is achieved with a 26-position true attenuator-type click-stop level control, calibrated in 2 dB steps from 40 to 0 dB.

Complete input/output terminals are provided for two tape decks, with front-panel selector switches for instant monitoring of either one. Both may be active for simultaneous copying from a single source. Or dub either of the two tape outputs to the input of the other tape facility. FM Tuner Sensitivity: 10.3 dBf, 1.8uV. Features loudness, muting, FM muting, delay time, high and low filter controls.

Beautiful and durable simulated wood cabinet. Dimensions: 6-7/8H x 21-21/32W x 19-13/32"D. Shpg. wt. 52 lbs.

#### **MODEL ST-8600 AM/FM STEREO TUNER**

- . TWO-STEP MUTING. . MPX HI-BLEND.
- . 8-GANG TUNING CAPACITOR
- . TRUE DIRECT FM-TO-TAPE RECORDING

Creates full tonal beauty with exceptionally clear reproduction. A 19 KHz pilot filter extends the flat frequency response past 18 KHz, while "Flat Group Delay" filters iron out noise-inducing time delay kinks. By bypassing the amplifier, the ST-8600 provides a means for true direct FM-to-tape recording for greatly reduced hiss and noise. Pink noise generator provides automatic level adjustments when taping FM programs. Has 4-pole MOS FET equipped RF stage. PLL for clear-cut channel separation Search 20 to 18 000

for clear-cut channel separation. Specs: 20 to 18,000 Hz, +0.2db, -0.8db, alt. channel selectivity 85db. Sensitivity 1.9 uV. Capture ratio 1.0db. Harmonic distortion mono 0.15%, stereo 0.25%. Stereo separation 1 KHz 45db. Image rejection 95db (at 98 MHz). Dimensions: 7-3/32" H. x 19-9/32" W. x 13-29/32" D. Shpg. wt. 25 lbs. 50A1019-8. Model ST-8600

Model ST-8600 Each ..... \$329.95



#### MODEL ST-7600 AM/FM STEREO TUNER

- . NORMAL/NARROW TUNING SELECTIVITY.
- . FM MUTING.
- . "HIGH BLEND" CONTROL.

Superb waveform fidelity recreates every sound of an original performance. Features a choice of selectivity (NORMAL 75 db or NARROW 90 db). Pushbutton muting circuit cuts out weak stations and inter-station noise. FM stereo hiss noise on distant stations can be reduced by "High Blend."

FM stereo hiss noise on distant stations can be reduced by "High Blend." Includes zero center and signal strength meters, continuously adjustable output level control, power switch, linear dial scale, tuning knob, and function selector. Specs: Freq. res. 20 to 15,000 Hz, +0.2, db, -0.8 db, alt. channel selectivity 90 db (NARROW). IHF sensitivity 1.9 uV. S/N ratio 75 db. Harmonic distortion: Mono 0.2%, stereo 0.4%. Stereo separation 1 KHz 45 db. Image rejection 50 db. Capture ratio 1.0 db. Dimensions: 5-23/32" H.x17-5/16" W.x13-7/8" D.

50A1017-2. Model ST-7600. Shpg. wt. 14 lbs. Each ... \$179.95





#### **MODEL SU-7600 STEREO INTEGRATED AMPLIFIER**

- . ALL STAGE DIRECT COUPLED
- CLICK-STOP VOLUME CONTROL
- TWO TAPE MONITOR CIRCUITS

An ideal companion for the ST-7600 with the same styling, overall dimensions, and waveform fidelity. From low signal levels to full power output, low distortion and faithful reproduction make it a pleasure to listen to. Features all stage direct coupled amplifier, click-stop volume control, speaker system with positions for main, remote, and main plus remote. Also two tape monitoring circuits with dubbing capabilities, loudness switch, high "scratch" filter, and stereo/mono mode switch. Fully variable tone controls for treble, bass and balance. Specs: 41 watts per channel, minimum RMS at 8 ohms from 20 Hz to 20,000 Hz, with no more than 0.2% total harmonic distortion. Damping 40 at 8 ohms. Intermodulation distortion 0.2%. Dimensions: 5-23/32" H. x 17-5/16" W. x 13" D.

50A1016-4. Model SU-7600 Shpg. wt. 21 lbs. Each . . . \$199.95

#### MODEL SU-8600 STEREO INTEGRATED AMPLIFIER

- SUPER QUIET PHONO EQUALIZER
- TWO TURNOVER FREQUENCIES IN BASS AND TREBLE
- STEEP CUT-OFF LOW/HIGH FILTERS

A superb multi-featured amplifier. Independent power supplies are responsible for practically non-existent transient crossmodulation. Controls: speaker selector Off, Main, Remote, Main plus Remote, Bass and Treble with two turnover frequencies, "tone" to "defeat" switch (for comparison with flat response), muting switch, click-stop volume, balance, high/low filters, two tape monitor circuits with tape-to-tape dubbing in both directions, function selector for phono

s, function selector for phono 1, phono 2, tuner and aux, and mode selector for stereo, mono, and reverse. Specs: 73 watts per channel min. RMS at 8 ohms from 20 to 20,000 Hz with no more than 0.08% total harmonic distortion. Damping 50 at 8 ohms. Residual hum and noise 0.3% mV. Intermodulation distortion 0.08%. S/N 115 db. Size: 7-3/32" H.x 19-9/32" x 13-3/8" D. Wt. 34 lbs. 50A1018-0. \$U-8600.

# WHEN YOU WANT SOMETHING BETTER (1) PIONEER

If your listening room is of average size, and if clean low-distortion musical reproduction is your goal, the SX-450 is the medium-powered stereo receiver for you. Its solid state FM/AM section includes a PLL multiplex IC for wide and stable stereo FM separation. There's a low-noise FET coupled with a 3-gang variable capacitor to increase FM sensitivity, a 5-stage limiter to eliminate AM noise, and an LSI circuit to improve AM tonal quality. The phono equalizer features a 150mV overload with a low 0.1% distortion, and the tone control section permits super-quiet handling of all tonal adjustments. Continuous power output is 15 watts per channel minimum RMS at 8 ohms, 20 to 20,000 Hz with no more than 0.5% total harmonic distortion. Features tape monitor switch, selection of up to two sets of stereo speaker systems independently or simultaneously and loudness switch for low listening levels. For 120 V, 60 Hz. Size: 17-5/6" W x 5-9/16" H x 12-3/32" D. Shpg. wt. 21 lbs.

50A1035-4. Model SX-450. \$200.00

Super clean stereo is the result of P.C. construction that practically eliminates shielded wire connections in the pre-amp and tuner sections of the SX-550. The elimination of these connections permits amazingly clean and crisp reproduction of the highest treble notes, greatly enhancing tonal realism. Other features include a versatile two tape deck monitoring-dubbing facility, microphone input for recording or P.A., provision for two sets of stereo speakers for alternate or simultaneous operation. Has loudness contour for low listening levels. Continuous power output is a super-steady 20 watts per channel minimum RMS at 8 ohms from 20 to 20,000 Hz with no more than 0.3% total harmonic distortion. For 120 V, 60 Hz. Size: 17-5/6" W x 5-9/16" H x 12-3/32" D. Shpg. wt. 23 lbs.

A high-medium powered stereo receiver that features low noise, low distortion and high performance with complete operational flexibility. FET front end and linear 3 gang variable capacitor assure FM stability and sensitivity, and phase locked loop circuit with 5-element filter results in stereo separation of 30 db over the range of 30 to 15,000 Hz. Continuous power output is 35 watts per channel, minimum RMS at 8 ohms from 20 to 20,000 Hz, with no more than 0.3% total harmonic distortion.

Has tape monitor and record for two stereo tape decks, allows dubbing from one to the other. Two tuning meters for signal strength and center tune, with high filter switch to eliminate high frequency noise. Has clic k-stop bass and treble controls with center defeat positions for flat response. Has microphone input with priority to microphone when plug is inserted in jack. Size: 18-29/32" W x 5-7/8" H x 14-19/32" D. Shpg. wt. 31 lbs.



 \$200



 \$250



() PIONEER

MODEL SX-650 AM/FM STEREO RECEIVER

## WHEN YOU WANT SOMETHING BETTER

PIONEER

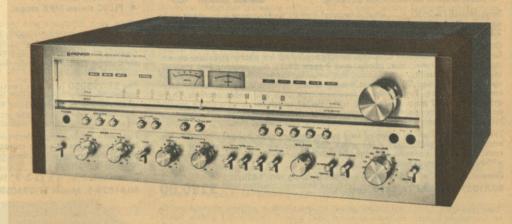
The SX-1250's technological artistry, its fundamentally sound circuit design and its distinguished good looks make it a masterpiece of stereo efficiency and total performance.

Some of the outstanding features of the SX-1250 are: a three-stage direct coupled equalizer circuit for extremely low distortion, with RIAA equalization being precise within  $\pm 0.2$  db; a unique twin tone control for both bass and treble; sharp lowcut and highcut filters eliminate unnecessary frequency range deviations without impairing tonal quality; user oriented attenuator type volume control is 32-step type calibrated directly in decibels; tape duplication switch alows duplication of tapes while the listener may enjoy another program source; highly sensitive FM front end has five gang variable capacitor and three dual gate MOS field effect transistors; advanced AM circuit has three gang variable capacitor with integrated circuitry; and an extra capacitor with integrated circuitry; and an extra heavy inertia flywheel provides the smoothest possible tuning. Switches provide for up to three sets of stereo speakers to be operated individually or in any paired combination. Has jacks for L and R microphones, and loudness contour for ble; sharp lowcut and highcut filters eliminate L and R microphones, and loudness contour for best possible reproduction at low volume levels. Separable preamp-out and power amp-in allows the SX 1250's use in combination with other amplifiers.

Continuous power output is a full 160 watts per channel, minimum RMS at 8 ohms, or 200 watts per channel at 4 ohms, from 20 to 20,000 Hz with no more than 0.1% total harmonic distortion. Aluminum finished front panel and walnut finished wooden case. Dimensions: 21-7/8" W x 7-3/8" H x 18¾" D. Shpg. wt. 68 lbs.

50A995-0 Model SX-1250. Ea \$900.00

( PIONEER SX-1250 AM FM STEREO RECEIVER



#### **PIONEER MODEL SX-1050**

Similar to the SX-1250 except FM front end has 4 gang variable capacitor with 2 MOS FET's. Continuous power output is 120 watts per channel, min. RMS at 8 ohms, or 170 watts per channel at 4 ohms, from 20 to 20,000 Hz with no more than 0.1% total harmonic distortion. Dimensions: 20¾" W x 6-13/16" H x 17-7/8" D. Shpg. wt. 55 lbs.

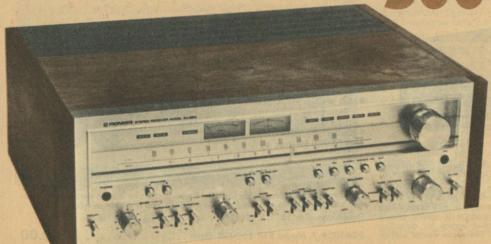
..... \$700.00 50A994-3. Model SX-1050. Each . MODEL NOT SHOWN.

#### PIONEER MODEL SX-950

Similar to SX-1050, but with 2-step turnover tone controls and regular type volume control. Continuous power output is 85 watts per channel, min. RMS at 8 ohms, or 110 watts per channel at 4 ohms, from 20 to 20,000 Hz with no more than 0.1% total harmonic distortion. Dimensions: 20¾". W x 6-13/16" H x 16-3/16" D. Shpg. wt. 45 lbs.

\$600.00 MODEL NOT SHOWN

() PIONEER SX-850 AM FM STEREO RECEIVER



A high power receiver with Pioneer circuitry you can trust, large enough to fill the musical needs of most serious stereo listeners.

Features a 3-stage direct coupled equalizer cir-Features a 3-stage direct coupled equalizer circuit permitting reproduction within  $\pm$  0.3 db of the RIAA curve, 2-step turnover type tone controls, and low and high filters. Has tape to tape dubbing with monitoring or listening to another source during dubbing. High performance FM front end has dual gate MOS FET and 4 gang variable capacitor, while AM tuner has integrated circuitry, RF amplifier and a 2 gang tuning capacitor. Has fly wheel inertia tuning. Switches for 2 sets of stereo speakers, individually or together. Microphone input circuit is provided. Loudness circuit compensates lows and highs for low level listening. low level listening.

Continuous power output is 65 watts per channel, minimum RMS at 8 ohms, or 85 watts per channel at 4 ohms, from 20 to 20,000 Hz with no more than 0.1% total harmonic distortion. Dimensions: 20-23/32" W x 6-13/16" H x 16-3/16" D. Shpg. wt. 44 lbs. 50A1022-2. Model SX-850.

.... \$500.00

## **SONY... PRECISION AUDIO COMPONENTS**



#### SONY MODEL TA-2650 INTEGRATED STEREO AMPLIFIER

- 45 watts, min. RMS at 8 ohms from 20 Hz to 20KHz with no more than 0.2% total harmonic distortion.
- Direct speaker coupling.
- Independent tape-to-tape dubbing.

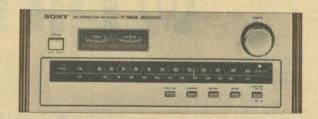
Sony Model TA-2650 . . . what a beauty! And its performance is as great as its appearance. 45 watts per channel, minimum RMS at 8 ohms from 20Hz to 20kHz with no more than 0.2% total harmonic distortion!

Other super-quality features include: true complementary symmetry power amplifier stage, direct speaker coupling, direct-coupled IC for phono equalizer circuit, connections for tuner, aux, phono, and 2 tape decks, plus independent tape-to-tape dubbing facility. In addition, this amplifier boasts studio-type attenuator volume control, and 20dB instant muting switch, acoustic compensator for presence and loudness, and negative feedback-type bass and treble controls. There are outputs for 2 pairs of speakers, with selector switch for using a single pair or both pairs simultaneously, a convenient front-panel headphone jack and tape jack, and 3 AC convenience outlets. Handsome wood pagel trim jack, and 3 AC convenience outlets. Handsome wood panel trim.

This amplifier, medium powered and in the budget price range, still offers the uncompromised performance for which Sony components are noted. For price-conscious audio connoisseurs, the TA-2650 means superior sound enjoyment, without an enormous expense.

Dimensions: 5¾" H x 15-3/8" W x 12¼" D. Shpg. Wt. 14 lbs.

50A1027-1. Model TA-2650. Each ...... \$220.00



#### SONY MODEL ST-2950SD AM/FM STEREO TUNER

- Built-in Dolby decoder.
- FET front end
- PLL IC stereo MPX stage

Sony's new ST-2950SD tuner is moderately priced, but built with advanced electronics that produce high performance. Check out these luxury features: FET front-end, computer-designed uni-phase IF filters, phase-locked-loop IC stereo MPX stage, Dolby\*noise-reduction system for decoding Dolbyized FM broadcasts, and Dolby\*indicator light.

The ST-2950SD also has center station and signal-strength tuning meters, smooth, flywheel tuning action, and wide frequency linear dial calibration. Other quality-sound features include FM interstation muting, FM discriminator output, high-blend switch, automatic mono/stereo switching, and stereo indicator light. All in a beautiful cabinet, with decorator wooden side panels.

This unit's FM front-end electronics, with FET design, yield high sensitivity and a high interference-rejection capability. Tuning is simple and accurate. Overall FM performance ratings include a capture ratio of 1:0dB, and an S/N ratio of almost 70dB in stereo.

Dimensions: 534" H x 15-3/8" W x 1214" D. Shpq. Wt. 14 lbs.

50A1028-9. Model ST-2950SD. Each ...... \$220.00



The finest circuitry and the latest advances in RF technology have been incorporated in this Sony receiver.

Features include: RF front-end electronics unitized into tuning capacitor assembly, FET RF amplifier and uni-phase IF filters, phase-locked-loop IC stereo MPX stage, Dolby noise-reduction system for decoding Dolbyized FM broadcasts, and Dolby.

Has center station and signal strength meters, frequency linear FM and AM dial scales, flywheel tuning action, and a dial pointer with LED station indicator. FM

#### SONY MODEL STR-4800SD AM/FM STEREO RECEIVER WITH DOLBY NOISE REDUCTION

- 35 watts per channel, min. RMS at 8 ohms from 20 Hz to 20KHz with no more than 0.2% total harmonic distortion.
- Built-in Dolby' decoder.
- 20 db instant audio muting.

interstation muting, ultra low noise equalizer circuit, 20dB audio muting, acoustic compensator with positions for bass boost, presence and loudness, high and low filters. Total harmonic distortion is no more than 0.2% at rated output. Includes connections for aux, phono, and 2 tape decks, tape-to-tape dubbing facility, outputs for 2 pairs of speakers, and 2 AC outlets. Smart, durable cabinet with wooden side panels.

Dimensions: 6-9/16" H x 19 ¼" W x 16 ¼" D. Shpg. Wt. 31 lbs.



The Sony STR-6800SD receiver is in the medium price class, but its performance, features and operating flexibility rival the best in any class!

80 watts per channel, minimum RMS at 8 ohms from 20Hz to 20kHz with no more than 0.15% total harmonic distortion. Features include: MOS FET RF frontend electronics unitized into 4-gang tuning capacitor assembly, FET mixer circuit and FET buffered local oscillator, two stages of uni-phase IF filters, phase-locked-loop IC stereo MPX stage, Dolby\*noise-reduction system for decoding Dolbyized FM broadcasts, and Dolby\*indicator light. There are center station

#### SONY MODEL STR-6800SD AM / FM STEREO RECEIVER WITH DOLBY NOISE REDUCTION

- 80 watts per channel, min. RMS at 8 ohms from 20 Hz to 20KHz with no more than 0.15% total harmonic distortion.
- · Dolby decoder.
- MOS FET RF front end.

and signal-strength/multipath meters, easy-to-read frequency linear FM and AM dial scales, a dial pointer with LED station indicator. Other features are FM interstation muting, FM discriminator output, ultra low noise FET transistor phono equalizer circuit. Connections for aux, 2 phono sources, 2 tape decks, and external adaptor with tape-to-tape dubbing facility. You can hear its quality!

Dimensions: 6-9/16" H x 191/4" W x 161/4" D. Shpg. Wt. 37 lbs.

## WE SOUND BETTER



#### marantz

MODEL 2325 AM/FM STEREO RECEIVER

INCOMPARABLE TONAL QUALITY!

\$79995

Marantz Model 2325 ...

Marantz, long famous for its superior technology, now can offer true audio perfection. Model 2325 incorporates power, low distortion figures, and features previously available from only the finest separate components. Every audiophile desire ... and more ... has been built into this magnificent instrument; the Dolby Noise Reduction System, individual bass, midrange, and treble controls, with variable frequency tone control turnover points, plus complete facilities for two tape recorders, with capability to dub from either one to the other.

The 2325's direct coupler amplifier produces 125 watts minimum RMS per channel, at 8 ohms, from 20Hz to 20kHz, with no more than 0.15% Total Harmonic

Distortion. Amplifier damping factor of 70. Its tuner section features sensitivity of 1.8uV, with a capture ratio of 1.25dB. A multipath/signal strength meter also is included. Front panel also includes controls for main and remote speakers, FM muting, loudness, high and low filters, hi blend. multipath, balance, Dolby record and play calibration, Dolby\* test tone, and a meter switch.

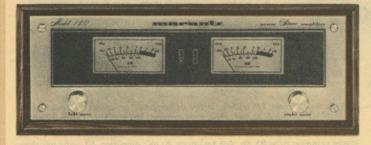
Dimensions: 19-5/6" W. X 5¾" H. X 15-3/16" D.

	. Model 2325. Shpg. wt. 50 lbs. Each	
50A839-0.	. WC-43. Walnut Wood Veneer Cabinet (as shown). S	hpg. wt. 10
		\$42.50

## marantz







## AM/FM STEREO TUNER

The perfect companion to your amplifier! This tuner incorporates features and design technology previously not available in a unit at this price, but does not economize on high performance and excellent sensitivity. The Dolby De-Emphasis Switch is included, for listening to Dolby \*FM braodcasts.

Other features include a dual-purpose tuning meter for tuning accuracy, combined with a Gyro-Touch Tuning Dial, assuring absolute station placement on FM

Model 112 Tuner by Marantz ... the economy tuner that doesn't look or perform like an economy tuner.

Specifications: FM Quieting Slope: RF input for 30dB quieting 1.7uV. Total harmonic distortion, Mono 0.3%, Stereo 0.5%. Capture ratio 1.5dB. Stereo separation at 1kHz 40dB.

Dimensions: 141/2" W x 43/4" H x 12" D. Shpg. Wt. 19 lbs.

50A932-3. Model 112. Each ...... \$219.95

## STEREO PREAMPLIFIER

Model 3200 offers high performance, high reliability, low distortion, and low cost. It has less than 0.05% distortion, both total harmonic distortion and intermodulation. Wide dynamic range, greater than 100dB. 2 phono inputs, and complete tape-monitoring circuitry for 2 tape decks, permitting dubbing from one to the other. Other quality features include: detented professional slide graphic tone controls, combined with selectable frequency turnover points; HI filter, main/remote speaker switching, horizontal balance control. For added protection to your other components, the 3200 has a "time-delay" circuit, eliminating annoying turn-on "thumps". Versatility, sophistication, economy ... that's the Marantz 3200 Stereo Preamplifier!

Specifications: Dynamic range, 100dB, maximum IM distortion (any combination of 2 frequencies between 20Hz to 20kHz), 0.05%.

Dimensions: 14 1/4 " W x 4 3/4" H x 12" D. Shpg. Wt. 16 lbs.

## POWER STEREO AMPLIFIER

Small size, high power, low price ... that's the 140! 75 watts minimum RMS per channel, from 20Hz to 20kHz at no more than 0.1% total harmonic distortion. The 140's full complementary direct coupled output circuitry assures solid lows, crisp highs. So that you can monitor its high performance output visually, there are two separate (left and right) channel power V.U. meters, plus peak overload indicators, which react instantly, for each channel. There also are left and right channel gain controls, which are invaluable in professional applications, for Bi-Amp speaker system, or for matching with other amplifiers in a 4-channel system. The 140 is an ideal companion to the Marantz 3200 Stereo Preamplifier.

Dimensions: 141/4" W x 43/4" H x 12" D. Shpg. Wt. 22 lbs.

## **ENWOOD** - THE AUDIBLE DIFFERENCE



Everything about the KR-2600 shouts "high-quality!" From subsonic base right up to ultrasonic highs, the full-rated power is there for crisp, clean base and smooth-soaring trebles.

Amplifier circuit features pure complimentary direct coupling. Exclusive "Area of Safe Operation" (ASO) circuitry protects the KR-2600 from accidental mishaps by shutting off power at the first sign of trouble. Can accommodate 2 pairs of speakers, turntable, tape deck (with monitoring facility), an aux source, and a pair of sterophones. Junction type FET front end plus dual in-line packaged IC's and phase-linear filters in the IF section, give razor sharp selectivity and low distortion.

## **®KENWOOD**

#### MODEL KR-2600 AM FM STEREO RECEIVER

- 300 AND 75 OHM ANTENNA INPUTS
- FET FRONT END CIRCUITRY.
- DUAL IN-LINC IC's.

Controls: Power, spkr. (A,B,A&B), bass, treble, balance, loudness, volume, selector (AM, FM, Phono, Aux), tape monitor, high frequency filter switch, mode (mono, stereo). Inputs: Phono, Aux, Tape Monitor, FM Antenna (300 - 75 ohms). Outputs: Spkr. A, Spkr. B, Tape. Specifications: Tuner sensitivity (IHF) 2.5 uV (50 db at 50 uV), S/N ratio 64 db, capture ratio 2.5 db, image response ratio 50 db. AM sensitivity 25 uV. Amplifier 15 watts min. RMS per channel at 8 ohms from 20 to 20,000 Hz with no more than 0.8% total harmonic distortion. Damping factor at 8 ohms is 30. Dimensions: 17½" x 5-5/16" x 11-13/16". Shpg. wt. 17 lbs.



## **®KENWOOD**

**MODEL KR-4600** AM/FM STEREO RECEIVER

- HIGH FREQUENCY FILTER
- PLL CIRCUITRY.
- LINEAR FM TUNING.

The heart of an elaborate audio system, the KR-4600 can handle two turntables; two tape decks for recording, playback, and tape-to-tape dubbing; and can drive two pairs of speakers separately or at the same time. Direct coupling in the solid state power amplifier means full musical spectrum from subsonic bass to ultrasonic highs that reach you with full impact. Dual gate MOS FET amplification in the front end means clean reception in weak signal areas. Dual in-line packaged IC's in the FM IF section give higher gain, low capture ratio and very high AM suppression. Has "ASO" for circuitry protection.

Controls: Power, spkrs (A,B,A&B) bass, treble, balance, volume, tape monitor, tuner, selector (AM, FM, Phono 1 & 2, Aux), mode (mono, stereo/FM muting),

loudness, high frequency filter. Inputs: Phono 1 & 2, Aux, tape monitor, FM antenna (300 & 75 ohms). Outputs: Spkr. A, spkr. B, Tape. Specifications: Tuner sensitivity (IHF) 10.3 dbf (1.8 uV at 75 ohms), S/N ratio 70 db, capture ratio 1.5 db, image response ratio 85 db. AM sensitivity 20 uV. Amplifier: 30 watts min. RMS per channel at 8 ohms from 20 to 20,000 Hz with no more than 0.5% total harmonic distortion. Damping factor at 8 ohms is 40. Dimensions: 19-11/16" x 5 ½" x 13-1/16". Shpg. wt. 27 lbs.

50A1024-8, Model KR-4600. Each .....

\$299.95



## **®KENWOOD**

**MODEL KR-6600** AM/FM STEREO RECEIVER

- CLICK-STOP TONE CONTROLS.
- DB BOOST SWITCHES.
- FM DOLBY\* DE-EMPHASIS.

Built to handle a sophisticated stereo system like a pro and deliver every decibel of sound from every program source with undeviating accuracy. Features "ASO" circuitry protection, acoustic switches to boost the 50 Hz and 800 Hz regions of frequency by 6db, high and low frequency noise filter switches, MOS FET front end and linear phase IF filters. "Sound Injection" lets you plug a microphone in MIC jack and sing or play along with the program. Can be heard over speakers or taped. Has PLL circuitry, linear FM tuning dial, two tuning meters, and a Dolby de-emphasizer for FM Dolby\* broadcasts.

Controls: Power, spkrs. (A,B,A&B), bass, treble, balance, volume, acoustic switches (50 Hz + 6 db, 800 Hz + 6 db), tape monitor, selector (AM, FM, Phono 1 &

2, Aux), sound inject, FM muting, Dolby de-emphasis, loudness, low and high filter. Inputs: Phono 1 & 2, Aux, MIC, tape monitor, FM antenna (300 & 75 ohms). Outputs: Spkr. A, spkr. B, spkr. C, Tape (play, record). Specifications: Tuner sensitivity 9.8 dbf (1.7 uV at 75 ohms), S+N ratio 70 db, capture ratio 1.5 db, image response ratio 85 db. AM sensitivity 20 uV. Amplifier: 60 watts per channel min. RMS at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.3% total harmonic distortion. Damping factor at 8 ohms is 45. Dimensions: 20-5/8" x 5-29/32" x 14-3/8". Shpg. wt. 40 lbs.

tortion.



KT-5300 AM/FM STEREO TUNER



**KA-3500 STEREO INTEGRATED** AMPLIFIER

KT-7300 AM/FM STEREO TUNER



**KA-7300 STEREO INTEGRATED** AMPLIFIER

#### KT-5300 AM/FM STEREO TUNER

Kenwood's KT-5300 offers advanced features that make it a leader in it's class. Three-gang variable capacitor and FET front end contribute to the class. Three-gang variable capacitor and FET front end contribute to the stable and sensitive reception. Features steep quieting slope for fine, clean reception of distant stations. If section uses phase-linear ceramic filters for high selectivity and stability. Phase-locked loop multiplex section for clean, uniform stereo separation between channels. Automatic muting on FM stereo. Has large tuning knob and long, linear FM dial for easy tuning. Stereo indicator light and AM/FM tuning meter.

Specifications: IHF Sensitivity 1.9 vV. Signal to Noise ratio 70 dB. Total Harmonic Distortion: 0.2% at 1,000 Hz (mono), 0.3% at 1000 Hz (stereo). Stereo Separation: 30 dB at 50 to 10,000 Hz. Size: 14-31/32" W.x 5½" H.x 11-5/8" D. Shpg. Wt. 13 lbs.

50A1032-1. Model KT-5300. Each. ...... \$129.95

#### **KA-3500 STEREO INTEGRATED AMPLIFIER**

Deluxe features, clean power, and a quality appearance mark the KA-3500 as an exceptional value. Delivers 40 watts per channel minimum RMS at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.2% total harmonic distortion. Pure complementary OCL circuitry is used in the power amplifier to prevent phase distortion and improve the S/N ratio. Phono equalizer uses direct coupling and a low noise FET in a differential configuration for full, clean response from 2.5 to 200 mV. Precise negative feedback type tone controls are used for higher accuracy. "Tape-through" feature allows you to record simultaneously with two decks, dub from one to the other, or even dub while listening to a totally different source. Also has tape monitor switch for A/B comparisons. High filter/Loudness control to adjust for any conditions. Size: 14-31/32" W. x 5½" H. x 10-1/32" D. Shpg. Wt. 20 lbs.

50A1026-3. Model KA-3500. Each ...... \$159.95

#### KA-5500 STEREO INTEGRATED AMPLIFIER

Delivers 55 watts per channel minimum RMS at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.1% total harmonic distortion. Has dual power meters, 20 dB attenuator switch, low filter switch, tone defeat switch. Other features same as KA-3500. Size: 14-31/32" W. x 5½" H. x 10-1/32" D. Shpg. Wt. 25 lbs.

..... \$249.95 50A1033-9. Model KA-5500. Each . . . . NOT SHOWN

#### KT-7300 AM/FM STEREO TUNER

Every aspect of technology, design and styling are blended in order to achieve peerless stereophonic reproduction. A Dual Gate MOS FET in the RF stage assures high sensitivity and stability. Special ceramic and LC filters in the IF section coupled with negative-feedback corrective circuitry combine to reduce distortion and improve selectivity. Stereo separation comes through clear and firm as a result of PLL circuitry and individual filters for each channel. The long, linear FM dial scale combined with the dual tuning meters provide easy and precise tuning. Rear panel has two position switch for either standard or Dolbyized FM broadcasts. Two sets of outputs; one fixed and one adjustable. Specifications: IHF Sensitivity 1.8 uV, Signal to noise 68 dB (stereo). Total Harmonic Distortion at 65 dBf: 0.1% at 1000 Hz (mono), 0.2% at 1000 Hz (stereo). Stereo Separation: 45 dB at 1000 Hz, Image Rejection: 85 dB. Size: 16-15/16" W. x 5-7/8" H. x 14-13/16" D. Shpg. Wt. 20 lbs.

.. \$259.95 50A1034-7. Model KT-7300. Each .....

#### **KA-7300 STEREO INTEGRATED AMPLIFIER**

The KA-7300, in every respect, is an outstanding example of a quality, non-compromise integrated amplifier. A unique feature of this unit is the use of totally independent power supplies for each channel. With two independent power supplies all cross-talk distortion is eliminated, and all the subtle nuances of sound from each channel can now be heard clearly and distinctly. The pure complementary Darlington Power Block incorporates protection circuitry for both the unit itself and your speakers. The single integrated unit design also has the inherent quality of providing unusual uniformity, which results in superior performance and lower distortion.

Delivers 65 watts RMS per channel at 8 ohms from 20 to 20,000 Hz with no more than 0.1% total harmonic distortion. Employs an attenuator type volume control to uniformly change the perceived sound level. Phono equalizer utilizes a low noise FET and direct coupling for level. Phono equalizer utilizes a low noise FET and direct coupling for finest sound reproduction. Direct coupling also used in power amplifier. A full complement of tone controls and turnover point selectors allow you to match a wide variety of acoustic conditions. "Tape-through" circuit allows simultaneous recording by two decks, dubbing from one to the other, or even dubbing while listening to a different program source at the same time. Three steep slope (12 dB per octave) filters at 18 Hz, 40 Hz, and 8 KHz. Loudness control offers choice of three curves. Facilities for up to three different speaker systems. Size: 16-15/16" W. x 5-7/8" H. x 14-13/16" D. Shpg. wt. 34 lbs.

No Finance Charge!

## **Tomorrow's Turntables by**



PERFORMANCE FEATURES
FORMERLY UNHEARD
OF FOR ONLY

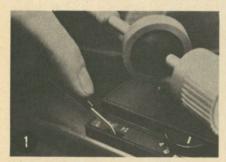
\$9995

INCLUDES CARTRIDGE, BASE AND DUST COVER



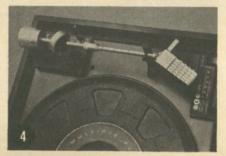
## **B-I-C MULTIPLE PLAY MANUAL TURNTABLES**

Programmed for precision performance and the best in record playback quality, BIC turntables provide maximum efficiency with minimum effort. BIC programmed turntables are engineered to do things no other turntable can do. Featuring belt-drive precision and accuracy on a unit with automatic play capabilities, solving once and for all the "manual vs. automatic" dilemma. This year, in addition to improved models 980, 960, and 940, BIC introduces the "Little Jewel," model 920. The 920's design incorporates the finest performance features in the BIC line, selling at an unheard of low price.









MODEL 920. A real surprise package! Surprisingly feature-packed surprisingly low-priced. The 920 was conceived by BIC engineers to answer the specific need for a budget-priced unit for the discriminating stereo enthusiast. Note the tamily resemblance to the other larger BIC models. The 920 incorporates many identical features of the higher priced turntables. The belt drive system is the same, in fact it's the same identical interchangeable belt. You will see unbelievable performance in this price class from a 24 pole, 300 RPM, low speed synchronous motor. A fully adjustable counterbalanced tonearm uses an offset weight after zero balancing the arm with the movable counterweight. Cueing is damped in both up and down. The 920 has the BIC programmer and cycle button which lets you use it as a single play manual; single play automatic which shuts off at the touch of a button and will play one selection up to 6 times automatically; as a multiple-play that will play as many as 6 records in sequence. Non-plug-in tone arm head uses a unique pivoting arrangement to allow cartridge to be mounted easily "right side up". Simple anti-skate adjustment using a rotating dial pointer. Tonearm will track almost any cartridge, even CD-4. Tracking force range: 0-4 grams in .5 gram increments. Speeds: 33 ½ and 45 rpm. Platter: 10½" precision formed. Includes cartridge, base, and dustcover. The 920 will function with as fine a system as you choose to assemble, yet is priced modestly enough to be a logical choice for a strict budget system. Shpg. wt. 25 lbs.

- 1. CUEING IS DAMPED BOTH UP AND DOWN.
- 2. UNIQUE PROGRAMMER AND CYCLE BUT-TON.
- 3. TWO BELT-DRIVEN SPEEDS.
- 4. FULLY ADJUSTABLE COUNTERBALANCED TONEARM.

## Silent, reliable Belt Drive!





MODEL 980. Sheer simplicity of design results in uncompromising performance. The elimination of noise-producing moving parts is the secret to this machine's superior reproduction. Automatic operation is separate from the center spindle's operation, providing professional sound quality and maximum reliability. Unique programmer permits automatic play, multiple play (up to 6 records) and single repeat play. Removable record support post. Variable speed control, stroboscope, and 12" platter. Tonearm features adjustable rate cueing, cartridge depth adjustment, anti-skate and stylus force settings. Male female cartridge head connector plus stainless steel finger lift and 15° cartridge angle adjustment. Attractive "open grillwork" low mass head shell. Tracking force: 0-4 grams. 2 speeds: 33 ½ and 45 RPM. Shpg. wt. 13 lbs.

52A841-4. Model 980. Each ...... \$199.95

MODEL 960. This belt-driven programmed turntable separates automatic operation from the center spindle achieving ultimate mechanical simplicity. 24 pole 300 rpm synchronous motor, matched with a 12" belt-driven platter. Programmer allows for automatic play, multiple play or single repeat of last record. Removable record support post. Tonearm system features adjustable rate cueing, cartridge death adjustment single record support table. depth adjustment, single scale anti-skate and stylus force settings. Male/female cartridge head connector, plus stainless steel finger lift and 15° cartridge angle adjustment. Handsome low mass head shell. Tracking force: 0-4 grams. 2 speeds: 33 ½ and 45 RPM. Shpg. wt. 12 lbs.

52A842-2. Model 960. Each ...... \$159.95

MODEL 940. Features high quality performance comparable to the best manuals available. The 12" belt-driven platter assures quiet and wow-free reproduction accuracy. Low ter assures quiet and wow-free reproduction accuracy. Low speed (300 RPM), 24-pole synchronous motor. Operates as a single-play automatic and a multiple-play turntable, playing as many as 6 records. The low mass tonearm incorporates the stylus tracking force adjustment in the isolated counterweight. Pivoting head shell allows cartridge to be mounted easily right side up. Tonearm will track most cartridges, including the CD-4, at the lowest possible setting. Cueing is viscous damped up and down. Tracking force: 0-4 grams. 2 speeds: 33 /3 and 45 RPM. Shpg. wt. 12 lbs. 

MODEL 960 IESS RASE AND CARTRIDGE





MODEL 940 CARTRIDGE

#### ACCESSORIES FOR B-I-C MODELS 980, 960, 920 AND 940

52A1006-2. WB22. Hinged wood base with accessory compartment for 980, 960 and 940. Ea.\$29.95 52A843-0, WB20. Solid walnut wood base. \$16.95 52A844-8, B20. Molded black base. Each . . \$7.95 52A1007-1. D22. Low Profile Dust Cover. Ea.\$9.95 52A845-5. D20. Coordinated Hinged Dust Cover.

**52A915-6.** A-7. Elastomer Drive Belt. **Each. 52A916-4.** A-2. 45 RPM Spindle. **Each... 52A917-2.** A-1. Plug-In Head for 980, 960

## POPULAR AUTOMATIC **TURNTABLES**

#### MODEL 4800DX **CERAMIC AUTOMATIC TURNTABLE**

- JAM-PROOF TONEARM
- FULL-SIZE PLATTER
- CUE/PAUSE CONTROL
- 3-SPEED: 33, 45 and 78 RPM

One of the audio industry's best values in a ceramic cartridge equipped record changer module. Ideal for a starter stereo system for someone who has just graduated to components. Has jam-proof lightweight counter-balanced tone arm, automatic tone arm lock, stylus force adjustment, full size record platter and cue/pause control. Supplied with interchangeable manual and automatic spindles and a 45 RPM adaptor. Complete with diamond stylus ceramic stereo cartridge and mounted on a molded base with simulated walnut trim, plus removable hinged, , tinted dust cover. Dimensions (cover closed): 7 ¼ " H x 13 ½ " D x 15" W. Shpg. wt. 21 lbs.



#### **MODEL 2260BX MAGNETIC AUTOMATIC TURNTABLE**

- SHURE M81 CARTRIDGE
- **ANTI-MAGNETIC PLATTER**
- **POWER SWITCH NOISE SUPPRESSOR**
- 3-SPEED: 33, 45 and 78 RPM

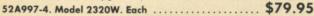
BSR's lowest-priced magnetic cartridge equipped automatic turntable. The 2260BX has full-size shielded anti-magnetic steel platter to protect the magnetic cartridge from outside magnetic fields. Its tone arm system includes a counter-balanced low-mass jam-proof tone arm, stylus force adjustment, cue/pause control, anti-skate control and automatic tone arm lock. Power switch noise suppressor eliminates annoying noises due to AC switch arcing when unit shuts off. Comes equipped with a Shure M81 cartridge, automatic and manual spindles, molded base with simulated walnut trim and removable tinted dust cover. Dimensions (cover closed): 7 ¼ " H x 13 ½ " D x 15" W. Shpg. wt. 22 lbs.



#### **MODEL 2320W DELUXE MAGNETIC AUTOMATIC TURNTABLE**

- 4-CHANNEL CAPABILITY
- DAMPED CUE/PAUSE
- **ADC K8E MAGNETIC CARTRIDGE**
- 3-SPEED: 33, 45 and 78 RPM

Feature for feature, the 2320W is considered by many to be the best automatic turntable value. It is a full-sized model with a shielded, antimagnetic steel platter. Equipped with an ADC K8E elliptical diamond stylus magnetic cartridge. Motor is 4-pole high torque induction. Tone arm system includes a jam-proof, counter-balanced tone arm, stylus force adjustment, viscous-damped cue/pause control, anti-skate control, automatic tone arm lock. Easily converts to 4-channel when a CD-4 cartridge and necessary cables are used. Simulated walnut grained, wood products base with removable tinted dust cover. Dimensions (cover closed): 7 ¼ " H x 13 ½ " D x 15" W. Shpg. wt. 20 lbs.





## Garrard **AUTOMATIC TURNTABLES**



jarrard

MODEL 440M **AUTOMATIC** TURNTABLE



Garraro

**MODEL GT-55 BELT-DRIVE** AUTOMATIC **TURNTABLE** 

- TRUE TANGENT TRACKING.
- PRECISION, SERVO-GOVERNED MOTOR.
- **FULLY AUTOMATIC.**

GARRARD 440M AUTOMATIC TURNTABLE

Designed for outstanding performance and versatility at a reasonable price, the Garrard 440M offers features not usually found in this price range: low-mass aluminum tonearm with counterweight, adjustable anti-skating control, heavy duty 4 pole induction motor, low capacitance CD4 cables, damped cueing control. The 440M features 33 ½, 45 and 78 RPM speeds, and comes complete with Pickering V15/ATE-4 magnetic cartridge, tinted dust cover and base. An outstanding buy! Shpg. wt. 18 lbs.

#### GARRARD GT-55 BELT-DRIVE AUTOMATIC TURNTABLE

Offers a combination of refined features not found on competitive equipment. One such feature is the computer-designed True Tangent Tonearm. Designed to play your records precisely the way the original masters were cut, with the stylus

held at a 90° tangent to the groove. Tone arm has a parallel articulating arm and pivoting cartridge housing to provide precision tangential tracking over the entire record surface. Tracking error is thereby eliminated, along with its consequent problems of record wear and harmonic distortion. Tonearm is made of magnesium, weighs only 14 grams, and rides on jeweled vertical pivots and horizontal ball bearings.

The power plant is a precision servo DC motor. The die-cast, four pound platter is dynamically balanced and belt-driven for smooth, precise rotation. Speed control is variable ± 3% and is monitored by an illuminated stroboscope. The GT-55 also offers fully automatic operation. The automatic mechanism, drastically simplified with fewer moving parts, is smooth and silent in both single and multiple play. Accepts a stack of six records. Anti-skating protection operates by magnetic force. Calibrated for elliptical and CD-4 styli. Cueing rate is variable and damped in both directions. Wow and Flutter 0.05%. Rumble -66dB (DINB). Complete with base and hinged dust cover. Size: 15-5/16"W x 14½"D x 7"H. Shpg. vt. 17 lbs.



#### **TECHNICS SL-20 FREQUENCY GENERATOR SERVO TURNTABLE**

**BELT DRIVE TURNTABLE** 

TECHNICS SL-20 FREQUENCY GENERATOR SERVO TURNTABLE
Brings belt-drive turntable performance to a new state of the art. An innovative Frequency-Generator Servo control circuit has been wedded to the best of conventional belt-drive design. Obtains superb rotational characteristics against any load, voltage or frequency fluctuations. The result is performance well beyond previously accepted standards. Equipped with a high sensitivity, statically balanced, S-shaped tone arm with die cast headshell and gold-plated 4-pin connector. Also features built-in audio insulators to prevent acoustic feedback and a full size aluminum die cast platter. Anti-skating force control and viscous damped cueing lever controls for ease of operation. Low capacitance phono cables eliminate high-frequency audio losses. Speed controls provided for 33 ½ and 45 RPM operation. Simulated metal finish and a hinged, detachable dust cover that stays open at any angle, give the unit a sleek styling.

Wow and flutter 0.05% WRMS; rumble -40 dB (DINA), -65 dB (DINB). Size: 5-5/16" x 16-55/64" x 13-45/64". Shpg. wt. 15 lbs.

#### TECHNICS SL-23 FREQUENCY GENERATOR SERVO AUTOMATIC TURNTABLE

A belt-drive automatic with performance that rivals much costlier direct-drive types. Performance made possible by the use of a Servo Control in which a Frequency Generator provides an unvarying electronic reference signal against which the turntables speed is compared and, whenever necessary, instantly adjusted. The result is an extremely constant, stable speed unaffected by variations in load, supply voltage or frequency.

Individual pitch controls allow you to fine-tune turntable speed  $\pm$  5% on both 33 ½ and 45 RPM speeds. Highly sensitive, statically balanced 5-shaped tonearm is complete with die cast headshell and universal type 4-pin connector. Extra convenience is provided by the automatic tonearm which returns to its rest position automatically and shuts off unit. Illuminated stroboscope gives visual indication that platter is rotating at precisely the rated speed. Four built-in audio insulators prevent acoustic feedback by utilizing a combination of metal spring and vibration absorbing metals pring and vibration absorbing material. Low capacitance phono cables eliminate high frequency audio losses and insure compatability for CD-4 disc reproduction. Has anti-skating force control and viscous damped cueing lever for smooth descent. Hinged detachable dust cover stays open at any angle. Sleek, low-profile ap-

Wow and flutter 0.05% WRMS; rumble -40 dB (DINA), -65 dB (DINB). Size: 5-5 /16" x 16-55/64" x 13-45/64". Shpg. wt. 17 lbs.

#### TECHNICS SL-1500 DIRECT-DRIVE TURNTABLE

The Technics SL-1500 has greatly simplified mechanical construction without any sacrifice in performance. The SL-1500 retains full Direct Drive performance capability in a sleekly styled, low-silhouette aluminum base plate. A statically balanced "S" shaped tubular tonearm features direct reading tracking force adjustment, anti-skating force control and viscous damped cueing.

A rotary switch selects either of the two speeds. Separate controls for each speed permit adjustment over a range of 10%. Speed Adjustments may be viewed on strobe

## **BELT DRIVE AUTOMATIC TURNTABLE**

The servo-controlled, ultra-low speed brushless DC motor is completely unaffected by power-line variations thus assuring excellent rotation accuracy.

Has a hinged, detachable dust cover and audio-insulated legs to block outside vibration and prevent audible feedback.

Specifications: Wow and Flutter 0.03% WRMS Rumble - 50dB (DINA) - 70dB (DINB) Adjustable tracking force 0-3 gram Dimensions: 17%" W x 14-3/8" D x 5½" H. Shpg. Wt. 15 lbs.

No. 52A973-5. SL-1500. Each ...... \$199.95

#### TECHNICS SL-1400 DIRECT DRIVE "AUTO RETURN" TURNTABLE

All of the precision features of the SL-1500 plus "Auto Return" operation. At the end of each record, the tonearm automatically lifts up and returns to the arm rest, shutting off power. Also has "one chip" IC controlled motor for increased reliability. Size: 5 ½ " x 17 ¾ " x 14-3/8". Shpg. wt. 20 lbs.

TECHNICS SL-1300 DIRECT-DRIVE AUTOMATIC TURNTABLE
Combines all of the excellent specifications usually found on expensive studio turntables with the features of an automatic turntable.

When the function lever is moved to "Start", the tone arm automatically lifts and sets down at the start of any standard 12", 10" or 7" record, once the proper record size has been selected. At the end of play, the tone arm automatically returns to "Rest" position and power is turned off. Automatic shutoff may be initiated at any time during the play cycle.

The precision-crafted, low-mass head shell is of die-cast aluminum and employs the universal-type 4-pin connector. Gold plated contacts prevent hum and other problems.

Unlike some automatic-play turntables, completely versatile manual operation is possible. The turntable begins to rotate when the arm is manually operated, and a cueing lever makes it easy to start at any point on the record. Also incorporates a unique Memo Repeat Mechanism which allows a record to be played once, twice, up to five times — or repeated indefinitely.

Specifications: Motor: Ultra low-speed brushless servo-controlled DC motor, Wow and Flutter 0.03% WRMS, Rumble -50dB (DINA), -70dB (DINB). Dimensions: 5 ½" H x 17-13/16" W x 14-13/32" D. Shpg. Wt. 22 lbs.

No. 52A891-9. Model SL-1300. Each .....

#### TECHNICS SL-1350 DIRECT DRIVE AUTOMATIC CHANGER/TURNTABLE

All of the advanced features of the SL-1300 plus automatic changer operation. Plays as many as six discs — plays through automatically and silently. Integral die-cast base and hinged, removable dust cover. Wow and flutter 0.03% WRMS. Rumble -45 dB (DINA), -70 dB (DINB). Size: 17 4" x 14-3/8" x 7-27/32". Shpg. wt. 23 lbs.

## (I) PIONEER PRECISION TURNTABLES

## () PIONEER MANUAL TURNTABLE

The PL-112D is one of the new Pioneer Turntables designed both for economy and overall record reproduction satisfaction. Its outstanding features include an S-shaped pipe arm for precision tracking capability and improved tone quality. Vibration-tree 4-pole synchronous motor and belt-drive system eliminate voltage fluctuations and contribute to high S/N. Pioneer equips the PL-112D with features such as a precision-finished polyurethane belt to revolve the turntable platter, along with a long-life pulley and bearings. Anti-skating device control suppresses harmful inward force of the stylus. Other standard features include Lateral Ralancer, arm elevation, direct-readout stylus pressure counterweight. low presses harmful inward force of the stylus. Other standard features include Lateral Balancer, arm elevation, direct-readout stylus pressure counterweight, low stray capacitance cord, plug-in type headshell, viscous-damped cueing device, and headshell stand convenient for cartridge replacement. The PL-112D's cabinet, designed for beauty and function, is finished in walnut grain. Surface panel eliminates external vibration, and aluminum foil lining on cabinet's bottom prevents induction hum. Speeds: 33 ½ and 45 rpm. Wow and Flutter: no more than 0.07% (WRMS). S/N ratio: 50 dB. 12 inch aluminum platter. For 120 V 60 Hz. Size: 17-5/16"W. x 6 ¼ "H. x 14 ¼" D. Shpg. wt. 15 lbs.

 S-shaped pipe tone 4-pole synchronous motor.



## () PIONEER

#### **AUTO RETURN** TURNTABLE

Durable, quiet, crafted with typically long-life Pioneer workmanship, the PL-115D features a speed-detecting anto-return machanism that returns its tonearm to rest smoothly even with a warped record. The precision 4-pole synchronous motor, free from fluctuation in line voltage and load, drives the 12" aluminum turntable platter with a polyurethane belt. The PL-115D offers a static-balance type S-shaped pipe-arm with anti-skating device. The turntable is also equipped with a direct-readout stylus pressure counterweight, used for weight adjustment and easy replacement of cartridges. The viscous-damped cueing device is connected to the arm elevation lever to prevent damage to both stylus and records. Plug-in headshell for a selection of cartridges. Detachable acrylic dust cover is hinged in free-stop manner, allowing it to rest at any angle. Other features include lateral balancer, low-stray capacitance cord, and convenient headshell stand provided on the surface panel. Strong, resonance-free cabinet in attractive walnut grain finish. Solid surface panel, completely free from resonance, is ideal for acoustic cabinet construction. Speeds: 33 ½ and 45 rpm. Wow and Flutter: 0.07% (WRMS). S/N ratio: 50 dB. For 120 V. 60 Hz. Size: 17-5/16"W. x 6½"H. x 14 ½"D.

52A1001-4. Model PL-115D. Shpg. wt. 20 lbs. Each ....... \$125.00



Model PL-117D

() PIONEER

#### **FULL-AUTOMATIC** TURNTABLE

The PL-117D from Pioneer offers the important combination of quiet, stable turntable rotation and convenient full-automatic or manual operation. Moving the tonearm manually from its rest position operates the unit, and returning the tonearm back to rest automatically switches off the power. Whether operated manually or automatically, touching the tonearm by hand has no adverse effects on other turntable mechanisms. The strong 12" turntable platter, free from fluctuation in line voltage and load, is rotated by a high-torque precision 4-pole synchronous motor and its polished polyurethane belt. "S" shaped tubular tonearm gives excellent sensitivity and stable tracking. Direct-readout stylus pressure counterweight facilitates easy installation of cartridge. Damped cueing control raises and lowers tonearm, preventing damage to both records and stylus. Plug-in headshell, low-stray capacitance phono cords, lateral balancer, anti-skating device, free-adjustable hinges and convenient headshell stand are all standard features. Detachable acrylic dust cover is hinged in free-stop fashion for ease of lifting and lowering. The elegantly styled walnut grain cabinet is free from resonance, and features a solid surface panel. Speeds: 33 ½ and 45 rpm. Wow and Flutter: no more than 0.07% (WRMS). S/N ratio: 50 dB. For 120 V. 60 Hz. Size: 17-5/16"W. x 6 ¼" H. x 14 ¼ "D. The PL-117D from Pioneer offers the important combination of guiet, stable turn-



## FINEST STEREO HIGH FIDELITY CARTRIDGES















#### MOST POPULAR SHURE STEREO CARTRIDGES

SHURE M24H STEREO/4-CHANNEL CARTRIDGE — FOR THE BEST OF TWO WORLDS. For the audiophile in transition from stereo to quadriphony, the M24H is unsurpassed. Features lowest effective stylus mass available in quadriphony (0.39 mg) and hyperbolic stylus tip for improved carrier signal retrieval. Tracking at a light force that would have sounded impossible a short time ago, the M24H accommodates frequencies up to 45,000 Hz, assuring that intricate carrier signals are accurately reproduced and preserved intact for subsequent playing. Tracking force: 1 to 1.5 grams. Freq. res. 20 to 50,000 Hz. Separation: 22 db at 1 KHz. Wt. 6 grams.

52A5139-8. M24H. Each ...... \$74.95

This "top of the line" dynetic cartridge gives superb high frequency trackability and excellent performance. With biradial elliptical stylus delivers the sound of only the record itself for the highest quality sound ever heard. Has an astonishingly flat frequency response with no notable emphasis or de-emphasis at any frequency. Tracking force ¾ to 1¼ grams. Freq. res. 10 to 25,000 Hz. Separation 28db at 1,000 Hz, 20db at 10,000 Hz.

3 SHURE M95ED DELUXE HI-TRACKABILITY CARTRIDGE

3 SHURE M95ED DELUXE HI-TRACKABILITY CARTRIDGE
Combining several high-performance design features with a radically new internal electromagnetic structure to deliver exceptional trackability and total performance. Higher trackability allows it to maintain perfect groove contact through the hottest and most heavily modulated passages at extremely light tracking forces. Features a built-in snap-down stylus guard. Tracking force: ¾ to 1½ gram. Frequency response: 20 to 20,000 Hz. Separation: 25 db at 1 KHz. Wt. 6 grams. Elliptical stylus.

52A5116-6. Each \$38.50

3 SHURE M95EJ CUSTOM HIGH TRACKABILITY CARTRIDGE
Same features as M95ED except tracking force 1 ½ to 3 grams and separation 20db at 1 KHz.

SHURE DELUXE HI-TRACKABILITY CARTRIDGES.

Optimized design parameters in the stylus assembly gives superb frequency trackability and excellent overall performance. Suitable choices for use in all two channel and four channel uncoded (matrix) playback systems. Tracking force: ¾ to 1½ grams. Frequency response: 20 to 20,000 Hz. Separation: 25 db at 1 KHz.

SHURE M91E HI-TRACK ELLIPTICAL CARTRIDGE

Excellent trackability in the ¾ to 1½ grams range. Designed for use in high quality manual and automatic turntables. Tracking force: ¾ to 1½ grams: Frequency response: 20 - 20,000 Hz. Separation: 25 db at 1 KHz. Shpg. wt. 6 oz. 52A5063-0. M91E. Each \$31.95

5 SHURE M93E HI-TRACK ELLIPTICAL CARTRIDGE
Easy-mount design like M91E above Hi-Track elliptical in the 1½ to 3 gram tracking force range, an outstanding performer in automatic or manual turntables. 20-20,000 Hz. Separation 20 db @ 1 KHz. Tracking force range 1½ to 3

52A5062-2. Wt. 6 oz. Each ......\$23.50

6 SHURE M75 Type 2

Series of cartridges deliver excellent trackability at moderate tracking forces between 1½ and 3 grams. Ideal choices for moderately priced systems and for upgrading older systems. Features a built-in, snap-down stylus guard. Tracking force: 1½ to 3 grams. Frequency response: 20 to 20,000 Hz. Separation: 20 db

52A5085-3. M75EJ. Type 2 Biradial, .0007" x .0004". Each ...... \$28.50

SHURE M55E DYNETIC WITH ELLIPTICAL STYLUS

Developed for use in fine quality high fidelity systems with tone arms designed to track at ¾ to 2 grams. Diamond elliptical stylus retracts into cartridge when excessive force is applied. Tracking angle 15°, response 20-20,000 Hz.; Separation: 20 db at 1 KHz. 52A5004-4. Each ......\$21.50

> B-A's TOP QUALITY CARTRIDG AT A POPULAR PRICE!

Top audio consultants agree that this is the best buy in phono cartridges today. Now a lightweight (5.3 grams), high-quality, long-lasting cartridge is available at a very reasonable price. Cartridge delivers an amazingly flat frequency response from the deepest lows to the sweetest highs performing with amazing versatility and capability. But the proof is in listening and the finest results can be expected from this cartridge. Perfect for manual turntables and light tracking changers. Features an ultra-lightweight brush hinged directly to the stylus assembly. Automatically cleans grooves never interfering with the tracking force. Tracking force: 1-3 grams. Separation 30 db. Frequency response: 20-20,000 Hz. Wt. 5.3 grams. Elliptical stylus.

52A5109-1. B-A Special Each \$49.95
52A5126-5. Replacement Stylus for above cartridge. Each \$23.65 Top audio consultants agree that this is the best buy in



#### THE CHOICE OF **PROFESSIONALS**

#### STANTON 681 TRIPLE-E

Recognized by the recording in-dustry as the calibration stan-dard. The 681 Triple-E offers improved tracking at all frequen-



improved tracking at all trequencies. It achieves perfectly flat frequency response to beyond 20 KHz. It features a dramatically reduced tip mass. The stylus assembly possesses even greater durability than had been previously thought possible to achieve. Specifications: Freq. res. 10 Hz to 12 KHz ± ½ dB from 12 KHz to 22 KHz (individually calibrated at factory); output 0.7 mV/cm/sec ± 2 dB; channel separation, nominal 35 dB, Stylus tip 0.2 x 0.7 mil elliptical diamond; Tracking force: Arm setting with brush 2 grams, + ½, - ¼; resulting tracking force 1 gram, + ½, - ¼; cartridge wt. 5.5 grams; load resistance 47,000 ohms.

#### STANTON 680 EE

Perfect for professional situations requiring ruggedness, performance, and light tracking forces. The 680 EE is excellent for use in an environment where back cueing, slip cueing, vibration and potential mishandling are an everyday occurance. Specifications: Freq. res. 20 Hz to 20 KHz; output 0.82 mV/cm/sec±2 db; channel separation, nominal, 35 db; load capacitance 275 pF; stylus tip 0.3 x 0.7 mil elliptical diamond; tracking force ¾-1½ grams; cartridge wt. 5.5 grams. \$62.50 \$2A5136-4. 680 EE. Each \$30.00

#### REPLACEMENT STYLI FOR POPULAR MAGNETIC CARTRIDGES

				SUSTEMBLE MAN	
If Your	and Van In	at-II	The state of the s		ing Force
Cartridge Is	and You In		You'll Ho		(grams)
V-15II	VN15E (impr	oved)	V15II (impi	roved)	14-11/2
M91E	NOIED	100 MARTINE	M91ED	ת שורומכה בישרפו	3/4-1/2
M92E	N91E or N91		M91E or N		34-1/2
M75E	N75ED Type	2	M75ED Typ	pe 2	34-1/2
M75G M75-6	N75G Type 2		M75G Typ		34-1/2
W/3-0	N75B Type 2		M75B Type	2	1/2-3
STOCK NO.	TYPE	MAKE	CART. NO.	TIP	EACH
52A5099-4	D2000Q	Pickerina	UV-15/2000Q	Quadrahedral	\$33.00
52A5125-7	D1200		XV-15/1200E		
52A5124-0	D140		XV-15/140E	Elliptical	35.00
52A5101-8	DAT-2		V-15 AT-2	Elliptical	23.95
52A5102-6	DAC-2		V-15 AC-2	.7 Mil.	11.50
52A5104-2	D 750		XV15 750E	.7 Mil. Ellip.	10.50
52A5118-2	N95ED	Shure		.7X .2 EII.	28.10
52A5119-0	N95EJ	Shure		.7X .4 EII.	23.50
52A5015-0	N3D	Shure		7 Mil	23.30
52A5016-8 52A5017-6 52A5018-4 52A5001-0	N21D	Shure		.7 Mil.	8.20 11.50 15.55
52A5017-6	N55E	Shure	MSSE	.9x2 EII.	15.55
52A5018-4	N44E	Shure		.7x.4 EII.	13.00
52A5001-0	N44-7 N31E	Shure	M44-7	.7 Mil	10.00
52A5022-6	N32E	Shure Shure	M31E	.7x.2 EII.	15.50
52A5065-5	*N91E	Shure	M32E M91E	.7x.4 EII. .7x.2 Mil	14.00 25.50
52A5066-3	N93E	Shure	M93E	4x.7 Mil	20.00
52A5068-9	N75-6	Shure	M75	.6 Mil	11.80
52A5086-1	*N91ED	Shure	M91E, -ED, M	92E .7x.2 E11.	
52A5087-9	N91GD	Shure	M91GD	.6 Mil	22.00
52A5088-7	*N75ED Type	2 Shure	M75E, -ED, Tp	o. 2 .7x.2 E11.	26.75
52A5092-9	N91G	Shure	M91, 92, 93	Series .6 Mil	14.95
52A5089-5	*N75G Type	2 Shure	M75G Tp. 2	.6 Mil	19.75
52A5090-3	N75EJ Type	2 Shure	M75EJ Tp. 2	.7x.4 E11.	
52A5091-1	*N75B Type 2		M75B Type 2	.10 Mil.	17.00
52A5094-5	VN35E	Shure	V15 Type III	.7X .2 EII.	31.00
52A5020-0	*VN15E	Shure	V-15 Type II	.7x.2 E11.	29 00

PICKERING STEREO PRE-AMPLIFIER

Convert your stereo system from ceramic to magnetic cartridge and get more out of your stereo system at a low cost. Handsome walnut grained cabinet. Specs: Input imp. 47,000 ohms; gain: 38 DB, R1AA 30-15,000 Hz  $\pm$  2 DB; signal to noise ratio 60 db. crosstalk 60 DB. rumble filter attenuates frequencies at minimum of 15 DB.

No. 52A5100-0. Model PP1. Each . . .



## **BA** COAXIAL DIE-CAST SPEAKERS



S44.95 EACH TWO FOR

\$4595

# BUY ONE AT REGULAR PRICE.. GET SECOND FOR ONLY \$1.00 MORE!



- UNIQUE AND VERSATILE 8 OHM SPEAKERS
- CAN BE MOUNTED TO FRONT OR REAR OF BAFFLE BOARD.
- ALL SPEAKERS HAVE FOAM ROLLS
- 8" 3-WAY CO-AXIAL FEATURES 31/2" CONE TYPE TWEETER.
- 12" 3-WAY FEATURES A CO-AXIALLY MOUNTED COMPRES-SION TWEETER.
- RIGID, DIE-CAST FRAME IS SHAPED FOR MAXIMUM STRUC-TURAL STRENGTH.
- SPRING LOADED, FINGER-TIP TERMINALS ARE COLOR CODED FOR EASY PHASING IN STEREO SYSTEMS.
- "OPEN" FRAME DESIGN PERMITS MAXIMUM FREEDOM OF CONE TRAVEL.

	\$8
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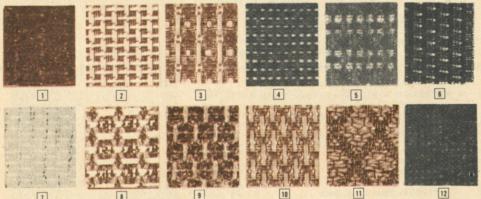
1WO FOR \$8595

4.95 EACH

Stock No.	Size and Description	Magnet Wt. Ozs.	V.C. Dia.	Peak Audio	Freq. Resp. Hz.	Resonant Freq. Hz.	0.D. In.	Depth Inches	Mtg. Dia.	Shpg. Wt. Lbs.	Each	Two
34A463-0	8", 2-Way Coax 8", 3-Way Coax 12", 3-Way Coax	12	1" 1" 1/2"	30 Watts 30 Watts 45 Watts	32-19,000 32-20,000 23-20,000		81/4 81/4 121/4	35/8 35/8 57/8	713" 713" 11%"	43/4 5 13	\$44.95 54.95 84.95	\$45.95 55.95 85.95

#### GRILLE FABRICS BY ACOUSTONE

Patterns and colors to match every furniture style and color



audiolex



## POLYCOUSTIC FOAM GRILLES

For a professionally finished speaker cabinet. Acoustically transparent, flexible, long life ure-thane foam is easy to trim to fit exact cabinet size. Deep, rich brown color, ¾" thick. 34A8090-3. 30-353. 11½" x 17½". Shpg.

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1		8	9	10	
Fig. Stk. No.	Size	Pattern	Descri	ption	
1 34A8074-7	36X36"	B2312	Hidden Gold - soft woven background.		
2 34A8018-4	36X36"		Tahiti Cane - Natur dark background.		
3 34A8050-7	36X36"		Ribbonwood - Com	tones.	
			Black Weave - Stand by speaker manufact	urers.	
5 34A8052-3	36X36"	C-2440	Black Plaid - Soft style.	jet-black yarn in p	laid
6 34A8026-7			Black Magic - Three tic allover for dramat	tic contrast.	
YOUR CHOICE	EACH .			\$4	.75

1		12		
	Fig. Stk. No.	Size	Pattern	Description
	7 34A8032-5	36X36"	C-6423	Eggshell Waffle - Pale ivory and white with random gold metal varn sprinkles.
	8 34A8036-6	36X36"	D-6000	3D Modern - Walnut hexagonal with rust centers popping out from a black base.
				Autumn - Hexagonal reddish-brown and amber yarn over black background.
				Jungle Reed - Olive cane look vs. brown yarn.
	11 34A8066-3			Casino Red - Tightly latticed crimson diamond design for subtle beauty.
	12 34A8088-7	36X36"	D-7301	Oriental Red - Red and gold woven with rich oriental design overlaid in black.
	YOUR CHOICE	EACH .		\$4.75

## BIC VENTURI

A new concept in speaker system design - a new standard in speaker performance.



- More efficient.
- Greater power handling.
- Higher sound output.
- Broader sound dispersal.
- Wider dynamic range. Accurate reproduction.

FORMULA 1 -- Same main features as the larger models: BIC Venturi principle with 8" heavy duty woofer, and BICONEX horn with compression treble driver. Needs only a few watts to produce loud levels, yet easily handles high input as well. Ideal for budget systems since its high sensitivity produces more clean sound before amp distortion (clipping) starts. Sturdy cabinet finished in walnut with removable grille. Handles 50 watts RMS. Response 35 Hz - 18 KHz. Nominal impedance 8 ohms. Size: 16½ x 10-7/8 x 10" D. Shpg. wt. 23 lbs.

BIC VENTURI

51A2236-6. Formula 1. Each ...... \$74.95

FORMULA 2 — One of the most sensitive speakers of its size, yet provides high accuracy, low distortion sound. In addition to heavy duty 8" woofer and BICONEX horn, it includes super tweeter operating only in last octave, for superior definition and musical timbre. Dynamic Tonal Balance compensation is also incorporated. Scuff-resistant walnut cabinet and acoustically transparent foam grille. Handles up to 75 watts RMS. Response 30 Hz to 20 KHz. Nominal Impedance 6 ohms. Size: 19¼ x 12 x 11½" D. Shag. vt. 30 lbs. Shpg. wt. 30 lbs.

51A2198-8. Formula 2. Each ...... \$119.50 18

FORMULA 4 — Equally at home on a shelf or floor, this speaker delivers remarkable accuracy, quality and sound levels regardless of amplifier size. Heavy duty, long throw 10" woofer, BICONEX horn and dome super tweeter produce unbelievably robust, rich sounds. Includes exclusive Dynamic Tonal Balance compensation, with both automatic and manual control. Walnut cabinet with acoustically transparent foam grille. Up to 100 watts RMS can be used. Response 25 Hz to 20 KHz. Nominal Impedance 6 ohms. Size: 25 x 13 ½ x 13" D. Shpg. wt. 47 lbs.

51A2203-6. Formula 4. Each ...... \$159.00

FORMULA 6 — Most efficient of the four, yet can handle the most input power. Has all the BIC Venturi special features plus twin mid and treble range array for still wider sound dispersal, but without sacrificing genuine stereo spatial image. Robust 12" woofer for deep, rich bass, two 5" cones for upper base range. Uses 2 solid state piezoelectric super tweeters operating in the last octave for superior accuracy of musical timbre. A truly professional, very popular speaker, in a sensible size and reasonable price. In oiled walnut veneer cabinet with removable foam grille. Will handle 125 watts RMS. Response 20 Hz. to beyond audibility. Nominal impedance 6 ohms. Size: 26 ½ x 15¾ x 14¾" D. Shpg. wt. 64 lbs.

51A2208-5. Formula 6. Each ...... \$295.00



FORMULA 1



FORMULA 2



**FORMULA 4** 



FORMULA 6

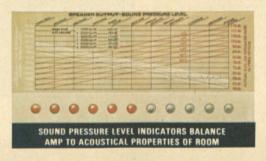




Only the Monitor Series claims the T-Slot Transducer, a horn assembly using a new dynamic compression driver for the midrange/lower treble, and a new piezo-electric driver for the upper treble. As in other models, the patented BIC VENTURI principle for bass reproduction is employed. Low end response is delivered with commanding authority, high output, and at exceptionally low levels of distortion.

Formula 5. Specifications: 100 watts maximum. Response 30 Hz to 30 KHz. Sensitivity 96 dB/SPL @ 1 watt, 1 meter. Nominal impedance 6 ohms. Bass 10" Hi Flux, heavy duty. Mid-range and treble T-Slot Horn. Cabinet genuine walnut veneer. Grille dark brown zero-loss cloth on removable frame. Size: 26 H x 14 ½ W x 12 ½" D. Shpg.

51A2298-6 Formula 5. Each .....



The Formula 5 and Formula 7 possess performance capabilities and control on a professional level. They go beyond the ability to faithfully reproduce music — they literally think! Both models feature the T-Slot Transducer in which stereo imagery is superbly reproduced and unbelievably realistic. Plus the Amplifier Clipping Indicator which glows red whenever the amp is driven by program or volume into a clipping condition. Also Speaker Overload Indicators; circuit-breakers that go one step beyond clipping control — lights indicate which component is receiving more power than it can handle, with bass reset by hand and treble automatic. Both models also have Dynamic Balance Compensation and Midrange/Treble Level Control. Only Formula 7 features Sound Pressure Level Indicators: Lights dance to the program, indicating imbalanced accoustical properties of a room, or unbalanced output levels of phono cartridge, tape heads, amplifier channels, unevenly recorded program material, etc. channels, unevenly recorded program material, etc.

Formula 7. Specifications: 125 watts maximum. Response 20 Hz to 30 KHz. Sensitivity 99 dB/SPL @ 1 watt, 1 meter. Nominal impedance 6 ohms. Bass 12" Hi Flux, heavy duty. Mid-range and treble T-Slot Horn. Cabinet and front grille same as Formula 5. Size: 41 H x 16 W x 13¾" D. Shpg. wt. 81 lbs.

51A2299-4.

# LOUDSPEAKER SYSTEMS

**MODEL L26 DECADE** LOUDSPEAKER SYSTEM



#### MODEL L36 DECADE LOUDSPEAKER SYSTEM

Largest of the decade series, the L36 is the first JBL 3-way system ever designed to sell at a moderate price. Has the same 1.4 inch high frequency direct radiator and same 10 inch low frequency woofer as the L26 described above. In addition the L36 also has a 5 inch transducer to separately reproduce the midrange program material which includes vocal overtones and strings. Its cone, driven by a 7/8 inch copper voice coil and energized by a 1-5/8 pound magnetic assembly, provides peak-free, uniform sound distribution both on and off axis. The rigid, lightweight cone assembly, coupled with the large diameter voice coil produces outstanding transient response and greater undistorted accounts output. This gauge always done is deciened to several test the extent of the second desired the several test and the second desired tes acoustic output. Thin gauge aluminum dome is designed to smooth out the upper midrange trequencies. Ducted port enclosure is natural oak veneer hand rubbed oiled finish. Contemporary grille is available in 3 decorator colors. Power capacity 50 watts (rms), nominal 8 ohm impedance, 90° vertical and horizontal dispersion 1 watt (rms) produces 76 DB sound pressure level at 15'. Size: 13½" X 24" X 13-5/8". Shpg. wt. 45 lbs. With Brown grille. Orange or Bluegrilles available on special order at same price.

MODEL L-100 CENTURY LOUDSPEAKER SYSTEM

EACH



#### **MODEL L-166 HORIZON LOUDSPEAKER SYSTEM**

Designed to exploit the spectacular potential of a novel new high frequency transducer, the 066, developed in JBL laboratories. The result is a three-way system utilizing a 12 inch low frequency transducer of new design combining an increase in magnetic power, the use of the JBL Mass controlling ring, and a harder and heavier cone for extended low frequency response

The midrange program material is reproduced by a five-inch loudspeaker. It's 7/8-inch copper voice coil is unusually large in relation to its cone diameter; the powerful magnetic assembly assures outstanding transient response and greater undistorted acoustic output. High frequencies are handled by the 066 Hemispherical radiator which produces greater bandwidth and dispersion than any high frequency direct radiator yet produced by JBL.

The extraordinary L-166 is presented with a totally new grille material called APP. This material is the most acoustically transparent grille material yet devised, having virtually no effect on frequency response or dispersion.

The cabinet is constructed of high density compressed woods, hand fitted and wood welded to eliminate undesirable warpage and vibration. The finish is hand-rubbed oiled walnut veneer on all four sides.

Specifications: Power handling capacity; 75 watts continuous program material. Dispersion - high frequency 150° at 20Khz. Nominal impedance 8 ohms. Crossover frequencies 1,000 and 6,000 Hz. Dimensions: 23½" H. X 14¼" W. X 13" D. Shpg. wt. 55 lbs. Black Grille.

#### MODEL L26 DECADE LOUDSPEAKER SYSTEM

Achieves optimum performance and gives efficient, clear reproduction. JBL utilizes a ported enclosure to increase efficiency and dynamic range. The loudspeaker frame is a massive cast structure produced to exacting tolerances. Magnetic assemblies are precisely manufactured of low-reluctance iron and energized by high grade magnets. Quality low frequency, solid well-defined reproduction is provided by 10" long excursion woofer. Copper voice coil is 2" in diameter and drives an integrally stiffened cone suspended at its outer edge by highly flexible ring to absorb extraneous sound waves, provides extended bass response through the lowest registers of the guido spectrum. For high frequency, IBL uses ring to absorb extraneous sound waves, provides extended bass response through the lowest registers of the audio spectrum. For high frequency, JBL uses a 1.4" direct radiator that provides accurate reproduction of delicate overtones and harmonics extending beyond range of human audibility. The high frequency direct radiator combines large voice coil interacting with a powerful magnetic potential for efficiency and transient reproduction. Small diameter of cone and center dome provides a wide sound distribution pattern. Entire dynamic assembly is surrounded by a ring of dense foam damping material to absorb unwanted radiation and reflections. Power capacity 35 watts continuous. Imp. 8 ohms; 90 degree horizontal and vertical dispersion; low frequency woofer sensitivity 40dB; high frequency direct radiator sensitivity 41 dB. Encased in beautiful natural oak veneer cabinet with handrubbed oiled finish and stretch fabric grille. Size: 24"H x 12¾"W x 13¼"D. Shpg. 42 lbs. With brown grille. Orange or Blue available on special order at the same price.

51A2190-5. Brown Grille EACH .....

\$168.00

**MODEL L36** DECADE LOUDSPEAKER SYSTEM

#### **MODEL L-100 CENTURY LOUDSPEAKER SYSTEM**

Originally designed for use in recording studios, the L-100's sound quality and efficiency will satisfy even the most technically trained ear. Rich, well-defined bass is reproduced by a powerful low-frequency 12" long-excursion loudspeaker with a 3-inch edgewound copper voice coil, and a massive magnetic assembly. The cone combines a molded shape, which makes possible uniform wide angle distribution of the full low frequency range, and an exclusive damping compound coating which prevents unwanted reverberations. The tuned port enclosure optimizes bass efficiency and dynamic range.

Voice and mid-range reproduction result from a 5-inch transducer with extremely high sensitivity and power handling capacity. Driven by a 7/8-inch copper voice coil suspended in an intense magnetic field provided by a 2.75-pound magnetic assembly which delivers clear, crisp wide range performance.

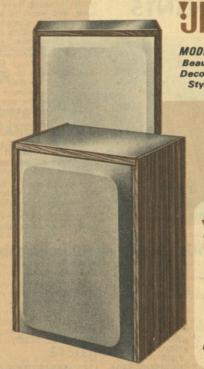
Delicate treble fundamentals, overtones, and harmonics in high frequency ranges Delicate treble fundamentals, overtones, and harmonics in high frequency ranges are reproduced by a 1.4-inch direct radiator. Greater efficiency and transient response result from a 5/8-inch copper voice coil. The entire dynamic structure is surrounded by a dense ring of foam, eliminating unwanted radiations and reflections. Controls on the front cabinet, behind the removable foam grille, permit adjusting midrange and high frequency levels for greater or less audible output in relation to bass. Power capacity 50 watts continuous. Crossover Freq. 1500 and 6000 Hz. Nominal imp. 8 ohms. Enclosure made of furniture hardwoods with hand-oiled walnut finish. Dimensions: 23½" H x 14½" W x 13-5/8" D. Shpg. wt. 55 lbs. With brown grille.



MODEL L166 HORIZON LOUDSPEAKER SYSTEM

## FLOOR STANDING LOUDSPEAKER SYSTEMS





STUDIO MASTER LOUDSPEAKER SYSTEM MODEL 12008 75300

JUBAL

SYSTEM

LOUDSPEAKER

#### MODEL L300 SUMMIT LOUDSPEAKER SYSTEM

One of the most successful loudspeaker designs JBL has produced for the recording industry, the L300 Summit is the home version of a studio monitor. The acoustical performance is identical; engineered to provide the mighty reserves of sound power, broad bandwidth and undistorted response demanded by the professional producer and the discriminating audiophile alike.

Deep, tight bass is assured by a 15-inch low frequency transducer. An extremely stiff, ribbed cone is driven by a 4-inch diameter edge wound ribbon copper voice coil, immersed in a 12-pound magnet assembly with Alnico V magnet. The JBL Mass Controlling Ring eliminates the possibility of warpage and misalignment of the coil assuring optimum accuracy, efficiency and transient response. A midrange compression driver with a horn/lens combination and 1¾-inch voice coil reproduces middle octaves of program material, which includes most of the vocal range. Waveforms expand at a controlled rate through the horn and the slant plate lens alters their extension to form a dispersion pattern of 120° horizontal x 40° vertical. Uncommonly accurate, lifelike reproduction is the result.

Bright, transparent, distortion-free highs are dispersed by the ultra-high frequency slot-loaded ring radiator. It consists of a 3½-pound Alnico V magnetic assembly and an annular aluminum diaphragm coupled to a slotted exponential diffraction horn. The horn's design achieves a controlled rectangular dispersion pattern of 130° horizontal x 40° vertical at 15 KHz. Dense compressed wood enclosure known for its acoustic properties has hand-rubbed oiled walnut finish.

Specifications: Power capacity 150 watts continuous program; nominal impedance 8 ohms; crossover frequencies 800 and 8500 Hz; sensitivity of 1 watt input produces 80 db sound pressure level at 15-ft. distance. Dimensions: 31-5/8" H x 23" W x 22½" D. Shpg. wt. 145 lbs.

#### MODEL L65 JUBAL LOUDSPEAKER SYSTEM

The Jubal L65 is a JBL advance into a clearer, highly sensitive, more open sound with better bass and improved frequency response across the entire audio bandwidth. It achieves sound reproduction and acoustic accuracy that is nearly identical to the original sound. The 12-inch low frequency loudspeaker employs a massive magnet assembly with an Alnico V magnet and a 3-inch edgewound copper voice coil, creating highly efficient and rich, full bass reproduction.

The midrange section utilizes a 5-inch midrange transducer having a very high sensitivity and power handling capacity. Driven by an intense magnetic field with a sizeable voice coil, the L65 reproduces extremely lifelike vocals and clear, well-defined midrange tones even at loud listening levels.

The highest frequencies are handled with crystal-like clarity by an ultra high frequency ring radiator. The L65 is a beautifully scaled floor system with a sparkling smoked glass top and three dimensional cloth grille. The cabinetry is constructed with dense compressed wood. All joints are handfitted and wood welded for rigidity, eliminating undesirable resonance and warpage. Hand-rubbed, oiled walnut finish.

Specifications: Power capacity 75 watts continuous program; dispersion 130° degrees horizontal, 40° vertical; crossover frequencies 1000 and 6500 Hz; nominal impedance 8 ohms Dimensions: 24½" H x 17½" W x 13 ½" D. Shpg. wt. 67 lbs.

#### **MODEL L200B STUDIO MASTER LOUDSPEAKER SYSTEM**

The L200B fits the most demanding requirements for excellence in loudspeaker performance. Based on a professional studio monitor, the L200B delivers to your home sound quality and concert hall reproduction accuracy that recording engineers demand. Bass performance that is clean, crisp and effortless provided by a 15-inch low frequency loudspeaker driven by a 12-pound, low-loss magnetic assembly and a 4-inch diameter voice coil. Foam ring termination absorbs extraneous sound waves traveling within cone material and allows long excursion with perfect linearity. Die cast mass controlling ring adds mechanical strength, minimizes break-up at the apex of the cone, and provides just the right amount of mass for optimum bass characteristics.

The high frequency driver operates smoothly through a range greater than 4 octaves. Driven by a 1%-inch edgewound aluminum voice coil with an Alnico V magnet, the L200B provides the greatest efficiency even through the highest audible frequencies. The high frequency compression driver is coupled to a heavy cast aluminum exponential horn having a slant-plate acoustic lens. The sophisticated device spreads out sound evenly over a 120° horizontal arc, restricting vertical dispersion to 40°. Further dispersion is aided by enclosure design.

A computer-designed dividing network controls smooth, imperceptible transition between components. A continuously variable control, located behind the removable grille, allows balancing the intensity of the high frequency compression driver to listening room acoustics. Cabinetry is the finest quality available in the high fidelity industry, unique styling and solidly constructed to last a lifetime. Efficiency, dynamic range and bass performance are optimized by two tuned duct ports extending through the baffle panel. Hand-rubbed, oiled walnut finish.

Specifications: Power capacity 150 watts continuous program; nominal impedance 8 ohms; dispersion 120° horizontal, 40° vertical; crossover frequency 800 Hz. Dimensions: 32¾" H x 23-7/8" W x 21¼" D. Shpg. wt. 131 lbs.



JBL loudspeaker systems represent the ultimate commitment in complete, ready-to-use sound reproduction equipment designed to meet specific performance goals. However, there will always be the serious listener who wants something more, and wants to personally adapt technology to a set of special requirements. The JBL Custom Component Series has been assembled for just such an individual, providing the technology, the components and the latitude to construct a loudspeaker system that can truly be called unique.

JBL has been developing loudspeaker systems for studio and home use since the earliest days of high fidelity. Long regarded as "the musician's loudspeaker", it is commonplace for professional musicians to choose JBL for their performance systems and for their homes. This worldwide reputation has evolved from JBL's unvarying commitment to quality. From concept to finished product, the objective has remained the same: to build the best-sounding most reliable audio reproducers that art and technology can devise.

The true measure of JBL's achievement can be found in the most critical and demanding applications: theaters, stadiums, arenas and recording studios, or wherever exceptional performance is a professional requirement. Today an everincreasing number of major recording studios are converting to JBL monitor loudspeakers. The clarity and definition of the recordings they produce is a direct reflection of the sound of JBL monitors.

To hear the result in the home as it is intended to be heard—indeed, as it was heard during each step of the recording process—requires loudspeakers of the same professional caliber as those used in the most modern recording studios.

All speakers and drivers are 8 ohm except 375, which is 16 ohm. When 375 is used with recommended networks the system input impedance is 8 ohms.

Stock No.	Network Model	NETWORK SEL System Power Capacity	Crossover Frequency	Low Frequency	MPEDANCE 8 OF High Frequency Transducer	Horn / Lens Level Co Assembly Note	ntrol Shpg.	Network Only Each
34A1032-2	LX2	35 watts	2500 Hz	D123, D208	LE20	A	2	\$33.00
34A1033-0	LX5	100 watts(1)	500 Hz	LE15A	LE175, LE85, 375(3)	HL91, HL93 B	6	90.00
34A1034-8	LX8	35 watts	2000 Hz	LE14A	LE20	В	2	42.00
34A1035-5	LX10	50 watts	1500 Hz	LE14A	LE175, LE85	HL87, HL91 A	2	39.00
34A1036-3	LX11	35 watts	2500 Hz	LE10A	LE20	В	2	33.00
34A1045-4	LX50	125 watts	500 Hz	136A	375	HL88, HL89, HL90 A	6	165.00
34A1046-2	LX80	100 watts(1)	800 Hz	136A	LE175, LE85, 375(3)	HL92, HL93 A	6	150.00
34A1040-5	N502	125 watts	500 Hz	130A	375	HL88, HL89, HL90 C	14	147.00
34A1041-3	N802	125 watts	800 Hz	130A	375	HL88, HL89, HL90 C	14	147.00
34A1037-1	N1200	60 watts	1200 Hz	D130,D131,130	L175, LE85	HL87, HL91 B	4	57.00
34A1038-9	N2400	35 watts	2500 Hz	D130,D131,D12	3 075	A	2	39.00
34A1039-7	N7000	(2)	7000 Hz	375	075, 077	A	2	39.00
34A1047-0	N8000	(3)	8000 Hz	LE175, LE85	075, 077	A	1 2	36.00

- (1) 125 watts when the 375 compression driver and the HL93 horn/lens are used.
- Level control Note A: Continuously Variable. Level control Note B: 3 Position Switch. Level control Note C: 5 Position Strap.
- (2) Permits adding the 075 or 077 for added brilliance utilizing the 375 compression driver. Power capacity will be that of the 2-way system which the unit is added.
- (3) Permits adding the 075 or 077 for added brilliance utilizing the LE175 or LE85 compression driver. Power capacity will be that of the 2-way system to which the unit is added.

	FULL	RAN	GE	LOU	JDSP	EAKERS
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Stock No.	Model No.	Size	Power Capacity Watts	Magnet Wt. Lbs.	SPKR Depth	Shpg. Wt. Lbs.	Net Each
34A1000-9 34A1001-7 34A1002-5 *Composite Trai	LEST LE12C* LE14C*	8" 12" 14"	40 35 35	6½ 8¼ 13	3 1/8" 4 1/4" 5 3/8"	9 13 22	\$96.00 165.00 222.00
*Composite Frai	nsaucer.	-	TENDED DANCE	OUDODEANED			
34A1003-3 34A1004-1 34A1005-8 34A1006-6	0208 0123 0131 0130	8" 12" 12" 15"	30 50 60 60	3½ 6¾ 12 12	3" 4" 4%" 5%"	5 11 16 19	63.00 99.00 126.00 135.00
34A1007-4	LE10A	10" LO	W FREQUENCY L	OUDSPEAKER:	41/4"	adiograp	07.00
34A1008-2 34A1009-0 34A1010-8 34A1011-6 34A1012-4	LE14A LE15A 124A 130A 136A	14" 15" 12" 15" 15"	70 120 100 60 100	12 20 12 13 13	536" 576" 434" 534" 556"	18 26 16 19	87.00 141.00 168.00 138.00 141.00 147.00
34A1013-2	PR8	8" Cor	PASSIVE RAD	DIATORS LEST	136"	,	24.00
34A1014-0 34A1015-7 34A1016-5	PR10 PR15 PR15C	10" Cor 15" Cor	nplementary Driver nplementary Driver nplementary Driver	LE10A LE15A 136A	2 1/8" 33/8" 33/8"	3 7 7 7	30.00 36.00 36.00
2441017.2			ANSDUCER AND		NCY DRIVERS	D. RESTATED	
34A1017-3 34A1018-1 34A1019-9 34A1020-7 34A1021-5 34A1022-3 34A1023-1	LE5-2* LE20 075 077 LE175 LE85 375	5" 2" 31/4" 31/4" 1" 1" 2"	40 35 20 20 30 30 60	2¾4 1½ 3¼ 3¼ 7½ 10 23¾	2' //6" 3'4" 3'4" 3'/6" 3'/6" 5'/4"	4 3 5 9 12 26	45.00 51.00 99.00 108.00 159.00 189.00 294.00
*Midrange Trans		nina belie	Senden-bent	oney spind	adi dipunata	MIDDELES.	

HIGH	FREGI	IENCY.	HORNS	AND	IENSES

Stock No.	Model No.	Lens Dimensions	Throat Dia.	Total Depth	Recommended Driver	Use Above Hz.	Shpg. Wt. Lbs.	Each
34A1024-9	HL87	5¼" Dia.	1"	6¾"	E175, LE85	1200	4	\$51.00
34A1025-6	HL88	131/2" Dia.	2"	15¾"	375	500	35	396.00
34A1026-4	HL89	613 /16X197/8"	2"	16%"	375	500	16	162.00
34A1027-2	HL90	14¼ X 36"	2"	1834"	375	500	42	264.00
34A1028-0	HL91	61/8 X 10"	1"	81/2"	LE175, LE85	500	5	51.00
34A1029-8	HL92	61/4 X 10"	1"	111/5"	LE175, LE85	800	6	63.00
34A1030-6	HL93	61/8 X 10"	2"	45%"	375	500	5	60.00
34A1031-4	L91	61/8 X 10" Aco	ustic lens o	nly	RESIDENCE OF SHARE	D. Carlotte	3	24.00
22		Journ	nev thr	ough	Electronic's	Past Se	e B-A's	Nostalai

#### ACCESSORY MOUNTING KITS

MA25 Horn/Lens Mounting Kit Consists of a cast iron rear mount and front support brackets for the HL89. The mount attaches at the 4-bolt flange of the horn and is held by the same bolts that secure the horn to the driver. The mount is 13-1/16" high and allows adjustment of driver height in 1" increments. The base mounts on a horizontal surface.

34A1042-1. Shpg. Wt. 6 lbs. Each ...... \$42.00

MA15 Loudspeaker Mounting Kit Simplifies front mounting of 15" loudspeakers, permitting flexibility in the diameter of the cutout. The MA15 is particularly helpful when utilizing an existing baffle. Consists of a gasket, four clamps and four mounting screws with T-nuts. Can be used with JBL 12" loudspeakers, but it will be necessary to fashion a custom gasket.

34A1043-9. Shpg. Wt. 4 lbs. Each ...... \$9.00

## ENCLOSURE CONSTRUCTION KIT

Consists of a brochure and complete construction drawings prepared by the JBL technical staff. The brochure contains an explanation of loudspeaker theory and bass reflex loading techniques appropriate for home entertainment and musical instrument applications. A full set of construction drawings, validated by JBL engineers, are included for 3-, 5- and 8-cubic foot enclosures for use with JBL component systems.

Journey through Electronic's Past ... See B-A's Nostalgia Section in the Back of Catalog!

## (I) PIONEER BOOKSHELF SPEAKER SYSTEMS



#### HPM-40 3-WAY, 3-SPEAKER SYSTEM

The perfect complement to a medium power amplifier, the HPM-40 reproduces high quality sound with exceptional accuracy and efficiency to satisfy the most critical musical taste. Solid, rich, well-defined bass results from a heavy duty 10-inch woofer. A 1¾-inch tweeter captures high frequencies to reproduces sparinch woofer. A 1½-inch tweeter captures high frequencies to reproduces sparkling, crisp high tones. Together the woofer and tweeter provide dazzling midrange tones with extremely lifelike vocal reproduction. A super tweeter made of a high polymer molecular film, completes the system by accurately handling the complex musical waveforms from very high frequencies. Attractive walnut grained vinyl cabinet that will compliment any decor. Specifications: Max input power 40 watts. Frequency response 35-25,000 Hz. Impedance 8 ohms. Dimensions: 12-13/16" W x 22-7/16" H x 12½" D. Shpg. wt. 31 lbs.

#### HPM-60 4-WAY, 4-SPEAKER SYSTEM

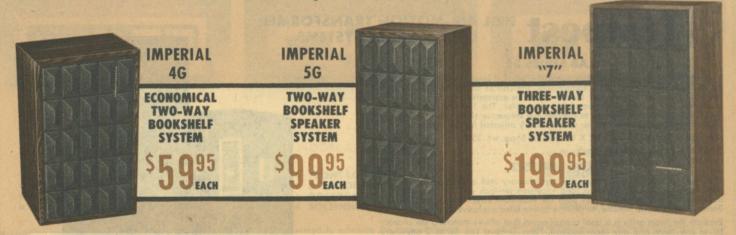
Adds dynamic natural sound to any home music system. Large 10-inch cone type Adds dynamic natural sound to any home music system. Large 10-inch cone type woofer is designed to minimize distortion and insure a powerful, well-damped, defined bass. Clear, brilliant quality sound comes from the cone-type 4-inch midrange speakers. The HPM-60 utilizes two tweeters for maximized high frequency reproduction. The 1¾-inch cone type tweeter handles delicate over-tones and harmonics with highly accurate efficiency. The "Super Tweeter", made of a high polymer molecular film provides crystal-clear reproduction of the very highest trequencies assuring natural sound quality even at loud listening levels. Cabinetry made for excellent acoustical output. Handsome, walnut grained vinyl gives the HPM-60 a highly distinctive appearance. Specifications: Max. input power 60 watts. Frequency response 35-25,000 Hz. Impedance 8 ohms. Dimensions: 13-25/32" W x 24"H x 12-5/8" D.

51A2289-5. Model HPM-60. Shpg. wt. 41 lbs. Each . . . . . . . \$225.00

#### HPM-100 4-WAY, 4-SPEAKER SYSTEM

With 100 watts of maximum input power, the HPM-100 combines optimum re-With 100 watts of maximum input power, the HPM-100 combines optimum reproduction accuracy and efficiency to provide concert hall quality sound with clarity and fullness. A huge 12-inch woofer carries tones in low frequency with ease, reproducing solid, undistorted, powerful bass. The cone type 4-inch midrange assures outstanding vocal overtones, strings and other mid-range program material. Two separate tweeters optimize the HPM-100's performance by handling the highest frequencies without distorting, providing crystal-clear uncompromising high tones. The 1¾-inch tweeter reproduces highs with extreme efficiency, while the "Super Tweeter", made of a high polymer molecular film, completes the system by reproducing the most complex waveforms in the highest frequencies. Sophisticated cabinetry of walnut veneer will blend beautifully with any room. Specifications: Max. input power 100 watts. Frequency response 30-25,000 Hz. Impedance 8 ohms. Dimensions: 15-3/8" W x 26-3/8" H x 15½" D. Shpa, wt. 61 lbs.

## SPEAKER SYSTEM



#### IMPERIAL 4G TWO-WAY BOOKSHELF SYSTEM

Using features found in Marantz's larger systems, this budget-priced speaker system delivers a powerful bass sound, the result of the 8-inch heavy-duty wooter. Virtually flat response curve demonstrates the quality and care which Marantz uses in building these speakers. 1¾" tweeter reproduces excellent crystal-clear highs for the best in home music enjoyment. The combination of these two speakers provides full-bodied sound reproduction requiring very little input power. A perfect system for the small amplifier. Cabinet is custom-crafted with a luxurious cloth grille. Frequency response: 60-15,000 Hz. Max. input power: 15 watts continuous. Nominal impedance: 8 ohms. Size: 19½" H. X 11½" W. X 8½" D. Shap ut 23 lbs.

#### IMPERIAL 5G 2-WAY BOOKSHELF SYSTEM

Now you can have this versatile speaker system combining excellent sound with creative styling and Marantz quality. Heavy-duty 8" wooter assures you of top-quality high efficiency bass for excellent results with even the lowest powered amplifier. 3½" tweeter with 3-position high-frequency level selector switch pro-

vides wide dispersion and crisp, clean response of brilliant highs. Three-position high-frequency level selector switch lets you adjust the high frequencies to accommodate your room acoustics. Specially designed cabinet with clothe grille adds a sophisticated touch to any room of the home. Frequency response: 45-16,000 Hz. Power rating: 15 watts continuous. Nominal impedance: 8 ohms. Size: 23" H. X 12" W. X 9 ½" D. Shpg. wt. 25 lbs.

IMPERIAL 7 3-WAY BOOKSHELF SYSTEM

This bookshelf system fills even the largest room with full, natural sound. Heavyduty, 12" wooter with large voice coil and massive magnet provides full, rich bass with highest efficiency. 3½" mid-range speaker permits a very smooth, natural transition from the woofer to the tweeter. 1¾" tweeter reproduces those sparkling and astounding highs for concert hall quality sound and atmosphere. Three-position high-frequency level selector and three-position mid-range level selector switches allow you to adjust the sound according to the room acoustics. Frequency response: 40-20,000 Hz. Power rating: 50 watts continuous. Nominal impedance: 8 ohms. Size: 25½" H. X 14¼" W. X 11½" D. Shpg. wt. 50 lbs.



The ESS Heil air-motion transformer, developed and perfected by physicist and musician Dr. Oskar Heil, is without equal in accurate sound production and destined to become the loudspeaker of the future. By discarding bankrupt concepts rooted in past technology and employing deeper insight into laws of physics overlooked in the design of conventional loudspeakers, the ESS Heil air-motion transformer approaches the theoretical limited for the content of its of perfect sound production.

The unmatched performance of the ESS Heil air-motion transformer is available in a range of superbly engineered speaker systems from ESS. Each model achieves a level of accuracy that sets it light years ahead of the industry. You can be confident that an ESS speaker system of any size and price range will remain the standard of comparison for years to come.

If you're not listening to an ESS Heil air-motion transformer loudspeaker system, you're not listening to state-ofthe-art high fidelity as it now exists.



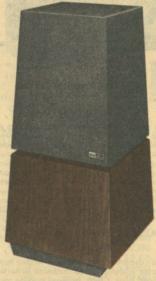
#### HEIL AIR-MOTION TRANSFORMER SYSTEM

The amt 10b is a bookshelf speaker equipped with a refined version of the Heil air-motion transformer midrange/high frequency system coupled with a new 10-inch Bextrene low frequency driver. The system's drivers are mounted in a tuned-port walnut veneered enclosure, providing enhanced bass response. The speaker has been specifically engineered for use with receivers and amplifiers of moderate size. The amt 10b may be easily adjusted to a wide variety of listening environments by means of a rear mounted continuously variable presence/brilliance attenuator control affecting all frequencies from 1500 Hz up. Dimensions: 24" H x 14" W x 14" D. Shpg. wt. 58 lbs.

51A2297-8. Model amt 10b. Each ...... \$298.00

## amt la

HEIL AIR-MOTION TRANSFORMER SYSTEM



The amt la incorporates the full size Heil air-motion transformer midrange/tweeter, freeing it from the restrictions of mass and inertia, with a massive 12-inch woofer and a rear facing 12-inch passive radiator resulting in a dramatic improvement in bass response. Environmental equalization controls for matching the sound character of any room and room position are in a recessed panel on the top of the woofer enclosure. Dimensions: 35 ¼" H x 16 ¼" W x 16 ¼" D. Shpg. wt. 90 lbs.

empest HEIL AIR-MOTION TRANSFORMER

#### LAB SERIES 3E

The Lab 3E is the most compact model of the Tempest Loudspeakers, but is every bit as big in sound as its larger companions. The Lab 3E boasts the same incredible Heil air-motion transformer used in the more expensive Lab Series 1 and 2 combined with a long excursion eight-inch woofer. The Tempest Lab Series 3E uses single capacitive rejection to prevent low frequency signals from being sent to the Heil air-motion transformer and is factory adjusted for flat response.

Dimensions: 22" H. X 12 4" W. X 10-5/8" D. Shpg. wt. 35 lbs.

#### LAB SERIES 2

The Tempest Lab Series 2 teams the revolutionary Heil air-motion transformer used in the Lab Series 1 with a long excursion ten-inch woofer. The woofer is back-loaded into a phased vent path for maximum effectiveness with the Lab Series 2's internal air volume, to achieve action filled explosive bass.

Beneath the foam grille is a dual control panel that allows matching the character of any room and any room position. Place Tempest Lab Series 2 anywhere you want with no sacrifice in its incredibly open, clear sound character.

Dimensions: 24 ½" H. X 13 ¼" W. X 13 ½" D. Shpg. wt. 45 lbs.

#### LAB SERIES 1

Largest and most powerful of the line, the Tempest Lab Series 1 combines a massive 12" woofer with the most advanced tweeter ever developed — the Heil airmotion transformer.

The Lab Series 1's powerful, long excursion woofer is back-loaded through a low-frequency-phased vent path for deep, impactful bass. A dual control panel mounted under the removable foam grille allows flexibility and creativity in the speaker's response shadings to make the Tempest Lab Series 1 a new discovery in high fidelity sound.

Tempest Lab Series 1 approaches the sound pressure level of live performance. And this exciting sound is possible with amplifiers having as little as 10 watts And this exc RMS output.

Dimensions: 27" H. X 15" W. X 13-7/8" D. Shpg. wt. 55 lbs.



## **Technics Panasonic**

## STEREO CASSETTE DECKS WITH DOLBY\* SYSTEM!

#### **MODEL RS-263 AUS**

- DOLBY\* SYSTEM.
- MEMORY REWIND.
- 2 VU METERS.
- LOCKABLE PAUSE CONTROL.
- MIC/LINE SELECTOR SWITCH.

A truly high fidelity stereo cassette recorder deck PLUS . . . the Dolby noise reduction system, used in most professional recording studios to eliminate tape noise in commercial recordings. The Dolby \*system knocks out the hiss and results in recordings that are startlingly "real" and free of tape noise. RS-263 A US takes full advantage of the newer recording tapes, adjusting bias for optimum level for these improved tapes. Has memory rewind, returns tape to exact point where memory button was pressed. Other features are automatic stop at end of cassette, lockable pause button, two VU meters, record indicator light and convenient slide volume controls. Headphone jack is on the front panel. Inputs are for 2 mikes, 2 aux., with outputs for 2 lines and headphones. Freq. response is 30 to 14,000 Hz, using Cr02 tape with S/N ratio better than 55 db in Dolby operation. For 120 VAC, 50/60 Hz. Sizee 5" H. X 14" W. X 9-5/8" D. Shpg. wt. 12 lbs. Complete with 2 connection cords. A truly high fidelity stereo cassette recorder deck PLUS

54A7597-3. Model RS-263 AUS. Each . . . . . \$199.95









#### **MODEL RS-630US**

- FRONT LOADING.
- DOLBY\* SYSTEM.
- LARGE "PEAK CHECK" METERS.
- **DUAL OUTPUT LEVEL CONTROLS.**

In recording quality and mechanical reliability, the RS-630US achieves new standards of excellence.

Features Dolby\* Noise Reduction System for noise-free, professional quality recording. Unique level me-ters give you precise recording control. Combine ex-tra-large size (1½" x 2½") with the ability to indicate in either normal or "Peak Check" mode. In the "Peak Check" mode the meters function much like the peak meters used in professional broadcasting equipment, responding to even very brief signal peaks, allowing adjustment of level control to prevent distortion. Also features dual output level controls, Normal/Cr02 tape switch, super alloy record/playback head, mic/line input selector switch, lockable pause control, three-digit tape counter and auto-stop mechanism.

Specifications: Freq. res. 30-16,000 Hz with Cr02 tape, 30-14,000 Hz with high energy tape. S/N ratio 63dB with Dolby. Wow and flutter 0.09% WRMS. Dimensions: 5-5/8"H x 171/6"W x 12-5/8"D. Shpg.

54A7661-7. Model RS-630US. Each \$249.95

#### MODEL RS-671US

- FRONT LOADING.
- 2-MOTOR DRIVE.
- DOLBY\* SYSTEM.
- SOLENOID CONTROLS.

A unit engineered to advance the state-of-the-art. Incorporates a two-motor drive system for smooth, accurate tape flow. One motor rotates the spindles, while a servo-regulated, high torque DC motor is employed to drive the capstan. Soft-touch, solenoid-activating pushbutton controls are used for PLAY, RECORD, FAST-FORWARD and REWIND. Dual-mode level indicators reveal the brief, high energy transients to permit high-quality, distortion-free recording. Incorporates Dolby\* Noise Reduction System as well as separate high/low bias and 70/120US equalization selectors and a precision finished record/playback head for superb response and long life. Other features include Memory Rewind, Auto-Stop mechanism, separate level controls for Mic and Line inputs, separate output level control. A unit engineered to advance the state-of-the-art. In-

necranism, separate level controls for Mic and Line inputs, separate output level control.

Specifications: Freq. res. 30-17,000 Hz with Cr02 tape, 30-15,000 Hz with high energy tape. S/N ratio 65dB with Dolby. Wow and Flutter 0.075% WRMS. Dimensions: 5-5/8"H x 171/4"W x 13"D. Shpg. wt. 25

54A7663-3. Model RS-671US. Each \$399.95

#### **MODEL RS-677 US**

- FRONT LOADING.
- 2-MOTOR DRIVE.
- REMOTE CONTROL.
  DOLBY\* SYSTEM.
  DOLBY\*-FM RECORDING.
- MEMORY PLAY.

Exhibits performance, features and versatility normally found only in professional equipment. Features a twotound only in professional equipment. Features a two-motor drive system for smooth and precise tape flow. Feather-touch, solenoid-activating controls are used for responsive control convenience. The Dolby\* capability has been expanded to allow recording of Dolby\*-encoded FM broadcasts directly in encoded form. Also allows you to feed the decoded output of the deck to your receiver, without recording, for ordinary listening of Dolby FM broadcasts. Remote control unit allows you to operate the tape transport modes from allows you to operate the tape transport modes from a distance of 11 ft. Other features include responsive "Peak Check" meters, 25/75uS FM de-emphasis selector, separate record level and balance controls, separate rate Mic amp and level control, Memory-Play for playing an earlier selection, Auto-Stop mechanism.

Specifications: Freq. Res. 30-17,000 Hz with Cr02 tape, 30-15,000 with high energy tape. S/N ratio 65dB with Dolby. Wow and Flutter 0.07% WRMS. Dimensions: 5-5/8"H. x 17¼"W. x 13¼"D. Shpg. wt.

54A7664-1. Model RS-677US. Each \$499.95

\* Trademark of Dolby Labs, Inc. ASK ABOUT B-A's 4-PAYMENT CREDIT PLAN . . . NO FINANCE CHARGE!



## SANYO STEREO CASSETTE DECKS ${f ITH\ DOLBY^*\ SYSTEM!}$



#### RD4553 VERTICAL DESIGN FRONT LOAD STEREO CASSETTE DECK WITH DOLBY

- 50-13,000 Hz Frequency Response.
- Cr02/Normal Tape Selector.
- Automatic Stop at End of Tape.

A sophisticated cassette deck which can be used in conjunction with any high quality sound system. Vertical front loading enables flush mounting and easy end-of-tape visual monitoring. Features Dolby\* noise reduction circuitry, two VU recording meters, digital tape counter, pause control for easy editing, Aux input and line output jacks. Includes Cr02 tape selector switch, auto-stop, stereo headphone jack and comes complete with audio patch cables.

Specifications: Frequency response of 50 - 13,000 Hz; S/N ratio Dolby ON 60 dB, Dolby OFF 53 dB; Wow and flutter 0.2% RMS; Speed accuracy +2.5%. Power source 120 VAC, 60 Hz. Dimensions: 13 ¼ "W x 10 ½ "D x 4 ½ "H. Shpg. wt. 13 lbs.

54A7665-8. Model RD4553. Each ...... \$149.95



RD5300 DELUXE VERTICAL DESIGN FRONT LOAD CASSETTE DECK WITH DOLBY.

- 30-14,000 Hz Frequency Response.
- Cr02/FeCr/Normal Tape Selector.
- Locking Pause Control.

A high quality cassette deck with dynamic recording and play capability. Ideal for integrating into any high performance sound system. Incorporates such deluxe features as Bias hi/low control, limiter on/off control and separate input/output level controls. Includes Cr02/FeCr/Normal tape pushbutton equalization control and L.E.D. indicators; Line-in/Mic DIN input selector; extra-large VU meters; Aux input and line output jacks; locking pause control. Comes complete with audio patch cables.

Specifications: Frequency response of 30 - 14,000 Hz. S/N ratio Dolby ON 63 dB, Dolby OFF 57 dB. Wow and flutter 0.10% RMS. Speed accuracy +2.0%. Power source 120 VAC, 60 Hz. Dimensions: 16½"W x 10½"D x 6"H. Shpg. wt.

54A7666-6. Model RD5300. Each ...... \$179.95

\*A Trademark of Dolby Labs, Inc.

## Sankyo



COMPARE WITH DECKS **SELLING FOR OVER \$200!** 

MODEL STD-1410 WITH **DOLBY\* NOISE REDUCTION** 

AT AN INCREDIBLE

After thoroughly testing several Dolby\* cassette decks for overall quality, superior performance, ease of operation, features and value, the Sankyo STD-1410 was our unanimous choice. Ultra-hard permalloy heads are constructed for long life and high quality reproduction. The transport mechanism contains total automatic shut-off, which will shut-off automatically in any mode of operation . . . fast forward, rewind, record, or play. The STD-1410 includes the famous Dolby noise reduction system that dramatically reduces tape noise and enhances the noise reduction system that dramatically reduces tape noise and enhances the overall performance of the deck. Other features of this fantastic deck include locking pause control, 3-digit index counter, switched Cr02 tape equalization circuit, twin VU meters and Dolby\*noise reduction. Input signals are controlled by accurate slide rule controls. Inputs include 2 mic jacks with one headphone output jack. Frequency response: 40-14,000 Hz. Wow and flutter: 0.2%. These features combined with the excellent overall performance and fantastic 8-A price assure that the Sankyo STD-1410 is a component that will please you for years to come. Power requirement: 120 V. 60 Hz. Size: 15" W. X 3¼" H. X 10" L. Shpa, wt. 9 lbs. Shpg. wt. 9 lbs.

A Trademark of Dolby Labs, Inc.

## **DOLBY\* STEREO CASSETTE DECKS**

## SONY

- SERVO CONTROL MOTOR.
- 3-POSITION TAPE SELECT SWITCH.
- **BUILT-IN PEAK LIMITER.**



Model TC-117. Enjoy top-of-the-line features and top-notch performance from a medium-priced cassette deck. 3 position Tape Select Switch gets maximum benefit from the new Ferri-Chrome tape. Equalization positions are provided for chromium dioxide and standard tape, letting you get the best possible performance from any cassette.

A built in Peak Limiter reduces sudden high input levels, automatically prevents distortion. High Filter Switch keeps background noise to a minimum. Convenient operation by Straight-Line Level Controls, Pushbutton Operation, Locking Fast Forward and Rewind and Dual illuminated VU meters.

Automatic Shut-Off at end-of-tape in record and playback modes.

Specifications: Power Requirements: 120 Volts AC, 10 Watts, 60Hz, Recording System: Quarter-Track Stereo, Rewind and Fast-Forward Time: 90 sec./C-60, Frequency Response: Standard Tape: 40Hz to 10kHz, FeCr and CrO2: 40 Hz to 13kHz, Signal-to-Noise Ratio: Standard Tape: 44dB, FeCr and CrO2: 46 dB, Wow and Flutter: 0.2%, Bias Frequency: 85kHz, Head Configuration: 1 Half-Track Erase, 1 Quarter-Track Record/Playback, Type of Motor: DC Servo Motor x 1 Dimensions: 14-3/16" W x 4-1/16" H x 9-5/16" D. Shpg. wt. 7 lbs.

54A7643-5. Model TC-117. Each ...... \$149.95

## SONY

- AC /DC PORTABLE STEREO CASSETTE DECK.
- \*DOLBY NOISE REDUCTION SYSTEM WITH FeCr EQUALIZATION



Model TC-153SD. In the field it'll produce professional-quality stereo recordings, and let you monitor them through a Built-in Speaker. At home it'll plug into a stereo system and deliver the sound quality you'd expect from a top-line cas-

The Dolby\* Noise Reduction System with Built-In Multiplex Filter assures recordings that are virtually free from tape hiss and noise, and from sub-carrier noise when reproducing FM broadcasts.

Ferrite and Ferrite Record/Playback Head, lasts up to 200 times longer than the standard permalloy type, and gives better tape-to-head contact and wider fre-quency response. Servo-control Motor keeps tape speed constant, despite fluc-

3-Position Tape Select Switch gives optimum results from standard, chromium dioxide or Ferri-Chrome cassettes. Has Light-Touch Lever Action Controls, Large Illuminated VU Meters and Peak Limiter — and 4-Way Powering allows porta-

Specifications: Power Requirements: 120 Volts AC, 12 Watts, 60 Hz 6 Volts DC, Battery Size and Quantity: "D" x 4, Battery Life: Approx. 2.5 hours continuous, Recording System: Quarter-Track Stereo, Rewind and Fast-Forward Time: 90 sec./C-60, Frequency Response: Standard Tape: 30Hz to 13kHz, FeCr and CrO2: (30Hz to 15kHz ± 3dB.), Signal-to-Noise Ratio: Dolby Off: Standard Tape: 53dB, FeCr and CrO2: 55dB, (PB EQ Time Constant — 70 micro sec.), Dolby On: Increased by 5dB or more @ 1 kHz and 10dB or more @ 5kHz, Wow and Flutter: 0.15% RMS (NAB Weighted), Bias Frequency: 105kHz, Head Configuration: 1 Half-Track Erase, 1 Quarter-Track Record/Playback, Type of Motor: DC Servo Motor x 1, Built-In Speaker: 4" Diameter
Dimensions: 14-7/8" W X 4½" H x 9-3/8" D Unit Weight: 11 lbs., 15 ozs.

## () PIONEER

MODEL CT-F2121

#### FRONT LOAD DOLBY. CASSETTE DECK

- . INDEPENDENT BIAS AND **EQUALIZATION SWITCHING.**
- FULL AUTO-STOP.
- DOLBY' NOISE REDUCTION. PERMALLOY HEADS.

CT-F Series cassette decks have come to stand for the maximum in high-fidelity performance, convenience and reliability. The CT-F2121's eye-appealing front panel features much more than just good looks . . . all controls are situated in positions corresponding to the order and frequency of use so that it can be controlled just as you would a receiver, amplifier or tuner. The front panel tape compartment also increases convenience, since it permits loading and unloading, tape movement verification and even tape label reading while the deck is stacked over, under, or between other components in your hi-fi system. Performance is outstanding . . . with the built-in Dolby\* noise reduction system you are assured of noise-free musical reproduction with a significant improvement in signal-to-noise ratio. It is equipped with individual bias and equalization switches with positions for standard and Cr02 tape.

Other features include: dual VU meters, headphone output, microphone inputs, illuminated tape compartment, built-in MPX filter for ideal recording of FM broadcasts, and long-life permalloy heads . . . qualities that are easy to imitate but difficult to match, especially at such an attractive price.



Specifications: Wow and flutter — no more than 0.12% (WRMS). Frequency response: Standard, LH tapes; 30 to 13,000 Hz (40 to 11,000 Hz ± 3 db); Chromium dioxide tape; 30 to 16,000 Hz (40 to 12,000 Hz ± 3 db). Signal-to-noise ratio: Dolby\* off; 48 db (standard and LH tapes); Dolby\* on; 58 db. (over 5 KHz, standard and LH tapes). When chromium dioxide tape is used, signal-to-noise ratio is further improved by 4.5 db over 5 KHz. Power consumption: 13 watts (max). Heads: "Permalloy solid" recording/playback head X 1. Ferrite erasing head X 1. Motor: electronically-controlled DC motor. Fast winding time: approximately 80 seconds (C-60 tape).

54A7646-8. WC-2121. Walnut Finished Hardwood Cabinet for above. Each \$25.00

## OPEN REEL

## TIPAC TAPE DECKS





**MODEL A-2300SX** STEREO TAPE DECK

- SOUND-ON-SOUND CAPABILITIES
- SEPARATE 2-POSITION BIAS AND **EQUALIZATION**

Teac's most popular priced open reel tape deck, the A-2300SX delivers your favorite music with brilliance and clarity usually found in top-of-the-line equipment. The basic three head design has excellent monitoring facilities including independent left and right channel tape/source switches with a convenient toggle design. Three motors, including Teac's stable hysteresis-synchronous capstan motor, maintain constant, precise movement of tape at either selectable speed.

Separate two-position bias and equalization settings insure optimum record compatibility with the newest tape formulations. Large VU-type level averaging meters make it easy to get the best possible signal-to-noise ratio. Mic/line or other mixing of signals from two sources, for effects like sound on sound. Four-digit tape counter.

Specifications: 3 heads; erase, record, playback. 4 track, 2-channel stereo. Tape speeds 7½ ips and 3¾ ips. Reel size 7". Frequency Response 40-24,000 Hz ± 3dB (7½ ips), 40-16,000 Hz ± 3dB (3¾ ips). S/N ratio 58 db. Harmonic distortion less than 1% at 1 kHz. Wow & flutter 0.08% (7½ ips), 0.10% (3¾ ips). Dimensions: 17-5/16" W. x 15-7/16" H. x 8-5/16" D. Shpg. wt. 41½ lbs.



**MODEL A-3300SX** STEREO TAPE DECK

- MICRO-SWITCH TRANSPORT CONTROLS
- SEPARATE MIC/LINE LEVEL CONTROLS
- UP TO 101/2" REEL

Ready for the active recordist, the A-3300SX takes up to 10½" reels for long listening pleasure. The 3-head, 3-motor design handles tape with precision and ease. Features micro switch transport controls for convenient, positive mode selection. Separate bias and equalization switches enable you to take full advantage of the newest tape formulations for improved recordings. Individual toggle switches for left and right channels are provided for added ease in tape/source monitoring. Large VU meters help determine the best possible signal-to-noise ratio. Pause control, separate mic/line level controls, four-digit tape counter, and stereo headphone jacks.

Specifications: 3 heads (erase, record, playback) 4-track, 2 channel stereo. Tape speeds  $7\frac{1}{2}$  and  $3\frac{3}{4}$  ips; reel size up to  $10\frac{1}{2}$ "; 3 motors, 1 dual speed hysteresis synchronous capstan motor, 2 eddy current induction reel motors. Wow and Flutter 0.06% ( $7\frac{1}{2}$  ips), 0.09% ( $3\frac{3}{4}$  ips). Frequency response: 40-24,000 Hz  $\pm 3\text{dB}$ @  $7\frac{1}{2}$  ips, 40-16,000 Hz  $\pm 3\text{dB}$ @  $3\frac{3}{4}$  ips. Signal-to-noise ratio 58 dB. Harmonic distortion less than 1% @ 1 kHz. Dimensions: 17-5/16" W. x 17-5/16" H. x 8-5/16" D. Shpg. wt. 46 lbs.







MODEL A-4300SX **AUTO-REVERSE STEREO TAPE DECK** 

- AUTO-REVERSE HEAD
- **AUTO REPEAT MEMORY**
- TAPE/SOURCE MONITORING

Total performance and convenience is the hallmark of the A-4300SX with three motor operation which results in quieter operation and smoother tape transport. Four heads for auto reverse playback, regular playback, record and erase provide maximum versatility. At the end of the tape, foil-sensing reverse circuits begin reverse playback of the opposite tracks.

Features separate bias and equalization switches, tape/source monitoring, VU-type level averaging meters, and 4-digit tape counter with memory for auto repeat. Separate mic and line inputs and separate level controls lets you blend sound on sound.

Specifications: 4 track, 2 channel stereo. Three motors; 1 dual speed hysteresis synchronous capstan motor, 2 eddy current induction reel motors. Tape speed 7½ and 3¾ ips. Wow & flutter 0.06% (7½ ips), 0.09% (3¾ ips). Frequency Response: 40-24,000 Hz ±3dB @ 7½ ips, 40-16,000 ± 3dB @ 3¾ ips. Signal-to-noise ratio 58 db. Harmonic Distortion less than 1% @ 1 kHz. Dimensions: 17-5/16" W. x 19¼" H. x 8½" D. Shpg.



## TEAC DOLBY\* CASSETTE DECKS



Rugged, reliable, and remarkably quiet, the A-650 has the features, functions, and sound to impress even the most critical audiophile. At the heart of the A-650 is a newly designed two motor transport system. A Phase Locked Loop (PLL) DC servo capstan motor drives the tape at near perfect speed. It's virtually imperious to voltage fluctuations or temperature changes. Almost totally free of starting drift, and changes in load are handled with ease. A mechanically governed DC reel motor helps make the A-650 transport system one of the most accurate and precise governed. and precise available.

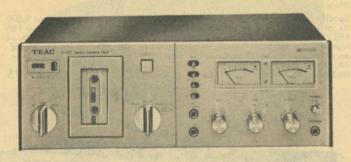
Full logic circuits control the solenoid transport so you can enter fast mode, or go from one fast mode to another without touching the STOP button. Three-position bias and equalization switches maintain a compatible adjustment between the A-



MODEL A-650 STEREO CASSETTE DECK WITH DOLBY\*

650's record electronics and any of the latest tape formulations. The Dolby \* noise reduction system is designed to decode any external Dolbyized source. FM or Dolbyized tape copying and monitoring are special functions controlled by the flip of a switch. Record muting, mic/line mixing, center mic recording, and a limiter are provided. Two VU-type loudness meters and two LED peak indicators. Specifications: Wow & flutter 0.06% Frequency response: High energy tape 30-13,000 Hz, Cr02 tape 30-16,000 Hz. Outputs, line 0.3 V/load impedance: 50k ohms or more. Signal-to-noise ratio weighted with Dolby\* 67 db. Dimensions: 7" H. x 17-5/16" W. x 12-13/16" D. Shpg. wt. 31 lbs.

54A7672-4. Model A-650. Each ...... \$529.50



The unique vertical front load design and twin rotary level control system make the A-420 an impressive and reliable performer. While the transport system assures smooth, even tape recordings and the servo motor maintains a constant speed, the electronics have been designed to offer the recordist added flexibility. Dolby \*noise reduction and 2-position bias and equalization switches make sure you get the highest quality sound from any tape. The large VU-type averaging meters are complemented by two LED peak indicators. Individual input and output level controls, automatic stop, and a tape stop indicator. Individual mic and line input controls and a center mic function allow you to create the mix you



**MODEL A-420** STEREO CASSETTE DECK WITH DOLBY\*

want. Three-digit tape counter, reset button and timer control input. Specifications: Wow and flutter 0.07%. Frequency response: high energy tape 30-13,000 Hz, Cr02 tape 30-16,000 Hz. Signal-to-noise ratio weighted with Dolby\*65 db. Outputs, line 0.775 V for load impedance of 50K ohms or more. Inputs, line 60 mV, 50K ohms or more. Mic, 0.25mV/-72 db (600 ohms or more). Dimensions: 6 % " H.x17-3/8" W.x11 % " D. Shpg. wt. 16 lbs.

54A7671-6.

Model A-420. Each .....

\$349.50



Perfect for the recording enthusiast who wants many of the features and functions of more expensive cassette decks, at a low price. Independent dual concentric level controls allow you to mix line and mic signals. And a center mic function is provided which places the signal from one microphone on both channels. A peak reading LED level indicator complements the large VU-type averaging meters to give you better visual reference for monitoring levels. Dolby\* noise reduction and separate bias and equalization switches, memory stop, and control facilities make the A-150 an outstanding value.



**MODEL A-150** STEREO CASSETTE DECK WITH DOLBY\*

Specifications: Frequency Response: high energy tape 30-12,000 Hz, Cr02 tape 30-15,000 Hz. Wow and Flutter 0.09%. Signal-to-noise: weighted with Dolby\* 60 db. Outputs, line: 0.3 V for load impedance of 50K ohms or more. Headphones 8 ohms. Power requirement 117 VAC 60Hz. Dimensions: 6-3/8"H.x16 1/8" W.x11-7/8"D. Shpg. wt. 20 lbs.

54A7670-8

Model A-150. Each ..... \$249.50

## SONY TAPE RECORDER SYSTEMS FROM



- New Modern Look.
- Two VU Meters.
- Three Head Deck, Long-Life Ferrite Heads.
- Automatic Total Mechanism Shut-Off.
- Servo-Controlled Tape Tension. 3 Speeds: 7-1/2, 3-3/4 and 1-7/8 ips.

## SUPERSCOPE

### **DELUXE THREE** HEAD STEREO TAPE DECK

Sophisticated tape recorder has a slanted control panel for easy visibility and maneuverability plus... a superior deck combining single-motor simplicity and price with 3-head quality. Heads are of long-life ferrite for excellent recording and playback sound quality. Microphone attenuator switch gives positive control of microphones for high quality recording of any event. Automatic total mechanism shut-off turns recorder off if you don't. Pause control with lock is another extra that simplifies recording while vibration-free motor insures tape maintaining exact speed; forget about wow and flutter with this tape deck.

Features record equalization selector switch allowing optimum performance with either standard or low-noise high-output tape. Variable line output gives versatility to this deck so that almost any amplifier can be used with it. Servo-controlled tape tension eliminates problems often found with the take-up reel of other recorders. Two VU meters help in determining recording and playback levels. Four-digit tape counter gives an accurate reference to tape position. All of these features give this deck professional recording quality and tape handling.

Specifications: frequency response 30 to 25,000 Hz. at 7-1/2 ips, 30 to 9,000 Hz. at 1-7/8 ips; wow and flutter 0.09%; S/N ratio 55 dB.; bias frequency 160 KHz.; quarter-track stereo recording and playback systems; rewinds 1200 ft. of tape in 120 seconds; power requirements 120 VAC, 30 watts, 60 Hz. Low impedance mike inputs with -72 db sensitivity. Size: 16 ½ "x 8-5/16" x 15-7/16". Shpg.

## THREE MOTOR, THREE HEAD STEREO TAPE DECK

You'll have top quality performance, elbow room and money left over when you add a Sony TC-645 to your audio system. Two separate ferrite and ferrite play-back and record heads, plus one ferrite erase head, assure long-term, high-quality performance. Last up to 200 times longer than standard permalloy heads, and provide wider frequency response, better tape-to-head contact, and less distortion and noise. You get the added advantage of Tape Source Monitoring — check the quality of your recording as you make it. Symphase Recording lets you record 4 channel sound from any SQ or FM matrix source. When played back through 4 speakers and an amplifier equipped with a 4-channel decoder, you get all the exciting dimensional aspects of a live performance. At end-of-tape in any mode, Automatic Total Mechanism Shutoff returns all functions to the stop position, preventing damage to tape and mechanism. Built-in Mic/Line Mixing lets you mix and record simultaneously. For ease and accuracy in setting levels, there are two illuminated VU meters.

Other features include Pause Control with Lock, Mechanical Memory Capability, Built-in Reel Locks, Non-Magnetizing Record Head, 4-Digit Tape Counter, vertical/horizontal operation, Stereo Headphone Jack, Walnut Base, No Pressure Pads. Comes with RK-74 Patch Cords and empty 7-inch reel. Specifications: Freq. res. 30 Hz to 20 KHz ± 3dB @ 7½ ips, 20 Hz to 17 KHz @ 3¼ ips: Wow and flutter 0.07% @ 7½ ips, 0.11% @ 3¼ ips. S/N Ratio 53dB. Bias frequency 160 KHz. Recording system quarter-track stereo. Rewind and fast-forward at 1200 ft./60 sec. Two low impedance mike inputs with -72dB sensitivity. Takes up to 7-inch reel. Outputs: 2 line load impedance greater than 10K ohms, stereo headphone jack impedance 8 ohms. Size: 14-7/8" W x 14-5/8" H x 8-7/8" D. Shpg. wt. 45 lbs.



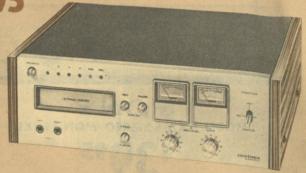
- 71/2, 33/4 IPS tape speeds
- Tape/source monitoring.
- Ultra high frequency bias
- Mike mix/record simultaneously. Record/playback 4-channel sound.
- 3 ferrite heads last up to 200 times longer than commonly used heads.



MODEL RH-60

#### 8-TRACK HOME STEREO RECORDING DECK

Recording or playback, a new adventure in 8 track. Make your own tapes just the way you want them! Recording facilities include level meters for L and R channels, tape end indicator, fast forward, pause, front panel microphone jacks and the "One-All-Endless" function for recording or playing one or all programs, or for continuous play. Has lighted program indicators, program end indicator and recording indicator. Frequency response 70-13,000 Hz. For 120 V, 60 Hz. Size: 14 ¾ " x 4 ½ " x 10-7/8". Shpg. wt. 14 lbs.



MODEL RS-801 AUS

COMPACT STEREO 8-TRACK CARTRIDGE PLAYER DECK



Enjoy hours of uninterrupted listening pleasure from your favorite pre-recorded stereo 8-track cartridges. Low modular design complements the finest high fidelity system. Has integrated circuitry for long-life dependability. Features program selector button, lighted program indicator, eject button, easy slide-in cartridge mechanism, super vertical head system, and output jacks for line.

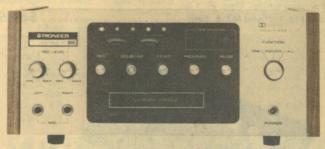
Solid-state engineered. Complete with head cleaning bar. Comes in distinctive wood-grain cabinet with silver trim.

Size: 3¼" H X 7¾" W X 9-3/8" D. Shpg. wt. 8 lbs.

## () PIONEER

MODEL H-R100

8-TRACK HOME STEREO RECORDING **DECK WITH DOLBY\* SYSTEM** 



Now you can record 8-track cartridges with professional clarity through this sophisticated stereo deck. The Dolby\* system eliminates the inherent hiss of magnetic tapes and reduces other circuit noise factors. It greatly improves the sound effect, particularly in the mid and high range, without any harmful effects on the original tonal quality. Time-counter gives the advantage of being able to select tape positions and tells to the exact second recording or playback time. Three-position function switch lets you select the number of tape programs you want to hear — it will stop at the end of 1 program, 4 programs, or will automatically play all programs through repeatedly. Permalloy head and positive tape-to-head contact through the vertical head-shift mechanism give wide frequency range.

DC type motor with an electronic speed control circuit for stable tape speed and voltage fluctuation control circuit for stable motor speed. Frequency response: 30-15,000Hz. Fits into any modern stereo system providing an exciting medium for 8-track adventures in sound. Size: 11-5/8" W x 4-5/8" H x 10-7/8" D. Shpg. wt. 15 lbs.

No. 54A7641-9. Model HR-100. Each ...... \$219.95

\* A trademark of Dolby Laboratories, Inc.

## MODEL RS-805US

SOLID STATE 8-TRACK STEREO CARTRIDGE RECORD PLAY DECK



Make your own tapes, or enjoy pre-recorded cartridges. An ideal companion for your other Panasonic units. Features the Pana-Ject/Continuous play switch which allows you to listen to continuous music or will automatically eject cartridge at the end of last program, just by the flick-of-a-switch. Has AC bias and erase, separate volume controls, locking fast forward, regular eject button, VU meter, and program selector button. Safety lock record button assures good recording. Output jacks for line and headphones. Input jacks for microphones and line. Lighted program indicator lets you know what program is being played. Comes with 2 connection cords and head cleaning bar. In handsome walnut wood cabinetry with silver trim. Size: 4-3/8" H. X.12½" W. X.9½" D. Shpg. wt. 15 lbs.

No. 54A7612-0. Model RS-805US. Each

\$99.95

## SONY/JVC MIXERS, SELECTOR, S/E AMPLIFIER



#### SONY

MODEL MX-65 STEREO / MONO MIXER

#### SONY MODEL MX-6S STEREO/MONO MIXER

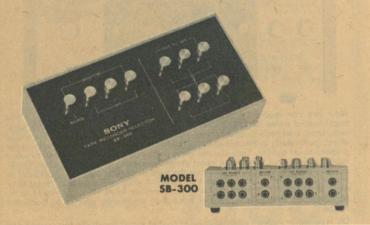
The easy and inexpensive route to sophisticated recordings. The MX-6S is ideal for mike and line mixing and for sound-on-sound recording. Mixes 3 low impedance mikes and 3 high impedance aux. inputs, output is low level, low impedance stereo or monaural. Size: 13-7/8" W x 2-7/8" H x 4-9/16" D. Shpg. wt. 4 lbs.

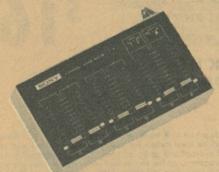
54A5098-4. Model MX-6S. Each ...... \$39.95

#### SONY MODEL MX-8 6-CHANNEL STEREO / MONO MIXER

Here's a mixer thats perfect for multi-microphone use. Mixes down any combination of up to 6 microphones/lines, stereo or monoaural. Straight line graphic controls show you settings at a glance, sliding colored reference tabs remind you of previous settings. Shpg. wt. 5 lbs.

54A5116-4. Model MX-8. Each .....

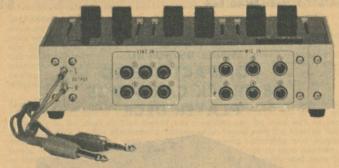




SONY

**MODEL MX-8** PASSIVE SIX CHANNEL STEREO/ MONO MIC/ LINE MIXER

MODEL MX-8



SB-300 TAPE RECORDER SELECTOR

#### SONY SB-300 TAPE RECORDER SELECTOR

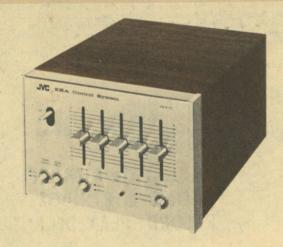
The SB-300 is an inexpensive adaptor that adds professional versatility to any home recording system. When connected to a receiver or amplifier, the SB-300 expands the tape-monitoring capabilities to enable recording and monitoring from up to three separate tape sources.

Dubbing and transferring from one machine to another can be done with professional quality without picking up switching clicks or pops on the recording tape.

JVC

SEA-10 TONE CONTROL SYSTEM AND SOUND EFFECT **AMPLIFIER WITH** RECORD FACILITY

An advanced facility for adjusting the frequency response of an audio system. Most tone control systems have only bass and treble controls and only control the low and high frequency ends of the amplifier's response. The SEA-10 splits the sonic spectrum into 5 bands and gives you control over each of these bands independently. The center frequencies of the 5 bands are 40 or 60 Hz, 250 Hz, 1,000 Hz and 10,000 or 15,000 Hz. Each has a slide control giving ±12dB control over its frequency range; the slide controls have click positions every 2dB. The lowest control can be used to eliminate rumble or emphasize very low bass response. The 250 Hz control can reduce speaker boom. The human



voice is around 1,000 Hz — this control can emphasize or de-emphasize vocals. The 5,000 Hz control gives clarity to brass and strings and the top control eliminates tape hiss and surface noise to bring out the brilliant highs which make live performances unique. Use the SEA-10 in recording or to enhance the sound of

Specifications: Freq. res. 20-30,000 Hz + 0/-0.5dB. Total harmonic distortion at 1V less than 0.1%, S/N ratio better than 70dB. For 100V/120V/220V/240V AC selectable 50/60 Hz. Size:  $5\,\%$  " H x  $7\,\%$ " W x 10" D. Shpg. wt. 7 lbs.



## STEREO HEADPHONES

FOR ADDED LISTENING PLEASURE

Model Phase 2. A new concept, exciting and dif-ferent! You'll feel drawn closer and closer to the center of the performing musicians. The panoramic sound controls allow the sounds present on the re-cording to become so clearly defined that you'll feel you're actually one of the performers. Ambience expander switch al-



lows dramatic ex-pansion of the cen-tral channel on your recording that tral chamber recording that leaves you feeling surrounded by the musicians. Frequen-response 10-20,000 Hz. Shpg. wt. 2 lbs.

53A6733-6

00

Technician/VFR. Fine tune to suit your own listening. Adjust the acoustic contour to your personal preference with slide-type controls at the base of each earcup. You can give the highest notes of a piccolo new brilliance and breathtaking new fullness to the deepest notes of an organ. You shape your own response curve.



Lightweight, comfortable. super quency response 10-22,000 Hz. Shpg. wt. 2 lbs.

53A6747-6

Model HV-ILC. World's finest lightweight hear-thru stereophone. With volume balance, controls on each ear cup. When you want to hear more of the violins and less of the bassoons, they're right at your finger-tips. Koss decilite driver elements repro-duce all 10 audible octaves with dramatic realism.



Frequency response 15-30,000 Hz. Soft acoustical sponge ear cushions, extendable headband with pivoting, self adjusting yokes. Coil cord with 10' exten-sion. Shpg. wt. 2 lbs.

53A6730-2.

Model PRO/4AA. Professional stereo. Improved professional stereo headset, engineered to meet the most rigid requirements. Smooth response 2 full octaves beyond the range of ordinary dynamic stereo-phones. Soft, fluid filled ear cushions seal out am-bient noise, foam

headband



- 4-sq. inches radiat-ing area. Freq. res. 10-22,000 Hz. Shpg.

Model HV/1A. Stereo Decilite, super comfortable, lightweight. Now hear all 10 audible octaves. Weighs a scant 9.5 ozs. High velocity principle utilizes low mass moving diaphragm to achieve brilliant highs and deep rich bass. So light, so comfortable you may even forget you have it on, yet produces sound



53A6734-4

sound

Model K/135. Extended Bass Response. Dynamic stereophones give superb performance over a wide frequency response of 10 to 18,000 Hz, extending bass response to below audibility. Lightweight construction and extra-wide, glove-soft vinyl headband

make them extremely comfortable. "Slimline" styling "Slimline" styling makes your stereo look as great as it sounds. Comes with 10-ft. cord. Weighs 15 ozs., shpg. wt. 2

53A6753-4.

Model K/145. Wide Range "Slimline." Light and comfortable, this "Slimline" provides so much in sound quality and features that it's probably the best stereophone ever offered in its price range. Has extra-wide, glove-soft headband and weighs only 16 ozs. Super wide

frequency response of 20-20,000 Hz. Hear lowest bass and highest highs with clarity and pre-cision. Volume/ balance each earcup. Shpg. wt. 2 lbs.

53A6754-2

Model K/6LC. Popular priced stereo. Same acoustical design and physical construction as K/6 model, but with volume/balance controls to let you make critical adjustments to the listening level you enjoy. Does a super job of sealing off ambient noise.

3½-inch dynamic reproducers with over

producers with over 9-sq. inches of ra-diating surface. Foam-filled ear cush-ions and 10-ft. cord. Shpg. wt. 2 lbs.

53A6670-0

Model KO/727B. Deluxe stereo. One of the worla's most popular stereophones, provides outstanding realism to delight any discriminating music lover. Wide range, highly sensitive reproducers feature 3½-inch driver. Foam-filled ear cushions form good seal for high ambient noise cancellation. Frequency response 10-18,000 Hz. 10-ft. coiled

cord. Shpg. wt.

53A6588-4.



#### MKD55 HEADPHONE ACCESSORIES



Model EC-25KK Coiled Extension Cord 25' long. Use with any

stereophones, fitted with 3-cond. phone plug one end, jack on other end. 53A6665-0. Each ..... \$7.95



#### **CHAIRSIDE LISTENING STATION**

Model T-10A. Offering remote control for two sets of stereophones, combines function with contemporary styling. Featuring separate volume controls for each stereophone and a speaker on/off switch. Wires directly to amplifier or receiver. Measures 6 inches in diameter, has a walnut-like base, combined with black trim and a spun aluminum control panel with smoked plexiglass cover.

No. 53A6595-9. Each ..... \$19.95

Koss Model T5A Remote Station. Accepts two sets of headphones with remote volume-balance control

No. 53A6723-7. (not shown). Each ...... \$9.95



Model K/6. Medium priced stereo! Wide range stereophones will produce exciting new experiences in sound. Extra large 3½-inch dynamic drivers have over 6-sq. inches of radiating area. Soft vinyl-covered foam head cushion for comfortable listening.



Frequency response of 10-16,000 Hz for extended bass re-sponse. 10-ft. coiled cord with standard jack plug. Shpg. wt. 2 lbs.

53A6622-1.

## GUSDORF TV STANDS, AUDIO CARTS

#### SWIVEL PEDESTAL TV STAND **MODEL 7140**



Brilliant chrome with dramatic jet black accents. 27¾" high for easy, all purpose viewing. Convenient, smooth swivel top permits viewing from any angle. Finished top with safety edging is clad in wipe clean black vinyl. Ready to assemble, with assembly tool turnished. Top is 23¾" wide x 11¾" deep. Stands 27¾" high from floor. Shpg. Wt. 15 lbs.

#### TV STAND **MODEL 6300**



The Majorca has a beautiful, simulated walnut finish to highlight the wood grains for a beautiful appearance in your home. Styling details make this pedestal the last word in styling and viewing convenience. Ball bearing swivel castors contribute to the ease with which the ensemble may be moved. Its sturdiness and rigidity make it a solid piece of furniture. Assembled in only a few minutes with the furnished wrench. Size:  $26'' \times 15\%'' \times 18''$  H. Shpg. Wt. 23

#### **AUDIO CART MODEL 1225**



Perfect for your stereo and hi-fi components! Carts use "pale" brass plated rigid tubing for supporting shelves and speaker supports. Designed to accommodate a variety of audio instruments the hardwood panels are finished in wipe clean walnut vinyl veneer. Convenient swivel casters allow you to easily move cart from room to room. Top shelf 28-7/8" H x 25¾" W x 16-13/16" D. Middle shelf 21-7/8" H x 25¾" W x 16-13/16" D. Bottom shelf 6-11/32" H x 53" W x 16-13/16" D, with record holder. Carton size: 18-3/8" x 5-5/8" x 29½". Shpg. wt. 26 lbs.

## ENTERTAINMENT **ETAGERE**

**MODEL 1520** 

MERCHANDISE SHOWN



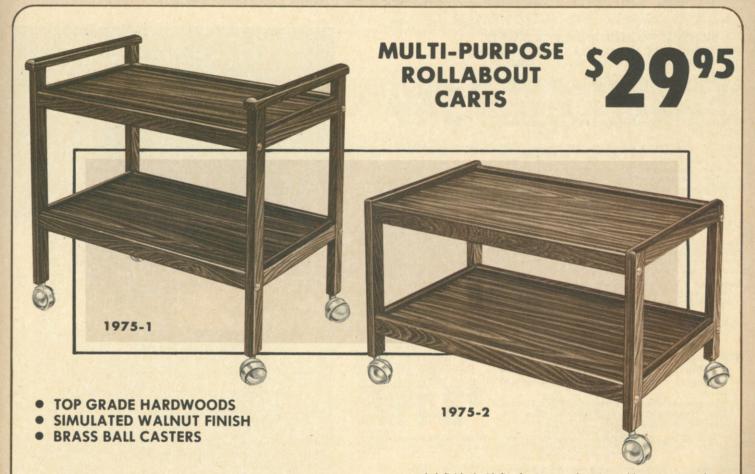
An etagere designed and engineered for home entertainment. Brushed chrome posts support two smoked, tempered safety glass shelves and a plank vinyl veneer shelf. Each shelf is adjustable to three positions, in two-inch increments. Base cabinet is completely enclosed and finished on all sides for etagere use as a room divider. Lower shelves engineered to support portable television sets. Retainers furnished to organize and conceal connecting wires and line cords. Finished in wipe-clean carefree simulated plank walnut veneer with black trim. Easy to assemble with tool furnished. Size 73" high x 15" deep, shelf width 29 %". Shpg. wt. 87 lbs.



Custom crafted by a long established furniture maker. This audio component stand will enhance the decor of any home and will organize your stereo equipment. This is the best stereo stand we've seen and the most beautiful by far. Separate speaker stands eliminate the possibility of acoustical feedback and actually improve the speakers' bass response — the perfect stand for the best in

audio equipment. Only the highest quality of solid woods are selected for this audio stand, then finished in a unique multi-step process using only the finest stains and lacquers. Walnut color. Main unit shelves 32" W. X 16" D. Height 21". Speaker shelves: 6½" H x 21" W x 16" D. Shpg. wt. 28 lbs.

55A9525-1. Model 824. Each ...... \$119.95



Just right for TV or stereo compacts! Side frames and shelf rails are kiln dried, selected top grade hardwoods, shelves are high quality hardboard with deluxe four color simulated walnut grain print. Hand sprayed and

sanded, finished with fine furniture grade stains and lacquers. Heavy brass plated screws assure maximum strength and handsome brass ball casters give easy mobility. Assemble in a minimum of time with only everyday home tools. Individually packaged.

**Model 1975-2.** Dimensions: 29-7/8"W x  $17\frac{1}{2}$ "D x  $18\frac{1}{4}$ "H. Usable top shelf is 28"W x 15"D, and is  $17\frac{1}{4}$ " above floor. Bottom shelf is  $6\frac{1}{2}$ " from floor. Carton size is  $16\frac{1}{2}$ "L x 4"W x  $31\frac{1}{2}$ "D.

55A8532-8. Model 1975-2. Each ...... \$29.95

## **Panasonic**

## **COMPONENT MUSIC SYSTEMS**

#### SE-2600 COMPONENT MUSIC SYSTEM

AM FM STEREO RECEIVER WITH AUTOMATIC RECORD CHANGER AND PICKERING V-15 STEREO MAGNETIC CARTRIDGE

- Features 2 "Thrusters" (SB-250) Speaker Sys-
- Signal-strength meter.
- 10 watts per channel minimum RMS at 8 ohms from 100Hz to 20kHz with no more than 5% total harmonic distortion.

If you've been trying to find a coordinated stereo system with really great speakers ... here it is! Panasonic's SE-2600 is a complete home sound center, with all new design, matched components, and fantastic performance!

The central unit is an AM/FM Stereo receiver with FET RF-tuned FM tuner, with IC and ceramic filter, illuminated linear scale FM/AM slide-rule tuning. Sliding stereo eye, flywheel tuning, switchable AFC, separate bass, treble, balance and volume controls, loudness switch, speaker selection switch. Complete with jacks and terminals: aux in, speakers (main and remote), rec. out, tape in, headphones, and FM/AM external antenna. The 3 speed deluxe 11" automatic record changer features calibrated anti-skating control, viscous damped cueing control, stylus pressure adjustment and magnetic cartridge with diamond stylus. Has automatic shut-off and heavy 4-pole motor. Simulated wood cabinet, plastic dust cover.

Dimensions: Control center: 8-5/8" H. X 21-7/8" W. X 16-11/16" D. Speakers: 21-7/8" H. X 13½" W. X 8" D. Shpg. wt. 60 lbs.

30A5133-8. Model SE-2600. Each ...... \$279.95

#### SE-2650 COMPONENT MUSIC SYSTEM

DELUXE AM FM STEREO RADIO WITH CASSETTE PLAYER RECORDER AND AUTOMATIC RECORD CHANGER WITH PICKERING V-15 STEREO MAGNETIC CARTRIDGE

- Features 2 "Thrusters" (SB-250) speaker systems.
- 10 watts per channel minimum at 8 ohms from 100Hz to 20kHz with no more than 5% total harmonic distortion.
- Deluxe 11" automatic record changer, automatic shut-off.

Here's a coordinated stereo system that has everything you've been looking for ... and

The stereo radio has FET RF-tuned FM tuner, with IC and ceramic filter, illuminated linear scale FM/AM slide-rule tuning, sliding stereo eye, flywheel tuning knob, AFC switch on FM, separate bass, treble, balance and volume controls, loudness switch and speaker selector

The deluxe automatic record changer has a calibrated anti-skate adjustment, damped cueing control, stylus pressure adjustment, magnetic cartridge with diamond stylus, a 4-pole motor for precision and reliability, and a hinged, detachable dust cover.

Stereo cassette player/recorder has 2 level meters for recording, 3-digit tape counter, fast-forward and pause control, auto-stop, automatic/manual recording level control with two volume control knobs, and Cr02/normal tape selector. Simulated wood cabinet, plas-tic dust cover. Microphone and Stand included.

Dimensions: Control center: 8-5/8" H x 21-7/8" W x 16-11/16" D. Speakers: 21-7/8" H 

#### SE-2680 COMPONENT MUSIC SYSTEM

DELUXE AM /FM STEREO RADIO WITH 8-TRACK PLAYER/RECORDER AND AUTOMATIC RECORD CHANGER WITH PICKERING V-15 STEREO MAGNETIC CARTRIDGE

- Features 2 "Thrusters" (SB-250) speaker systems.
- 10 watts per channel, minimum RMS at 8 ohms from 100Hz to 20kHz with no more than 5% total harmonic distortion.

Get the most fron. your 8-tracks ... and record more, with this terrific musical "instrument". It's a real home sound center for those who demand depth and sparkle from their units.

Read about the "Thrusters" speakers on the following page. Then just imagine what that sound could do for your tapes.

SE-2680's stereo radio has FET RF-tuned FM tuner, with IC and ceramic filter, illuminated linear scale FM/AM slide-rule tuning, sliding stereo eye, AFC on FM, separate bass, treble, balance and volume controls, loudness and speaker selector switches.

The deluxe phonograph features an 11" turntable, calibrated anti-skate adjustment, damped cueing control, 4-pole motor for precision and reliability, automatic shut off, and many other plus features.

The stereo 8-track player/recorder has automatic recording level controls, auto-stop in record mode, automatic eject switch, manual damped eject button, level meter for recording, recording indicator light, 8-track 3-digit time counter, fast forward and pause control. Microphone and stand included.

Simulated wood cabinet with plastic dust cover. Dimensions: Control center: 8-5/8" H x 21-7/8" W x 16-11/16" D. Speakers: 21-7/8 H x 13 ½" W x 8" D. Shpg. wt. 62 lbs.

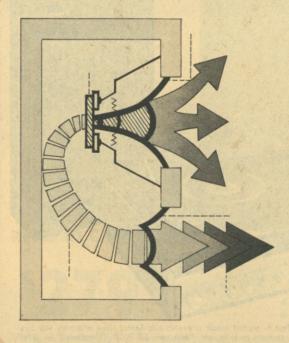
30A5135-3. Model SE-2680. Each ...... \$349.95







## Panasonic "THRUSTERS" SPEAKER SYSTEMS



Panasonic "THRUSTERS" speaker systems combine unique design with excellent performance to give you the finest sound reproduction. Panasonic engineers have utilized the passive radiator, or "vibra-cone", concept to produce a bookshelf speaker that combines good sound dispersion, sharp transient response and uniform reproduction of a wide frequency range.

In addition to a regular woofer, and in some models a tweeter, the "THRUSTERS" speaker utilizes the "vibra-cone", an extra speaker "cone" that improves speaker efficiency and simultaneously improves bass response. How is this done? Besides producing regular sound waves, which are projected forward and out, the woofer also produces rear sound waves, or "backwaves", that ordinarily stay inside the enclosure. These waves create internal air pressure that restricts speaker efficiency at low power output. The "vibra-cone" acts as an outlet or "resonator" for these bottled-up "back-waves", producing two advantageous results: (a) it increases the efficiency and performance of the woofer, allowing it to reproduce good midrange and treble sounds. (b) the "back waves" resonate the "vibra-cone", producing enhanced bass tones.

When compared to other speaker designs, the "vibra-cone" measures very favorably. The sound pressure level (SPL) at low frequency levels is substantially increased over that produced by a comparably-priced acoustic suspension speaker. And bass response is improved over acoustic suspension, bass-reflex or tuned port designs. To compare the sound of other comparably-sized speakers with the "THRUSTERS" is to fully appreciate the difference.

#### THE "VOICE" OF THE 3380 AND 2000 SERIES HOME MUSIC SYSTEMS!

All four of the Panasonic component music systems shown on these two pages employ "THRUSTER" (SB-250) Speakers for the greatest sound around. Each SB-250 speaker contains a  $6\frac{1}{2}$ " woofer, a  $6\frac{1}{2}$ " passive radiator (vibra-cone) tuned to 40Hz, and a  $2\frac{1}{2}$ " tweeter. The crossover frequency is 8KHz, maximum power input is 20 watts and the impedance is 8 ohms. The marvelous result is tight, clean sound, with excellent dispersion throughout a wide listening range.

# Panasonic ID SE-3380 STEREO MUSIC SYSTEM FEATURING 2 "THRUSTER" SPEAKER SYSTEMS!



AM/FM STEREO RADIO
WITH BUILT-IN 8-TRACK
PLAYER/RECORDER AND
DELUXE RECORD CHANGER

\$29995

- AUTOMATIC RECORDING LEVEL CONTROL
- CUE/PAUSE CONTROL
- DIAMOND STYLUS
- AFC ON FM FOR DRIFT-FREE RECEPTION

Record your favorite music on 8-track cartridges for use in home or car tape systems. Automatic recording-level control regulates incoming signals, for quality recording every time. Locking fast-forward allows easy access to any portion of the tape. Pause control permits stopping tape for program change. Recorder has auto-stop function in the record mode and damped eject mechanism. Automatic changer has 11" platter with cueing/pause control and diamond stylus. Colibrated anti-skate adjustment. 3-speed turntable, for 33 ½, 45, and 78 RPM. AFC locks in FM station reception. Sliding stereo eye indicates stereo stations. Separate bass and treble controls permit adjusting tone for maximum listening pleasure. Jacks and terminals provided for headphones, microphone, aux speakers,

and FM external antenna. Simulated wood cabinet with hinged dust cover. Features 2 Panasonic "Thruster" speakers (Model SB-250), with 6½" high-efficiency woofer, 6½" passive radiator ("Vibra-Cone"), and 2½" tweeter. Passive radiator tuned frequency 40 Hz, crossover frequency 8 kHz. Handles up to 20 watts power input, impedance 8 ohms. Dimensions: Control center: 9-15/16" H. x 19-11/16" W. x 16-11/16" D. Speakers: 21-7/8" H. x 13½" W. x 8" D. Shpg. wt. 57 lbs.

30A5124-7.

Model SE3380. Each .....

\$299.95

## Panasonic HOME MUSIC SYSTEMS

## **Panasonic**

AM FM STEREO RADIO, 8-TRACK PLAYER RECORDER AND PHONO

FEATURING SB-200R "THRUSTERS" SPEAKER SYSTEMS WITH VIBRA-CONE

- FET RF tuned FM tuner with IC and ceramic filter.
- 3-speed automatic record changer.
- **Automatic recording level**



Panasonic has combined space-age technology and years of experienced crafts-manship into this Home Stereo Center. AM/FM stereo radio has FET RF tuned FM tuner to assure clear, crisp reception, while AFC minimizes FM drift. Ceramic filters provide excellent selectivity. ITL-OTL-OCL circuitry eliminates unnecessary components, assuring low distortion. Separate bass and treble controls permit a tone blend of your choice. Sliding stereo-eye and illuminated linear scale sliderule tuning for easy and precise FM/AM tuning. 3-speed phono has 11" automatic record changer and anti-skating control. Cueing lever and stylus pressure adjustment insure maximum record safety. Includes diamond stylus for high quality, long-life performance. Automatic Recording Level control assures quality recordings every time. Locking fast forward allows easy access to any portion of

## **Panasonic**

AM/FM STEREO RADIO WITH BUILT-IN STEREO 8-TRACK PLAYER/RECORDER

FEATURING SB-180 "THRUSTERS" SPEAKER SYSTEMS WITH VIBRA-CONE

- ITL-OTL-OCL circuitry.
- Dual tuning /level meter.
- Microphone included.
- Fixed AFC on FM.



For exciting live performance sound, the RE-8126 features two SB-180 "Thrusters" Speaker Systems. These are air-suspension, 6½" high efficiency speakers with 6½" passive radiator ("vibra-cone") ... maximum power input of 10 watts, impedance of 8 ohms and passive radiator tuned to a frequency of 40 Hz. (For full specifications on the "Thrusters" see page 37). The RE-8126 offers superb AM/FM stereo reception with FET RF tuned FM tuner with IC and ceramic filter. ITC-OTL-OCL circuitry provides superior reliability and performance. Stereo-Eye light and illuminated linear scale FM/AM slide rule tuning simplifies precise station selection. Fixed AFC on FM decreases station drift. Tuning meter helps you locate stations for best possible reception. Separate bass and treble controls.

Stereo 8-track player/recorder has automatic recording level control, plus level meter for superior recording results. Auto-Stop in record mode safeguards against accidental erasures. You can easily locate any part of the tape with locking fast-forward feature. All units are in handsome simulated wood cabinets. Jacks and terminals for MIC, Aux, speakers, phono (ceramic cartridge), headphones and FM external antenna. Complete with one microphone. Dimensions: Control center 5¾ "H x 19-13/16"W x 10-7/8"D, Speakers 18 ½ "H x 11-7/16" W x 8"D. Shpg. wt. 41 lbs.

## STEREO MUSIC SYSTEM

FEATURING "THRUSTER" SPEAKERS

## **Panasonic**

MODEL SE-1240

AM/FM STEREO
RADIO WITH
CASSETTE PLAYER/
RECORDER AND
RECORD CHANGER

\$27995



- "Thrusters" speaker systems featuring Vibra-Cone
- 3-speed deluxe changer. Anti-skating control. 3-digit tape counter.

All the deluxe features you need in any compact stereo system, and at a most affordable price. Two Panasonic "Thrusters" speakers, model SB-200, have 6½ inch high efficiency full range speakers with whizzer cones, 6½" passive radiators (Vibra-Cone) with a 40Hz tuned frequency, maximum power input 12 watts each, 8 ohms impedance. Page 37 has complete "Thrusters" information.

The stereo radio has FET RF tuned FM tuner with IC and ceramic filter, lighted linear slide rule tuning, sliding stereo eye, AFC on FM and separate bass and treble controls.

11" deluxe automatic record changer, with anti-skating adjustment and cueing control, ceramic cartridge with diamond stylus. Has hinged, detachable dust cover. The stereo cassette player/recorder has automatic recording level control, auto-stop and a 3 digit tape counter. Has headphone jack. Simulated wood cabinets. Dimensions: center unit 19-11/16"W x 9-15/16"H x 16-11/16"D; speakers each 13½"W x 21-7/8"H x 8"D. Shpg. wt. 56 lbs.

## STEREO MUSIC SYSTEM

FEATURING "THRUSTER" SPEAKERS

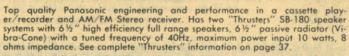
## Panasonic LTD

MODEL RE-7810

AM/FM STEREO RADIO WITH BUILT-IN CASSETTE PLAYER/RECORDER

\$1**99**95

- "Thrusters" speaker systems featuring Vibra-Cone.
- Microphone mixing circuitry.
- Automatic recording level control.
- Recording/tuning meter.



The stereo radio has IC FM tuner with ceramic filter, microphone mixing circuitry, lighted linear slide rule tuning, stereo eye, large tuning meter, AFC on FM, separate bass, treble, balance and volume controls, extra jacks for remote speakers and separate power switch.



The stereo cassette player/recorder features automatic recording level control, auto-stop, level meter, 3 digit tape counter, fast forward and pause controls. Microphone is included.

Dimensions: center unit 21-13/16"W x 4-3/8"H x  $9\frac{1}{2}$ "D; speakers each 11-7/16"W x  $18\frac{1}{2}$ "H x 8"D. Shpg. wt. 41 lbs.

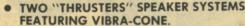
30A5125-4. Model RE-7810. Each ...... \$199.95

# Panasonic MODEL RE-8176 HOME MUSIC CENTER

FEATURING "THRUSTERS" SPEAKER SYSTEMS

AM/FM STEREO
RADIO WITH BUILT-IN
8-TRACK PLAYER AND
RECORD CHANGER

\$19995



- 3 SPEED RECORD CHANGER
- DIAMOND STYLUS
- 8-TRACK CARTRIDGE PLAYER
- ILLUMINATED LINEAR SCALE SLIDE RULE TUNING

A complete entertainment center with your choice of stereo sources ... superb stereo reproduction at an amazingly low price! Two Panasonic "Thrusters" speakers, model 180, have 6½-inch high efficiency full range speakers, 6½-inch passive radiators (Vibra-Cone) with a 40 Hz tuned frequency, maximum power input 10 watts each, 8 ohms impedance. See Page 37 for complete information on "Thrusters."

The FM tuner incorporates FET front end with integrated circuitry and ceramic filter, a lighted linear scale AM/FM tuning dial, stereo eye and separate bass, treble, balance and volume controls.

The phono consists of a 3-speed 11" automatic record changer using a ceramic cartridge with a diamond stylus, cueing lever, and equipped with a hinged, detachable dust cover. The 8 track stereo cartridge player has lighted program indicators and program selector button. Headphone jack is on the front panel.



Simulated wood cabinets. Dimensions: center unit is 18'' W. x 9-9/16'' H. x 16-5/8'' D.; each speaker is 11-7/16'' W. x 18%'' H. x 8'' D. For 115 V 60 Hz. Shpg. wt. 50 lbs.

Model RE-7016 is similar to the RE-8176, but without the 8 track cartridge player. Has continuous tone, balance and volume controls. Center unit size 17 ½ W. x 4-15/16 H. x 15-7/8" D. Speaker size 11-7/16 W. x 18 ½ H. x 6-5/16" D. Shpg. wt. 46 lbs.

## Panasonic MODEL RE-8016

STEREO MUSIC SYSTEM

AM/FM STEREO RADIO WITH CASSETTE PLAYER/ RECORDER AND RECORD CHANGER

\$22995

- TWO "THRUSTERS" SPEAKER SYSTEMS
- AUTOMATIC RECORDING LEVEL CONTROL
- MICROPHONE INCLUDED

Listen to cassettes, records or AM/FM stereo radio and record your own cassettes from phono, radio or microphone. Two "Thrusters" speakers, model 180, use 6½-inch high efficiency full range speakers, 6½-inch passive radiators (Vibra-Cone) with a 40 Hz tuned frequency, max. power input 10 watts each, 8 ohms impedance. Complete information on "Thrusters" is on Page 37.

FM radio has IC tuner with ceramic filter, lighted slide rule dial, stereo eye and AFC. AM radio has built-in antenna. Continuous tone, balance and volume controls. Headphone jack on front panel. Three speed 11-inch automatic record changer has cueing control, ceramic cartridge with diamond stylus and hinged, detachable dust cover. Stereo cassette player/recorder has automatic recording



level control, auto-stop at end of tape and 3-digit tape counter. Microphone is included. Simulated wood cabinet. Dimensions: center unit 17¾" W. x 6" H. x 16½" D.; speakers each 11-7/16 W. x 18½ H. x 8" D. Shpg. wt. 42 lbs.

## **HOME STEREO SYSTEMS**



# CENTREX

## by PIONEER MODEL KH-5151

CASSETTE PLAYER RECORDER, AM/FM STEREO SYSTEM WITH **AUTOMATIC RECORD CHANGER** 

- PLL MPX demodulator.
- Twin VU meters.
- 2-way acoustic-suspension speakers.
- Separate bass, treble, volume controls.

34995

Whichever musical medium you're into — tapes, records, radio — you'll never be short of listening enjoyment with the KH-5151. The employment of a special PLL circuit in the FM MPX section assures excellent separation of left and right channels. There is a Beat Frequency Cancel (BFC) button for AM to assure noise-free recording, or listening. The cassette section offers such features as record level meters, fast-forward and fast-rewind levers and pause control. 2 MIC jacks on front panel. You can both record and play back — beautifully. Three-speed automatic record changer plays up to 8 records continually, has magnetic cartridge with diamond stylus. Wow and flutter no more than 0.2%. Includes cueing lever and dust cover. The place-anywhere speaker systems are 2-way, 2-speaker type with 8" woofers and 2-5/8" tweeters to handle lows, mids and highs brilligntly. The KH-5151 comes in handsome walnut-grained laminated vinyl cabinets. Dimensions: Control Center 20½" x 9-7/8" x 15". Speakers: 13" x 22½" x 8". Shpg. wt. 67 lbs.

30A5116-3. Model KH-5151. Each ...... \$349.95

Model RH-6161. Same great Home Entertainment Center as KH-5151, except is 8-track recorder/player. Has fast-forward and pause button, light-up indicators for program in play, END and REC, and digital tape counter. Dimensions: Control Center 18½" x 9-7/8" x 15", Speakers same as KH-5151. Shpg. wt. 67 lbs.

3045115-5. Each \$349.95

Model TH-3131. Compact 8-track Home Stereo System with AM/FM Stereo and Automatic Record Player. Similar to RH-6161 without recording facilities. Dimensions: Control Center 18½" x 5-3/8" x 14-7/8". Speakers same as KH-5151. Shpg. wt. 62 lbs.

30A5114-8. Each ...... \$239.95



## SONY

## **EX2 COMPACT STEREO** MUSIC SYSTEMS

EX2 is different. It looks different, like no other compact. Performance is different, like no other stereo sound. With features usually found only on the highest priced component stereo systems. Styling is a perfect complement to any decor, with slim, sleek lines and decorative smoked black finish with brushed chrome trim. EX2 systems.

tems have Sony sensi-bass speakers using a 6½-inch active wooter/midrange, a 6½-inch passive radiator for even greater response and bass range, and a 2½-inch tweeter for extended highs. Speaker Dimensions: 15-13/16" H x 11-7/8" W

Model EX2K has all the features of the EX2 plus a cassette recorder/player with automatic shut-off, pause, microphone inputs, 3 digit tape counter and selector for normal or Cr02 and Sonymatic optimum recording level. Dimensions: 5-3/8" H x 23 1/6" W x 1634" D. System shpg. wt. 39 lbs.

30A5123-4. Model EX2K System. Each ...... \$350.00

Model EX2M has all the features of the EX2 plus an 8 track cartridge recorder/player with a lighted program indicator, pause, end-stop switch, fast forward, microphone inputs and Sonymatic optimum recording level. Dimensions: 5-3/8" H x 23 %" W x 16 %" D. System shpg. wt. 39 lbs.

30A5122-1. Model EX2M System. Each ...... \$350.00

EX2 system receiver delivers 9 watts per channel, minimum RMS at 8 ohms from 50Hz to 15KHz with no more than 1% total harmonic distortion. The FM tuner has phase locked loop circuitry for high stereo performance, sensitivity is 3 uV for 30dB quieting and a signal/noise ratio of 70dB on FM, 50dB on AM. Slide rule dial has FM and AM indication lines that light up when either is in use. Dimensions: 5-3/8" H x 16½" W x 16¾" D.

Automatic turntable has repeat play function 2, 3 or infinite and the belt driven aluminum platter uses a servo controlled DC motor with electronic speed selection for 33 ½ and 45 rpm. Magnetic cartridge has a diamond stylus. Has viscous-damped cueing and built-in 45 rmp adaptor. System shpg. wt. 35 lbs. 

## Panasonic **III**

#### MODEL RQ-3125

### BATTERY/AC PORTABLE CASSETTE RECORDER

- BUILT-IN CONDENSER MICROPHONE.
- TAPE COUNTER. PUSHBUTTON CONTROLS.
   AUTO-STOP AT END OF TAPE.

Have the music and information you need where you need it with the RQ-312S. Built-in condenser microphone picks up sound from any direction for hands-free operation. Push-buttons give you full finger-tip control. Tape counter provides the necessary precision for accurate tape editing. The auto stop automatically shuts the unit off at the end of the cassette. Advanced circuitry insures that recording results are of the highest quality; 3½" PM dynamic speaker products a quality sound reproduction. quality sound reproduction.

Complete with slide-away carrying handle, remote control microphone jack, AC power cord, erase plug and 4 Panasonic "C" cell batteries. Size: 3" H. X 6 4" W. X 10-3/8" D. Shpg. wt. 5 lbs.



Goes anywhere! Operates on AC or 4 "C" batteries. Built-in condenser mike picks up sound from every part of room clearly. Keyboard control permits one-hand, fingertip operation. Easy-matic sets perfect level control for each recording... as you record. Auto-stop protects mechanism and saves wear and tear on batteries. Has cassette pop-up, fast forward, fast rewind, volume control and safety lock record button to prevent accidental erasures. Earphone circuit allows monitoring as you record. Complete with pre-recorded cassette, 4 "C" batteries. AC power cord. Size: 2¾" H x 5¾" W x 10-3/8" D. Shpg. wt. 6 lbs. 31A2669-3.

 Model RQ-309AS. Each
 \$39.95

 Optional Car/Boat Cord for RQ309AS plugs into cigar lighter.
 31A2586-9. Model RP-915. Each
 \$19.95

 Remote Microphone for RQ-309AS
 31A2651-1. Model WM2264. Each
 \$5.95



A portable cassette recorder with features not normally incorporated in a portable. Offers a two-way control of recording level — can be automatically regulated internally or adjusted by the volume control. Large VU meter monitors recording level for perfect recordings, and also indicates battery condition. Pause button provides the control needed for editing out unwanted portions of a recording. Built-in condenser microphone for convenient, hands-free operation. Resettable 3-digit tape counter enables you to locate any particular point of the tape quickly and easily. Also features separate volume and tone controls and built-in carrying handle. Size: 6-1/8"W x 3"H x 11-1/8"D. Shpg. wt. 5 lbs. 





A deluxe portable cassette recorder featuring single button one-touch recording, built-in condenser mike with easy-matic for automatic recording level assuring perfect recordings every time, and large speaker for best volume and tone quality. Has simple push button controls, digital counter, pause button, review button, fast forward and rewind. Operates on 115 VAC or from internal batteries with light emitting diode to tell you whether your battery is strong enough for recording. Protective auto-stop assures complete cut-off at end of tape and pop-up cassette allows easy cassette insertion or removal. Has AC bias and erase. With pre-recorded cassette, batteries, 'AC cord and erase plug. Size 2-7/8" H. X 6¼" W. X 10-7/8" D. Shpg. wt. 8 lbs.

 31A2661-0. Model RQ-413S. Each
 \$79.95

 31A2684-2. Case for RQ-413S. Each
 \$4.95

 31A2674-3. Rechargeable Battery Pack RP-092. Each
 \$14.95

## **Panasonic**

**PORTABLE** CASSETTE RECORDER

- **BUILT-IN CONDENSER** MICROPHONE.
- EASY-MATIC CIRCUITRY.
- STYLISH COLORS.



#### MODEL RQ-304

Unique design and sturdy carrying handle for "go-anywhere" portability. Built-in condenser microphone picks up sound from any direction clearly and easily. Easy-Matic circuitry insures quality recording results. Fast-forward, rewind and eject buttons. 3" dynamic speaker for great sound reproduction. Available in three stylish colors. Size: 7-5/8"H x 7½"W x 3½"D. Shpg. wt. 4 lbs. 31A2745-1. RED YOUR 31A2746-9. WHITE CHOICE \$29.95

## Panasonic PORTABLE CASSETTE RECORDERS

### **MODEL RQ-324S DELUXE PROFESSIONAL** PORTABLE BATTERY/AC CASSETTE RECORDER

- 3 TAPE HEADS.
- "SPEED-SET" VARIABLE SPEED CONTROL.
- MIKE MIXING CAPABILITY, BUILT-IN CONDENSER MIKE PLUS REMOTE MIKE.
- SERVO-MOTOR.

A unique combination of advanced features makes the RQ-324S one of the most soughtafter portable cassette recorders on the market. With 3 tape heads, you can hear what you are recording instantly, check the results, correct levels, distortion, etc. With "Speedset" control, tape can be slowed or speeded up ± 10% ... slow for transcribing, speeded up to save time in reviewing a lecture (accuracy of other modes is never affected). Comes with both built-in condenser mike and remote mike, allowing mike mixing of two sources simultaneously to a single tape. Cue and review controls allow you to locate previously recorded material — with ease. Other features include 4-pole servo-motor to assure accurate speed and reliable performance; Cr02/Normal tape selector; super alloy head for record and playback; Auto-Stop at end of tape; digital tape counter; lockable pause control; level/battery meter; Easy-Matic circuitry to automatically regulate level of incoming signal for quality recording results. Jacks include Aux-in, DC-in, AC-in, Headphones. Complete with AC cord, 4 Panasonic "C" batteries, dynamic remote mike and shoulder strap. Size: 3-3/8"H x 9¼"W x 10¾"D.

31A2674-3. RP092. Rechargeable Battery Pack for above. Each ...... 14.95









## Panasonic ID MODEL RQ-3175

- MICROPHONE SENSITIVITY SELECTOR
- **BUILT-IN CONDENSER MIKE**
- SPECIAL "QUICK-CHARGE" BATTERY SYSTEM
- EASY-MATIC CIRCUITRY

### Panasonic MODEL RQ-212DAS

- 3-WAY POWER FEATURE
- ANTI-ROLLING MECHANISM
- LEVEL BATTERY METER
- **BUILT-IN CONDENSER MIKE**

## Panasonic MODEL RQ-314S

- AUTO-STOP SAFEGUARD
- 21/2" PM DYNAMIC SPEAKER
- ANTI-ROLLING MECHANISM
- **BUILT-IN CONDENSER MIKE**

Now a cassette recorder so small that you can take it anywhere with you and it can't be in the way! De-signed for the person who wants a small sized recorsigned for the person who wants a small sized recorder with excellent recording results. Microphone sensitivity selector helps eliminate background noise. Call and review functions enable you to locate previously recorded material easily. One-touch record button eliminates the use of two separate buttons now record with just the push of a button. Pause control enables easy tape referencing and indexing. Level/battery meter measures sound level for recording and battery strength. Quick battery charge system takes only 5 hours with included AC adaptor/charger and (optional) rechargeable battery pack. Complete with 2-way hand strap, AC adaptor/charger, carrying case and 4 "AA" cell batteries Size: 6 ½" H. X 4" W. X 1 ½" D. Shpg. wt. 3 lbs. 31A2706-3. Model RQ-3175.

\$99.95 

This mini monaural cassette recorder will go with you anywhere and record anything you want. Anti-rolling device lets you record on-the-go without audible wow and flutter. Sensitive built-in condenser mike picks up sound in any direction. Protective auto-stop circuitry and solid-state integrated circuitry give dependable performance. Features easy-matic recording, pushbutton operation, sliding fast forward and rewind button, pause control, volume control, battery/VU meter, and cassette pop-up. 3-way power feature allows operation on house current with AC adaptor, batteries, or car/boat power with optional adaptor cord (RP-915). Comes complete with carrying case, handy carry-strap, AC adaptor, Panasonic batteries, and erase plug. Size: 4" H. X 6½" W X 1¾" D. Shpg. wt. 3½ lbs. This mini monaural cassette recorder will go with

31A2630-5. Model RQ-212DAS. Each \$79.95 31A2586-9. Model RP-915. Car/Boat adaptor cord. Each \$19.95 31A2692-5. RP9317. Rechargeable Battery Pack for above. Each \$10.95

Panasonic fine quality engineering all the way! This precision cassette recorder offers hand-held convenience and superior recording capability. Auto-Stop ence and superior recording capability. Auto-Stop at end of tape safeguards tape and preserves battery strength. Easy-Matic circuitry helps insure quality recording results. Built-in condenser mike picks up sound clearly from any direction. Has one-touch record button for ease of operation. Anti-rolling mechanism helps eliminate wow and flutter caused by movement of tape machine.

Comes with 2½" dynamic speaker, remote mike jack, earphone jack, DC-in jack, AC-in jack. Includes AC adaptor/charger, 4 Panasonic "AA" batteries, shoulder strap. Size: 6-5/8"H x 4"W x 2"D. Shpg. wt. 21/2 lbs.

31A2750-1. Model RQ-314S. Each . \$59.95 31A2692-5. RP9317 Rechargeable Battery Pack 

## PROFESSIONAL QUALITY CASSETTE RECORDERS

## ONY

## **MODEL TC-150 MINIATURE CASSETTE RECORDER**

World's Slimmest Recorder Using Standard Cassettes!



The ultimate personal tape recorder for the discriminating professional. This prestige unit was created expressly for the individual who demands top performance and dependability; plus the look and feel of uncompromised quality with sleek styling that complements a desk top or serves as a traveling com-

panion.

The servo-controlled motor and counter-inertial drive system combine to provide smooth and precise tape flow while the unit is in motion. Built-in electret condenser microphone responds to sound from all directions. Sonymatic Recording System maintains optimum recording level, eliminating the need for manual adjustment during recording. Music Speech selector switch provides

optimum response to either voice or musical programs. Record level/Battery meter indicates recording level and battery condition. Cue and review functions locate any portion of the tape quickly and easily. Also features light-touch piano key function selector, 3-digit tape counter, pause control, and Auto shut-off mechanism.

Comes complete with AC adaptor, demonstration tape, head cleaning sticks, patchcord, earphone, and carrying case. For 120V 60Hz AC or use 4 "AA" cell batteries listed. Dimensions: 1-3/16" H x 6-7/8" W. x 4½" D. Shpg. wt. 2 lbs. 31A2741-0.

## ONY MODEL TC-56 CASSETTE RECORDER



- Servo-controlled motor.
- Music/speech selector switch.
- Counter-inertial drive system.
- Auto shut-off mechanism.

USES STANDARD CASSETTES

Designed for the fast-paced executive to make the most of his time and space. The TC-56, by virtue of its serva-controlled motor and counter-inertial drive system, is ideal for travel since it maintains tape stability while the unit is in motion. Also features a music/speech selector. For meetings or memos, operation in the "speech" position makes sure that lower voices are not overpowered by louder ones. In the "music" position, the TC-56 will pick up the entire dynamic range of the music you're recording. The built-in electret condenser microphone responds to every nuance of sound while the Sonymatic circuitry maintains an optimum recording level.

Cue control and 3-digit tape counter provide quick location of recorded mate-

rial. Pause switch lets you control and edit material being recorded. Record level/Battery meter monitors incoming signal and battery condition. Finished in black anodized aluminum. Complete with carrying case, earphone, patch cord, and 4 "AA" batteries. Dimensions: 5-7/8" H. x 1½" W. x 3-7/8" D. Shpg. wt. 2 lbs.

31A2740-2. Model TC-56. Each ...... \$160.00

## SONIC MODEL RQ-2185 **BATTERY MINI-CASSETTE RECORDER**



- One-touch recording.
- Lockable pause control.
- Anti-rolling mechanism.
- Digital tape counter.
- Auto-stop mechanism.

USES STANDARD CASSETTES

Combines quality engineering and convenience features into a compact package. Sensitive built-in condenser microphone provides uniform sound pickup in all directions. Easy-Matic circuitry adjusts for varying sound levels to provide perfect recording level every time. Anti-Rolling mechanism eliminates fluctuations in tape speed due to movement of the machine, thus assuring smooth onthe-go recording. Lockable pause control for precise editing. "One-Touch" recording button for easy activation. Auto-Stop mechanism prevents unnecessary strain on recorder and tape. Also features fast forward and rewind, digital tape counter, recording level/battery meter, and a quick battery charging system that takes only five hours. Complete with AC adaptor/charger, rechargeable battery pack, earphone and carrying case. Size: 5-5/8" x 3½" x 1½". Shpg. wt. 1½ lbs.

\$159.95

Panasonic MODEL RQ-5485 PORTABLE CASSETTE

RECORDER WITH FM/AM RADIO

- Big 7" dual cone speaker.
- Mike mixing capabilities.
- Automatic Stop at end of tape.
- Digital tape counter.

Super features, such as those found on much more expensive models, make the RQ-548S one of today's most outstanding portable buys. Large 7" dual cone speaker produces full, rich sound. Built-in condenser mike allows hand-free, cordless recording; picks up sound from any direction with remarkable sensitivity. Easy-matic circuitry automatically regulates level of incoming signal. Cue and review control helps locate previously recorded material. Microphone mixing in record and playback with external mike (not included). Automatic stop at end of tope safeguards tape, preserves batteries. Includes lockable pause control, fixed AFC, 4-stage IF amplifier, variable sound monitor, erase plug and earphone jack. Comes with AC cord and four Panasonic "D" batteries. Size: 10 %" x 15 %" x 4 ½". Shpg. wt. 9 lbs.

31A2752-7. Model RQ-548S. Each ...... \$129.95



## **Panasonic**

MODEL RQ-5125 PORTABLE CASSETTE RECORDER WITH AM/FM RADIO

- Easy-Matic circuitry.
- Separate tone/volume controls.
  4" PM dynamic speaker.



Have the music and information you need when and where you need it with the RQ-512S. Built-in condenser microphone picks up sound from any direction and allows you hands-free operation. Pushbuttons give you full finger tip control. Easy-Matic recording circuitry automatically monitors the level of incoming signals preventing distortion due to overloading or underloading. The Auto-Stop automatically shuts the unit off at the end of the cassette. Separate tone and volume controls permit variation of sound in playback mode. 4-inch dynamic speaker produces quality sound reproduction. FM/AM slide-rule tuning dial for ease of selection. Earplug jack for personal listening. Other standard features include monitor on/off switch, erase plug. AC cord and four Panasonic "D" size batteries. Size: 7 %" H x 12" W x 3 ¼" D. Shpg. wt. 6 lbs.

31A2730-3. Model RQ512S. Each .....

MODEL RQ-544S **PORTABLE CASSETTE** RECORDER WITH FM/AM RADIO

- Built-in condenser mike.
- . 5" PM dynamic speaker.
- Mike mixing capabilities.
- Auto/Sleep system.



Professional quality portable cassette recorder with FM/AM radio features one-touch recording for convenient operation. Built-in condenser microphone picks up sound with great sensitivity. Easy-Matic circuitry automatically regulates the level of incoming signals. 5-inch PM dynamic speaker. Pause control enables easy tape referencing and indexing. Fixed AFC for drift-free reception of FM stations. Record/Playback microphone mixing, continuous tone and volume controls blend your voice or music with original program (external mike not included). Features a level/bottery tuning meter for full control at all times. A sound monitor high/low/off switch and digital tape counter are also provided. Auto Stop/Auto Sleep system lets you set the RQ-544S to go on or off for any time up to 2 hours after setting. Comes complete with Aux-in jack, erase plug, AC cord and 4 Panasonic "D" batteries. Size: 8" H x 12-5/8" W x 4 1/8" D. Shpg. wt. 8 lbs.

REG. WAS \$199.95

MODEL RQ-4605 STEREO CASSETTE RECORDER WITH AM FM STEREO RADIO

- 2 condenser mikes for true stereo recording.
- Stereo mike mixing.
- Level/battery meter.



Two built-in condenser microphones make the Panasonic RQ-460S one of the most efficient portable recorder/radios on the market. High quality stereo sound is provided by two 3½" dynamic speakers. Features sound monitor switch plus continuous tone and twin volume controls for precision in audio adjustments. Microphone mixing and playback allows you to tape your own voice along with your favorite music and play back the recording. External mike needed, not included. The RQ-460S offers a level/battery meter and an Auto/Stop mechanism to preserve battery life. The AM/FM stereo radio features a stereo-eye indicator, fixed AFC on FM and Easy-Matic circuitry to monitor and regulate the level of incoming signals. Includes digital tape counter, tor and regulate the level of incoming signals. Includes digital tape counter, two microphone inputs, headphone jack, AC cord and 4 Panasonic "D" size batteries. Size: 8½" H x 13-3/8" W x 4" D. Shpg. wt. 8 lbs.

31A2709-7. Model RQ-460S. Each ...... \$149.95

## Panasonic [1]

MODEL RQ-4555 FM/AM VHF — PSB PORTABLE RADIO WITH BUILT-IN CASSETTE RECORDER

- PSB (148-174 MHz), (30-50 MHz).
- Built-in condenser mike. Mike mixing.

3-digit tape counter.

AC/battery operation.

SAVE \$20

Cassette recorder with Easy-Matic circuitry automatically regulates incoming signals assuring top-quality, mistake-proof recording. Built-in condenser microphone picks-up sound with great sensitivity. Has Memory rewind and pause switch. Auto Stop/Auto Sleep system lets you set the RQ-4555 to go on or off for any time up to 2 hours after setting. PSB-high and low receives continuous weather reports and exciting police and fire action. Fixed AFC for drift-free reception of FM. Separate bass and treble controls. Loudness switch compensates for low listening levels. Features level/battery/tuning meter and a Cr02/Normal tape selector switch. 6½" PM dynamic speaker. With 6 "D" cell batteries, external microphone, and earphone. Size 9¼" H x 12-5/8" W x 4-1/16" D. Shpg. Wt. 11 lbs.

## TAKE YOUR 8-TRACK MUSIC EVERYWHERE YOU GO!

## Panasonic MODEL RQ-8355 AC/BATTERY PORTABLE 8-TRACK **PLAYER WITH** FM/AM RADIO

- MICROPHONE MIXING
- BIG 5" DYNAMIC SPEAKER
- **BULL'S EYE** PROGRAM INDICATOR



Professional quality portable 8-track recorder with FM/AM radio features microphone mixing in playback, making it possible to narrate along with tape playing. The RQ-835S offers automatic or manual program selection, and operates from either AC or battery. Continuous volume control, with a separate volume control for microphone mixing, provides for high quality recording. Variable tone control permits easy balancing of bass and treble. 5" PM dynamic speaker delivers full, rich sound. The RQ-835S comes equipped with microphone with windscreen, and microphone input jack on front panel. The portable offers tape/radio selector switch, and FM/AM radio band selector for ease of operation. Unusual sleek design includes a Bull's-eye program indicator. Complete with AC cord and 6 Panasonic "C" size batteries. Size: 8-3/8" H. x 13¼" W. x 5¼" D. Shpg. wt. 7 lbs.

## SLIDE RULE TUNING 2-STEP TONE a agaa CONTROL 2-4" DYNAMIC SPEAKERS

Panasonic MODEL RF-7050 PORTABLE STEREO 8-TRACK PLAYER

WITH AM/FM STEREO RADIO

Enjoy AM, FM stereo as well as 8-track stereo from a one piece easy-to-carry portable. Features an auto/manual program selector. Operates from either AC or battery. The RF-7050 delivers true stereo separation from two 4" PM dynamic speakers. Has lighted 8-track program indicator plus a "stereo eye" indicator light. FM/AM slide rule tuning dial makes it easier to locate stations. Tone control is 2-step for both radio and tape player. The RF-7050 is complete with jacks for headphones, 6 Panasonic "D" size batteries, head cleaner and AC power cord. Size: 6-7/8" H. x 12-7/16" W. x 4-7/16" D. Shpg. wt. 9 lbs.

31A2754-3. Model RF-7050. Each ...... \$99.95

## Panasonic MODEL RS-8335 DOUBLE DYNAMITE STEREO 8-TRACK PLAYER

- LEFT/RIGHT VOLUME CONTROLS
- BULL'S EYE **PROGRAM** INDICATOR
- 2-31/2" DYNAMIC SPEAKERS

YOUR CHOICE OF COLOR



Superb quality and rugged portable design make the RS-833S one of the finest for on-the-go stereo 8-track entertainment. Sturdy carrying handle and high impact case, in choice of red or white, along with the two 3" PM dynamic speakers give this portable an attractive modern look, with excellent sound. The RS-833S offers automatic or manual program selection for ease of operation. Separate left and right volume controls provide quality sound. A convenient Bulls-eye program indicator and smooth tape-running mechanism are standard features of the RS833S. Operates by AC or battery. The Double Dynamite Stereo 8-track player comes complete with AC cord and 6 Panasonic "C" size batteries. Size: 7-5/8" H. x 12" W. x 4-5/8" D. Shpg. wt. 6 lbs.

Your

31A2748-5. RS-8335 - Red.

31A2748-5, RS-8335 - Red. 31A2749-3, RS-8335 - White

Choice Each ..... \$49.95

## Panasonic AC/BATTERY AM/ FM STEREO RADIO AND STEREO 8-TRACK CARTRIDGE PLAYER



Hear AM, FM stereo and 8-track stereo from a one piece portable. Stereo spacer system for greater stereo effect. Operates from either AC or battery. Has a cer system for greater stereo effect. Operates from either AC or battery. Has a stereo indicator light plus lighted 8-track program indicator. Tone control is 2 step for both radio and tape player. 2 face slide-rule tuner makes it easier to "zero in" on stations. Power output is 2.4 watts. 2 separate built-in 4 in. speakers provide excellent quality sound. Jacks are included for headphones, external power, and record output. Solid state engineered for years of listening pleasure. Complete with 6 "D" batteries, AC power cord, and gift box. Size: 7-3/16 X 12-15/16 X 3-15/16". Shpg. Wt. 10 lbs.

31A2672-7. Model RF-7100. Each .................................\$129.95

NOW TAKE YOUR 8-TRACK MUSIC EVERYWHERE YOU GO!

Panasonic III

MODEL RF-7400 BATTERY AC AM FM **PORTABLE STEREO RADIO** WITH BUILT-IN 8-TRACK PLAYER RECORDER

- MIKE MIXING.
- MIKE VOLUME CONTROLS.
- FAST FORWARD AUTO-STOP.
- AFC ON FM.

Advanced technology and beautiful styling combine to bring you the best in portable entertainment.

Stereo spacer allows wider sound dispersion and greater stereo effect. Fast forward control permits the quick location of previously recorded material. Mike mixing feature is for recording and sing-a-long fun. Mike volume controls and variable sound monitor provide the necessary control for high quality recordings.

Continuous tone control permits easy balancing of bass and treble.

Two separate 4" PM dynamic speakers give a full, rich stereo sound. Complete with right/left mike jacks, DC power cord, mike, and 6 "D" cell batteries. Charcoal with silver trim. Size: 7-1/16" H x 13-3/8" W x 6-3/8" D. Shpg. Wt. 12

31A2703-0. Model RF-7400. Each ...... \$199.95

SONY

MODEL TC-520CS **PORTABLE STEREO** CASSETTE RECORDER PLAYER SYSTEM

- STEREO OR MONO
- **EXTERNAL STEREO** MICROPHONE AND BUILT-IN **ELECTRET MICROPHONE** SUPPLIED
- **BUILT-IN SPEAKER PLUS 2 DETACHABLE SPEAKERS**
- SONYMATIC AUTOMATIC RECORDING LEVEL
- VARIABLE LEVEL RECORDING MONITOR SYSTEM

Take this superstar anywhere and record all your favorite programs. Compact 3 piece unit has its own rugged carrying case and 2 detachable speakers. Supplied with super-sensitive external microphone plus a built-in electret condenser microphone. Has line input jacks for recording stereo from a stereo player as well as from microphones. Jacks are: External speaker L and R, line input L and R, external mic L and R, remote control and headphones. Has input selector switch for mic/line, tape switch select regular/Cr02, stereo/mono mode switch. Controls for stereo: balance, continuous tone and volume. Has pause switch, 3 digit tape counter and reset button. 6 push-controls for recorder are record, fast forward/cue, forward, stop, rewind/reverse and cassette eject. Has record lev-



Specifications: response 50-10,000 Hz (50-13,000 Hz with Cr02 tape), S/N ratio 45 db, wow and flutter 0.26 % (WRMS), power output 1 watt per channel, 4 inch built-in speaker. Operates on 4 "D" cell batteries (not included) or 120 V 60

Complete with carrying case, shoulder strap, AC cord, external microphone, 2 patch cords for line inputs, 2 external speakers and head cleaning stick. Size: 3-5 /8 H. x 11 1/8 W. x 9 3/4" D. Shpg. wt. 10 lbs.

## **Panasonic**

**TECH 1000** SIX BAND PORTABLE RADIO AC OR BATTERY POWERED



RECEIVES 23 CB CHANNELS, FM/ AM/MB AND SHORTWAVE

World-wide reception plus AM and FM bands. Special band for CB channels - full shortwave coverage from 1.6 MHz to 30 MHz. BFO switch for CW and SSB and you get fine FM and AM reception with the 6½ inch double range speaker.

More features are: AFC/DX-Local switch, separate bass and treble tone controls, tuning/battery meter, unusual tape dial and a button controlled dial light. Has gyro antenna for AM and telescoping whip antenna for shortwave and CB. Has provision for external antenna. Jacks for earphone or external speaker, MPX out, receiver out, rythm or phono in. Also has an adjustable timer to turn the radio on or off for a pre-determined time up to 2 hours. Equipped with a detachable, adjustable shoulder strap. Operates on 4 "D" Cell batteries, or from 115 VAC. Weighs only 5 lbs. 8 oz.

Complete with batteries, earphone, AC power cord and detailed instructions. Size: 9¼" X 9-11/16" X 3-9/16". Shpg. wt. 7 lbs.

36A5071-4. Model RF-1150.

.... \$129.95



## INFORMATION BAND RADIOS

TECH 800 PSB/AM/FM **PORTABLE RADIO** 

BATTERY / AC POWERED

MIC MIXING



**HUGE SPEAKER** FOR GREAT SOUND!

Rugged design, high sensitivity and quality features combine to give you the most exciting radio available today. Features a big 6½ inch double range speaker, separate bass and treble controls and loudness switch. AFC locks in FM stations and tuning meter for precise station selection. Public service high-band (148 to 174 MHz) bring in police, fire, continuous weather reports and many other types of continuous weather reports and many other types of communications. Mike mixing built in to allow use as a portable P.A. system or to blend your voice with radio reception. A unique two hour timer turns radio off or on automatically. Squelch control on PSB eliminates inter station noise. Tuning meter doubles as battery/VU meter. Jacks include earphones/external speaker, recording output, microphone, AC power and external power. Complete with mike, earphone, 4 "D" cell batteries, AC power cord and carrying case for mike. Size: 7-9/16" H. X 9" W. X 2-7/8" D. Shpg. wt. 7 lbs.

No. 36A5063-1. Model RF-888. Each ..... \$99.95

**TECH 500 PORTABLE** AM/FM/VHF PUBLIC SERVICE **HIGH BAND RADIO** 

AC BATTERY OPERATION.

AFC SWITCH.

4 INCH PM DYNAMIC SPEAKER



Handsome styling and quality performance make this the perfect portable radio for all activities. Stur-dy construction and advanced circuitry guarantee years of listening enjoyment.

Receives AM/FM broadcasts plus PSB - high (148-170 MHz) for continuous weather, police, and fire reports. Tuning/battery meter indicates signal and battery strength; dial light makes night tuning easy. Squelch control on PSB helps to eliminate between-station noise. Continuous tone control permits you to adjust the tone for your preference. 4" PM dynamic speaker produces quality sound. speaker produces quality sound.

Complete with 4 "C" cell batteries, AC power cord and earphone. Size: 7-1/16" X 9¾" X 2¾". Shpg. wt. 3½ lbs.

No. 36A5067-2. Model RF-1080. Each \$59.95

## Panasonic FM/AM PORTABLE RADIOS

**MODEL RF-506** 

**BATTERY POWERED** AM/FM POCKET **PORTABLE RADIO** 



Small pocket size AM/FM only 4-13/16" H., 2¾" W., 1-9/16" D. Features circular tuning dial, 2¼" PM dynamic speaker, earphone and external speaker jack. In beautiful red, black, or white with metallic face cabinet. Complete with handstrap, 2 Panagoris "A" hatteries and earphone 11/4 sonic "AA" batteries and earphone. Shpg. wt. 11/2

36A3579-8. Black. 36A3580-6. Red. 36A3581-4. White Your Choice Each ...... \$19.88

**MODEL RF-565** 

FM/AM PORTABLE RADIO



#### **AC OR BATTERY POWERED**

Lightweight portable operates anywhere, on it's 4 "AA" pencell batteries or on 115 VAC. Weighs only 2½ lbs., but has 3 inch PM dynamic speaker and 2 step tone control for clear, full tone quality. Slide rule dial, AFC on FM, earphone/external speaker ack, AC/battery selector switch and built-in AC power cord are some of its features. Complete with batteries and earphone. Size 5-15/16" H. x 7-7/8" W. x 2½" D. Shpg. wt. 3 lbs.

36A3582-2. Model RF-565.

Each ..... \$29.95

MODEL RF-915

DELUXE PORTABLE FM/AM RADIO WITH LEATHERETTE CABINET



Handsome leatherette cabinet makes this an out-Handsome leatherette cabinet makes this an outstanding member of the Panasonic line, and note these deluxe features: vertical slide rule dial with button controlled dial light, continuous tone control, AFC on FM, and a 3½ inch PM dynamic speaker. Has built-in AC power cord and is supplied complete with 4 "C" size batteries and earphone. Has telescoping FM antenna and built-in AM antenna. Size: 6" H. x 10 ½" W. x 2-7/8" D. Shpg. wt. 5 lbs.

36A3574-9. Model RF-915.

Each ..... \$49.95

## **SONY PORTABLE RADIOS**

# SONY "THE SPECIALIST" FM/AM/PSB PORTABLE RADIO

 Unique hinged folding cabinet with automatic power shut-off.

8-hour electronic off/on timer.

Tuning light for night use.

\$160



For the businessman or traveler who needs everything in a pocket size package. IC solid state technology and a unique design allows a radio to be folded in half. An outstanding feature is the IC controlled Timer. It will automatically turn the radio ON or OFF for any time up to 8 hours, allowing you to wake up, or go to sleep to music. And there's an elapsed-time meter to show how much time has passed. For listening there is music, news, and sports on FM/AM and marine, police and fire communications plus continuous weather broadcasts and National Emergency Warnings on the PSB band. The hinged cabinet has automatic power shut-off. Separate FET RF amplifiers for AM, FM, and PSB bands, AFC switch for drift-free FM, squelch control for PSB, 3 way meter for tuning, battery check and elapsed time indication, jacks for tape recorder and earphone, and separate bass, treble and volume controls are some of its features. Tuning light allows the dial to be illuminated at night. Dipole telescopic antennas for sensitivity to weak or distant stations and a special direct-coupled 3" speaker gives high fidelity sound.

Power requirements are 4"AA" cell batteries listed below, 120V 60 Hz AC with optional adaptor, or 12 VDC with optional car/boat cord. Supplied with earphone. Handsome black and silver gray case measures only 3% H. x 5-3/8 W. x 2 %"D. when closed and 3% H. x 10% W. x 1-5/8"D. when opened. Weighs 1 % lbs. with batteries. Shpg. Wt. 2% lbs.

#### ACCESSORIES FOR THE "SPECIALIST"

21A5002-6.	Alkaline AA cells (4 required). Each 8	Oc
	AC-9W 120 VAC Adaptor. Each \$10.0	00
3142763-4.	DCC-127H Car/Boat Cord. Each\$25.0	00

## SONY

FM/AM PORTABLE RADIO

BATTERY OR AC POWERED

\$40



SONY FM/AM/PSB PORTABLE RADIO

BATTERY OR AC POWERED

\$50



Features an FET RF amplifier. Built-in AFC for FM and squelch control for noise free PSB band. 3-5/8" speaker. Telescoping antenna for FM/PSB and ferrite bar AM antenna assure sensitivity on all bands. Has separate power, volume and tone controls and large, easy-to-tune vertical dial. Has earphone jack. Striking black and brushed metal case is 7-7/8 H. x 10 ½ W. x 3-3/8" D. Operates on 4 "C" cell batteries listed below or 120 V 60 Hz AC. Shpg. wt. 4 lbs.

## SONY

STURDY MINI-PORTABLE AM RADIO

\$10



aturized design puts your favorite AM station
t in your pocket. Sensitive solid-state circuitry
size

Miniaturized design puts your favorite AM station right in your pocket. Sensitive solid-state circuitry pulls in stations at long distances while the powerful output and large speaker recreate sound. Travels anywhere! Attractive brushed aluminum case stands up to rugged use and is complete with a carrying strap. With earphone. Uses 9 volt battery listed below. Size: 4½" H. X 2¾" W. X 1-5/16" D. Shpg. wt. 2 lbs.

36A2059-2. Model TR-4100. Each \$10.00 21A305-8. 9 Volt Battery. Each ...... 89°

## SONY FM/AM PORTABLE RADIO

TOP QUALITY PERFORMANCE AND STYLING YOU CAN PUT IN YOUR POCKET!



SUPER VALUE! \$20

Brilliant FM or AM sound in a high styled, pocket size portable. Has earphone jack with earphone supplied for private listening. Requires 9 volt battery. Size: 6 ¼ " X. X 3-5/8" H. X 1-5/8" D. Shpg. wt. 3 lbs.

36D3570-7. Model 6100W. Each . \$20.00 36A5074-8. Model TFM 6200W. same as above PLUS Public Service Band 147-174MHz. Each . . . . \$30.00 21D305-8. Eveready 216 9 Volt Battery.

## SONY

FM/AM POCKETABLE PORTABLE RADIO



Full-bodied FM and AM sound. High sensitivity and selectivity assure reception under adverse conditions. Has ferrite AM antenna with telescoping antenna for FM. 2 ¼ "PM speaker. Brushed aluminum.

Uses 9 V. battery (listed below). With carrying strap. Size: 3-7/8'' H. X 3-7/8'' W. X 1-7/8'' D. Shpg. wt. 1 ½ lbs.

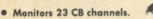


## **MULTI-BAND RADIOS AND SCANNERS**



### **10 BAND PORTABLE RADIO**

RECEIVES 23 CB CHANNELS! AC/DC **OPERATION** 



- Public service bands low, hi, UHF.
- Push-button controls.
- Memory Log. Bass and Treble boost switches.
- Large, durable 5" dynamic speaker.

Now, have all the necessary information at your fingertips with this handsomely styled portable radio. Monitor the Citizens Band, tune in on Public Service broadcasts (hi, low and UHF bands), receive aircraft transmissions and instant weather forecasts. In addition to all this hear international shortwave and enjoy high quality AM and FM sound. Push button control for UHF, CB and instant weather with rotary band selector for FM, AM, PS (hi), PS (low), Shortwave, and Aircraft. Band readout window indicates the band in use, memory log indicator allows quick relocation of favorite stations. Squelch control is featured on all PS bands and FM; AFC is built-in on FM. 8 IF tuned circuits provide superior performance. Uses 6 "D" cells for DC operation. Jacks supplied for optional earphone. Black, rugged textured cabinet. Size: 9-3/8" X 13" X 4". Shpg. wt. 8 lbs. 4". Shpg. wt. 8 lbs.

21A315-7. Battery for above (6 required) Each ............... 45°



## 7-BAND PORTABLE RADIO

Model 7-2963

RECEIVES AM AND FM BROADCASTS. TV SOUND, CB, PSB (HI), AIRCRAFT BAND, INSTANT WEATHER

**Battery or AC Power** 



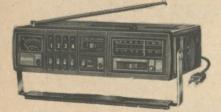
Receive AM and FM entertainment broadcasts PLUS the sound from your favorite TV programs, cover the CB two way radio talk, hear police, fire and other emergencies on PSB (high), listen to airplane to tower and ground to plane communications, AND instant U.S. Weather forecasts and reports within range of weathers to the control of the er stations.

4 inch speaker gives excellent sound. Has continuous tone control, easy band identification, squelch on PSB, and slide rule dial with vernier tuning. Black and gray. Operates on 115 VAC or 6 C cell batteries listed below. Size: 11¼" W. x 8½" H. x 3½" D. Shpg. wt. 5 lbs.



#### PORTABLE AM/FM/PSB (HI 148-174 MHZ) TUNABLE SCANNING RADIO

Model 7-2995 BATTERY OR AC POWER



#### **PRICE REDUCED \$30**

- Monitor police, aircraft, weather.
- No separate
- crystals to buy.
- AC/battery operation. Squelch control.

Enjoy the entertainment of top-quality AM/FM radio. The PSB (high) scanner gives you that exciting "slice of life". Scan the events in your city without having to buy any crystals. Manual/Scan control allows the selection of automatic scanning or, manual tuning of the PS high band for listening to the voices of people in action. Automatic scanning of any combination of 2, 3, or 4 pre-selected channels on PS hi-band. Separate tuning meter indicates frequencies being tuned on PSB. Squelch control on PSB. Battery check button converts the tuning meter into a battery check meter. 4" ceramic magnet speaker. Swivel telescopic whip antenna for FM and PSB (high). Powered by 6 "D" cell batteries (listed below) or AC house current. Complete with earphone jack and AC power cord. Size: 9" H. X 13¾" W. X 11" D. Shpg. wt. 8 lbs.
36A5070-6. Model 7-2995
Special Each.

21A315-7. Battery for above (6 required). Each



#### AM/FM/CB **PORTABLE RADIO** Model 7-2915

**Battery or AC power** 



Tune in trucker talk. Hear all the action while it's happening. Listen to two-way radio on 23 CB channels and enjoy complete AM and FM broadcast entertainment, too. Has automatic AC/DC switching when plugged in to 115 VAC. Uses 4 AA cells, listed below, for battery power. Has AFC on FM, precision vernier tuning and slide rule dial. Squelch control operates on CB. Handsome black and gray high impact cabinet. Size: 8½" W. x 6" H. x 2¼" D. Shag wt 3 lbs. Shpg. wt. 3 lbs.

No. 36A5079-7. Model 7-2915. Each \$39.95 No. 21A313-2. AA cells (4 required). Each . . 35°



## **TUNABLE RADIO** SCANS 4 CHANNELS

**Battery or AC Power** 

Listen to exciting, fast paced Public Service broadcasts with this truly portable tuning scanning radio. Has individual channel controls to tune 4 separate PS-VHF (hi) frequencies, no crystals required. Covers 150-174 MHz. Light emitting diodes (LED's) show scan action. Manual/Scan control allows selection to the individual channel or automatic scanning of 4 of an individual channel or automatic scanning of 4 channels. By-pass switch on channel 4 allows monitoring of weather stations or other continuous broadcasts. Has squelch and volume controls. 2½ inch dynamic speaker. Uses 6 AA cell batteries, listed below, or 115 VAC converter included. Size: 8½" H. x 4½" W x 2¾" D. Shpg. wt. 1½ lbs.

9A554-7. Model 7-2985. Each .... \$69.95 21A313-2. AA cells (6 required) Each ..... 35 \$69.95



## TAKE ALONG PORTABLE RADIOS



AM/FM PORTABLE RADIO WITH CHANNEL 2-13 TV BAND



Now be able to listen to TV sound whenever you want, even if you can't bring a TV set along. Hear your favorite morning shows while shaving, showering, or at breakfast. Handy portable radio receives VHF channels 2-13 (TV sound), plus AM and FM radio broadcasts. Two-way power allows operation on 4 "AA" cell batteries (not included) or AC house current. Circuitry features automatic switching from DC to AC when line cord is plugged in to household outlet. Telescoping whip antenna receives FM and TV audio broadcasts, ferrite rod antenna receives AM broadcasts with crystal clarity. Radio features slide-rule dial, AFC on FM, 6 IF tuned circuits, rugged fold-down handle and 3½" dynamic speaker. Complete with earphone. Black case with silver trim. Size: 6½" H. X 10½" W. X 2-5/8" D. Shpg. wt. 4 lbs.





### AM/FM RADIO WITH CASSETTE RECORDER AND TV BAND

Listen to your favorite TV show regardless of where you are! This versatile portable radio receives TV Channels 2-13 (VHF) as well as AM and FM radio. Record directly from radio or TV live programming or remote source. Three-way power capabilities allow use with 4 "C" batteries (not included), AC line cord (included) or optional car/boat adapter. Mixer circuit allows simultaneous recording from radio and remote mike (not included) source. Features include variable sound level radio monitor in Record, LED station signal strength indicator, 60-minute sleep switch, tone control, AFC to reduce FM drift, automatic end-of-tape shutoff and built-in condenser microphone. Size (handle down): 11¾" W. X 8½" H. X 3½" D. Shpg. wt. 6¾ lbs.

31A2735-2.

Model 3-5222. Each ... \$99.95



- RECEIVES TV CHANNELS 2-13.
- . 3-WAY POWER CAPABILITIES.
- . BUILT-IN CONDENSER MIKE.





#### AM MINIATURE PORTABLE RADIO

This smartly styled pocket portable is just 2-5/8" W x 4" H x 1 ¼" D. so you can take it along anywhere. 2 ¼" dynamic speaker for fine quality sound. Has convenient carry thong and weighs only 12 ounces. Battery-saver circuit and direct tuning dial with channel readout window. Earphone and battery included. Attractive high-impact polystyrene cabinet. Shpg. wt. 1 lb.

36A2067-5. Each ...... \$6.95





### FM/AM POCKET SIZE PORTABLE RADIO

A great pocket-size miniature radio that gives you the double pleasure of AM and FM with built-in AFC. 2¼" dynamic speaker. Horizontal direct tune dial. Battery saver circuit. Four IF tuned circuits for better station selectivity. Telescopic whip antenna for FM, ferrite rod for AM. High-impact polystyrene case. Operates on 9-volt battery (included). With earphone. Size: 3¼" W. X 5" H. X 1¾" D. Shog wt 1 lb. D. Shpg. wt. 1 lb.





#### AM/FM COMPACT PORTABLE RADIO

Slim and compact to take wherever you go for news, sports and your favorite music. Delivers full, rich sound from a large 3" speaker. Built-in AFC for clear, drift-free FM. Vertical slide-rule tuning dial. Powered by 9 volt battery (listed below) or use AC line cord (included). Has telescoping whip antenna for FM, built-in ferrite rod antenna for AM, AC cord storage compartment and earphone jack. Attractive, yet rugged, black polystyrene case with unique tuck-away handle. Size: 7¾" W x 5 ½" H x 1-7/8" D. Shpg. wt. 1¾ lbs.



## FM/AM TABLE RADIOS

## Panasonic MODEL RE-6283



FM/AM TABLE RADIO

Here's a lot of radio enjoyment in a small table radio at a most economical price. These features assure your listening enjoyment: two-step tone control, 4-inch PM dynamic speaker, AFC for drift-free FM reception and a horizontal slide rule dial for easy tuning. Controls are: tone, off/volume, tuning and AFC/band selector switch. Antique white finish with black trim. Size: 5-5/16" H x 11-5/8" W x 4'4" D. Shpg. wt. 4 lbs.

36A6543-1. Model RE-6283.

Each ..... \$29.95

## **Panasonic** MODEL RE-6516



FM/AM TABLE RADIO

WITH CONTINUOUS TONE CONTROL

The RE-6516 offers a simulated wood cabinet enclosing a radio using a 5-inch PM dynamic speaker for better-than-usual tone quality. The vertical slide rule tuning dial is lighted and blacks out for smooth appearance when the radio is turned off. Continuous tone control for bass/treble tone shading while fixed AEC gives diffuse the reception. ing while fixed AFC gives drift-free FM reception.

Has FM external antenna terminals. Size: 8-11/16" H x 14-9/16" W x 5" D. Shpg. wt. 5½ lbs.

36A6546-4. Model RE-6516.

MODEL ICF-9550W



DELUXE FM/AM TABLE RADIO

An unusually powerful 6½-inch speaker reproduces component quality sound, with loudness switch and separate bass and treble controls to give precise sound adjustments. Built-in AFC gives drift-free FM reception. Has illuminated slide rule dial. Built-in ferrite bar AM, and AC line antenna connection. For 120V, 60 Hz, AC. Walnut grain color. Size: 14-3/8" W x 8-7/8" H x 6¾" D. Shpa. wt. 8 lbs.

36A6544-9. Model ICF-9550W.

.....\$60.00

## Panasonic

MODEL R-77

## AM CALENDAR DESK RADIO

Here's an unusual desk radio that can be a real conversation piece. Battery operated AM radio has a circular tuning dial and a 2¼" PM dynamic speaker. Day selector coordinates the calendar with the current month. Complete with two "AA" size batteries. Size: 3-11/16" square, 2" deep. Shpg. wt. 1 lb.

36A2066-7. Model R-77. Each .....



## **HEADPHONE RADIOS**

#### SOLID STATE AM **HEADSET RADIO**



Great for sports, the beach, the dorm or at home. Hear your favorite programs outside or inside . . . hands are free for work or play while you listen. Ideal for hard of hearing. This headset radio allows you to listen in comfort and privacy without disturbing there are not you. Padded without disturbing those around you. Padded earphones have 2½" dynamic speakers, volume and tuning knobs. 9 volt battery included. Shpg. wt. 2 lbs.

No 36A2055-0.

......\$19.95

#### AM FM MULTIPLEX STEREO HEADPHONE RADIO



#### ENJOY RADIO PRIVACY ANYWHERE!

Allows you to listen to your tavorite AM or FM programs in privacy without disturbing those around you. Use standard 9 V. battery. Tune in AM, FM and FM multiplex stations. Can be used as stereo headphones with the special cord that is

No. 36A3559-0.Each ...... \$49.95

#### **FM STEREO HEADPHONE RADIO**

**Panasonic** MODEL **RF-40** 

DOUBLES AS REGULAR STEREO HEADPHONE



Has input jacks for stereo headphone cord. AFC gives drift-tree reception. Has 3-step balance control and stereo/mono switch, volume control and power switch. Earcups each contain a 2½" PM dynamic speaker. Battery powered. Complete with three "AA" size batteries and headphone cord. Shpg. wt. 2½ lbs.

36A3561-6. RF-40. Each ...... \$85.00





- ADJUSTABLE ALARM TONE
- SNOOZ-ALARM CONTROL
- 24-HOUR WAKE UP SYSTEM

A combination of excellent radio performance and deluxe digital time display with bright electronic numerals make the 7-4660 an outstanding value. Features include a "Wake-to-Music" or "Wake-to-Alarm" option. Snooz-Alarm control gives you a few more minutes of sleep after alarm sounds. 24-hour wake up system lets you wake at the same time each wake up system lets you wake at the same time each day without resetting. 60-minute sleep switch lets music lull you to sleep and then shuts off automatically. Clock face brightness and tone alarm volume are both adjustable. AM/PM indicator blinks after a power outage until clock is reset. Slide controls for Fast and Slow (time and alarm set), Wake Mode (music or alarm), Sleep/Alarm set and Band (FM or AM). Lighted slide-rule radio dial with vernier tuning for easy convenient selection of stations. Big 4" dyfor easy convenient selection of stations. Big 4" dynamic speaker delivers quality sound. Built-in AM and FM antennas. Decorator styled simulated walnut grain finish. Size: 12½"W.x4"H.x6¼"D. Shpg. wt. 6 lbs.

36A8115-6. Model 7-4660. Each .. \$49.95

## **Panasonic**

RC-300 FM/AM **ELECTRONIC DIGITAL** READOUT CLOCK RADIO



- SILENT OPERA- . TION
- COMPLETELY SOLID STATE
- DOZE-CANCEL **FEATURE**

Beautifully designed, the RC-300 features a fluores-Beautifully designed, the RC-300 features a fluorescent electronic digital display providing completely noiseless operation and easy-to-read bright-green digitals. 2-speed electronic time/alarm setting affords precise accuracy, letting you set clock to the exact hour, minute and second. Alarm set control button briefly changes digital readout to the time that the alarm is set for, then returns to current time. Sleep timer Iulls you to sleep with up to 59 minutes of music, then shuts off automatically. Doze button delays alarm for a few extra minutes of sleep after initial wake-up and also deactivates sleep timer if you change your mind about falling asleep to music. initial wake-up and also deactivates sleep timer if you change your mind about falling asleep to music. Two-step brightness control and auto/alarm LED indicator. AM/PM indicator serves as a flashing power failure indicator as well. Child-proof control switch freezes time setting mechanism. "Set-once" timer means day-to-day wake-up without daily resetting.

setting. FM/AM radio section has illuminated tuning dial and large 3½" PM dynamic speaker. Size: 3-11/ 16"H.x10¼"W.x6-3/16"D. Shpg. wt. 5¼ lbs.

36A8106-5. Model RC-300. Each . . \$59.95

## FM/AM ELECTRONIC DIGITAL CLOCK RADIO



- LED DISPLAY
- ALARM

SNOOZE

CON TROL 24-HOUR ALARM PRESET . SLEEP TIMER

This modern, full-feature clock incorporates tomorrow's technology with totally electronic digital LED display for ultimate convenience and accuracy. The elimination of error-causing mechanical linkage in the alarm system assures pinpoint setting to the very second. 24-hour alarm preset system automatically turns alarm on at same time each day. Adjustable sleep timer lets you listen to music up to 59 minutes then shuts off automatically. Choose being awakened by radio or buzzer alarm. Buzzer goes off at intervals to guarantee awakening. Touch repeat bar for an extra few minutes of sleep. Clock face has second display flasher and a brightness control lets you adjust light to desired level. Seconds reset button gives you absolutely precise adjustment of time. AM/PM indicator light.

AM. PM indicator light.
FM/AM radio combines superior station selectivity and rich, full sound from a 3¾" dynamic speaker.
Built-in AFC provides drift-free FM. Interruption of power supply will be shown by the flickering of the lamp. Low-profile contemporary cabinet design in attractive black and metallic silver or gray adds a most distinctive appearance to any room. Size: 2-7/8" H.x9-7/8" W.x7%" D. Shpg. wt. 4½ lbs.

36A8109-9. Model ICF-C800W. Each \$80.00

## Panasonic

RC-6030 FM/AM DIGITAL CLOCK RADIO



- SLEEP TIMER
- **24-HOUR DIGITAL TIMER**

Smartly styled, this compact FM/AM digital clock has many sophisticated features at a comparatively low cost. 24-hour digital time provides for day-to-day wake-up without daily resetting of alarm time. Sleep timer lulls you to sleep with up to 60 minutes of music and then automatically shuts off. Once only awake set wakes you with music or buzzer alarm. Lighted clock face for night viewing. Convenient slide-rule dial for easy FM/AM tuning. Big 3" PM dynamic speaker provides fine quality sound. Attractive simulated wood cabinet will make the RC-6030 a welcome addition to any nightstand. Size: 4-3/16" H.x10-5/8" W.x6" D. Shpg. Wt. 4 lbs.

36A8110-7. Model RC-6030. Each . \$29.95

## **Panasonic**

RC-6040 FM/AM DIGITAL **CLOCK RADIO** 



- DOZE FEATURE
- CHIRP ALARM
- SLEEP TIMER

Handsomely crafted, Panasonic designed the RC-6040 with every feature for convenience built-in. Sleep timer lets music lull you to sleep for up to 60 minutes with an automatic shut-off. 24-hour digital timer provides day-to-day wake up without resetting of alarm time. For a few extra minutes of sleep, push the doze button after alarm sounds. Once-only awake set with music or pleasant chirp alarm. Light-ed clock face make numerals easy-to-read at night. ed clock face make numerals easy-to-read at night. Easy FM/AM tuning provided by slide-rule dial. Large 3" PM dynamic speaker gives you clear, full sound. Attractive simulated wood cabinet will complement any decor. Size: 4¼" H.x11½" W.x6½" D. Shpg. Wt. 5 lbs.

36A8111-5. Model RC-6040. Each . \$39.95

## anasonic

RC-6236 FM/AM **WEATHER BAND** DIGITAL CLOCK RADIO



- 24 HOUR WEATHER BAND
- **DOZE FEATURE**
- SLEEP TIMER

Get the entire picture of the day when you wake up with this unique featured FM/AM digital clock with weather band. The pre-set weather band will give you continuous weather reports 24 hours a day, so you have up to the minute information whenever you want. Alarm features 24-hour timer for day-to-day wake-up without daily resetting of alarm time. Sleep timer lulls you to sleep with up to 60 minutes of music then will shut off automatically. Push doze button after alarm sounds for a few extra minutes of restful sleep. Once-only awake set, music or chirp alarm. Lighted clock face for night viewing. Two-step tone control permits blending of bass and tre-ble tones. Lighted slide-rule radio dial for quick easy location of stations. Large 4" PM dynamic speaker provides full, rich sound. Complete with FM external antenna terminals. Handsome simulated wood cabinet. Size: 4" H.x 12-7/16" W.x 7-11/16" D. Shpg. 15/2 lbs.

36A8112-3. Model RC-6236. Each . \$59.95

# **Panasonic**

## THE WORLD'S MOST ADVANCED PORTABLE RECEI

COMPLETE 24-BAND WORLD-WIDE COVERAGE OF EVERY CONCEIVABLE BROADCAST

## WORLD-WIDE

NEWS MUSIC WEATHER **SPORTS** TV COMMENTARY CB SHIP-TO-SHIP AVIATION DISTRESS FREQUENCIES POLICE HAM SHIP-TO-SHORE

#### **MODEL RF-8000**

With coverage of every broadcasting frequency throughout a range which begins at 150 KHz and goes all the way up to 230 MHz, the RF-8000 brings to your fingertips every imaginable radio and TV audio broadcast in the world. The RF-8000 offers a complete diversity of types of broadcasts: FM, AM, SSB and CW, divided into three groups:

- 1. LW (150 400 KHz), MW (520 1610 KHz), and 2 Marine bands (1.5 5.5 MHz).
  2. 12 SW bands (5.5 30 MHz).
  3. 8 VHF bands (30 230 MHz).

Two precision DC motors, plus an automatic dial-selection control system means all you have to do is lightly touch any of the 24-band selection buttons to change bands. Features a detachable Gyro-Type frame antenna which can be rotated a full 360°. For ham and short-wave fans, the RF-8000 has a built-in Tuning Fork Clock with to-the-second accuracy. Crystal markers permit zero-beating every 500 KHz for precise correction of the dial pointer settings.



- MOTOR DRIVEN 24-BUTTON BAND SELECTOR
- DOUBLE SUPERHETERODYNE SYSTEM BY CRYSTAL CONVERTER
- AUTOMATIC NOISE LIMITER
- GYRO-TYPE ANTENNA
- BEAT FREQUENCY OSCILLATOR FOR SSB AND CW RECEPTION
- SEPARATE BASS / TREBLE **TONE CONTROLS**
- RF GAIN CONTROL FOR SSB/CW
- SQUELCH CONTROL FOR ALL FM MODES OF VHF

Other features include narrow/wide bandwidth selector; ceramic filter for IF circuit; L.E.D. band indicator; battery check switch; tuning/battery meter; loudness switch; AFC switch on all FM modes of VHF; FM/AM selector switch for VHF; built-in ferrite core antenna, 2-pole whip antenna and 360° frame antenna; two 7" x 4" speakers; earphone and headphone jacks; BFO switch for SSB and CW.

For 115 VAC or battery operation. Includes carrying handle, AC power cord, 9 "D" cell batteries (1 for clock), earphone. Comes in black leather-covered cabinet. Size:  $14\frac{1}{4}$  "H x 20-3/16"W x 8-3/8"D. Shpg. wt. 54 lbs.

36A5081-3. Model RF-8000. Each ...... \$2500.00

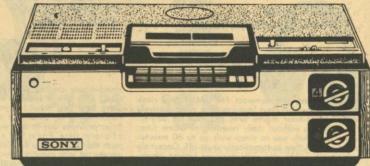
Special Order Only - Shipped direct from Factory allow at least 3 weeks for delivery.

VIDEO CASSETTE RECORDER FOR USE WITH YOUR OWN TV SET

#### MODEL SL-7200

- **EASY TO OPERATE PIANO KEY FUNCTION SELECTOR BUTTONS.**
- **RECORD TV SHOWS ON BETAMAX** ... SHOW THEM ON YOUR COLOR TV.

BETAMAX is a TV system that can video-tape something off one channel while it plays another. So, whenever you want, all you do is press a button and play back what you recorded. Of course, BETAMAX can also record the same channel it's playing. You get instant replay of your program selection to enjoy at your convenience. Despite its sophistication, BETAMAX is simple to operate. And you can re-use the tape cassettes, re-recording on them over and over. So, suppose you're watching a great program and the phone or the doorbell rings or the sink overflows. Just press the "record" button. Or suppose you've got to be out of the house while your family is watching a great program? Just ask them to press the 'record" button. What if nobody's home ...? Use the optional digital automatic timer. It will start taping whenever you want — and tape up to an hour. So, whenever you want, you can play back what you missed. Everything you record on BETAMAX you see on your regular TV set, with the same sharp, crisp color you are accustomed to viewing. Size: 8-1/16" H x 20½" W x 16½" D. Shpg. wt. 45 lbs. BETAMAX is a TV system that can video-tape something off one channel while it



39A4116-5. Model SL-7200 Video Cassette Recorder. Each \$1,260.00
39A4118-1. UHF Splitter. Each \$5.00
39A4117-3. DT-20 Digital Timer. Each \$40.00
39A4138-9. K30 30-minute cassette. Each \$11.95
39A4113-2. K60 60-minute cassette. Each \$15.95

**Immediate Shipment From Stock** 

## SUPER PORTABLE TV BUY!

## PORTABLE TV WITH AM/FM/ PSB RADIO

DIAGONAL TV - CLEAR & SHARP.

• 5" SPEAKER - TRULY GREAT SOUND.



4 WAY POWER CAPABILITIES:

- OPERATES FROM CAR/BOAT BATTERY WITH DC POWER CORD.
- USE OUTDOORS WITH 6 STANDARD "D" CELLS.
- PLAY INDOORS ON HOUSE CURRENT.
- PLAY ON RECHARGEABLE NI-CAD BATTERY PACK (Optional).

Never before have we seen or heard such a fantastic exciting unit! Complete in one compact package is found a brilliant pictured 3" TV, and AM/FM/Public Service Band receiver. The VHF/UHF varactor-diode tuner employed in television is not only more sensitive, but also more reliable than conventional tuners, due to contactless design.

The use of monolithic IC's in the radio serves to increase sensitivity while ceramic filters assure pinpoint selectivity. Independent controls for bass and treble allow you to tailor the sound to suit your tastes. The big 5" speaker has a metal center cap and special diffusers to increase high frequency response, improve radiation and assure delivery of hi-fi quality sound from both radio and TV. You can listen to AM/FM or tune in to the excitement of the Public Service

Bands — Police, Fire, Weather reports and many more. JVC's 4-way power capabilities make this unit completely adaptable. Indoors, play your JVC 3050

• THREE BAND - AM /FM / PSB - 148-179 MHz.

- 3" DIAGONAL TV VHF CHANNELS 2-13, UHF CHANNELS 14-83.
- ADVANCED VARACTOR-DIODE TV TUNER.
- COMBINATION BATTERY INDICATOR AND TUNING METER.

on AC house current. For outdoor use, you have the option of ordinary batteries (6 D-Cells), a rechargeable Ni-Cad battery pack (not included), or a car cord to let you use the electrical power systems of any automobile, camper, boat or airplane. Miniature jacks provide for earphone and to permit direct recording. All of these features in a compact package that can go with you anywhere. Comes complete with 6 D size batteries, power adaptor. AC power cord, earphone and car power cord. Size: 4½" H. X 9-7/8" W. X 11-7/8" D. Shpg. wt. 8 lbs.

39A3091-1. Model 3050. Each ...... \$199.95

#### **ACCESSORIES FOR JVC 3050 ABOVE**



# NETSON QUALITY ELECTRONICS SINCE 1912

A Division of Major Electronics Corporation



## AS-115 MODULAR STEREO SYSTEM

This solid state 4-piece component system will give you hours of listening enjoyment at a low, low price! Features a BSR 3-speed mini-changer with auto-shutoff, separate volume and tone controls and stereo headphone jack. Comes with dust cover and pair of matched speaker systems. Attractively styled in white case to blend into any surroundings. Size: center unit 13¾" W. x 4¼" H. x 12¾" D., speakers 7" W. x 12" H. x 4¼" D. Shpg. Wt. 15 lbs.



L-6600 8-TRACK TAPE PLAYER STEREO SYSTEM

Enjoy listening to your favorite 8-track cartridges on this complete stereo system at a price you would expect to pay for a cartridge player deck alone. Lighted tape program indicators show the channel that is playing, and programs may be changed manually, or automatically for continuous play. Slide controls for Volume, Tone, and Balance and jack for stereo headphones are on front panel. Phono jacks on rear allow separate phono to play through the L-6600. Size: Amplifier 13-7/8" W. x 4½" H. x 9½" D., speakers 8½" W. x 12½" H. x 4½" D. each. Shpg. wt. 15 lbs.

Features wide angle, one gun, three beam Trinitron picture tube, produces 3 electron beams through one single electron lens. Slotted aperture grille permits more electrons to reach screen producing greater brightness resulting in sharp, bright, true-to-life color picture. Simply plug in outlet and turn on for instant color, no set-up adjustments for instant color, no set-up adjustments necessary. Tuning is simplified with one pushbutton for automatic fine tuning, auto color and hue. 100% solid state, Econoquick system shuts power off completely when set is not in use and gives a quick picture from a cold start. Telescoping VHF antenna and UHF loop give clean reception of both local and distant stations. All have earphone included. included.

5" DIAGONAL PORTABLE COLOR - AC OR CAR BOAT BATTERY POWERED. MODEL KV-5100

#### MODEL KV-5100

A departure from the ordinary, this mini-weight color portable is more than a little unique. Has a glare-free screen for indoor/outdoor viewing, and the option of a car/boat cord so it can carry on anywhere. Has travel cover for front face protection, fold-down leg for adjustable viewing angle, and porta-grip handle. 70 detent UHF channel selection. Charcoal cabinet with chrome trim, 3½" speaker. 120 VAC or battery operated with optional car/boat cord or rechargeable NiCad battery pack available on special order. Automatic DC voltage selector for 12 volts or 24 volts. Size: 6-11/16" H. x 8-7/8" W. x 12-3/8" D. Shpg. Wt. 14 lbs.

#### MODEL KV-9200

The all-around Sony color portable that serves a variety of needs. Superior performance, quality engineering and lightweight convenience from kitchen to den to patio. Features a glare-free screen, 70 detent UHF channel selector and upfront 3" speaker. Charcoal cabinet has brushed chrome trim and porta-grip handle. For 120 V 60 Hz AC. Size 12"Hx10 ¼ "Wx13 ¼ "D. Shpg. Wt. 22 lbs.

#### MODEL KV-1541R

Sony takes remote control one step further with quick, silent, all-electronic channel selection, and triple-function remote commander, power-saving system; lumisponder light-sensing system that automatically adjusts brightness and clarity to changing room light. Has Triple-Function wireless Remote Control Commander (VHF/UHF channel selector, up/down electronic volume changing, power on/off) and 12 position all-electronic channel selection system. Illuminated channel indicators. Vinyl walnut veneer on wood cabinet has recessed side grips. 4" speaker. For 120V 60 Hz AC except Remote Commander uses 2 AA penlite cells (supplied). Size: 15-5/8" H. x 22-5/8" W. x 16½" D. Shpg. wt. 50 lbs.

NY Trinitron COLOR TELEVISIO DIAGONAL TRINITROP 15" DIAGONAL TRINITRON-PLUS PORTABLE COLOR TV. COLOR TV. MODEL KV-1541R MODEL KV-9200 WITH REMOTE CONTROL 0 000 99 17" DIAGONAL COLOR TV. 19" DIAGONAL COLOR TV. MODEL KV-1723D MODEL KV-1920D

#### MODEL KV-1723D

The longing for beauty and quality is fulfilled in the KV-1723D. It features a slender hi-rise cabinet; 8 monolithic integrated circuits, an advanced VHF tuner, and an extraordinary color picture. Has GCS (Gate Controlled Switch) deflection circuitry and continuous sharpness control. 70 detent UHF channel selection and illuminated channel indicators. Vinyl walnut veneer on wood cabinet has recessed side grips. Has 6" x 4" speaker. Dimensions: 20-9/16" H. x 19-3/8" W. x 14-7/8" D. Shpg. wt. 64 lbs.

39A4125-6. Model KV-1723D...... \$540.00

#### MODEL KV-1920D

The family-size KV-1920D features a slender profile cabinet; advanced new circuitry; plus a color picture even more brilliant, vivid and consistently beautiful than ever. Utilizes 8 monolithic integrated circuits, advanced VHF tuner with MOS-FET and IC, and GCS (Gate Controlled Switch) deflection circuitry. 70 detent UHF channel selector has illuminated channel indicators. Continuous sharpness control. Vinyl walnut veneer on wood cabinet has recessed side grips. For 120V 60 Hz AC. Dimensions: 17-5/8" H.x26-1/16" W.x16\\" D. Shpg. wt. 74 lbs. 39A4128-0. Model KV-1920D. Each \$600.00

All are advanced 100% solid state IC chassis with VHF/UHF click-stop channel selectors, and are supplied with personal earphones. Automatic voltage regulator helps to eliminate picture fading, shrinkage and distortion due to power fluctuations. VHF/UHF unipotential monopole antenna make a separate UHF antenna unnecessary. tenna unnecessary.

## 9" DIAGONAL B&W TV. AC/ DC/BATTERY PORTABLE. **MODEL TR-739**

#### MODEL TR-739

Exciting 3 way powered TV loaded with features: Panalloid batteries give up to 2½ hours viewing on each charge. Built-in recharger renews battery charge in 10 hours, indicator lamp shows when recharger is on. Molded black and silver cabinet with convenient handle. 3½" speaker. With Panalloid batteries and personal earphone. Size: 10¼ H. x 13½ W. x 10" D. Shpg. wt. 19 lbs.

39A3090-3. Model TR-739. Each \$169.95 39A491-6. TY-173P car/boat cord \$7.95

#### **MODEL TR-515**

Use on 120 VAC, internal battery or car/boat battery for 3 way complete portability. 9 "D" size Panasonic Alkaline batteries give up to 8 hours continuous viewing. Dark-tint screen. Olive brown molded cabinet with carrying handle. 3½" speaker. With AC adaptor cord, car/boat cord and Panasonic "D" size Alkaline.batteries. Size: 6 H. x 13¼ W. x 10½" D. Shpg. wt. 15 lbs.

39A3094-5. Model TR-515. Each ...... \$139.95

#### **MODEL TR-882**

AC/car-boat operation lets you enjoy the excitement of TV entertainment anywhere there's an AC outlet or 12 volt car or boat battery. Has detachable darktint screen. Molded olive black cabinet with carrying handle. 3 ½" speaker. With car/boat adaptor cord. Size: 11¾ H. x 16½ W. x 11½ D. Shpg. wt. 19 lbs.

39A3099-4. Model TR-882. Each ...... \$129.95







## Panasonic COLOR TELEVISION

Features the Quintrix II in-line picture tube with bright picture and vivid contrast, but using less energy for its operation. A slotted shadow mask lets more of the electron beam pass through to the phosphor strips on the screen for brightness and a black matrix strip around each phosphor strip gives heightened contrast. The in-line construction eliminates complex convergence circuitry, reducing energy consump-

tion and simplifying color adjustment. Quick-on feature brings picture on in about 5 seconds, no waiting for warm-up, and no power is used when switch is off. All these color models have 100% solid state IC chassis, Q-Lock II control to adjust color and tint by the touch of a finger, Panalock automatic fine tuning, and are equipped with a VHF Dipole and UHF loop antenna.



Panasonic LID MODEL CT-326 13" DIAGONAL COLOR TV





Panasonic III MODEL CT-916 19" DIAGONAL COLOR TV

MODEL CT-216 12" DIAG. **PORTABLE COLOR TV** 

#### MODEL CT-216

Compact design and light weight, only 27½ lbs., make this an outstanding color TV for easy room-to-room-to-patio carrying and viewing. Has VHF/UHF "Click-stop" tuning. 4" speaker. White polystyrene cabinet has drop down handle and measures 12½" H.x 18" W.x 14" D. For 120 VAC. Shpg. wt. 30 lbs.

39A4133-0. Model CT-216. Each ...... \$299.95

#### **MODEL CT-326**

Features VHF/UHF "Click-Stop" tuner with lighted channel indicators, sharpness dial for manual sharpness adjustment and Panabrite manual brightness

adjustment. Has  $3\frac{1}{2}$ " speaker and is supplied with privacy earphone. Simulated walnut grain polystyrene cabinet is 13" H.x  $18\frac{1}{2}$ " W.x 15" D. Shpg.

39A4134-8. Model CT-326. Each ...... \$349.95

#### MODEL CT-916

Features the Video Sensor, automatically adjusts picture brightness depending on the level of light in the room. Has Panabrite manual brightness adjustment, too. 4" speaker. Simulated walnut grain polystyrene cabinet measures 16½" H.x 24½" W.x 19¾" D. For 120 VAC. Shpg. Wt. 60 lbs.

\$429.95 39A4135-5. Model CT-916. Each .....

anasonic B & W Television



Panasonic III MODEL TR-852 12" DIAG. **B & W PORTABLE TV** 





ONIC MODEL TR-542 12" DIAG. B & W PORTABLE TV

#### **MODEL TR-802**

A beautiful addition to any room in your home. Features stay-set volume con-A beautiful addition to any room in your home. Features stay-set volume control eliminating resetting volume each time set is turned on. Automatic voltage regulator helps eliminate picture fading, shrinkage and distortion due to power fluctuations. 100% solid state IC chassis for long enjoyment. Has UHF/VHF monopole antenna, 3½" speaker. Comes with personal earphone. For 120 VAC. Size 11½" H.x 16½" W.x 11¾" D. Shpg. Wt. 18 lbs. 39A3095-2. Antique White.

39A3096-0. Yellow.

\$99.95

MODEL TR-802 12" DIAG. B & W PORTABLE TV

#### MODEL TR-852

Compact charcoal gray and silver trim cabinet with flat screen picture tube makes this innovative designed portable more attractive and offers important viewing benefits. Reduced picture glare and reflections are realized in the flat screen design. Quick-on circuitry and solid state IC chassis eliminate warm-up waiting period. Automatic voltage regulator helps eliminate picture

fading, shrinkage and distortion due to power fluctuations. Has detachable VHF/UHF unipotential antenna. With earphone. 3½" speaker. For 120 VAC. Size: 10¾" H.x 16¾" W.x 12¾" D. Shpg. wt. 18 lbs.

39A3097-8. Model TR-852. Each ...... \$114.95

#### **MODEL TR-542**

Striking Curvelinear "European Design" portable TV that's outstanding in both looks and performance. 75 sq. in picture with detachable tinted screen for sharper detail. 58 solid state devices and integrated circuitry for finest picture and sound. Features feather-touch On/Off switch, Speed-O-Vision for instant on, keyed AGC for stability, 3 video IF stages and front mounted 4-3 /8 X 3-1/8" dynamic speaker. VHF monopole and UHF bowtie antennas. Size 12-3/16" H. X 16¾" W. X 12-3/16" D. For 120 VAC. With earphone.

Shpg. wt. 21 lbs. 39A3018-4. Antique White 39A3056-4. Yellow

YOUR CHOICE EACH ..... \$129.95



## Texas Instruments

#### TI-30 40 KEY, **48 FUNCTION SLIDE-RULE CALCULATOR**

An economical slide-rule calculator specifically designed for high school students. Features 48 functions plus Tl's unique Algebraic Operating System (AOS) with 15 sets of parentheses. Combines high versatility with memory — 4 basic functions, constant, roots, powers, reciprocals, scientific notation, common and natural logarithums, trigonometry, degree/radian mode, memory. common and natural logarithms, first conometry, degree/radian mode, memory for store and recall of numbers, sum to memory, memory/display exchange, automatic power down. Sim-

ple operation featuring AOS allows sequence to be entered in the same order that they are algebraically stated, provides step function improvement in ease of use over alternative systems. Uses 9V battery (listed below). Shpg. wt. 1 lb.

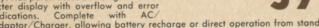


## Texas Instruments

SR-40 40 KEY CALCULATOR

#### **FULLY SCIENTIFIC HIGH FUNCTION CAPABILITY**

Performs classical slide rule functions – simple arithmetic, reciprocals, exponenitation, square root, trigonometric and logarithmic functions, free floating dec-imal point. Features an algebraic keyimal point. Features an algebraic keyboard and pi key that can be used
with four basic functions. Memory allows storage and recall of numbers
with sum key for accumulation to memory. Has parentheses and bright 8 character display with overflow and error
indications. Complete with AC/
Adaptor/Charger, allowing battery recharge or direct operation from standard
power outlets. Size: 5¾" x 3½" x 1½". Shpg. wt. 1 lb.





WITH METRIC CONVERSION

AUTOMATICALLY CONVERTS: Gallons to liters.

- Degrees to radians.
- Miles to Kilometers. Quarts to liters.
- Positive to negative.
- Feet to meters.
- Inches to meters.
- Ounces to grams.
- Yards to meters. Feet per second to statute miles per hour.
- Inches to centimeters.
- Statute miles to nautical miles.
- Cubic inches to liters.

- Pounds to kilograms.
  Fahrenheit to centigrade.
  Fluid ounces to cubic centimeters.

Combines a full accumulating memory with 16 pre-programmed metric conversions. The memory allows recall of sub-totals of prior calculations, displayed number may be added to or subtracted from data saved in memory. Exchange key exchanges data in display for data in memory. Converts English to metric or metric to English with just one button. Performs % functions including add-ons, discounts, and mark-ups. Automatic constant for repetitive work. Algebraic logic lets you enter problems as you would state them. Perform chain and mixed calculations. Automatically turns calculator off after 8 minutes of non-use. Complete with batteries, AC adaptor and carrying case. Size: 3½" W. X 6½" L. X 1" H. Shpg. wt. 1 lb.



LLOYD'S E-321 10-FUNCTION BASIC SLIDE-RULE CALCULATOR WITH FULL MEMORY \$**1 0**95

Feature packed calculator has 8 digit dis-play and 4 basic functions, plus % key play and 4 basic functions, plus % key with add-on discount, square root key and

floating decimal. Capable of complex algebraic expressions. Fully addressable memory with M+, M-, MR and MC keys. Has 1/x key for direct reciprocals and direct squaring capability. Operates on 4 penlite (AA) batteries and has recharging circuit built-in. Size: 3-3/8" W x 5-3/8" D x 7/8" H. Shpg. wt. 1 lb.

46A7586-7. Model E-321. Each ...... \$19.95

## LLOYD'S

E-205 ELECTRONIC PRINT-OUT **CALCULATOR WITH 12-DIGIT** DISPLAY AND MEMORY

Features Seiko silent printing head with

Features Seiko silent printing head with 13 character print-out. Prints 3 lines per second. Has large, easy-to-read 12 digit digitron display. Common 4 functions plus fully addressable 4 key memory system with separate keys for M+, M-, RM, CM. Decimal selections of 2, 4 and 6 fixed positions in answers, or full floating decimal. Non-print switch allows use as display calculator only. Item counter switch (CNT) prints the number of + or - entries on side of tape. Automatically round off last digit after decimal, up or down, with round-off switch. Easy-load tape system with auto-threading. Uses standard adding machine tape. Size: 13" D x 9" W x 3¾" H. Shpg. wt. 12 lbs.



## LLOYD'S

**E-650 43-KEY SUPER** SCIENTIFIC PORTABLE CALCULATOR 4095

Instantly performs complex calculations. Converts degrees/minutes/seconds to decimals. Trigonometric and hyperbolic functions, square roots, reciprocals, natu-

ral and common logarithms, powers of numbers and factorials. Has degree/radian/gradian modes; degree/radian conversion. Also two levels of parentheses and fully addressable 6-key memory. Plus mean and standard deviation, X - Y exchange key and direct Pi key. Bright 12 character digitron display. Complete with case and batteries. Size: 3-5/16" W x 5-9/16" D x 15/16" H. Shpg. wt. 1 lb.



## 5 1 4 95 Novus Quiz Kid ELECTRONIC TOOL

Quiz Kid offers children an exciting and unique pathway into the vast world of numbers. A numbered programming panel and a red light/green light answer display make playing and learning with Quiz Kid an intriguing adventure. The game and puzzle filled Quiz Book has been carefully edited for ages 6-12. It contains dozens of math-oriented games, puzzles and riddles. The Quiz Kid has a colorful owl-face design made especially for children. Compact size fits child-size hands. Complete with denim tote bag, Quiz Kid Button, 34-page Quiz Kid Book. Uses 9 volt battery.



GUIZ KIDII National Semiconductor

Truly a teaching machine! Over 1200 problems are automatically generated by the calculator. Child gets two chances for the right answer, if both tries fail, correct answer flashes on display. If answer is correct, child is immediately informed by green LED that lights up. Slow/fast speed control allows the child to increase or decrease the speed at which he must enter the answers. Table key permits selection of the type of arithmetic function. After 15 problems, number of correct responses is displayed. Shpg. wt. 1 lb.

41A5004-8. Quiz Kid II. Each ..... \$24.95

## Microma DIGITAL CHRONOGRAPH

## 4-FUNCTION STOPWATCH! IT'S A WATCH! IT'S A STOPWATCH!

This magnificently styled digital watch is the most sophisticated in the world. In addition to its continuous watch function, the Microma Chronograph is a superbly accurate stopwatch. It contains four different stopwatch functions with 1/10th of a second readout. One button controls everything. Mode 1 function would be used to time a single event such as a 100-yard dash. Mode 2 would be used to time individual laps of a multi-lapped event without losing the timing for the entire event. Mode 3 is a lap-accumulative function. For example, it allows you to freeze display the cumulative time for each successive lap of a race. Mode 4 makes it possible to stop the watch without automatically resetting it to zero. For instance it would be possible to stop the watch during a basketball game time-out then resume timing. Shpg. wt. 1 lb.

45A315-9.	Microma M-500. Stain	less steel case and bracelet.	4-	70.05
Each	Microma M-501 Gold	tone case and bracelet. Each	7/	\$80 05
		k case and bracelet. Each		

- Liquid crystal no button to push to read the time.
- 6 digits of continuous action hours, minutes, date, seconds, plus night light.

Available in Stainless Steel, Goldtone and Black



## Microma

# WOMEN'S CONTINUOUS TIME DISPLAY DIGITAL WATCH

Beautifully feminine and a delight to wear, with this stylish digital watch you don't have to push buttons to tell the time. The liquid crystal display is a continuous readout. Designed in silvertone with a skyblue dial, shows hours and minutes continuously with seconds, date and night light on command. Shpg. wt 1 lb.

45A319-1. Model L100 in Silvertone. Each	\$59.95
45A320-9. Model L101 same as above except in Goldtone. Each .	



# litronix 6220 MEN'S SILVERTONE 6-FUNCTION LED

Here is a fine quality digital watch by the renowned Litronix electronic watchmakers. Handsomely styled in metal silvertone, and rugged, the 6220 will look great on your wrist. The metal is brushed to a luxurious finish and the face is distinctly sophisticated. A full six-function digital, it displays hours, minutes, seconds and the date. A second pushbutton activates an alpha display of the day of the week. The 6220 also has an AM/PM indicator and an automatic brightness control. Shpg. wt. 1 lb.



# Itronix 7120 SILVERTONE LADIES 6-FUNCTION LED WATCH

A slim, beautiful timepiece, perfectly feminine. Full sixfunction, it gives numerical display of hours, minutes, seconds and date, plus an alpha display of the day of the week. Has AM/PM indicator and automatic brightness control. Shpg. wt. 1 lb.







\$2495

- . HIGH QUALITY!
- HIGH STYLE!LOW PRICE!

Now get that stylish digital watch you've been wanting. The Novus EP1 is high styled, in scratch resistant black polycarbonate case with integrated molded strap. Displays hours, minutes, seconds. Shpg. wt. 1

45A328-2. EP1. Each ..... \$24.95

## SUPER COMPACT 8 TRACK CAR STEREO

Illuminated Digital Program Indicator

Low Distortion Two-Stage Preamplifiers

Small Size, Small Price, Big Sound

Panasonics compact cartridge tape player offers economy and superior quality. Small enough to fit in the glove compartment or hide away under any dashboard yet attractively designed to complement your car interior. Has bigunit features like two-stage preamps and Panasonics vertical head-movement system that provides the mechanical and electronic precision necessary for truly hi-fidelity stereo performance. Infinitely variable sliding volume and tone controls to suit your taste. Changes tracks automatically and has push-button switch for manual selection. Illuminated program indicator. Swing-away dust-door keeps internal mechanisms clean. Frequency range 70-10,000 Hz. Impedance 4-8 ohms. 12 VDC neg. ground only. Size: 2" H. X 4¾" W. X 6-3/8" D. Shpg. wt. 7 lbs. Shpg. wt. 7 lbs

38A3028-4. (less speakers). Each ...... \$49.99



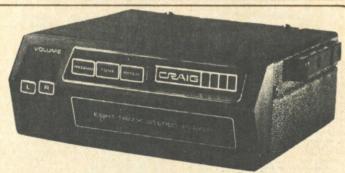
### COMPACT QUICK-MOUNT 8-TRACK AUTO STEREO PLAYER

MODEL 3144A

MODEL CX-385

- · Repeat.
- Plug-In Quick Release Mounting.
- Illuminated Program Indicators.
- Monolithic Integrated Circuitry.
- Dual Slide Controls for Left Right Volume and Balance.

This quick mount 8 track stereo player features the convenience of slide-out disconnection for safe storage in glove compartment or trunk. Integrated circuitry makes this a compact, comfortably-handled unit. Slide controls permit smooth control of sound volume and balance with a tone switch for adjusting sound quality. Playing program may be manually selected from front-panel program

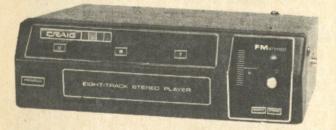


button or will change automatically. A governor-controlled motor maintains constant speed over a range of 11 to 16 volts. Output impedance 2-8 ohms, 12 VDC negative ground only. Size: 6 x  $2\,\%$  x  $6\,\%$ ". Shpg. wt. 4 lbs.

## A G COMPACT UNDER-DASH 8-TRACK STEREO PLAYER WITH FM STEREO RADIO

- SENSITIVE FM RADIO
- **ILLUMINATED PROGRAM INDICATORS.**
- AUTOMATIC OR MANUAL PROGRAM CHANGE.

MODEL 3153



The 3153 combines a sensitive FM stereo radio with an eight-track stereo player in an attractive, compact entertainment center for your car. The radio incor-porates automatic frequency control with a vernier - action dial for easy, pre-cise tuning. A push-button selects either monaural or automatic stereo operation. Inserting a cartridge switches from radio to tape operation. Program changes are indicated by multi-colored indicator lamps. Program switching is fully automatic, with manual program change at any time by front-panel push-button. Wow and flutter better than 0.3%. Frequency response 40-10,000 Hz. Signal/Noise ratio better than 50 dB. Audio output 14W peak total, 3.5W continuous per channel. Size: 7-3/8" W X 2½" H X 7½" D. Shpg. wt. 4½ lbs.

MINI-COMPACT 8-TRACK AUTO STEREO TAPE PLAYER FOR UNDER DASH

- SMALL SIZE BIG POWER.
- AUTO MANUAL PROGRAM SELEC-TION.
- SWING-AWAY DUST DOOR.
- . EASILY INSTALLED.

MODEL C-902



This mini-compact is designed to give you years of trouble-free enjoyment. A power packed unit that will fill your car with the great sounds of top-quality 8-track car stereo. Precision engineered for fast and easy installation under dash. Features separate slide controls for volume, balance and tone. Push button channel selector permits manual choice of tracks or switches automatically for continuous play of entire tape. Lighted program indicators show the channel you are listening to. Dust door keeps internal mechanisms clean. Size: 5½" W X 7¼" L X 2½" H. Shpg. wt. 5¼" lbs.

38A3086-2. Model C-902. Each ...... \$39.95

## AUTOMOTIVE TAPE PLAYERS



Metro Sound MINI-CASSETTE TAPE

B-A's LOW PRICE

COMPACT SIZE - ONLY 41/2" W. X 1-7/8" H. X 6" D.

**USES STANDARD SIZE CASSETTES** 

One of the smallest high quality under dash cassette players on the market! Features fast forward button, manual eject button, volume slide control, Hi-Lo tone switch. Side loading cassette for compact size and easy loading. Includes mounting hardware and power connections. Frequency response 50-9,000 Hz. Size: 4 ½" W. X 1-7/8" H. X 6" D. Shpg. wt. 6 lbs.

38A3067-2. Model MS308. Each ...

\$39.95

MODEL C-988 AUDIC

SUPER-SMALL CASSETTE **AUTO STEREO PLAYER** 

IDEAL FOR UNDER DASH OR GLOVE BOX

This cassette stereo player is an extremely compact unit with the convenience of use either under dash or in the glove box. Featuring all IC circuitry, it provides instant play, easy operation and a long life of stereo enjoyment. Unit has sliding balance, tone and volume controls. Automatically ejects cassette and shuts off power at end of tape. Fast forward and fast rewind allows you to quickly find your desired selection. Uses standard size cassettes. Size: 5" W X 6\%" L X 1-7/8" H.

38A3087-0. Model C-988. Shpg. wt. 5 ½ lbs. Each ............. \$59.95



## PIONEER MODEL KP-212

CASSETTE CAR STEREO PLAYER

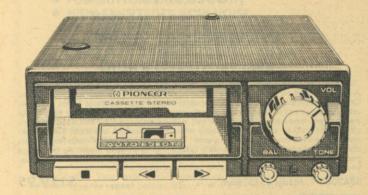
ULTRA-FAST REWIND AND FORWARD.

AUTO-EJECT DELIVERS TAPE AT END OF PLAY.

CONVENIENT GROUPING OF BALANCE, TONE, VOLUME.

The KP-212 brings the joys of cassette stereo to your car in a most convenient, economical fashion. With an improved design this pacesetter of compact cassette stereo puts under your dash the smoothest of sound control systems. Cassettes play the moment they are pushed in, stop and eject automatically at tape end. Volume control is via an oversized knob. For tape handling there are three large push keys. One push gives you fast forward or rewind (at 18 times the speed of normal tape running), or manual eject of the cassette. Uses standard size cassettes. Features IC circuitry. Wow and flutter less than 0.3% and frequency response of 40-10,000 Hz. Output impedance 4 ohms. Output power 8 watts RMS. Size: 5-7/8" W X 2" H X 6%" D.

38A3103-5. Model KP-212. Shpg. wt. 3 ½ lbs. Each ........... \$79.95



## **MODEL 3517**

**CASSETTE STEREO PLAYER** WITH FM STEREO RADIO

- UNDER-DASH MOUNT.
- QUADRANT-STYLE VOLUME CONTROL.

. THUMB WHEEL TUNING.

The 3517 cassette stereo player with FM stereo radio is an extremely compact unit featuring convenient slot cassette loading and fast forward for rapidly locating the desired selection on the tape. Unique quadrant-style left and right volume controls simplify setting sound level and balance. The two-position tone control selects best equalization for music. Depressing the fast forward button runs the tape in a high speed mode. Features thumbwheel vernier tuning FM dial. Uses standard size cassettes. Size: 7 ½ " W X 1-7/8" H X 6 ½ " D. Shpg. wt. 3 lb.



## **AUTO TAPE PLAYERS AND RADIOS** -() PIONEER-

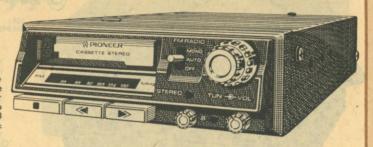
### **MODEL KP-250 CASSETTE** PLAYER WITH FM STEREO

- FM STEREO/STEREO CASSETTE.
- **FAST FORWARD FAST REWIND.**

AUTO-STOP, AUTO-EJECT.

Put together the enjoyment and creativity of playing your own cassettes, with the entertainment offered by FM stereo and you have total listening enjoyment. The FM stereo tuner is a delight to operate with mono/stereo switch, stereo indicator light and lighted tuner dial. Easy under dash mounting uses existing AM radio antenna for reception. 8 wats RMS power rating, frequency response 40-10,000 Hz. Separate balance, tone, tuning/volume controls for ease of operation. Size: 6 ½ " X 2" X 6 ¾ ". Shpg. wt. 4 lbs.

38A3083-9. KP-250 only (less speakers) ...... \$119.95

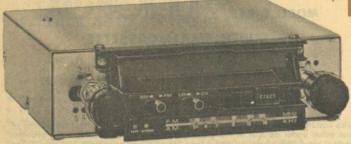




### MODEL 65-496 IN-DASH STEREO CASSETTE TAPE PLAYER WITH AM FM STEREO RADIO

Combines AM/FM stereo listening with popular cassette tapes. Features include rotary shaft on/off, volume, balance, tone and tuning; 3-way lever control for eject, rewind and fast-forward. Has Auto-eject at end of tape. Provides local/distant switch, AM/FM band select, tape-on and FM stereo lights, and backlighted tuning dial. Also special circuit provided for independent dial illumination. Easily accessible antenna trimmer inside tape door. Custom trim package includes in-dash rubber trim pad, two sets of custom knobs, universal trim plate and reversible black wood grain inserts that fit all shaft positions for a professional custom installation look. For negative ground. Size: 7" W x 1-7/8" H x 5-7/8" D. Shpg. wt. 5½ lbs.

38A3107-6. Model 65-496. Each ...... \$129.95



## PAIG

#### **MODEL 3513**

### IN-DASH STEREO MATRIX **ENTERTAINMENT CENTER** WITH CASSETTE TAPE PLAYER AND FM STEREO RADIO

A compact unit featuring matrix stereo reproduction of both radio and tapes. Other features include AM/FM stereo and end-of-tape indicator lights, slot cassette loading, and locking fast forward and rewind. The reproduction of all your stereo tapes and stereo FM broadcasts will be enhanced by the quadraphonic effect produced by the matrix circuitry when four speakers are used. Two speakers ers may be used for conventional stereo. The adjustable control mounting centers and the compact size make it readily adaptable to in-dash mounting in foreign and domestic cars. Features always on AFC. Size: 7" W X 2" H X 6-1/4" D. Shpg.





### **MODEL S600** IN-DASH 8-TRACK STEREO TAPE PLAYER WITH AM FM STEREO RADIO

Designed to provide a complete entertainment system built into the dash of your car. Adjustable control mounting centers and compact size make it readily adaptable to foreign and domestic cars. The highly sensitive radio enables you to listen to your favorite programs while the AFC simplifies tuning and assures drift-free reception. The large tuning dial makes tuning easier and conceals the tape cartridge opening. Other features include a 3-position rotary selector for local, Distant, and mono FM broadcasts. 8-track tape changes programs automatically, or may be manually changed by front panel control. A single program may be heard continuously by depressing repeat button. Size: 7 ½ " W x 1-15/16" H x 5 ½ " D. Shpg. wt. 4 lbs.

38A3104-3. Model S600. Each ...... \$109.75

## **AUTO TAPE PLAYERS AND RADIOS**

## edalion 65-554 IN-DASH 8-TRACK AND AM/FM STEREO RADIO

This 3-way car system features AM/FM stereo radio and 8-track tape player. Dial in the door design, funing dial disappears when 8-track cartridge is inserted. FM MPX indicator light, track indicator lights. Dual volume/tone control, dual balance/tuning control, local-distant switch for improved reception. Reversible trimplate, knobs, mounting hardware and power cable included. Adjustable shafts from 5 ½" to 6 ½". All solid state design for increased stability and reception. 4 watts RMS per channel with a frequency response of 50-10,000Hz. Size:



- Dial in the door.
- Stereo indicator light.
- Local/distant switch. Only 51/2" deep.

## ( PIONEER KP-4000 CASSETTE CAR STEREO PLAYER WITH AM/FM STEREO RADIO



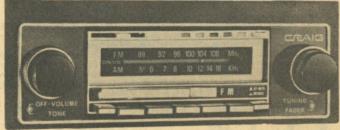
- IN-DASH MOUNTING
- PADDED KNOBS
- ULTRA-FAST REWIND.
- TILTED DIAL.

Here's an in-dash cassette unit for your car that is not only a beautiful piece of stereo engineering but also a delight to use. The KP-4000 offers better-than-ever tape handling facilities through big rewind and fast forward control buttons. In fact, the rewind button speeds the tape back 18 times faster than normal tape running speed. Large, flat shaped knobs, distinctive to the touch, look after all sound control, including radio band selection, with smoothness and precision. To give the driver accurate, quick-glance tuning there is a tilted radio dial, an FM-stereo indicator, and a selector button for optimum reception of local or distant stations.

Features IC circuitry, wow and flutter less than 0.3%. Frequency response 40 to 10KHz, Output 8 watts RMS. Size: 7 1/8" W x 2" H x 6 1/4" D. Shpg. wt.

38A3077-1. Model KP-4000. Each .....

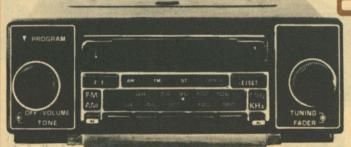
## CRAIG 5630 IN-DASH STEREO-MATRIX 8-TRACK TAPE PLAYER WITH AM/FM STEREO WB RADIO



- WEATHER BAND.
- DIAL DIMS WITH CAR LIGHTS.
- **PUSHBUTTON RADIO**
- HIGH SENSITIVITY /LOW NOISE.

The adjustable control mounting centers and the compact size of the \$630 make it readily adaptable to foreign and domestic cars. The highly sensitive radio, with FET, enables you to listen to your favorite AM or FM broadcasts, and the AFC (Automatic Frequency Control) assures drift-free reception. The large tuning dial makes tuning easier and conceals the tape cartridge opening. Other features of the \$630 include slidebar selector for AM or FM radio, separate pushbutton selection of continuous U.S. Government weather and emergency information, and a Local/Distant pushbutton selector. Eight-track cartridges change programs automatically, or may be manually changed by cartridges change programs automatically, or may be manually changed by a font-panel control. The program being played is indicated by lights above the radio dial. Your favorite cartridge program may be heard continuously by depressing the repeat button. Size: 7" W x 2¾" H x 5 ½" D.

38A3098-7. Model S630. Shpg. wt. 5 ½ lbs. Each ...... \$189.95



- Five preset pushbutton AM/FM radio.
- Front-rear fader, tuning, balance, volume and tone controls Radio on, AM/FM, matrix and stereo/mono pushbuttons.
- Disappearing dial in the door.
- Custom in-dash look.

## 3516 IN-DASH STEREO MATRIX CASSETTE WITH AM FM STEREO RADIO AND WEATHER BAND

Fits most American and imported cars. Cassettes may be loaded with one hand. Reproduction of all your stereo tapes and stereo FM broadcasts are enhanced by the quadraphonic effect produced by the matrix circuitry when 4 speakers are used. Two speakers may be used for conventional stereo reproduction. Separate controls are provided for tuning, volume, tone and front/rear speaker fader. Antenna trimmer and left/right balance adjustment are accessible from the front of the dash. Includes gasket and trim plate, mounting hardware.

RMS. Frequency response: 40 to 10,000 Hz. Signal to noise: better than 40 db, 12 volts negative ground. Size: 7½" W. X 2¾" H. X 6¾" D. (behind panel). Dash opening: 4½" W. X 1¾" H. Shaft adjustment: 5½" to 6¾".

ID-400 "THE IN-DASHER" by Audiovox

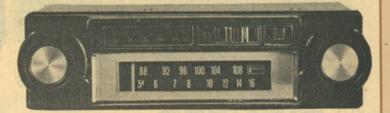
### 8-TRACK STEREO TAPE PLAYER WITH AM FM STEREO RADIO

POWER OUTPUT 7 WATTS PER CHANNEL

FITS MOST CARS. NO ADDITIONAL KITS NEEDED

**EASY TO FOLLOW STEP-BY-STEP INSTALLATION INSTRUCTIONS** 

A unique combination of many listening experiences. Now, with in-dash mounting, you practically eliminate theft and insurance problems. This compact solid state sound center incorporates the latest mechanical and circuitry design innovations available today. Features such as AM/FM slide bar selector, FM local-distant reception switch. Tape program and stereo indicator lights, and flip-away dial in the door combine for the ultimate in car stereo. Size: 7" W X 2½" H X 6 %" D. 12 volt negative ground.



## (I) PIONEER

### MODEL GX-2020 IN-DASH PUSH-BUTTON AM/FM STEREO AUTO RADIO

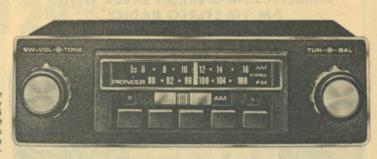
ONLY 51/8" DEEP.

ADJUSTABLE SHAFTS.

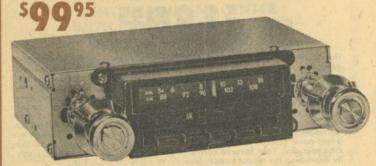
LOCAL-DISTANT SWITCH.

To make sure its fine performance is available for the most number of cars the To make sure its fine performance is available for the most number of cars the GX-2020 has adjustable shafts to custom fit in your dash. All solid state circuitry gives great sensitivity, and low noise performance for strong reception. Has 5 pre-set pushbuttons or manual tuning for station selection. Stereo indicator light signals FM stereo reception. Local-distant switch filters out strong local stations for excellent reception of distant stations. Has combination on-off, volume, tone control, mono-stereo switch. AM/FM slide selector. Combination manual tuning-balance control, Size: 7 ¼ " W. X 2" H. X 5 ½ " D. Shpg. wt. 4 lbs.

38G242-4 GX-2020. Each ...... \$99.95



TOP-OF-THE-LINE PUSHBUTTON AM/FM STEREO RADIO



- SHORT 4½" DEEP CHASSIS FITS MOST AMERICAN AND FOREIGN CARS
- SPECIAL TRIM PACKAGE FOR PROFESSIONAL FINISHED INSTALLA-TIONS
- SIDE-TO-SIDE AND FRONT-TO-REAR INFINITELY VARIABLE BAL-ANCE

SLIDE BAR FOR AM FM SELECT

5 PUSHBUTTON STATION SELECTION.

HEAVY DUTY 4" FULL RANGE SPEAKER

Medallion's new deluxe AM/FM MPX radio is designed to compliment any car interior. Side-to-side and front-to-rear balance give infinitely variable sound control for 4 or 2 speakers. Gives American and foreign cars a customized installation look. Special circuit for independent dial illumination. Color-coded AM/FM slide bar. 5-push-button station selection on AM or FM. Knob on left shaft controls on/off/volume, tone and local/distant switch. Knob on right for station tuning and front-to-rear fade. Separate slide control for side-to-side speaker balance. Backlighted tuning dial, FM stereo indicator. Fully adjustable shafts. Custom trim pack includes rubber in-dash pad, two sets of custom knobs, universal trim plate and reversible black or woodgrain inserts that fit all shaft applications. For 12 volt negative ground. Measures just 4½" deep X 7½" Wide X 2" high. Shag, wt. 4 lbs. high. Shpg. wt. 4 lbs

## 7 TRANSISTOR AM RADIO



Flush Mounts — Has built-in heavy duty speaker

PRICED WAY BELOW THE MARKET!

**HEAVY DUTY 4" FULL RANGE SPEAKER** 





Most Exciting universal auto radio bargain anywhere! Modern all solid-Most Exciting universal auto radio bargain anywhere! Modern all solid-state circuitry makes possible finest AM performance at a fraction of former car radio prices ... with no sacrifice in quality, appearance or features that make radio listening a pleasure. Mounts neatly and easily under the dash or custom in-dash. So small that it just can't get in the way. Only 6½" X 1¾" x 5-3/8". Has fine tone from built-in 4" full range speaker. Ideal for car, truck and boat installation. Operates with minimum battery drain from 12 volts neg-ative around. Shop, wt. 5 lbs. ative ground. Shpg. wt. 5 lbs. 38A208-5. Each

## FINE AUTO RADIOS/ TAPE PLAYERS

## Panasonic MODEL CQ-1989

## IN-DASH 8-TRACK PLAYER WITH **PUSHBUTTON AM/FM STEREO** RADIO

A three-way entertainment unit. Combines an 8-track stereo player with AM and FM stereo radio. Tape player features pushbutton program-changer, and fader control to adjust front to rear speaker output. Radio dial is in the cartridge door; if flips down when tape is inserted. Radio features pushbutton tuning, AFC, stereo indicator light, leads for dial dimmer and power antenna. Unit has 4-way speaker control: left-right, front-rear. Adjustable shafts for in-dash installation. Frequency response 50-10,000 Hz, Wow/Flutter less than 0.3% (WRMS), output 3.5 watts per channel (at 400 Hz, 10% total harmonic distortion with 4 ohm load). Size: 7½" W.x5" D.x 2¾" H. Shpg. wt. 8 lbs.

38A3070-6. Each ...... \$199.95



## PIONEER MODEL KP-500 SUPERTUNER

The last word in stereo tuners is Supertuner! Features such facilities as automatic mono-stereo switching combined with a noise-cut filter, a "distance" switch which increases the tuner's capability to tune in a distant station, and an FM muting switch. You can be twice as far from your favorite station, and still catch your favorite program with less noise, more clarity and greater stability. The cassette player includes automatic eject, fast rewind and fast forward, separate bass and treble controls and a loudness contour switch. 8 watts per channel (RMS), frequency response 30-12,000 Hz, Wow and flutter no more than 0.25% (WRMS). Size: 7-5/8" W. x 3" H. x 7 ½" D. Shpg. Wt. 7 lbs.

38A3100-1. Each ...... \$159.95



UNDER-DASH CASSETTE PLAYER AND AM/FM STEREO RADIO

## SONY MODEL TC-24FA

## IN-DASH STEREO CASSETTE TAPE PLAYER WITH AM/FM RADIO

Looking for fun on wheels? Then enhance your driving pleasure with the superb sound of Sony's TC-24A auto entertainment center, an in-dash stereo cassette tape player combined with an outstanding AM/FM stereo radio. Attractive black with silver trim styling matches any car interior. Features pushbutton function selection, stereo indicator light. Fast forward and easy eject controls. Traditional Sony quality means mile after mile of unsurpassed listening pleasure. Size: 7" W.x2" H.x5-7/8" D. Shpg. wt. 6 lbs.

38A3102-7. Each ...... \$159.95



## PIONEER MODEL TP-900 SUPERTUNER

Supertuner for 8-track fans! Gives home stereo FM performance plus features you would find only in a home stereo; Phase Lock Loop for stereo separation, FET front end, loudness contour switch, FM muting and separate bass and treble controls. Use distance switch to pick up your favorite station (at twice the normal distance) for clean, clear reception. The 8-track gives you automatic or manual program change, light-up program indicator, manual eject, repeat and fast forward. Custom-tailor your music to the acoustics of your car. Wow and flutter no more than 0.25% (WRMS), 8 watts per channel (RMS), frequency response 30-12,000 Hz (-3db). Size: 7-5/8" W.x 3" H.x 7½"D. Shpg. wt. 7 lbs.

38A3101-9. Each ...... \$149.95



**UNDER-DASH 8-TRACK TAPE PLAYER** AND AM/FM STEREO RADIO



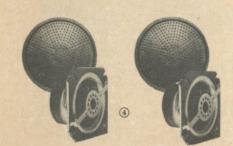


## AUTOMOTIVE STEREO SPEAKERS

TOP QUALITY STEREO SPEAKER KITS



## FOR AUTO, BOAT, TRAILER OR HOME MUSIC SYSTEMS



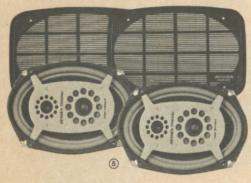
### JENSEN HIGH FIDELITY SPEAKER SYSTEMS

Ruggedly constructed weather resistant speakers. Extended range frequency response. Custom fit grilles. 15 feet of wire, Mtg. hardware, and instructions supplied. 8 ohms.

① Two 6X9" coaxial speaker systems. 3" tweeter, 20 oz. magnet, 25 watts handling power, f	lex air sus-
98A6054-7. Shpg. wt. 10 lbs. Pair	\$69.95
② 2 6x9 dual cone speakers. 20 oz. magnets. Flex air suspension. Black plastic grilles. 38A6037-2 Shog, Wt. 9 lbs. Pair	46.95

sion. Shpg. Wt. 8 lbs.
No. 38A6058-8. Pair \$49.95

(8) Two 6" x 9" triaxial speakers. 6 x 9 woofer, 3" midrange, 2" tweeter. Frequency response 40-20KHz. 20 oz. magnet. Rated 30 watts. Flex-air suspension. Shpg. Wt. 10 lbs. \$114.95



## PIONEER HIGH FIDELITY SPEAKER SYSTEMS

(B) TS-160. Two 5 1/4" door mount. Dual cone. 10 oz. magnet. Black/chrome finish grille. 20 watts power capacity. Shpg. Wt. 6 lbs.

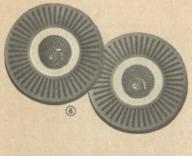
38A6060-4. Pair

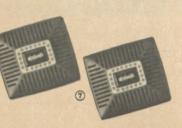
(TS-100. Two 4" door mount. 7 oz. magnet. Black/chrome finish grille. 8 watts power capacity. Shpg. Wt. 3 lbs.

38A6072-9. Pair \$21.95

® P-16L. Two 5¼" heavy duty door mount. Black leatherette grille. 8 watts power capacity. Shpg. Wt. 3 lbs.

(9) TS-165. Two 5 1/4" door mount. Coaxial speaker. 2" tweeter. Free-edge woofer. 20 oz. magnet. Shpg. Wt. 6 lbs.









## **AUTO STEREO SPEAKERS AND ACCESSORIES**

(1) RCA UNIVERSAL SURFACE OR HANG-ON MOUNT

Chosen for performance, these full range loudspeakers will complement any auto, boat or camper stereo sound system. Engineeted by RCA to handle 7 watts of audio power. Special cabinet design couples plenty of rich bass with brilliant upper range fidelity for an overall response of 50-10,000 Hz. Converts from flush to surface mount by simple removal of mid-housing. Inpedance 3.2 ohms. Cabinet size: 6¾ x 6½ x 4½". Speaker size 5¾". Shpg. wt. 12 lbs.
38A2097-0. RCA Model 12R400. Per Pair \$19.95

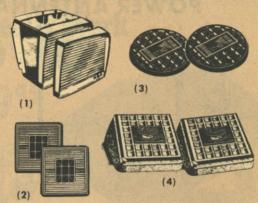
CRAIG CAR SPEAKERS

(2) Power Play Flush Mount Speakers. 13 oz. magnet 16 watt power handling, horn loaded dome high trequency radiator. 5 ½" speakers 6 ½" square grilles.

(3) Acoustic Lens Design 5 ¼" Flush Mount Speakers. Acoustic foam lens for improved sound transparency, 10 watt power capacity black grille. 38A6055-4. Craig 9427.

(4) Custom Convertible Car Speakers. Hemispherical dome radiator for wider frequency response. Can

be surface or flush mounted. Black plastic grille. 38A6056-2. Craig 9428.





## CRAIG

### POWERPLAY

BOOSTER

The Powerplay TM Booster converts your car stereo to 12 watts continuous power per channel which is several times that of a typical car stereo player. It will give you truer reproductions of musical transients and lower distortion of normal listening levels.

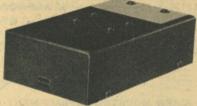
No operating controls are required, so it may be mounted out of sight under the dash. Power to the Booster is automatically turned on and off by the power switch on the car stereo.

Specifications: Frequency Response: 50-10,000Hz. Signal to noise ratio: 50dB, Crosstalk: -70dB, Input: 4 ohms, Gain 10dB, Power requirements: 12 v nominal DC; 0.2A to 5A depending on

Size: 634" W x 1-7/8" H x 5" D. Shpg. Wt. 31/2 lbs.

## Panasonic CJ-155ZEU POWER BOOSTER

Increases the power output of stereo car radios and tape players up to 10 watts per channel. No operating controls, easily installed almost anywhere in the car. 100% solid state. Specifications: Output Power 10 watts per channel. Frequency Response 70-10,000 Hz. Output Impedance 4 to 8 ohms. For 12VDC negative ground. Size 3-13/32 W x 5-11/16 D x 1-11/16 H. Shpg. wt. 3 lbs. With all wiring and Instructions.





**Reduces Fading** 

Cleaner Stereo Reception

Easy to Install



Improve the reception of your car FM stereo the easy way. This tiny new device, which may be installed simply between the radio and antenna, is an FM stereo preamplifier providing up to 20 DB signal boost to end reception problems nor mally found in car radios. Operates on any 12 V. negative ground system.

Measures just 2" x 1 ½" x 3/8". Shpg. wt. ½ lb.



BOOSTER

Improves FM stereo reception that often fades. Small compact size with jewel-like finish. Fits anywhere in car. Push ON/OFF switch cuts off booster in strong signal areas or for AM reception. Pilot light shows when booster is on.

\$19.95



#### MINI FLOOR LOCK MOUNT

Use where dash mounting space is limited. 38A3023-5

Complete Unit. Each ..... \$9.85

Extra Floor Mount. Lets you change stereo from car-tocar, car-to-boat, etc. 38A3024-3. Each \$6.40

## UNIVERSAL CAR STEREO POWER CONNECTOR

Can be assembled into 4 or 5 prong configura-tions to mate all car stereo receptacles. Includes fuse and holder. Instructions included. Wt. 1½ oz. 38A8018-0. Each ..... \$3.95



## CAR STEREO NOISE SUPPRESSOR KIT

Effectively kills the interference or noise caused by ignition system or alternator in some cars. Kit contains choke and capacitor and easy to follow instructions for hook-up.

38 A8020-6. Each .....



#### CAR STEREO SPEAKER SWITCH

Switches both power and speakers from radio to stereo. Can handle 4 speakers when each set is wired parallel. Complete instructions. Black. 2½" W. X 1" D. X 7/8" H. 6 or 12 VDC. Wt. 2 oz. 38A8120-4. Each \$4.95



#### **MURA CASSETTE ADAPTOR**

PLAY YOUR STEREO CASSETTES IN YOUR 8-TRACK CARTRIDGE PLAYER

All you do is push the adaptor into the cartridge housing of your car's 8-track player, insert the cassette ac-cording to the simple directions and you're ready to go-in a matter of seconds. No wires to connect. No batteries needed. Shpg. wt. 2 lbs. 38A2076-4. Each ... \$39.95



FOR CAR RADIOS AND CAR STEREOS

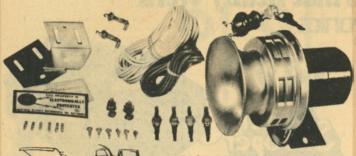
Provides a handy, convenient way of mounting auto stereo and auto radios.

Kit contains 6 brackets, 6 bolts, nuts and washers, 1 bracket strap, 4 lock washers and 4 sheet metal screws.

\$4.99

## **AUTO SECURITY SYSTEMS**

### **AUTOMOBILE SIREN BURGLAR ALARM KIT**







**EASY-DO-IT-YOURSELF KIT** 

COMPLETE SYSTEM

STOP THEFT!

GIVES FOOLPROOF PROTECTION 24 HOURS A DAY...

Loud, piercing siren instantly blasts when door is opened, hood lifted, or trunk door raised. Siren can be wired even to go off when emergency brake is released! Stays on till reset by the switch of the pick-proof lock. Siren is made of highly polished die-cast metal and spun aluminum. Size 63/4" high, 5" dia. Comes with relay switch unit, six alarm switches, flat key switch, wire, fuse. Full instructions for do-it-yourself installation. For 12 V. DC only. \$24.95

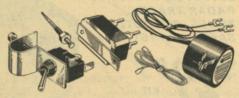
Shpg. wt. 6 lbs. Net Each....

Additional Pin Switch for Hood & Trunk, Each...

Additional Pin Switch for Doors, Each....

#### **HORN ALARM**

INSTALLS IN MINUTES . NO LOCKS OR KEYS



Current flow from the lighting of any bulb due to the opening of a door, or an attempt to start the engine, registers on a special sensor and activates your car horn to attract immediate attention. Attaches directly to battery cable.

47A5665-0. Each ......\$14.95



## **ALARM SIREN** WITH AMPLIFIER

ALL SOLID STATE

#### HIGH POWER YELP SIREN MODULE

#### USE FOR HOME OR AUTO BURGLAR ALARMS!



Delivers 5 screaming watts of powerful attention getting volume. Draws only 500 mils current and can be used on any 6 or 12 volt automobile or lantern battery. Only 3½ X 1¾ X ½". Requires any 8 ohm 5 inch or larger trumpet speaker. (shown at right) and SPST switch. Only 4 leads to connect. Shpg. wt. 1 lb.

20A1312-4.

## **AUTO BURGLAR ALARM**

STOP CB AND AUTO STEREO THEFT!

**WORKS ON 6, 12, 24 VOLTS** 



Devil Dog Alarm guards against theft of vehicle or contents by sounding car horn or siren (purchase siren above) until intruder leaves the car. Automatically resets after 20-30 seconds. Easily installed on any car, truck, boat, snowmobile, or trailer. Activated by vibration of vehicle body from any point, sensitivity adjustment allows you to set to all conditions. Includes arming switch and mounting hardware. Shpg. wt. 2 lbs.

47A5662-7. Model DDI. Each



**ELECTRONIC AUTO SIREN** BURGLAR ALARM

Hi-Lo yelping sound like now heard from police and emergency vehicles. Current sensor type reduces installation time. No need to wire doors, alarm senses current change caused by interior light. With 2 switches for use if your auto does not have trunk and hood lights. Complete with weatherproof horn, sired driver, electrical switch lock, hardware and instructions for 12 volt negative ground. Shpg. wt. 3 lbs.

Each ..... \$29.95 47A5656-9.



"THE NAILER" **CB ALARM** SYSTEM

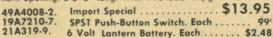
- PROTECTS CB EQUIPMENT FROM THEFT.
- INSTALLS EASILY, QUICKLY.
- NO SWR LOSS.

The Nailer is an alarm system that can be easily installed in a matter of minutes to work off of your 12-volt battery. It can be hooked up to an auxiliary alarm system or to the horn in your vehicle. If a thief attempts to remove your CB radio or your CB antenna, the alarm will automatically be set off to scare even the bravest thief. The Nailer is permanently armed. Works on amateur two and six meter radio systems too. The Nailer is great insurance that no CB or ham radio owner should be without. Size: 2½" X 2½" X 1¾". Shpg. wt. 2 lbs.

47A5664-3. Each ......\$29.95

#### 8 OHM TRUMPET

Wide angle 90° spread for maximum penetration. Weatherproof re-entrant type, for indoor or outdoor use. 180° swivel mount with screw flange. 5 watt power rating. 8 ohms. 5 inch horn opening. 5-3/8" long. With wire lead. Shpg. wt. 2 lbs.





## **SPECIALITIES**

### **PROFESSIONAL 25 WATT ELECTRONIC SIREN**



Powerful! Solid State! A professional police siren with two sound outputs...switches from a yelp to a wail at touch of the control. Amplifier mounts under any vehicle dashboard...

Compact and lightweight, this electronic model obsoletes heavy, bulky, hard-to-mount mechanical sirens. The ES-4 speaker is easy to position and mounts under the hood if you wish. Has no mechanical parts to wear out! Draws only 2.5 amps. Complete siren-amplifier and speaker.

Amplifier size: 2" X 3" X 6". Speaker size: 8½ " X 8½ " X 8½ " Shpa, wt. 7 lbs.

Shpg. wt. 7 lbs. 47A5651-0. 

### TRIPP LITE **PORTABLE** WARNING FLASHER



- · For dashboard, rear deck, roof top.
- Plug into cigar lighter.
- For official needs of Auxiliary Police, Volunteer Firemen and Municipal Offi-

360° emergency light in teardrop design easily fits cramped areas and under slanted windshields. Has friction mount for interior use on dashboards or rear deck — and a magnetic mount for roof top use. Flashes 90 powerful beams a minute. Comes with cigar lighter plug-in and glare shield. 12 VDC only. Your choice of red, amber, blue. Size: 4½" x 5¾" x 7¾". Shpg. wt. 2¼ lbs. 47A5673-4. Model MR-3. Red. 47A5674-2. Model MR-3. Amber. Your Choice \$29.95



## HAND-HELD CB WALKIE-TALKIES

GREAT ALL-AROUND COMMUNICATOR FOR **FUN OUTDOORS!** 

- . NO LICENSE REQUIRED.
- MORSE CODE KEY AND ALPHABET.
- OPERATES ON CB **CHANNEL 14**

Four transistor super regenerative transceiver with volume control, crystal controlled transmitter with channel 14 crystal, 42" 9-section telescoping antenna and standard 9 V. battery. Voice communication or code signal. Morse code alphabet on unit. Carrying strap. Size: 3" W. X 5 ¼" H. X 1 ¼" D. Shpg.

10A242-6. Per Pair .... \$14.95



AUTO-FLATOR 12 VDC COMPRESSOR

You can now carry along your own source of compressed air. Auto-flator operates from the cigarette lighter outlet. Works from any 12 volt D.C. system in auto, trail-Inflate low tires.

• Inflate low tires.
• 60 P.S.I. max. pressure.

cylinder wall and teflon piston ring. Factory sealed bearings never require lubrication. Size 6 ½" L x 4¾" H x 4¾" W. Shpg. Wt. 7 lbs.

No. 47A5661-9. Each ..... \$35.95



#### AIREGUIDE "SEBRING" ILLUMINATED **AUTO COMPASS**

Precision compass movement. Pushbutton self-contained lighting. Powerful Alnico V. directional magnets with aircraft type cunife compensators. Versatile quick-sticking self-adhesive mount. Height 3\(^{3}\)\(^{8}\)\

Model 1601. Each ..... \$8.75



#### AIREGUIDE "SEBRING" VERSATILE ALTIMETER

Fast accurate readings of height above sea level to 15,000 feet. Versatile quick sticking self-adhesive bracket, remove bracket for hiking. Gray plastic case, black dial with white detail. Case diameter 33/8". Wt. 12 oz. Mfg. list \$13.50.

Model 1608. Each ..... \$10.95

**B-A HOBBYIST'S ROCK TUMBLER SET** 

SMOOTHES AND POLISHES: Rocks, Class & Stones, Coins, Shell Casings, Fishing Spoons & Many Other Items

DOES THE WORK OF HIGH COST MACHINES

ONLY

47A8513-9. 1/2 Lb. Polish Grit \$2.15



B-A has sold thousands of rock tumblers to collectors all over the U.S.A. Now, we have the finest unit at the lowest possible cost! Powered by an industrial quality continuous duty motor, which readily handles 6 lb. capacity. Tumbler barrels are easy to replace paint cans. Unit accommodates 2 quart or gallon size paint can. Heavy duty nylon bearings have lifetime guarantee, all other parts, except belts and cans, have 1 Year Guarantee. Requires no skill and minimum of attention. Uses 4 oz. grit for each can.

47A8502-2. Shpg. wt. 9 lbs. Net Each
47A8504-8. Tumbling Manual. Gives all necessary information on polishing all types of material.  Each
47A8505-5. 1 Lb. Crushed Polishing Rock. Each       \$1.69         47A8506-3. 1 Lb. Oregon Beach Agate and Jasper, Each       \$3.29         47A8507-1. 1 Lb. Crushed Gem Mix. Each       \$4.49
47A8508-9. 15 Oz. Brass Polishing Media. Enough for 1 quart can. This media is re-useable indefinitely.  Each \$2.49
47A8509-7. 2 Oz. Brass Polishing Reactivating Cream. To renew life of

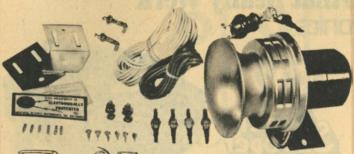
brass polishing media.

**ACCESSORIES & EXTRA ABRASIVES FOR ABOVE** 1Lb. Prepolish Grit ..... \$2.15 47A8516-2. Rubber Gan Liners. Pr. ..... \$1.59

Size: 3" \ wt. 2 lbs.

## **AUTO SECURITY SYSTEMS**

#### **AUTOMOBILE SIREN BURGLAR ALARM KIT**



EASY-DO-IT-YOURSELF KIT

COMPLETE SYSTEM

STOP THEFT!

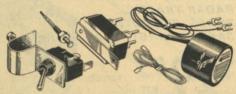
GIVES FOOLPROOF PROTECTION 24 HOURS A DAY...

Loud, piercing siren instantly blasts when door is opened, hood lifted, or trunk door raised. Siren can be wired even to go off when emergency brake is released! Stays on till reset by the switch of the pick-proof lock. Siren is made of highly polished die-cast metal and spun aluminum. Size 63/4" high, 5" dia. Comes with relay switch unit, six alarm switches, flat key switch, wire, fuse. Full instructions for do-it-yourself installation. For 12 V. DC only.

\$24.95

#### **HORN ALARM**

• INSTALLS IN MINUTES • NO LOCKS OR KEYS



Current flow from the lighting of any bulb due to the opening of a door, or an attempt to start the engine, registers on a special sensor and activates your car horn to attract immediate attention. Attaches directly to battery cable.



## ALARM SIREN WITH AMPLIFIER

**ALL SOLID STATE** 

Loud, piercing yelp siren attracts immediate attention, operates on any DC voltage from 6 to 12 volts, can be heard for blocks. All solid state siren-amplifier and speaker unit is contained in the weather-resistant red trumpet only 5 1/8"

.....\$34.95

#### HIGH POWER YELP SIREN MODULE

#### USE FOR HOME OR AUTO BURGLAR ALARMS!



Delivers 5 screaming watts of powerful attention getting volume. Draws only 500 mils current and can be used on any 6 or 12 volt automobile or lantern battery.

Only 3½ X 1¾ X ½". Requires any 8 ohm 5 inch or larger trumpet speaker. (shown at right) and SPST switch. Only 4 leads to connect. Shpg. wt. 1 lb.

No. 20A 1312-4

No. 20A1312-4.

## **AUTO BURGLAR ALARM**

STOP CB AND AUTO STEREO THEFT!

**WORKS ON 6, 12, 24 VOLTS** 



Devil Dog Alarm guards against theft of vehicle or contents by sounding car horn or siren (purchase siren above) until intruder leaves the car. Automatically resets after 20-30 seconds. Easily installed on any car, truck, boat, snowmobile, or trailer. Activated by vibration of vehicle body from any point, sensitivity adjustment allows you to set to all conditions. Includes arming switch and mounting hardware. Shpg. wt. 2 lbs.

47A5662-7. Model DDI, Each

......\$14.95



**ELECTRONIC AUTO SIREN** BURGLAR ALARM

Hi-Lo yelping sound like now heard from police and emergency vehicles. Current sensor type reduces installation time. No need to wire doors, alarm sensor current change caused by interior light. With 2 switches for use if your auto does not have trunk and hood lights. Complete with weatherproof horn, siren driver, electrical switch lock, hardware and instructions for 12 volt negative ground. Shpg. wt. 3 lbs.

Each ...... \$29.95 47A5656-9.



"THE NAILER" **CB ALARM** SYSTEM

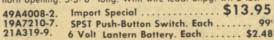
- PROTECTS CB EQUIPMENT FROM THEFT.
- INSTALLS EASILY, QUICKLY.
- NO SWR LOSS.

The Nailer is an alarm system that can be easily installed in a matter of minutes to work off of your 12-volt battery. It can be hooked up to an auxiliary alarm system or to the horn in your vehicle. If a thief attempts to remove your CB radio or your CB antenna, the alarm will automatically be set off to scare even the bravest thief. The Nailer is permanently armed. Works on amateur two and six meter radio systems too. The Nailer is great insurance that no CB or ham radio owner should be without. Size: 2½" X 2½" X 1¾". Shpg. wt. 2 lbs.

47A5664-3. Each ......\$29.95

#### **8 OHM TRUMPET**

Wide angle 90° spread for maximum penetration. Weather-proof re-entrant type, for indoor or outdoor use. 180° swivel mount with screw flange. 5 watt power rating. 8 ohms. 5 inch horn opening. 5-3/8" long. With wire lead. Shpg. wt. 2 lbs.





## **SPECIALITIES**

### PROFESSIONAL 25 WATT **ELECTRONIC SIREN**



Powerful! Solid State! A professional police siren with two sound outputs...switches from a yelp to a wail at touch of the control. Amplifier mounts under any vehicle dashboard...

Compact and lightweight, this electronic model obsoletes heavy, bulky, hard-to-mount mechanical sirens. The ES-4 speaker is easy to position and mounts under the hood if you wish. Has no mechanical parts to wear out! Draws only 2.5 amps. Complète siren-amplifier and speaker.

Amplifier size: 2" X 3" X 6". Speaker size: 8½" X 8½" X 8½" Shap wt 7 lbs.

Shpg. wt. 7 lbs. 47A5651-0. Model ES-4. Each ......\$109.95

### TRIPP LITE PORTABLE WARNING FLASHER



- For dashboard, rear deck, roof top
- Plug into cigar lighter.
- For official needs of Auxiliary Police, Volunteer Firemen and Municipal Offi-

360° emergency light in teardrop design easily fits cramped areas and under slanted windshields. Has friction mount for interior use on dashboards or rear deck — and a magnetic mount for roof top use. Flashes 90 powerful beams a minute. Comes with cigar lighter plug-in and glare shield. 12 VDC only. Your choice of red, amber, blue. Size: 4½" x 5¾" x 7¾". Shpg. wt. 2¼ lbs. 47A5673-4. Model MR-3. Red. 47A5674-2. Model MR-3. Amber. Your Choice \$29.95

.....\$29.95



## HAND-HELD CB WALKIE-TALKIES

GREAT ALL-AROUND COMMUNICATOR FOR **FUN OUTDOORS!** 

- NO LICENSE REQUIRED.
- MORSE CODE KEY AND ALPHABET.
- **OPERATES ON CB** CHANNEL 14

Four transistor super regenerative transceiver with volume control, crystal controlled transmitter with channel 14 crystal, 42" 9-section telescoping antenna and standard 9 V. battery. Voice communication or code signal. Morse code alphabet on unit. Carrying strap. Size: 3" W. X 5 ¼" H. X 1 ¼" D. Shpg. wt. 2 lbs.



#### AUTO-FLATOR 12 VDC COMPRESSOR

You can now carry along your own source of compressed air. Auto-flator operates from the cigarette lighter outlet. Works from any 12 volt D.C. system in auto, trailer, truck or boat. So tiny it can be held in your hand. Safety valve may be adjusted from about 10 PSI to 60 PSI. Factory adjusted to 40 PSI. Includes cigarette lighter outlet. Works from any 12 volt D.C. system in auto, trailer, truck or boat. So tiny it can be held in your hand. Safety valve may be adjusted from about 10 PSI to 60 PSI. Factory adjusted to 40 PSI. Includes cigarette lighter outlet. Works from any 12 volt D.C. system in auto, trailer, truck or boat. So tiny it can be held in your hand. Safety valve may be adjusted from about 10 PSI to 60 PSI. Factory adjusted to 40 PSI. Includes cigarette lighter outlet. Works from any 12 volt D.C. system in auto, trailer, truck or boat. So tiny it can be held in your hand. Safety valve may be adjusted from about 10 PSI to 60 PSI. Factory adjusted to 40 PSI. Includes cigarette lighter outlet. Works from the cigarette lighter outlet.

No. 47A5661-9. Each . . . . . . . \$35.95



#### AIREGUIDE "SEBRING" ILLUMINATED **AUTO COMPASS**



#### AIREGUIDE "SEBRING" VERSATILE ALTIMETER

Fast accurate readings of height above sea level to 15,000 feet. Versatile quick sticking self-adhesive bracket, remove bracket for hiking. Gray plastic case, black dial with white detail. Case diameter 3½". Wt. 12 oz. Mfg. list \$13.50. 47A5531-4

Model 1608. Each ..... \$10.95

**B-A HOBBYIST'S ROCK TUMBLER SET** 

SMOOTHES AND POLISHES: Rocks, Glass & Stones, Coins, Shell Casings, Fishing Spoons & Many Other Items

WORK OF HIGH COST MACHINES

ONLY



B-A has sold thousands of rock tumblers to collectors all over the U.S.A. Now, we have the finest unit at the lowest possible cost! Powered by an industrial quality continuous duty motor, which readily handles 6 lb. capacity. Tumbler barrels are easy to replace paint cans. Unit accommodates 2 quart or gallon size paint can. Heavy duty nylon bearings have lifetime guarantee, all other parts, except belts and cans, have 1 Year Guarantee. Requires no skill and minimum of attention. Uses 4 or grif for each can.

Uses 4 oz. grif for each can.	-
47A8502-2. Shpg. wt. 9 lbs. Net Each	75
47A8504-8. Tumbling Manual. Gives all necessary information on polish all types of material.  Each \$2.	ing
47A8505-5. 1 Lb. Crushed Polishing Rock. Each	69
47A8506-3. 1 Lb. Oregon Beach Agate and Jasper, Each	.29
47A8507-1. 1 Lb. Crushed Gem Mix. Each \$4	.49
47A8508-9. 15 Oz. Brass Polishing Media. Enough for 1 quart can. This idia is re-useable indefinitely.	
Each \$2	.49
47A8509-7. 2 Oz. Brass Polishing Reactivating Cream. To renew life brass polishing media.	
Each \$1.	.29
ACCESSORIES & EXTRA ABRASIVES FOR ABOVE	

47A8510-5.1 Lb. Coarse Grit \$2.15 47A8511-3.1 Lb. Fine Grit . \$2.15 47A8514-7. Extra Quart Cans . 69° 47A8515-4. Extra Belts . . . . . 85°

47A8512-1 1Lb. Prepolish Grit ..... \$2.15 47A8516-2. Rubber Gan Liners. Pr. . . . . . . \$1.59 47A8513-9. 1/2 Lb. Polish Grit \$2.15

10A242-6. Per Pair .... \$14.95

## POPULAR B-A SPECIALTIES

### DIGITAL CLOCKS



GREAT FOR HOME OR OFFICE!

Handsome modern style blends in anywhere. Giant-size numerals are illuminated for instant, easy reading day or night. Lighted indicators for AM and PM. Precision crafted leaf-type mechanism assures accuracy. For 115 V. 60 Hz. With long power cord. 90 day guarantee.

47A317-3. Shpg. wt. 1 4 lbs.

Special Each



#### ILLUMINATED DIGITAL ELECTRIC ALARM CLOCK

The ultimate in electric alarm digital clocks! All the features of clock above plus a pleasant alarm buzz with fingertip touch for on or off. 24 hour alarm feature lets you preset the time just once for waking . . . you never have to reset it. Handsome wood-grain finish. Size 5¾" L. X 2¾" H. X 3-3/8" D. Shpg. wt. 47A322-3. Each ..... \$20.95

**COPAL 801 DIGITAL CLOCK** 

- STANDS 8 4" HIGH.
- 2" NUMERALS.
- MILITARY STYLE 24 HR. READOUT

Features big, bold 2" numerals - can be Features big, bold 2" numerals - can be seen by everyone in a large room, ideal for offices, factories and stores. White numerals on black background. Has leaftype readout and precision synchronous motor. Comes with a slot for hanging and chrome stand for counter use. Operates on 110 VAC. Size: 11 ¼" W. X 5" D. X 6½" H. Shpg. wt. 6 lbs. 47A323-1. Model 801 - White 47A324-9. Model 801 - Red 47A325-6. Model 801 - Yellow EACH \$59.95

THE EXELAR SOLID STATE DIGITAL ALARM CLOCK

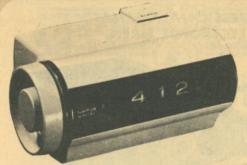
Manufactured by National Semiconductor

- 1/2" L.E.D. Readout.
- Snooze Switch.

This compact, smartly styled clock features a power failure indicator that tells you when it's wrong. Digital read-out in bright red is tilted for greater readability. Has automatic brightness control. Pin-point alarm setting over 24

hour range.
47A327-2 - Brown
47A328-2 - White
Your Choice Each

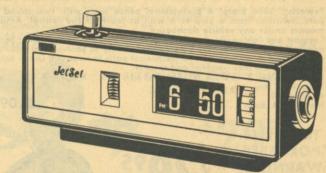
\$24.95



SPACE-AGE STYLED DIGITAL ALARM CLOCK

Modern styling with easy to read large, white numerals on jet black background. Numbers spin on exclusive, long-lasting digital drum. Features large, smooth-action dial set and alarm set wheels. Bright front lighting. 12 hour alarm. For 110 volt, 60 cycle. Shpg. Wt. 2 lbs.

No. 47A321-5. Each .



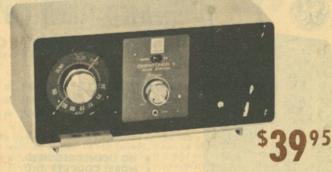
JETSET ELECTRIC DIGITAL ALARM CLOCK

The ultimate in electric digital clocks. Precise time at a glance. Large numerals, front lighted, makes day and night reading quick and easy. A pleasant alarm buzz assures wake-up or as a timing device. It's easy to set and shut off with touch of a fingertip. Precision engineered with leaf-type mechanism to insure accurate timekeeping. This smartly designed clock can be used next to the bed, in the kitchen (great for timing) or in an office. Styled to fit into any decor. Long power cord. Operates on 117V 60 Hz. Comes in black.

47A319-9. Each .....



**CB BASE STATION** AND AM RADIO



Youth styled for instant 2-way communication with walkie talkies, mobile units and base stations.

Dispatcher 11 is a combination all 23 channel tunable CB receiver, powerful AM radio and single channel 15 CB transmitter. Supplied with channel 15 crystal. Battery operated, completely self-contained and equipped with telescoping CB antenna and high-gain ferrite bar AM antenna, the perfect way to keep in touch with friends or to listen to music, sports and news. No license is required for the operation of the Dispatcher 11 since the unit conforms with all necessary FCC regulations for transceivers of this type. Dispatcher 11 may be used with any mobile or walkie talkie unit operating on channel 15.

Other channels easily installed (solder installation). The Dispatcher 11 uses 9 volt battery power (6 "D" cells, not supplied) for its operation.

No. 10A172-5. Each \$39.95
No. 21A315-7. Batteries for above (6 required). Each 45°
No. 10A3087-2. Crystal Certificate. Order 1 certificate for each channel wanted. Mail certificate to crystal manufacturer. Each \$4.95

### RECORD CARE ACCESSORIES



3 KLEENEEDLE BRUSH. Mounts on side of changer under tone arm so that needle passes through brush on every changer cycle. Blobs of dust are removed automatically after every record. Wt. 2 ozs. \$1.45

① PHONO STROBE AND LIGHT KIT. Checks speed of turntable . 24A6007-1, Type PK-5MWt. 6 oz. Eoch...... \$3.85

RECORD CLEANING KIT. Actually cleans the grooves as well as the surface. Features a non-gumming, anti-static liquid detergent in a plastic squeeze bottle, special fine-grain cleaning puff which goes down into the record grooves to clean out abrasive dust, as well as remove static. Annoying hisses and crackles disappear like magic, music sparkles with new clarity. Adds new life and brilliance.

\$1.50

BELECTRO-WIPE STATIC ELIMINATOR RECORD CLOTH
Preserve your good records from harmful dirt and grit as well as static charge with one wipe! Eliminates record "pop and click" from vinyl attracted charges. Lubricates records for smoother needle operation, eliminates friction and static. Keeps grooves clean for true, clear fidelity, longer record life. Used by many broadcast stations and recording companies. Wt. 2 ozs

(9) ANTI-STATIC RECORD CLEANER 

#### SHURE M64 STEREO PREAMPLIFIER



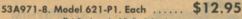
For Phonographs, Tape Decks, Microphones. Converts phonos to accept magnetic cartridges, boosts microphone output, equalizes and amplifies tape decks. Frequency response 20 to 20,000 Hz. 1% distortion at 1,000 Hz. Separation 50db. Size 55%" x 23%" x 4½" Shpg. wt. 2 lbs.115 VAC.

No. 53A13-9.

\$57.50 Model M64. Each ....

### **SWITCHCRAFT DOLBY\* FM** COMPENSATOR

Model 621P1. If your receiver is not equipped to de-emphasize FM Dolby\* transmissions, then you should have a 621-P1. Better reception, up to 10 dB or greater noise reduction at receiver. May be left connected for either standard FM broadcasts ("75" switch) or Dolby\* ("25" switch). Size: 2" x 2" x 1". Shpg. wt. 2 lbs.



\* A Trademark of Dolby Labs. Inc.

### **AMPLIFIER POWER-OFF**

Automatically turns amplifier off when record changer shuts down! Features a special selectivity switch for automatic or manual operation, solid state circuitry, 6' polarized cord and polarized sockets to eliminate power line interference. Rating: Changer outlet: 100 watt max. Amplifier outlet: 325 watt max.

53A965-0. GC 30-5012. Each ...... \$15.41



### LEARN A FOREIGN LANGUAGE



Available on Cassette or Long Playing Records.

Comprehensive Conversation Manual.
Common Usage Dictionary.

### CHOICE OF LANGUAGE COURSES

Complete courses based on proven U. S. Govt. methods. Just relax and learn! Words, phrases, sentences are clearly spoken in faultless accents by expert instructors—and while one listens he sees the words he hears in the conversation Manual provided. Each course also includes a 16,000 word two-way common usage dic-

#### LIVING LANGUAGE RECORD COURSES

23A162-1 23A159-7 - French - Spanish 23A160-5 - German 23A165-4 - Portuguese for South America 23A256-1 Japanese YOUR CHOICE EACH ......\$11.95

### LIVING LANGUAGE CASSETTE COURSES

23A257-9 - French 23A258-7 - Spanish 23A259-5 23A259-5 - German 23A260-3 - Japanese \$13.95 YOUR CHOICE EACH

LIVING LANGUAGE BETTER SPEECH COURSE

Amazing new tested method enables anyone to gain poise and self confidence in speaking . . . quickly and easily. Learn all the secrets and techniques of persuasive speakers, sparkling conversationalists. Covers prohunciation, voice training, vocabulary, proper usage, public speaking techniques, etc. Includes 40 complete lessons on 4 long playing records and two better speech manuals. Recorded under the editorial supervision of M. L. Gurren, Ph.D. \$11.95 \$11.95

### THE BIBLE BROUGHT TO LIFE ON RECORDS



Brings to life with thrilling realism the Bible . . . read aloud by one of America's finest professional readers. Every word is read correctly and reverently . . . not a word has been changed or left out. Recorded at 16% RPM on 7" unbreakable vinylite records — each record plays for nearly an hour. A special adaptor is available' for playing them on any phonograph capable of operating at 33½ RPM, or they can be used with any 4-speed Record Player.

Widely acclaimed by religious leaders, editors and laymen – ideal for the home, Bible classes, Sunday Schools, etc. Albums handsomely jacketed in simulated black leather with gold lettering

NEW TESTAMENT-King James version. Complete and unabridged-all 27 books. 

OLD TESTAMENT—9 books: complete and unabridged. Genesis, Judges, Esther, Ruth Psalms, Proverbs, Ecclesiastes, Solomon, and Isaiah.
23A8-6. Mfg. List \$39.50. Per Album (26 Records) ..............\$31.95

### BIBLE STORIES FOR YOUNG PEOPLE

STORIES FROM THE NEW TESTAMENT. 26 complete stories, including The First Palm Sunday, Jesus and the Little Children, The Last Supper, Good Samaritan, etc. Plays 2 hours. 23A24-3. Mfg. list \$4.95. Per Album (2 Records) ...... \$4.76

23A282-7. AUDIO BOOK ADAPTOR. Allows you to play 16 rpm records on any 33 1/3 rpm turntable. Each ....

### **NEW TESTAMENT ON CASSETTES**

King James version. Narrated by Marvin Miller. 21 hours on 12 cassettes.
Comes in a storage album.

\$23A261-1. Each .....\$

DIGITAL THERMOMETER

½ inch high numerals show room temperatures from 66° to 86° F in 2 degree increments. Space age technology has created specially formulated liquid crystals which activate at indicated temperatures and reflect light. 8" long natural 



Protect your tapes from damage or loss with this beautifully styled 8-track carrying case. Vinyl Covered Aluminum Valance in the Tongue-in-Groove Design enhances the beauty and helps prevent water seepage. Titles are easy to read with upright storage.

HOLDS 12 CARTRIDGES 23A254-6. Black 23A255-3. Burgundy 23A300-7. Brown

YOUR CHOICE \$9.95 EACH .....

HOLDS 24 CARTRIDGES 23A249-6. Brown 23A250-2. Burgundy 23A251-2. Black

YOUR CHOICE EACH ..... \$12.95 23A299-1. As above but in simulated tan suede. Each ...... \$14.95



CASSETTE CARRYING CASE

HOLDS 30 CASSETTES. Sturdy wood construc-tion covered in durable black alligator grained vinyl with attractive red plush interior. Cassettes stack horizontally.

### FOR A FINE QUALITY 8 TRACK CARRY CASE



Attractive black alligator vinyl exterior. Plush red interior. Each tape has its own compartment. Holds 24 tapes. Has lock and key. Shpg. wt. 5 lbs. 23A248-8.

Special Each

\$6.95





**DELUXE TAPE** STORAGE CABINETS

Beautiful appearance and construction as found on deluxe component systems. Keeps tapes fully accessable and dust free. Handsome walnut base. Smoked plastic top is hinged or removeable. Titles are easily read through the top. Plush blue velvet lining. Shpg. wt. 6 lbs.

### **NEW HOME STORAGE CABINETS**





#### FOR TAPE CARTRIDGES AND CASSETTES

• Wooden construction with fine walnut-grain finish.
• Swivel base allowing easy accessibility.
• Store 12 tapes in each of 4 shelves.
• Mo

FOR 4 & 8 TRACK TAPE CAR
TRIDGES. Dimensions  $91/2'' \times 91/2''$ × 121/2" high. Capacity: 48 car
tridges.

23A179-5. Model 82TC. Each... \$10.95 · Modern decorator styling.

FOR CASSETTES. Dimensions: 8 x 8 x 10" high. Capacity 48 cassettes.

23A180-3. Model 84TC. Each \$10.95



BLUE DENIM 8 TRACK CARRYING CASE

Holds 24 tapes in individual compartments. Blue Denim covered. Plush red interior with lock and key. Shpg. wt. 5 lbs.

23A278-5. Each ..... \$7.95

AMPEX

STUDIO QUALITY 90 MINUTE **BLANK 8 TRACK CARTRIDGES** 



12 EA. \$3.39

Ampex 20/20 studio cartridges with premium quality professional mastering tape. Captures all the sound, just the way its happening . . . every beat, note

and tone. 11A1250-7, Ampex 388-90 Each ...... \$3.69 12 Each ..... \$3.39

AMPEX

BLANK 8-TRACK CARTRIDGES



12 EA. \$2.29

Famous Ampex 8-track cartridges in a playing time that is ideal for album recording . . . 90 minutes. Contain exclusive cartridge platform for top reliability. Ultra-smooth tape surface protects delicate recording heads, provides optimum tape-to-head contact for high quality recordings.

11A1354-7.

\$2.49 Each ..... \$2.29

AMPEX

ALL-IN-ONE **DEMAGNETIZER HEAD** CLEANER





FOR CASSETTE 49

FOR 8-TRACK

Cordless, nothing to plug in. Just load demagnetizer/cleaner into chamber and follow simple instructions on label. Takes only seconds to maintain the full fidelity of taped recordings and to protect delicate recording heads.

11A7652-8. Cassette Demagnetizer/Head Cleaner.

Each ..... 11A7653-6. 8-Track Cartridge Demagnetizer/Head Cleaner....

SAVE OVER **50% ON TOP QUALITY 8-TRACK** RECORDING TAPE!

**4-40 MINUTE BLANK** 8-TRACK TAPES

> ONLY 5799 REGULAR \$6.76

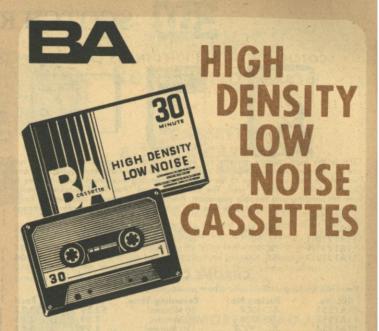


MADE BY COLUMBIA MAGNETICS DIVISION OF CBS



High-Quality 40 minute 8-track tapes have title label and are individually packaged in cardboard sleeve and shrink-wrapped. These are of the same top quality as pre-recorded tapes. \*40 minutes approximate recording time.

11A5517-5. Four for ...... \$2.99



Professional calendered low noise tape, screw together housing album storage case and index insert

Don't be mislead by the low price! These are first quality Cassette tapes priced way down to beat all competition. You can buy and save with complete confidence because B-A buyers have checked the important design, manufacturing and material requirements that assure high fidelity and finest performance in any make recorder. Note these facts: Beryllium copper constant pressure springs, mu-metal magnetic shielding, one-piece molded tape guide rollers on stainless steel pins, anti-static moisture resistant water shield, precision assembly techniques and in addition ... top quality lubricated recording tape.

11A3501-1. 30 Minute Cassette (15 Minutes per side) Wt. 6 ozs. Each\$1.49	12 @ \$1.29
11A3502-9. 60 Minute Cassette (30 Minutes per side) Wt. 8 ozs. Each\$1.89	12 @ \$1.69
11A3503-7. 1½ Hour Cassette (45 Minutes per side) Wt. 12 ozs. Each \$2.59 11A3504-5. 2 Hour Cassette	12 @ \$2.35
(60 Minutes per side) Wt. 16 ozs. Each\$3.19	12 @ \$2.99

**B-A CASSETTE HEAD CLEANER TAPE** 

Quickly removes accumulated tape oxide from recorder head restoring original recording and playback capability. Highest quality U.S.A. made. \$1.49

### BARGAIN SPECIAL!

FINE FOR TALKING LETTERS 3 PACK C60 CASSETTES

3 FOR \$ 1 99

11A1148-3





RECORDING TAPE

SAVE OVER

7"-1800' POLYESTER

REG. \$4.20

Popular size RCA reel tapes at tremendous savings. 1800 ft. on 7 inch reel. 1.0 Mil Polyester. Buy plenty while limited time offer lasts! 11C1131-9. RCA 10M18. Wt. 12 ozs. Reg. \$4.20



### SCOTCH RECORDING TAPE

### SCOTCH LOW NOISE HIGH DENSITY CASSETTES







This is the high quality cassette for every recording application. Excellent for music, fine for speech. Its true low noise oxide provides balanced sound from one end of the frequency range to the other. Outstanding mechanical performance is found in this cassette as well. The advantages of "Posi-Trak" backing assure smooth winding and reliable operation. Precision built cassette housing has been designed for long term, trouble-free use. Individually album packaged, average weight 2 oz.

Stk. No.	Fact. No.	Recording Time	Each	10 Each
11A1210-1	SC-60	60 minutes	\$2.19	\$1.97
11A1211-9	SC-90	90 Minutes	3.19	2.87
11A1212-7	SC-120	120 Minutes	4.49	4.04

### **CHROME CASSETTES**

Posi-Trak Backing. Individually album packaged. Average wt. 2 oz.

Stk. No.	Factory No.	Recording Time	Each	10 Each
11A1252	SC-60CR	60 Minutes	\$2.59	\$2.33
11A1253	SC-90CR	90 Minutes	3.59	3.23
11A1254	SC-120CR	120 Minutes	4.99	4.49

#### MASTER SERIES

Master cassettes, developed by 3M, are designed specifically for music recording and affords premium frequency response and sound fidelity. All feature Positrack backing for improved mechanical performance.

Stock No.	Factory No.	Recording Time	Each	10 Each
11A1333-1	MC60CB	60 minutes	\$2.89	\$2.59
11A1334-9	MC90CB	90 minutes	3.89	3.49
		E HEAD CLEANER		AND DESCRIPTION OF THE PARTY.
11A7647-8. Ea	ch \$1	1.49 10 Each		\$1.39

### **SCOTCH BLANK 8-TRACK CARTRIDGES**

Precision tape inside is the one used by professionals for critical continuous loop recording. High output characteristics provides 2 db more signal than other quality cartridges. Low noise property cuts background tape hiss 4 db below standard tapes.

45 and 90 MINUTE RECORDING TIMES



Stk. No.	Fact. No.	Description	Each	10 Up Ea.
11A1172-3	S-8TR-45HO LN	45 Minutes Playing Time	\$2.99	\$2.69
11A1173-1	S-8TR-90HO LN	90 Minutes Playing Time	3.49	3.19
	0.704	CK HEAD CLEANIED		

#### 8 TRACK HEAD CLEANER 11A7648-6. 8-Track Head Cleaner. Each ... \$2.39 10 Each .... \$2.19



### CASSETTE STORAGE

Stock No. Factory No. Description
11A7669-2 CB-3 Cassette Box -Pkg. of 3
11A7671-8 CB-W C-Box Mounting Bracket Each
11A7670-0 CB-H C-Box Carrying Handle Each -Pkg. of 3 \$1.99

### SCOTCH LEADER AND TIMING TAPE

Attach to ends of recorded tapes to prevent repeated break age; or between selections for identification and timing. White.

### 11A578-2. Type 24. W. ¼" X 100 Ft. Each ...... 89° 10 E 10 Each . . . . . . . . . 80°

### SPLICING TAPE

SCOTCH TYPE 620 SPLICING TAPE
620 may be used to splice all recording tapes. Always use 620 to splice tapes with Posi-Trak backing.

11A7623-9. 7/32 X 66 ft. Each	\$2.99	10 Each	\$2.69
11A7624-7. ½" X 66 ft. Each	\$4.19	10 Each	\$3.79
114576 6 1/4" X 150" Fach	TYPE 41	SPLICING TAPE	80°

### SCOTCH SK SPLICING KIT Includes a splicing block and 100 inches of polyester splicing tape on a dispenser.

11A7625-4. Each ...... \$1.49 10 Each ..... \$1.34 CASSETTE EDIT AND REPAIR KIT
For splicing cassette tapes, Includes I splicing block, I spindle for manually winding cassette tape, 6 adhesive tipped picks for retrieving tape ends lost in cassette housing and 6 splicing tabs for joining tape ends. 3M No. ERK-130.

11A7659-3. Each \$2.49 10 Each \$2.29

#### CONDUCTIVE CUEING AND REVERSING TAPE

Electrically conductive metal foil on	lough Mylar	base willi dallesive	DUCK.
11B729-1. Scotch Type 51-7/32S.	7/32" wide	X 150" roll.	
Each \$1.	59 10	Each	\$1.49

#### SCOTCH CLASSIC RECORDING TAPE

Classic combines full-spectrum sensitivity and out-Classic combines full-spectrum sensitivity and out-put of the highest order. Meticulously dispersed oxide together with its ultra highly polished sur-face reduces both tape hiss and modulation noises well below audibility. Classic is 5 db quieter than standard tapes. Posi-trak backing gives reliable and smooth mechanical handling, improving cap-stan operation and providing uniform winding.



CLASSIC CAS	SETTE TAPE	NAME OF TAXABLE PARTY.	
Factory No. CLC-60CB	Length 60 Minutes	\$3.49	10 Each \$3.14
CLC-90CB	90 Minutes	3.99	3.59
CLASSIC 8 TR	ACK TAPE		
CL-8T-45	45 Minutes	3.39	2.99
CL-8T-90	90 Minutes	4.49	3.99
CLASSIC OPEN	REEL TAPE		
CL-7R-60	1200' - 7" Reel	\$6.99	\$6.29
CL-7R-90	1800' - 7" Reel	8.49	7.64
CL-7R-120	2400' - 7" Reel	10.99	9.89
CL-10R-120	2400' - 10" Reel	17.99	16.19
CL-10R-180	3600' - 10" Reel	20.99	18.89
CL-10R-240	4800' - 10" Reel	27.99	25.19
	Factory No. CLC-60CB CLC-90CB CLASSIC 8 TR CL-8T-45 CL-8T-90 CL-7R-60 CL-7R-90 CL-7R-120 CL-10R-120 CL-10R-180	CLC-60CB	Factory No. CLC-60CB 60 Minutes \$3.49 CLC-90CB 90 Minutes 3.99 CLASSIC 8 TRACK TAPE CL-8T-45 45 Minutes 4.49 CL-8T-90 90 Minutes 4.49 CL-7R-60 1200' - 7" Reel 56.99 CL-7R-90 / 1800' - 7" Reel 8.49 CL-7R-120 2400' - 7" Reel 10.99 CL-10R-120 2400' - 10" Reel 17.99 CL-10R-180 3600' - 10" Reel 20.99



#### SCOTCH OPEN REEL TAPES

Most widely used of all magnetic re-cording tapes ... flawless sound recording tapes ... flawless sound re-production. Tape lengths are shown in minutes, both direction at 7½ ips. All tapes come with heavy duty cardboard storage box except 206-¼-R60 and 207-¼-R90 with plastic storage box.

#### TYPE 206 PROFESSIONAL MASTERING TAPE, 11/2 MIL

Posi-Trak backing is tougher, more scratch resistant, does not attract dust. Popular for professional mastering, you get a full 50% increase in output over standard low noise tapes. Has leader tape attached.

Stock No.	Fact. No.	Reel	Length	Each	10 Each
11A1202-8	206-14-R60	7"	60 Min.	\$5.99	\$5.39
11A1204-4	206-¼-R120	10 1/2 "	+ 2400 Ft.	10.89	9.80
+ PO-1016"	duminum real w	ith 3" (NA	B) center hole		

### TYPE 207 PROFESSIONAL MASTERING TAPE

Same as Type 206 above, but 1 mil thick allows 50% more tape on each reel.

11A1203-6 207-¼-R90	7" 90 Min.	\$7.49 \$6.74	
11A1205-1 207-¼-R180	10½" + 3600 Ft.	15.29 13.7	

### TYPE 211 LOW NOISE / DYNARANGE - 11/2 MIL POLYESTER

Provides brilliant low noise recording at half the normal recording speeds twice the time, yet total fidelity plus economy. The choice of professionals and advanced non-professionals. Has leader tape attached.

11A1242-4 211-4-R30 5" 30 min. \$2.99 \$2.69 11A1243-2 211-4-R60 7" 60 min. 4.49 4.09

\$2.69

### TYPE 212 LOW NOISE / DYNARANGE 1 MIL POLYESTER

Same standard as 211 above but with 1 Mil backing permits 50% more tape 11A1244-0 212-14-R90 7" 90 min.

TYPE 213-214 LOW NOISE / DYNARANGE .50 MIL POLYESTER Same standard as 211 but permits twice the amount of tape per reel. Has

leader tape attached. 11A1245-7 213-¼-R120 11A1246-5 214-¼-R180 120 min. \$8.99 \$8.19 11.99 10.79 3 Hr.

### TYPE 228 HIGHLANDER/LOW NOISE 1.5 MIL POLYESTER

Low cost high quality tape, where economy is a factor. 11A1247-3 228-¼-R60 7" 60 min. \$3.60 \$3.99

TYPE 229 HIGHLANDER / LOW NOISE 1.0 MIL POLYESTER
Same as type 228 but permits 50% more time on a reel.
11A1248-1 229-¼-R90 7" 90 min. \$5.49 \$4.94

### TYPE 156 SPECIAL LUBRICATED - 1 MIL POLYESTER

Same Tape used by professionals for 8 track loading. For repeater mechanisms and cartridge tape players. Brown oxide externally lubricated, for continuous

11A779-6. 156-14-1800. Reel. Each ...... \$6.39 10 Each ...... \$5.79



PRST-7 SELF-THREADING PLASTIC REEL 11B728-3 7" 1200' 5 Oz. \$1.99 \$1.75

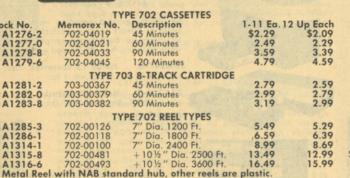
RB ¼ -7M METAL REEL 11A7658-5 5" 1200' 5 Oz. \$4.99



## **MEMOREX Recording Tape**

### CASSETTES, 8-TRACK CARTRIDGES, **REEL TYPES**

Memorex makes the world's finest low noise high output audio recording tapes. Designed and engineered to deliver the best music possible from your recording equipment, they will provide you with superior fidelity, exacting reliability and unequalled convenience. All types feature polyester plastic film backing, tensilized to provide maximum physical strength in cassettes and 7" 2400 ft. open reel tapes. Low noise, high output ferric oxide coatings give superior recording qualities. All are supplied in plastic boxes.





### MEMOREX HEAD AND CAPSTAN CLEANERS

For 8 track or cassette players and recorders. Non-abrasive cleaning tapes are activated by two drops of cleaning solution applied to tape before use. Very effective cleaner for heads, capstans and pinch roll-ers, has no injurious effects. Use frequently for top quality musical reproduction. Complete instructions furnished with each kit.

Stock No. 11A7663-5 11A7664-3 Memorex No 700-00200 700-00300

For 8 Track Cartridges Cassettes

1-11 Ea. 12 Up Ea. \$3.19 \$2.99 2.79 2.59



Stock No. 11A1276-2 11A1277-0 11A1278-8

11A1279-6

11A1281-2

11A1286-1 11A1314-1

11A1315-8

11A1316-6

### MEMOREX QUANTUM

REEL-TO-REEL RECORDING TAPE

Quantum is Memorex's finest open reel tape for professional performance, representing an advanced, perfected ferric oxide carefully produced by a sophisticated manufacturing process. Features lower distortion, higher output at any given

level, better Sivin	, greater sensitivity	and improved high frequency salure	mon.
Stk. No.	Memorex Type	Description	Each
11A1351-3	Quantum 90	7" plastic, 96 min 1800 ft.	\$8.59
11A1352-1	Quantum 120	7" plastic, 128 min 2400 ft.	11.39
11A1353-9	Quantum 180	10 ½ " alum., 192 min 3600 ft.	21.49



For unexcelled high-end performance values, lowest noise levels and greater durability and reliability. Audua is a revolutionary advance in recording tape technology designed specifically by TDK to surpass the optimum performance characteristics of other lownoise, high-output tapes.

REEL-TO-REEL

RECORDING TAPE

Stock No.	TDK NO.	Reel	1-9 Each	10 Up Each
11A1301-8	L-1200	7" Plastic	\$ 6.49	\$ 5.99
11A1302-6	L-1800	7" Plastic	8.49	7.49
11A1303-4	L-3600	+101/2" Metal	23.95	19.95
NAP standars	l hub			



# RECORDING TAPE

### BASF LH SUPER REEL-TO-REEL TAPE

Playback volume is 50% greater on LH Super. On a late model, high quality deck, at 1-7/8 ips the dynamic range and frequency response exceeds hi-fi standards. All BASF tapes are supplied in smoked plastic boxes.

Stock No.	BASF No.	Description	Wt. Ozs.	1-9	10 Up
11A1274-7	LP35LHS	7"-1800' 1.0 Mil		Each	
			18	\$9.69	\$8.69
11A1275-4	DP26LHS	7"-2400' ¾ Mil	18	12.89	11.59
	BASF REGULAR	LOW NOISE - HIGH	OUTPUT	TAPE	
11A1177-2	LP35LH	7"-1800' 1.0 Mil	18	\$7.49	\$6.69
11A1179-8	DP26LH	7"-2400' 3/4 Mil	18	9.99	8.99
11A1181-4	TP18LH	7"-3600' ½ Mil	16	14.99	13.49
	BASF PLA	STIC RECORDING T	APE BOX		
11A7548-8.					
Empty 7" Plas	stic Swivel Box. E	ach \$2.09	10 Each		\$1.89



## **公TDK** CASSETTES

Features the SA Super Avilyn Series allows use of the CrO2 switch on your recorder. Specifications of SA are superior to chromium-dioxide and SA does not have the abrasive characteristics of CrO2 - the ED Extra Dynamic Series for the discriminating audiophile who demands the very best, the SD Super Dynamic "tape-of-the-pro" true hi-fi medium, and the D Dynamic exclusive 180 minute moderately priced cassettes produce high output, low noise recordings of the highest quality.

			7.71			
Stock No. 11A1319-0 11A1320-8 11A1305-9 11A1306-7	TDK No. SA-C60 SA-C90 ED-C60 ED-C90	Series Super Avilyn Super Avilyn Extra Dynamic Extra Dynamic	Time 1 Hour 1½ Hours 1 Hour 1½ Hours 45 Minute	1-9 Each \$3.59 5.29 3.29 4.99 2.39	10 Up Each \$3.29 4.79 2.99 4.49 2.19	
11A1307-5 11A1308-3 11A1309-1 11A1311-7	SD-C45 SD-C60 SD-C90 D-C180	Super Dynamic Super Dynamic Super Dynamic Dynamic	1 Hour 1½ Hours 3 Hours	2.69 3.99 5.99	2.39 3.59 5.49	

### TERRIFIC PRICE SAVINGS!



POPULAR SIZES OF RECORDING TAPE

600 FT. ON 31/4" I REEL

Money saving prices on top quality tapes! Every reel guaranteed to satisfy or your money back. May be assorted for quantity prices.

10 at Each . . . . . .

1 ½ MIL ACETATE BASE. 600' on 5" reel. 11A455-3. Each ..... 10 at .... \$1.49 Each .... \$1.29

### BARGAIN SPECIAL!

BUY PLENTY AT THIS PRICE! 1200' - 7" REEL 1 1/2 MIL POLYESTA TOP QUALITY PER REEL 11A955-2



### BARGAIN SPECIAL!

ANODIZED ALUMINUM REELS

Brushed aluminum finish gives professional appearance to your recorder, eliminates warpage problem associated with plastic reels. 11A7612-2. 7" Reel. Standard Mount.

11A7650-2. 10½" Reel. Standard 5/16 hole to be used without NAB hub adaptor, Convenient 3 point pick-up.

11A7651-0. . 10½" Reel. Has Standard 3" NAB hole. Convenient 3 point pick-up.



AS LOW AS

\$495 TEACH

### PROFESSIONAL QUALITY TEST TAPES

Check tape recorders and players for performance and proper alignment. These precision tapes contain recordings to check or measure frequency response and equalization, flutter, wow, distortion, stereo balance, separation and channel identification and tape head alignment. 11A7603.1 Cassette type.

11A7603-1. Cassette type. \$5.29

1A7604-9. Cartridge type (4 & 8 track). Each 11A7605-6. Reel-to-Reel type (4 track stereo 71/2 \$5.39 I.P.S. 5" reel) Each...





1 MINUTE BLANK 8 TRACK TAPE
For presetting and adjusting volume, tone and balance prior to final recording. Convenient one minute length eliminates lengthy wait to hear recording re-

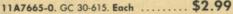
8 TRACK HEAD CLEANER TAPE Cleans player recorder heads of accumulated oxides grime and dust particles for improved sound. Wt. 4

11A7551-2. Each ...... \$1.99

### **COMBO CARTRIDGE HEAD** AND DRIVE CLEANER

5799

Convenient dual purpose cartridge - one end removes harmful oxides and deposits from play and record heads while other end cleans drives to eliminate slippage. Non-abrasive - won't harm sensitive recording





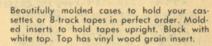
### TAPE STORAGE ALBUMS FOR CASSETTES OR 8-TRACK CARTRIDGES



Holds 12 Cassettes. Beautiful textured vinyl cover. Neat way to store your tape library. Sits on a shelf like a book. Perfect to carry with you. Molded plastic Interior holds cassettes firmly. Cassettes push in and lift out easily. Size 10½ X 9½ X 1-½ ". Wt. 1 lb. \$2.95

Holds Eight 8-Track Tape Cartridges. Similar to Cassette Album above. Size: 12.34" x 10.1/2" x 2.1/6". Wt. 2 lbs. \$3.98

### TAPE STORAGE CASES



23A247-0. Holds 15 cassettes. Size: 312 x 41/2 x 121/4". Shpg. wt. 1 lb.

23A246-2. Holds 12 8-tracks. Size: 5 34 x 4 4 x 12 ½ ". Shpg. wt. 1 ½ lbs.

YOUR CHOICE EACH .....\$2.79



8-TRACK STACK CASE
Each case holds 10 8-track tapes. Each case nests into another for stacking. Holes in back for hanging on wall. Slanted dividers keep tapes from falling out. Makes titles easy to read. Black color. Size 434 x 5-5 8 x 8-5 8%. Shpg. wt. 1 14 lbs.

23A245-4. \$2.79 More Each \$2.49





Deluxe cassette size device simply plugs into machine like a regular cartridge. Removes all tape head magnetic build-up, restoring original fidelity of recorder. For 110 V. 60 Hz.

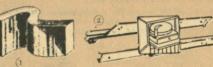
11A7532-2. Net Each \$7.59

DELUXE 4 AND 8 TRACK HEAD DEMAGNETIZER

For auto cartridge players. Operates on 12 V. DC. Plugs into cigarette lighter. Recommended by equipment manufacturers for restoring original fidelity of player after every 15-20 hours of operation.

\$9.9.

Check your recorder/player for speed accuracy. Has built-in strobe tape and light. Operation: 110 V. 60 Hz. AC. \$8.75



AUDIO INSTALLATION ACCESSORIES

(a) HEAVY DUTY SLIDE DRAWER HARDWARE. Easy mounting of radio chassis, record changers recorders, etc. in custom cabinets, record compartments of consoles, etc. Made of 16 gauge steel, Overall length 13". Travel lgth. 9". Load capacity 50 lbs. Silencer spring eliminates vibration. Shpg. wt. \$4.95 37A5604-1. Per Pair....

### **B-A's TAPE RECORDER ACCESSORIES**

### NORTRONICS TAPE RECORDER CARE PRODUCTS

#### NORTRONICS TAPE HEADS

B-A supplies Nortronic Tape Heads for over 4000 foreign and domestic recorders. Most popular heads are in stock for immediate delivery. Write or call for information and price of head to fit your machine. Specify make, model, head number and track configuration of your recorder.



	ck replacement heads for practically all 8-track and	cassette
players. Shippin	g weight: 3 oz. 5800 for 8-Track. Each	5 0 00
11A7633-8.	5130 for ½ -Track Mono Cassette. Each	
11A7634-6.	5230A for Stereo Cassette. Each	\$10.75



MAGNETIC HEAD CLEANING KIT
Unique and economical kit designed specifically to keep magnetic heads clean in all recorders and players. Kit contains a 3-ounce can of aerosol spray tape/head cleaner and 100 6-inch long cotton tips along with instructions for maintaining tape equipment in proper operating condition. Kit is totally effective and completely safe for delicate recording head sur-11A7654-4. Model QM-9. Each ...... \$3.35

#### LIQUID HEAD CLEANERS



Specially formulated to provide safety plus unusual cleaning specially formulated to provide safety plus unusual cleaning effectiveness. Remove even the most impacted dirt and oxide deposits due to its extremely low surface tension and high density. Completely safe for use on plastics, rubber, metals, painted surfaces, epoxys, elastomer parts. High dielectric strength and quick drying properties allow use while equipment is operational. Leaves no residue and contains no silicone lubricant. May be used on capstans and pressure rollers.

Each	\$2.10
11A7655-1. QM-108 8 oz. can.	
11A7643-7 QM-104 Tape/Head Lubricant 2 oz.	\$2.10





### NORTRONICS PROFESSIONAL ALIGNMENT TAPES

High quality professional alignment tapes for test and alignment plus NAB frequency response checks. Shpg. Wt.

11A7635-3.	AT820 8-Track Tape. Each \$9.60
11A7636-1.	AT120 ¼ " Reel to Reel Full Track. Each \$29.20
11A7627-0.	AT2'00 Cassette Tape. Each
11A7642-9.	QM-102 Tape Head Cleaner with orifice reducer. 2 oz.
	\$2.10
11A7643-7.	QM-104 Tape Head Lubricant 2 oz. Each \$2,10

### PROFESSIONAL HEAD DEMAGNETIZER

Featuring burn-out proof design and flexible tip that will not damage sensitive head areas. For 120 VAC. Wt. 8

11A7641-1. QM-202.

..... \$17.60

PROFESSIONAL BULK ERASER



Completely erases reels, cartridges and cassettes to virgin tape levels. Burn-out proof design, hand contoured for comfortable use. For 120 VAC. Shpg. wt. 2 lbs. 6 oz.

11A7640-3. QM-211. Each ...... \$28.50

### PLAYER AND RECORDER HEAD DEMAGNETIZERS



PLAYER AND RECORDER HEAD DEMAGNETIZERS

#### UNIVERSAL TAPE HEAD DEMAGNETIZER

Aid for better tape recording. Quickly rids recorder of one cause of high noise . . . the accumulation of permanent magnetism in recording, erase and playback heads. Simple to operate, with instructions. 115 V. AC. Shpg. wr. 1 lb. 11A1052-7. Import Special

### CARTRIDGE PLAYER RECORDER HEAD 12 VOLT DC DEMAGNETIZER

### SAVE ON THESE TAPE RECORDER AIDS!



#### TELEPHONE PICKUP COIL

32A4000-8.



For recording conversations or making loud to side of telephone or to onds. Makes splices like a speaking telephone when back of handset. Does not pro...quick, clean, with-used with a standard recorder or mike amplifier. operation.

Installs by slipping under with shielded cable. phone or laying on ringer box. 4½" L. x 1½" W Giant import savings.

Well made import. Wt. 3½ lb. 32A4000-8.

\$1.69 Special

Quality Import

Wt. 6 oz. 11A1057-6. Special \$1.99 \$1.99 \$1.99 \$5.99

\$24.95

SPLICER BARGAIN

### UNIVERSAL BULK TAPE ERASER



### PROFESSIONAL CASSETTE **BULK ERASER**

Removes recorded sounds from entire cassette of tape in seconds, restoring tape to like-new blank condition. Far superior to erasing on a recorder. For 110 V. 60 Hz. Shpg. wt. 5 lbs.
11A7530-6. Robins TMC-1.

Each ..... \$24.25





#### **BULK TAPE ERASER**

For all tapes ... reel, cassette, cartridge and video tape. Use either as table or hand-held model. Completely erases all recordings and background noise — everything that is on the tape. Restores tape to original new condition, erases in seconds. Completely safe — UL and CSA approved. For 115 VAC. Shpg. wt. 5 lbs.

11A7657-7. GC 30-140. Each ..... \$14.95

### TAPE RECORDING ACCESSORIES



TAPE SPLICERS

Rapid, accurate splicing of 4 track, 2 track and single track tapes. Makes diagonal cut. "Gibson Girl" trim prevents splicing tape adhesive from contacting critical parts of recorder.

(1) ROBINS DELUXE TAPE SPLICER
"See thru" windows indicate "Cut" and "Trim" positions. Tape guide and fingers secure tape. Easy threading, integral tape dispenser with 100' roll of ½" splicing tape. With instructions. Wt. 1 lb.

11A704-4. Robins R26045 Each ...... \$12.50 (2) Standard ¼" Tape Splicer. Semi-automatic. Has "cut" position for diagonal cut on tape ends. 'Trim" position trims tape sides, leaving splice free of any adhesive. Make splices like a pro ... quick, clean.

### SEE PAGE 76 FOR COMPLETE SELECTION OF SCOTCH SPLICING TAPE

(3) PROFESSIONAL SPLICING BLOCKS 

ROBINS PROFESSIONAL BULK TAPE ERASERS. Better erasure without using recorder. Reduces tape background noise. Takes only seconds to erase entire

(4) R24018. Erasure 3 to 6 db below normal erase head level. Handles reels up to 10 ½" dia. x ½" wide. Size 3%" x 5%" x 6%". 110 V. 60 Hz. AC. UL listed. Wt. 8% lbs.

.....\$57.50 11A409-0. Each ...

(5) ROBINS HEAD DEMAGNETIZER. Removes residual magnetism that accumulates in all record heads causing excessive noise and hiss during recording and playback. Easy to use. For 110 v. 60 Hz. AC.

R25009 Professional Model. U/L listed. 4-5/8" x 1 1/2" dia. 

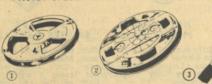
(6) Reel-To-Reel Tape Care Kit. Everything needed for complete care and maintenance of tape recorders and players. Kit includes a professional tape splicer, tape reel holders, tape end clips, cleaning brush, cotton swabs, cleaning cloth, and tape cueing and indexing labels. Also, a generous supply of splicing tape, head cleaner and lubricant.

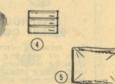
11A7666-8. GC 30-125. Each ...... \$9.97

11A124-5. CHEMICAL TAPE KARE KIT. 2 oz. bottles Head Cleaner, Head and Guide Lubricant, Tape and Phono Drive Oil, Non-Slip for Tape and Phono Drives and 50 Swabs for Cleaning and Oiling. Wt. 1½ lbs. 

(8) Head Cleaner Spray Aerosol formula removes accumulated oxides for improved fidelity. For all types of tape recorders. Complete with extension nozzle.

11A7522-3. R35010. 4-oz. Can. Net Each ...... \$1.70





(1) EMPTY TAPE REELS. Perfectly molded of clear plastic. Standard hub. Average wt. 8 oz. Net Price Stk. No. Size **Net Price** Size

Stk. No. 2 For \$1.10 2 For \$1.49 11A978-4 11A975-0 6 For \$1.25 4 For \$1.25 11A979-2 11A976-8

① LOW TORQUE 7" REEL. Larger hub reduces the effect of variable pull on tape caused by recorder take-up drive. Reduces wow and flutter, winds tape evenly. Capacity 1600 ft. 1/2 mil tape, 1200 ft. 1 mil, 800 ft. 1/2 mil.

Package of 2 For ...... \$2.19

BLOWER BRUSH. Squeeze blower and soft camel's hair brush, removes dust and other particles from delicate heads and guides of recorder. Ideal for dusting phonographs, records, fine optical lenses, etc. 11A7610-6. Each ......\$2.19

(4) Title Labels. Pressure sensitive labels, 2" X ½" imprinted title, date and





TAPE RECORDING NEEDS

(6) TAPE CLEANER. Removes accumulated oxides from recorder. Robins R30003 

TAPE CLIPS. Keeps reels of tape from unwinding. Reusable. Robins

11A985-9. Wt. 8 oz. Pkg. of 75 For ...... \$1.45 (8) REPLACEMENT TAPE RECORDER PRESSURE PADS. Pre-cut and U-cut felt

pads to fit all recorders. Robins R39183. 

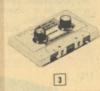
(9) Cartridge Anti-Dust Caps. Clips over tape end of cartridge protecting opening from dust, grime and accidental damage.

11A7535-5. Robins R43004. For 4-8 Track. Package of 10 For .. \$1.09 (10) REEL HOLDERS. Holds reel on spindle. Prevents wobble. Wt. 3 oz.

### CASSETTE TAPE RECORDING ACCESSORIES















① Cassette Tape Mailers. Package of 18 convenient cardboard cassette mailers. Unique design protects cassette for safe mailing. \$1.49

2 C-O Cassette. Cassette housing with leader tape attached. Easiest way to repair broken or jammed cassettes. Simply splice old recording to leader of new C-O cassette and rewind manually. 11A7645-2. Each .....

Gassette Tape Tension Winders. Inserts in holes of cassette to wind tape in either direction and take up slack. Wind tape for easy editing and 11A7542-1. R33012. Pair ......\$1.49

3-Way Combination Test-N-Clean Cassette. Cleans recorder player heads. Test head for correct alignment to assure full fidelity playback without annoying "crosstalk" between channels. Tests stereo balance equalization be-

\$2.19
September 2018 Cassette Tape Splicer. Especially for editing and repairing .150" wide tapes. Cuts tape at 45° angle. Includes 25 splicing patches. 11A7528-0. R33032. Net Each \$3.95 11A7529-8. R33035. Extra splicing patches. Pkg. 100 \$1.49
September 2018 Cassette Replacement Title Labels 2018 6 Cassette Replacement Title Labels. Package of 20 self-stick die-cut labels. 

### PHONO AND RECORD CARE ACCESSORIES



(1) Preener. Most popular Watts cleaning tool. Preener cleans and preserves the grooves of a new record leaving no trace of film or residue to clog the stylus. By depositing the correct amount of humidity on the record surface it acts as an effective anti-static control, at same time gathers dust and dirt. \$5.95

(2) Hi-Fi Parastat. Designed and intended for use on new records or records 

(3) Manual Parastat. Will revitalize your old records by lifting built-up dust, dirt and grif from the grooves. Uniquely designed brush with nylon bristles pointed down to .00025" provide deep down penetration for tough cleaning jobs. Especially valuable where elliptical styli are used. Complete with new formula anti-static fluid.

24A6042-8 Replacement Pads for Manual Parastat. Watts No. RPM. Ea. ..... \$2.50

(4) New Formula Anti-Static Fluid. Leaves no sticky residue or surface film when it goes to work reducing the static charge and providing the proper degree of humidity. A few drops is all that is required to control static charge.

24A6032-9. Watts No. NF.

(5) Humid Mop. Designed to clean and maintain the Preener, Parastat and Dust Bug. The Humid Mop acts as a conditioner, as well as applying its new formula anti-static fluid in correct proportions. Complete with replaceable 

Record Wash Brush. Restores brilliant "highs", rejuvenates old records, removes audible background noise and cleans down to bottom of grooves. Is a replacement brush for Parastat. Bristles are micro-ground to an elliptical groove shape.
24A6041-0. Watts No. RWB. Each .....

Watts Record Maintenance Kit. Comes complete with Preener, stylus cleaner,

and Dust Bug. Shop, Wt. 1 lb 24A6035-2.

Record Care Kit. Contains manual Parastat, stylus cleaner, Humid Mop, new

formula Anti-Static fluid, and Professional Methods for Record Care and Use book. Save \$2.75 as compared to buying items separately. \$24.95 **Watts Record Care Book** 

16A1284-1. Just for The Record. Each ...... \$1.00 BRINGS RENEWED



24A6040-2.

PERFORMANCE TO OLD RECORDS RETAINS THE LIFE OF

NEW ONES!

DISC CARE RECORD CLEANING KIT

Brings like-new performance to your records. Includes spraymatic solution and long nap brush for complete removal of grease, soil and all foreign particles. Stylus will glide smoothly and efficiently over clean record surface for excellent reproduction and finer performance. Contains two 1 oz. bottles of record care solution, pump spray applicator and record brush.

24A6046-9. Each ...... \$8.95



BALL CORPORATION SOUND GUARD RECORD PRESERVATION KIT

> KEEPS YOUR GOOD SOUNDS SOUNDING GOOD!

With Sound Guard you can protect the sound fidelity of your records — indefinitely ... keep them sounding as good as the day you bought them. Provides long-lasting anti-static protection to retard dust accumulation on records and needles. It's a dry lubricant that puts a microscopically thin film on your records to allow smooth tracking with no harmonic distortion or loss of high frequency. Sound Guard is not silicone based, it's a dry lubricant that does not attract dirt. Use Sound Guard as instructed and your records will sound the way they sound

24A6054-3. Each .....

discwasher

RECORD CLEANER



Excellent for removing built-up layers of soaps, detergents, adhesive fluids, silicones, oil, and dust. Helps cut down on static. Will restore the true fidelity and dynamic range of the record. Soft, gentle brush with handsome wood handle. Discwasher fluid bottle is hidden in handle. Instructions included. Shpg. wt. 1 lb.



SC-1 STYLUS CLEANER

Has magnifying mirror to view stylus and cartridge alignment with ease. A large area of special density fibers with tapered tips are absolutely safe for the delicate styli. Brush and mirror are completely retractable into handsome wooden

24A6053-5. Each ...... \$6.95



Unique design provides deep down cleaning of record grooves with soft nap. Removes built-up dust and grit with simple brushing of the record surface. Clean Sweep prolongs life of valuable records and expensive styli. A necessity for every-one who owns records. Don't let noise from dirt destroy your music enjoyment, keep your records at top performance and original brilliance with Clean Sweep

24A6048-5. Each ...... \$3.49

# DIAMOND PHONO NEEDLES

AMERICAN MADE

DO NOT CONFUSE WITH LOWER QUALITY IMPORTS!

YOU WILL FIND NO BETTER QUALITY THAN THESE DIAMOND JEWEL TIPPED, HAND POLISHED NEEDLES.

PRECISION DIAMOND NEEDLES . . UP TO 5 TIMES LONGER WEAR COMPARED TO SAPPHIRE

Your Choice \$399 EACH

PROTECT YOUR VALUABLE STEREO AND LP RECORDS WITH A NEW HIGH QUALITY DIAMOND NEEDLE

All are dual needles with diamond tip compatible for both stereo and LP records, also sapphire tip for 78 RPM records, except where asterisk (\*\*) indicates a single diamond needle for stereo and LP only



							SAN CHILD AND THE PARTY OF THE PARTY.
Fin	Stk No	Cartudge No. and Mtg. No.	Needle No.	Fig.	Stk. No.	Cartridge No. and Mfg. No. Panasonic EPC-35TTA Panasonic EPS-25STSD Piezo Y310. Japan Columbia 510 *Pezo SC501 RCA RPM200. 106771A. 106960A. 108213A. 106770. 106771. 108213. 10677A RCA 110023. 110021. 111347. 111348 RCA 115276. 115302. 115303. 115277 115346. 115347. 115703. 117330 RCA 116959. 128393 *RCA 115059. RPM-203. 115050 RCA 120695. 128393 *RCA 115059. RPM-203. 115050 RCA 112123. 117330. 117331 *Ronette BF40-4. T. 1. 105-106. 208 *Ronette DF60. RA284. RA395. 10200. 10222. 10284. 10400 Ronette IC500. DC400. P-0V-T. DC500 Shure Mf. 44 Series PC-234567. W9. WC-6 Sonotone 2T. 5T. 7T. Series 9980 Sonotone 3T. Series Sonotone 3T. Series Sonotone 3T. Series Sonotone 9T. 16T. 16TSD. 16TS. 18T Sonotone 9T. 16T. 16TSD. 16TS. 18T Sonotone 9T. 16T. 16TSD. 16TS. 18T Sonotone 2T. 22T. 23T. 24T. 31T. 35T. 43T Telefunken T20-2. T22-2. T20 Tetrad Tetrad EZD Tetrad 20D Tetrad 30D Tetrad 30D Tetrad 43D Tetrad 43D Tetrad 410 Tetrad 51D Tetrad 51D Tetrad 42D Tetrad 43D Tetrad 410 Tetrad 52D Tetrad 43D Tetrad 410 Tetrad 51D Tetrad 51D Tetrad 51D Tetrad 42D Tetrad 410. 121D Tetrad 42D Tetrad 410. 121D Tetrad 51D Tetrad 410. 121D Tetrad 410. 121D Tetrad 51D Tetrad 51D Tetrad 51D Tetrad 51D Tetrad 51D Tetrad 51D Tetrad 110. 121D Tetrad 51D Tetrad 5	Needle No.
		The state of the s	delicated to remarket	54	24A753-6	Panasonic EPS25STSD	
1	24A708-0	ACUS 73	D-73. S-73 NR.1 NR.2 NR.7	23	24A736-1	Piezo Y310, Japan Columbia 510	
3	24A546-4	Astatic 17D 135 217	N41. N42	28	24A737-9	*Piezo SC501	
3	24A547-2	Astatic 133, 137, 233, 237, 459, 483, 485,	1150 HEL 1100	23	24A533-2	106770 106771 108213 10677A	108800 108215 108214
		497, 1390, 138, 140,142, 146,	N50. N51. N60.	22	24B307-1	RCA 110023, 110021, 111347, 111348	110020, 110022
3	244709-8	Astatic 134 136 496 192	N70 N92	23	24A632-2	RCA 115276, 115302, 115303, 115277	45,200 W.
26	24A617-3	Astatic 181, 167, 169, 187, 281, 183	N64. N66	12	244702-3	115346, 115347, 115703, 117330	115329, 115911, 130398
3	24A701-5	Astatic 153, 157, 341, 343, 345, 461.	NEC	31	24A738-7	RCA 120695 128393	122057
7	244665-2	Astatus 3490 + 275 351 271 273	N74	32	24A673-6	*RCA 115059, RPM-203, 115050	115061
4	24A710-6	Astatic 346, 348	N76	30	24A674-4	RCA 112123, 117330, 117331	118197, 118198
5	24A711 -4	Astatic 2010. 2050. 209. 211, 2130	N89, N91	2	244320-1	*Ronette DT60 RA284 RA395	SAU75. SA250. DA700. DA300
2	24A362-6	*BSR 1C-85, 1C-8K, 1C-8G, 1C-8H, 1C8H 1	ST3 ST4 ST5 ST6		THE REAL PROPERTY.	T0200, T0222, T0284, T0400	5304, 5305
7	24A712-2	BSR SC7M	ST16. ST17. ST18	33	24A739-5	Ronette TC500. DC400-P-0V-T. DC500	SA250. SA100. DA100. DA300
8	24A713-0	BSR SX3, SX4, SX5H	ST8. ST9. ST10	33	24A32U-4	5 .6 .7 W9 W C-6	46 49 410 N.4
8	24A714-8	BSR SC5M. SX5M	3604 3605	36	24A385-7	Sonotone 21, 5T, 7T, Series 9980	N2T
16	244627-2	Electro Voice 117 131 148 154	2004. 2003	36	24A460-8	Sonotone 3T Series	N3T
1		159. 259. 260	2616DS	37	24A349-3	Sonotone 81, 81A	NST. NSTA
3	24A717-1	Electro Voice 198, 199, 275, 5166	2624 26230s	48	24A595-1	Sonotone 21T, 22T, 23T, 24T, 31T	NSSIOF, WIST, WIST
12	24A/18-9	Flectro Voice 5000 -03 -05 -75	202303			35T 43T	N21T, N35T
	2111001	-028688. 51686970	2625DS. 2643	40	24A534-0	Telefunken T20-2, T22-2, T20	A20 2. A22 2
14	24A719 -7	*Electro Voice 5078	2640	41	24A742-9	Tetrad F2D	
31	Z4A587-8	186 256 257 258 278 279 280	2620DS 2622DS	41	24A743-7	Tetrad C1D Yellow	C-1
7	24A574-6	Electro Voice 132, 163	2619DS	43	24A631 -4	Tetrad 100	110
16	24A720-5	Electro Voice 5076, 5081	2637. 2638	43	244693-4	Tetrad 400	410
16	24A722-1	Electro Voice 50200, 50270, 50370, 50000	2639	. 43	24A697-5	Tetrad 510	610
16	24A723-9	Electro Voice 5044, 5045, 5061, 5083.	<b>发展的 2-20000000</b>	49	24A694-2	Tetrad 22D	520
12	244541 5	5084	2641, 2642	43	24A676-9	Tetrad 300, 900, 910	330
18	24A341-5	*Funhonics 11 112 114 115	214 215 216	43	24A696 -7	Tetrad	230
19	24A724-7	Euphonics U8. U9	255. 256	49	24A698 -3	Tetrad 53D	630
19	24A399-8	Euphonics U10, U11, U10R U11R	253. 254	42	24A745-2	Tetrad A1 A3	A2
6	24A028-0	Fundances 112, 113 117 18 19 21	508. 509. 510. 511	41	24A746-0	Tetrad	C3
20	24A726-2	Euphonics U19-4, U15-13	551, 552, 512, 530, 601	41	24A747-8	Tetrad	61
24	24A670-2	*GE RPX Series	RPX-01	43	24A754-4	Tetrad 310	130
24	24A6/1-0	145 146	4601	44	24A749-4	Toshiba C10C. 3CB. GR33F	3CB
9	24A669-4	GE G100	RS4154. RS4413	51	24A755 -1	Varco TN-8	0740
9	24A668-6	GE C-200. C-400	RS4634	51	24A699-1	Varco CN60 CN62 CN65 CN67	5140
25	24A611 -0	GF 660	FA2224	0.	T.MOLE 3	CN68. CN70. CN72. CN73. CN75	CN. CD
21	24A587-8	Magnavox 360310. 56		52	24A677 -7	Varco TNO-2H	TN-UZ-LPS
7	24A700-7	Magnavox 56, 344-45	56U. 344-2 2647D	45	24A750 -2	Zenith 142-127 142-128 142-126	S55804 S55805
7	24A756-9	Magnavox 500347-1	560354-2	46	24A678-5	Zenith 142-136, 142-137, 142-138.	
26	24A735-3	Nivico PU3012.3	DTS-1	20	244670.2	142-140, 142-141, 142-142, 142-143	\$62648 \$62649 \$68566 \$68567
7	24A672-8	Phillips AG3306, AG3310, AG3224,	946 \$550 0551	39	24A751 -0	Zenith 142, 167	S82621
VOII	D CHUICE	3320, 3230	340, 3330, 0331	VOI	IR CHOICE	The same of the sa	September 1970 and the
FAC	H		\$3.99	EAC	H		\$3.99

#### SPECIAL! SAVE \$\$

COMPARE AT \$3.99

### **OUR MOST POPULAR** GENUINE DIAMOND PHONO NEEDLE

EXACT REPLACEMENT FOR MANY CARTRIDGES ... \$ 1 99
BY ASTATIC, BSR, RONETTE AND VACO

BI ASIATIC, Body Rev. Bit Asia Rev. Bit Asia

#### SET SCREW TYPE ALL GROOVE NEEDLES



Sapphire tip needle. Truncated for both microgroove and standard records. Plays all types of records without changing needless.

24A624-9. Each 69c



### PHONO ARM WITH TURNOVER CARTRIDGE

Smooth gray plastic arm with monaural turnover cartridge. Arm is 8½" long, plays all records 12" or smaller. 24A4049-5. Each ..... \$3.59

#### STEREO ARM AND TURNOVER CARTRIDGE

For playing all records - monoural and stereo. Output .3 V. Gray plastic 8 ½ " arm plays all records 12" or smaller. Complete with mounting hardware. Wt. 10 oz. 

### VARCO VACO CARTRIDGES

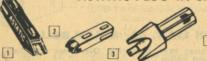




Used by phonograph manufacturers as original equipment. All have diamond stylus. All cartridges have crystal elements except \* which have ceramic elements.

inelia.		Cartridge		Volts		Mfg.		6	
Fig.	No.	No.	Type	Output	Color	List	Each	Each	
1	24A4065-1	CN65D	Mono	2.8V	Black	\$8.50	\$6.80	\$5.10	
1	24A4068-5	CN75D	Stereo	2.0V	Black	8.50	6.80	5.10	
2	24A4069-3	SS4D	Stereo	2.0V	Black	8.00	6.40	4.80	
3	24A4070-1	TO45LD	Mono	.97	Black	8.00	6.40	4.80	
4	24A4075-0	ST2VD	Stereo	1.0V	Grey/Red	9.00	7.20	5.40	
5	24A4076-8	ST2XD	Stereo	1.0V	Grey/Red	9.00	7.20	5.40	
5	24A4078-4	ST4XD	Stereo	2.5V	Red Black	9.00	7.20	5.40	
6 *	24A4080-0	TN02HD	Stereo	.57V	Black	12.00	9.60	7.20	
7 *	24A4081-8	TN4AD	Stereo	.4V	Black	12.75	10.20	7.65	
7 *	24A4082-6	TN4BD	Stereo	.5V	Black	12.75	10.20	7.65	

### **ASTATIC PLUG-IN CARTRIDGES**







Popular plug in type cartridges used as original equipment in thousands of phonographs. Highly sensitive ceramic element for clear wide range response. \* 13AT is same as 13T except has wider range and higher compliance. 93 is replacement for Electro Voice 56: 105 is replacement for Electro. Voice 66 Avg shpg wt 3 oz

	Stk.	Astatic	48 Distant	Output	Needle	Mfg.		
Fig.	No.	No.	Type	Volts	Tip	List	Each	6 Each
1	24A4014-9	13T	Stereo	0.65	75-35	\$6.95	\$5.56	\$4.17
1	24A4015-6	13TX	Stereo	0.65	70-35	9.95	7.96	5.97
1	24A4017-2	* 13ATX	Stereo	0.35	.7D-3S	10.95	8.76	6.57
2	24A4018-0	811	Mono	1.0	15-35	4.95	3.96	2.97
2	24A4019-8	81TX	Mono	1.0/	1D-3S	7.95	6.36	4.77
2	24A4059-4	89T	Mono	1.3	15-35	5.95	4.76	3.57
2	24A4060-2	89TX	Mono	1.3	1D-3S	8.95	7.16	5.37
3	24A4004-0	931	Mono	1.5	15-35	5.95	4.76	3.57
3	24A4005-7	93TX	Mono	1.5	1D-3S	8.95	7.16	5.37
3	24A4007-3	1050	Stereo	10	70-35	8.95	7.96	5.97
4	24A4106-3	MB2	Mounting	bracket for 13	IT. 13TX. 13	AT. 13A	X 1.00	75
5	24A4107-1	MB3	Mounting	bracket for 81	T. 81TX. 89	T. 89TX	1.00	75

### **ASTATIC STEREO REPLACEMENT** CARTRIDGES

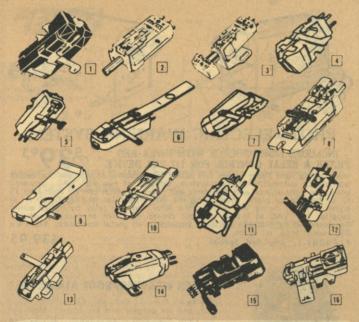
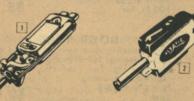


Fig. 1 1 2 2 3 4 4 4 1 1 5 6 6 8 8	Stk. No. 24A4026-3 24A4027-1 24A4020-6 24A4021-4 24A4021-4 24A4023-0 24A4061-0 24A4061-0 24A4088-3 24A4098-8 24A4099-8 24A4099-8 24A4099-8 24A4099-8 24A4099-8 24A4099-8	86TSB 133 133D 140 142 142D 195D 197D 348	Replacement For Adm., G.E., VM, Adm., G.E., VM, Zen. VM. Airl., G.E. Airl., Phil. Arv., Phonola, VM, Adm., Magn. Adm., Av., Zen. Adm., Airl., Phil. Adm., to Zen. Adm., to Zen. Adm., to Zen. Magn. 560345-1 Magn. 560345-1 RCA 115059	Needle Tip 7S-3S 7D-3S 7S-3S 7S-3S 7S-3S 7S-3S 7S-3S 7S-3S 7D-3S 7D-3S 7D-3S 7D-3S 7D-3S 7D-3S	Output Voits 0.8 0.8 2.0 2.0 2.0 2.0 0.8 0.5 0.5 0.5 0.5 0.5 0.5 1.0 2.0 2.0	\$7.95 7.95 8.95 8.95 8.95 12.25 7.95 10.95 12.50 12.50 8.95	Net Each \$9.40 12.60 6.36 7.16 7.16 7.96 6.99 9.79 6.36 8.76 10.00 10.00 12.76	6 Each \$7.05 9.45 4.77 4.77 5.37 5.25 7.35 4.77 4.77 6.57 7.50 7.50
9 10 11 12 5 13 7 14 14 15 15	24A4097-4 24A4100-6 24A4101-7 24A4101-4 24A4090-9 24A4089-1 24A4102-2 24A4103-0 24A4038-8 24A4040-4 24A4042-0	3510 3530 4610 475 612 6550 6750 710 7100 754 7540 7600	GE C650 RCA 115277 Magn 560216 1 RCA 108213 B S R SX5H. TC8 EV5015. Garrard 30 Garr. X10. EV5080D Eup. U1. Adm., Moto. Eup. U2. Airl. VM Sono. 8TA4-S. Sono. 8TA4-SD. Sono. 16 TAF-SD, Phil.	70-38 70-38 70-38 78-38 70-38 70-38 70-38 70-38 70-38 70-38 70-38	0.5 0.175 0.55 0.5 2.0 0.5 0.5 0.5 0.5 0.5 0.5 0.5	14.95 14.50 11.95 7.95 11.50 11.75 10.95 16.50 11.50 14.50	11.96 11.60 9.56 6.36 9.20 9.39 8.76 13.20 9.20 11.60 10.36	9.57 8.97 8.70 7.17 4.77 6.90 7.05 6.57 9.90 6.90 8.70 7.77

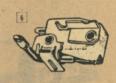
### ASTATIC MONAURAL REPLACEMENT CARTRIDGES











	Stk.	Astatic		Needle	Output	Mtg.		
Fig.	No.	No.	Replacement For	Tip	Volts	List	Each	6 Each
1	24A4029-7	66TY	Phil., RCA	35	3.0	\$9.95	\$7.97	\$5.97
2	24A4030-5	120	Phil. VM	15-35	3.0	7.45	5.96	4.47
3	24A4086-7	146	Adm., to Zen	15-35	30	6.95	5.56	4.17
4	24A4031-3	314TS	Airl, RCA	15-35	3.0	6.45	5.16	3.87
5	24A4032-1	420	Adm . Sears	15-35	3.0	7.25	5.80	4.35
6	24A4035-4	751	Sono 2TA-S Adm	15-35	10	8.45	6.76	5.07
6	24A4036-2		Sono 2TA-SD. Phil	10-35	10	11.45	9.16	6.87

### **BUILD YOUR OWN SECURITY PROTECTION SYSTEM**





### PHOTO-ELECTRIC WARNING SYSTEM

INCLUDES LIGHT SOURCE WITH INFRA RED



### **8 INCH WEATHERPROOF ALARM BELL**

Works on 6 or 12 volts DC. Extra loud, heavy duty bell for burglar and fire alarms. Steel bell for clear ring. Red enamel finish. High quality. Made in U.S.A. Shpg. wt. 5 lbs. 41A4101-3



### 110 VOLT SIREN

Powerful Police type siren can be heard blocks away. Resistant to corrosion, heat, cold, water, etc. Connect to warning systems or build your own low cost protection system against burglary and vandalism.

Operates on 110 VAC. 6" leads. Made in U.S.A. Size approximately 6" long x 5" dia. With mounting bracket. Shpg. wt. 4½ lbs. No. 47A5555-3.

\$22.95



### **HEAVY DUTY HORN**

Penetrating power - comparable to a car horn. Excellent, low cost alarm and signal-ing device. Sound output: 98 db. 6 to 9 volts DC - 1 amp. For Indoor Mounting Each ..... \$4.95



41A4109-6.

Flexible stranded 20 gauge wire for connecting switches, window foil etc. to your alarm system. Plastic insulation. Grey or clear color, Specify color.

2A16-4-660-1. Gray 2A16-4-668-4. Clear 100 Ft. For ..... \$5.10



#### DOOR CORD

For connecting door switches and to con-nect swinging, foil protected windows to alarm wiring. Two conductor, for left or right hand mounting.

No. 41A4113-8 ..... \$2.99



### **PULL TRAP**

Slide pull on brass clip opens contact and sets off alarm. Supplied with thin, almost invisible nylon cord which can be strung across walkways, attached to windows, doors, or other openings. Alarm activates when intruder pulls out clip by moving string.

No. 41A4115-3 Each .....\$3.69



EMERGENCY SWITCH
This push button is used to set off the alarm manually and may be installed near doors, in bedrooms, etc.

No. 41A4114-6 Each ..... \$1.49



### **ENTRANCE** SWITCH MATS

PRESS AT ANY POINT SWITCHING FOR ALARMS, CONTROLS, SAFETY

Pressure at any point will activate alarms. Can be installed under carpets, floor mats, stair steps, etc. Only 3/32" thick and completely undetectable. Size is 24 X 30" but can be cut to any size.

41A4147-6. Each ...... \$16.95

WINDOW SILL RIBBON SWITCH. Sensitive burglar alarm switch. White, completely sealed ribbon 24" long. Responds to light pressure, closing circuit momentarily. Wt. 6 oz.

.....\$12.95 41A4146-8. Each



### SWITCHES FOR ALARM CIRCUITS

MAGNETIC PROXIMITY SWITCH FOR WINDOWS AND DOORS

Small molded case with screw terminals contains a reed switch capable of millions of operations. Other case contains permanent magnet. When magnet is brought within 1 inch of switch the circuit is activated. Easily installed on doors and windows so that opening will move magnet activating circuit.

on doors and windows so that spanish on doors and windows so that spanish on the spanish of the



### ELECTRICAL SWITCH LOCK

Round key lock with sleeve and washers comes with 2 keys.
No. 41A4068-4. \$6.95 Each.

### ELECTRICAL KEY LOCK SWITCH

Heavy duty SPST lock switch protects all electrical accessories from unauthorized persons. Carries up to 120 V. (a 2 amps. Key removeable in "on" and "off" positions.

41A4127-8. Each ..... \$3.95



### SELF-STICK FOIL

EACH

For window and door protection. No adhesive or varnish needed. 1 lb. roll approx. 300 ft. 41A4070-0. 10 Rolls Each . . . . \$5.95 Each . . . . \$5 41A4071-8. Foil Connector—Single. \$5.39 Self-Sticking. 10 Each ...... 49° Each ... 41A4072-6. Foil Connector—Double. Self-sticking. Each ..... 79° Each ..... 69°

### FOIL PROTECTION VARNISH AND ADHESIVE



### 3-INCH 117 V. AC ALARM BELL

Produces loud, clear ring. Overcomes high background noises. Operates from any 117 VAC power source.

Shpg. wt. 8 ozs. 41A4045-2. Imported. Special Ea..... \$7.99



### FIRE & THEFT SECURITY SYSTEMS

New handy guidebook completely covers the selection, installation, and general maintenance of home and business security system. Shows equipment available and how it works.

# The Professional Home Protection everyone can Install and Afford. THEOL'S



HOME SECURITY HANDBOOK

A comprehensive 40-page Homeowners Handbook which includes a wealth of information on professional home security as well as comprehensive installation on professional home security as well as comprehensive installation procedures in clear non-technical language.

Each



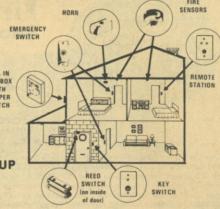
### EICO FC-100 SECURITY CONTROL CENTER

- Start your custom Burglar Hold-up Fire Alarm System with the FC-100.
- Add on Sensors, Alarm and Accessories to suit your
- No technical knowledge needed—no soldering.
   Ideal for Apartment, Home and certain Commercial

Installations.

An extremely flexible home protection device. Designed for use with all types of intruder and fire sensors. The alarm activating circuits accommodate burglar alarm bells, separate fire

horns, as well as various combinations of fire and burglar alarm and horns. A Remote Station Control with signal lights (EICO A-65) can be installed to show that all doors and windows are closed and the alarm system is ready to be "armed." The simple circuit uses only two wices. Fire alarm circuits are always on and cannot be turned off accidentally. Powered by 11.7 VAC which supplies 6 volts DC for operating the system. Optional 6 volt lantern battery for standby emergency operation. Installers handbook included. Size: 7 ½ x 1034 x 4 ¼ ". Shpg. wt. 6 lbs.



BURGLAR/HOLD-UP FIRE ALARM SYSTEM

EICO

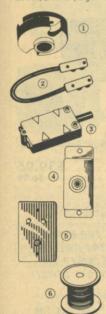
#### TYPICAL ALARM INSTALLATION

The FC-100 control center with detectors, alarm accessories and an alarm bell. Supplied with: 1 SA-25 8" Alarm Bell: 1 A-45 Entrance Key-Switch with "system-on" signal light; one A-65 remote station control with signal lights: 1 SD-50 Tamper switch: 2 SD-40 Door Cords; 2 A-35 Emergency Buttons: Installers Handbook; 3 SD-20 Fire Sensors: 4 pairs SD-10 Door Window Contact Switches: 6 A-105 "Home Protected" decals and 250 feet of hook-up wire. Additional remote stations, entrance key switches, alarm bells, signal horns as well as fire, smoke, intruder detectors are optional. Size: 12 12 x 12 14 x 12 34 ". Shpq. wt.

41A4079-1. Model SS-500. Each ...... \$159.95

### EICO SENSORS, ALARMS, ACCESSORIES

Use these accessories to expand Eico systems shown above. They can also be used with other brands of burglar alarm systems or to build your own system. See opposite page for more burglar alarm accessories.



- ① SD-20 Heat Fire Sensors. Open circuit type. Open when temperature reaches 135° F. Size: 1-7/8" dia. Shpg. wt. 5 oz. 41A4091-6. Package of 3 . . . . . . . . \$9.95
- © SD-40 Door Cords 12 Inch, 2 Wire. Withstand
- 3 SD-50 Tamper Switches. Prevents an intruder from
- A-35 Emergency Button. Overrides all other sensing devices, and can only be turned off by pushing the same button a second time.
- 41A4087-4. Package of 2 . . . . . . . . . . . \$3.95 3 A-65 Remote Station Control With Indicator Lights. Consists of a wall mounting plate, momentary switch, a white "Circuit Test" light, and a red "Alarm On' light. The momentary switch turns the burglar alarm ON and OFF. The white light indicates that all intruder-detecting devices are operative (closed). The red light indicates that the system is "armed" and any intrusion will activate the alarm bell. Mounts on standard box. Size: 2¾ X 4½."
- 41A4086-6. Each .....
- (§) Protective Circuit Hook-Up Wire 100 Ft. Two clear plastic covered 22 gauge conductors. Used for burglar and fire alarm circuits. Shpg. wt. 1½ lbs. 2M16-4. Specify Clear. 100 Ft. For .......\$5.10
- DSD-16 Vibration Contact Protect walls, ceilings, large glass windows, skylights, safes and virtually any area vulnerable to forced entry. Closed circuit. 41A4120-3. Each
- (ISD-18 "Door Jamb" Contact Switches.
- (§ SD-42 Disconnecting Door Cord (Two Wire). Designed specially for overhead garage doors, the door cord can be used anywhere it is desirable to separate several sensors from the control box while the opening involved does not require electronic supervision.
- 41A4134-4. Each ...... \$8.95
- - ® SD-10 Door Window Magnetic Contact Reed Switches. Normally-open reed switch encased in a plastic housing, and a bar magnet in a similar plastic housing. Size: ½ X ½ X 2¼". Shpg. wt. 2 lbs. 41A4080-9. Pkg. of 4 Pairs . . . . . . . . \$9.95

- (11) SD-14 Multi-Purpose Foil Contact Switches. For protecting double hung, sliding, tilting and swinging windows, as well as patio and glass doors.
- 41A4145-0. Package of 2 ...... \$7.95
- B SA-25 Indoor Outdoor 8 Inch Bell, 6 VDC. Extra loud alarm bell that can be used for both the burglar and fire alarm circuits.
  41A4084-1. Shpg. wt. 5 lbs. Each . . . . . \$19.95
- (1) SA-27 Steel Bell Box. Includes internally mounted safety plate with drilled and tapped mounting holes for Eico SA-25 8" underdome alarm bell (not supplied) and Eico SD-50 tamper switches (not supplied). Size: 12" H. X 9" W. X 4" D. 41A4085-8. Shpg. wt. 8 1/2 lbs. Each ......\$17.95
- (5) A-105 Warning Decals. 41A4089-0. Package of 6 ..... \$1.95
- (6) Alarm Bell Wire. Two 18 gauge conductors. Wt. 3 2A28-9. 100 Ft. For ..... \$7.90
- 1 SA-15 Indoor Twin Klaxon Horn Alarm 6 VDC. Give loud ear-piercing sound. Size: 6 X 8 4 X 3-5/8" Shpg. wt. 1 1/4 lbs. 41A4090-8. Each ......\$10.95
- (1) A-85 "Open-To-Closed" Circuit Coupler. Enables you to connect any "open circuit" type sensor (floor switch mat, etc.) directly into the protective (closed) series circuit of your alarm system. Simply connect the A-85 coupler in series with the protective circuit and the "open circuit"

41A4124-5.

® SD-28 "Flash Fire" Heat Detector O.C. Detects an abnormal rate of rise in air temperature typical of flash fires. Sounds the alarm if temperature increases 5°F in 20 seconds or if factory preset temperature of 135°F is exceeded. Only 2-3/16" high X 3-3/16" diameter. 41A4136-9. Each ...... \$10.95

















### HOME SECURITY DEVICES



### **FirstAlert SMOKE AND FIRE** ALARM

- LOUD 85 DB. HORN.
- DUAL CHAMBER DESIGN.
- . BATTERY OPERATED.

### **UL LISTED**

A single station ionization detector which will detect fires in their earliest stages and activate its own self contained alarm horn. Dual chamber detection design for maximum dependability, and 85 decibel horn that can awaken people sleeping behind closed doors, a big 1,000 milliampere hour battery will last 1 year. Built-in test switch checks the detection circuitry and the horn. Sensitivity is preset, a built-in voltage regulator keeps the correct level as battery power declines. When battery needs replacement a low battery trouble signal is activated and will sound an intermittent beep as long as one month, until new battery is inserted. No electrical connections required. Mounting hardware included. Size: 6" dia. X 1-5/8" D. Battery included. Shpg. wt. 2 lbs. U.L. approved. 41A4156-7.

With battery. Each

21A5098-4. 12.6 V. Replacement Battery for above. Each ..... \$6.99

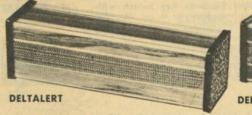


### GAS AND SMOKE SENTRY

Instant warning from lethal gas or smoke buildup! Internal 84-89 db horn smoke buildup! Internal 84-89 db norn sounds automatically to warn that smoke or gas has reached dangerous level. Responds to smoke, natural gas, carbon monoxide, and fumes from hydro-carbons, propane, butane, paint thinner and solvent and many more. Unit features solid state circuitry, sensitivity control, automatic reset or continuous coperations. initity control, automatic reset or continuous operation switch, operational indication pilot lamp, spare bulb and 9 ft. cord. Easily installed - hangs on wall! 117 VAC, 60 Hz. operation. Draws less power on stand-by than 5 watt nightlite.

41A4138-5. 30-9040.Ea \$44.95

### DELTALERT ULTRASONIC ALARM





110 Volt Deltalert. Easy to connect, the Deltalert monitors and blankets a fifteen to thirty foot area (depending on the shape of the area). An intruder cannot hear or see the ultrasonic sound waves. The Deltalert will detect an intruder entering the monitored area by turning on lights, activating alarms or both. Remains activated for 10 seconds to 3 minutes (adjustable), then automatically resets. Specifications: Ultrasonic frequency 35 KHz. Controls: On-Off switch, built-in timer, variable sensitivity control, 110 volt, 1 amp receptacle on back for plugging in lights, bell, etc. Power requirements 110-130 V. 60 Hz AC. Dimensions: 103/6" x 31/4" x 31/4". Shpg. wt. 3 lbs.

41A4051-0. Model 10400 Complete Ready to use. Each

12 Volt Deltalert. Like unit described above except operates on 12 volt DC. Ultrasonic frequency 32-38 KHz. 7 different frequencies available to allow use of several units in a large area without interferring with each other. Draws 20 MA in operation, no alarmed condition. Operating range adjustable 8 to 25 feet.

Deltahorn. Provides high intensity noise. Zero to 20 second adjustable delay allows you to enter without activating system. Plugs into Deltalert.
41A4062-7. Model 12300 For 110 Volt AC
41A4148-4. Model 12312. For 12 V. DC.

Your Choice
Each ..... \$38.00







(1) EARLY WARNING SMOKE DETECTOR. Photoelectric "eyes" continually monitor the air. In the event of a fire they trigger a piercing early warning alarm. Will not alarm under normal household conditions. Decoratively styled, Smoke Detector is designed for convenient wall mounting. Pilot light tells you power is on. Test button allows you to test unit often. Audible low battery warning signal. Solid state circuitry. UL listed.

41A4173-2. Model 9290. Battery powered, batteries included. Each 49.95

21A5098-4. 12.6 volt replacement battery for 9290. Each ....... 6.99

(2) DRY CHEMICAL FIRE EXTINGUISHER. Fights common household fires grease, oil, electrical, paint, gasoline. Decorator designed, easy to install and operates with push-button ease. Test button assures unit is fully charged. Rated at 5B:C, contains non-toxic materials. UL listed.

(3) HEAVY-DUTY DRY CHEMICAL FIRE EXTINGUISHER. Multi-purpose chemicals fight all types of fires which occur in home, automobile or boat. Refillable design assures years of protection. Pressure gauge indicates unit is charged and ready to use. UL listed with a 1-A:10-B:C rating.

41A4171-6. Model 9220. Each ...... \$17.99

### **NIVERSAL**

### **SMOKE SIGNAL**

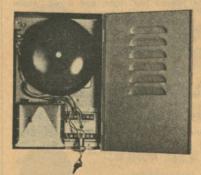
BATTERY OPERATED

DETECTOR

A powerful 85 decibel horn easily awakens at the first sign of smoke. The "Smoke Signal" is self-contained, easily installed and monitors its own operating voltage. When battery voltage drops below nominal operating level, circuit activates horn for a moment and repeats at one minute intervals. Battery (includ-

ed) should last one year under normal conditions. 41A4177-3. Model SS-200. Each \$39.95 21A5098-4. 12.6 Volt Replacement Battery for above. \$6.99

### LOW COST BURGLAR ALARM SYSTEM



PERFECT FOR MODERN APARTMENT DWELLER. STORE OWNER OR PROFESSIONAL OFFICE!

SS-200

SOLID STATE TIME DELAY **BURGLAR ALARM SYSTEM** 

Ready-to-install alarm system for modest residential requirements and individual apartments. Opening any protected door or window, cutting of the alarm wires or tampering with the cabinet will cause the alarm to sound. The alarm system is activated only after you leave your apartment and close the exit door. There is also a 20 second "Time Delay" allowing you sufficient time to shut the alarm off upon entering. The alarm system can be turned on to give protection when you are at home.

System includes: 8" extra loud alarm bell; electrical switch lock with 2 keys; sol-System includes: 8° extra loud alarm bell; electrical switch lock with 2 keys; solid state control panel with time delay; tamperproof, weather resistant steel cabinet (front and rear tamper switches); 3 sets of closed circuit window contacts; 1 exit door contact, easy to follow instructions; warning decals; 100 ft. of hook-up wire; interior on/off switch; panic/battery test button; A-95 Home Security Handbook; Operates on standard 6 volt lantern battery (not supplied). Expandable by adding additional sensors. See pages 75 and 76 Size: 13" X 10" X 4-5/8". Shpg. wt. 12 lbs.

# Automatic Telephone Answering Systems

All systems are approved to plug into your 4-prong telephone extension jack, no connection or monthly charges.

### TELE-TENDER

### TELEPHONE ANSWERING SYSTEM



The complete telephone answering and recording system with all the most wanted features and advantages. No costly installation and monthly service charges by the telephone company. Automatically answers your phone, gives caller any message you desire and records message from caller. Allows you to monitor calls, without letting caller know, if you decide to answer simply pick up the phone. Use independently as a dictating machine or regular recorder with mike that is included. Easy to install. Simply plugs into standard 4-prong telephone jack. Plugs into standard AC outlet . . . no worry about batteries wearing out. You'll get your calls every time with a Tele-Tender IV and have no extra monthly telephone charges. Shpg. wt. 8 lbs.

32A4088-3. Each	 	 	 	\$149.50
Cassettes for outgoing messages: 32A4079-2. 30 seconds. Each				65.05
32A4080-0. 1 minute. Each	 		1 100	\$5.05

star ≥ touch
by phone-mate

PUSH BUTTON PHONE WITH MEMORY



Convenient push button phone works with all telephone company systems. Plugs into regular 4 prong jacks. It's got a memory inside that remembers the last number you dialed. If that number is busy and you want to dial it again, just touch the star again and again until you get an answer. Ivory color. Shpg. wt. 8 lbs.

### Record a Call



Model 60 Auto. Simple one control operation two cassette system. Incoming — Records on a standard size cassette. Outgoing — Endless Loop Cassette. Change your message as many times as you wish by re-recording a new message or by popping in different cassettes available in different lengths.

Exclusive silent monitor — only the caller's voice is heard. Announce only — gives your message to caller, then hangs up. Dictation capability. Fast forward, rapid rewind, rapid erase — allows you to erase old messages when rewinding (if desired). LED message light. High quality dynamic microphone. Size 9" x 11-7/8" x 3-7/8".

Warranty — One year parts excluding cassettes and accessories, 90 days labor. Return pre-paid to BA or factory. 117 Volt ac powered.

Model 70 VOX. All the Features of Model 60 PLUS Vox (Voice Actuation). Voice Actuation permits the coller to speak for as long as they wish. After the caller has stopped speaking the unit will sense the absence of the voice and hang up. Option of switching to 30-second fixed time if desired.

32A4095-8. Model 70 Vox. Each ...... \$199.95

Model 80 Remote. All the Features of Model 70 Plus remote control. Get your messages anywhere just by dialing your phone number. A push of the button from your pocket-sized Remote Key and your messages will be played back to you just as received (hear them over and over again, if desired). When finished, signal your Remote 80 and it will be ready to receive additional calls when you hang up.

RK-1 Extra Remote Key for model 80. Specify frequency of your system. Allow 30 days delivery.

32A4112-1. Each \$29.95

 Endless Loop Cassettes for outgoing messages.
 \$4.50

 32A4101-4. 20 second
 \$4.50

 32A4102-2. 30 second
 \$4.95

 32A4103-0. 45 second
 \$4.95



 Fast automatic voice controlled switching from send to receive

Perform routine conversations without the need to "hold the phone"! Group calls, with other parties present talking and listening anywhere in the room are easily accomplished.

The acoustically coupled FTA-100 operates independent of telephone company circuitry, needing no installation or telephone company approval.

Place the handset in acoustical receptacle, adjust receive sensitivity and volume and converse in a normal speaking voice. Unit automatically switches from transmit to receive when the other party speaks. A manual control permits override of the other party to make a conversational point or in the event of excessive background noise on the telephone line.

Fast, automatic voice controlled switching from send to receive. Separate speaker and microphone. High-gain audio circuitry.

### **B-A SUPER BARGAIN SPECIAL!**

REGULAR DIAL TELEPHONES



SUPER SPECIALS!





Late style phomes with coil cord on handset that have been removed from service and reconditioned. Each instrument is complete with dial, handset and internal bell. Ringers have been re-tuned for 20 cycle ringing on single private lines. Will work on party lines except ringer must be disconnected. Style may vary from phone shown. Desk phone has cord to attach to telephone line. Available in black only. Shpg. wt. 7 lbs.

18A1417-5. Black Desk Style. Each

32A4050-3. Black Wall Style. Each



Disconnect only the bell on your telephone. Remote on off switch, 10' cord terminating in "Jack-In-A-Plug". Plugs into existing jack. Can be operated from edge of bed, recliner or night table. Enables telephone answering machine to receive phone calls without being distracted by the phone ring. With instructions.

No. 32A4072-7.

\$3.95

\$3.95



Four pronged, two-way telephone jack. Simply insert into any convenient telephone wall jack, transforms the wall jack into two jacks. \$2.49



### **EVERYBODY'S USING THEM**

### STANDARD TELEPHONE PLUGS AND JACKS

PLUGS AND JACKS

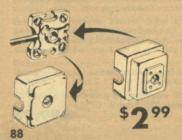
And interchangeable with them. Standard 4 wire type, with code marked screw terminals. Perfect for extension speakers, intercom systems, phones, etc. Surface iack, for exposed wiring, mounts with 2 screws. Flush jack, for concealed wiring, has fittings and wall plate for standard electrical outlet box. (Box not supplied Specify Ivory or Brown.

(1) 32A4003-2. Portable Plug.	
	\$1.29
(2) 32A4004-0. Surface Jack.	
Ea	\$1.49
(3) 32A4005-7. Flush Jack.	
Ivory Only. Each	\$2.99



TELEPHONE

"JACK-IN-A-PLUG"
Unique telephone plug also contains built-in jack. Connect 2 or more phones from 1 existing Jack. Easy to install. No loss of audio signal. Instructions included. Ivory color. No. 32A4033-9. \$2.49



INSTANT JACK

INSTANT JACK
QUICK CONNECT
TELEPHONE OUTLET
Instantly converts any single line telephone wall junction box into a convenient jack outlet without disturbing your present telephone. No wiring necessary! Simply remove junction box cover (one screw) and replace with "Instant Jack".

32A4034-7 [Fach \$2.99] 32A4034-7. Each

### **MODULAR TELEPHONE CONNECTORS**



Adaptor Extension with modular plug one end, standard jack other end. To connect a phone or accessory using a standard phone plug to a modular

32A4106-3. 2 Feet.	Each .			 			 		 			9	4.95	,
32A4107-1. 7 Feet.												 	. \$7.95	5
32A4108-9. 25 Fee	t. Each			 				 	 	 		 	. \$9.95	5



333

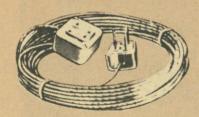
Modular Extension Cord with modular plug one end, spade lugs other end. To connect a phone, accessory, or standard jack to a modular jack.

244109-7	7 Feet. Each							100						\$	4	95	5	
	25 Feet. Each															9.9		



Modular Extension Cord with modular plugs on both ends. To connect between modular jack on phone and modular jack in wall.

### 25 FOOT TELEPHONE EXTENSION CABLE



Standard style 4 prong plug and socket as used with regular telephones. Fully assembled with durable resistant plastic 25 ft. 4-wire cord, Fine for telephone-intercoms etc. Shpg. wt. 1 lb. 32A4002-4. Special \$3.99

### 4 CONDUCTOR TELEPHONE CABLE

PER 100 FT.

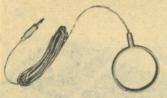


22 gauge solid with vinyl insulation and vinyl jacket averall. Standard telephone company color coded. Make your own telephone extensions, add phones, etc. Shpg. wt. 2 lbs. per 100 ft.

2A516-3. 12° For ...... \$8.47 For ...... \$52.95

### TELEPHONE ACCESSORIES

### WONDERLOOP TELEPHONE PICKUP FOR RECORDING PHONE CALLS





### JIFFY PHONE PICKUP COIL

Jiffy suction cup attaches to side of telephone or to back of handset. Does not interfere with telephone operation. With shielded cable. Giant import savings!

11A1057-6. Special .....\$1.99



### COILED CORDS FOR TELEPHONE

Spade terminals and metal cord clamp at-

Idelied, VIII	iyi iiisula	reu.			
Stk.					Net
No.	Color C	ond.	L	ength	Each
2A401-8	Black	3	10"		\$4.13
32A4025-5	Black	4	101/2"	X 5'	5.65
32A4026-3 32A4027-1	Beige	4	101/2"	X 5'	5.65
32A4027-1	White	4	101/2"	X 5'	5.65
S 32A4017-2	Black	4	22"	X 10'	8.59
32A4019-8	Beige	4	22"	X 10'	8.59
32A4018-0	White	4	22"	X 10'	8.59
32A4020-6	Black	4	48"	X 25'	11.00
32A4022-2	Beige	4	48"	X 25'	11.00
3244021-4	White	4	48"	X 25'	11 00



CHOICE OF WHITE, BEIGE \$413

Standard Ivory 4-prong plug and jack assembled on a handy coiled cable. Extends to 18 ft., retracts when not needed. Shpg. wt. 1 lb. No.32A4066-9

Each ..... \$5.95



### SOUND POWERED COMMUNICATIONS TELEPHONE HANDSET

Two to 12 may be used in or outdoors. No fire or shock hazards. No batteries used! 2-way talking up to 25 miles over 2-conductor wire as listed below. Ideal for construction work or football fields. Impact resistant handset with 4 ft, rubber cable and rubber insulated clips for quick connections.

connections.

No. 32A4006-5 

32A4024-8.	Each	\$27.90	6 Each	. \$24.70
32A4076-8.	Wall Hangers	for sound powered \$2.30 6 Each	l phones.	\$1.95
		100 Ft\$1.		Ft\$16.90



### B-A's NEW PERSONAL TELEPHONE **AMPLIFIER**

INCREASES VOLUME 5 TIMES
... OVERCOMES NOISE...
HELPS HARD OF HEARING

LOW PRICE

Transforms any ordinary telephone earpiece into a unique sound-control amplifier. Overcomes difficult local noise problems and brings normal private telephone use to those with hearing loss. New solid-state electronic concept assures maximum hearing range and comfort... attaches instantly and securely to any phone with a simple, snug fitting band.

Four transistor amplifier raises incoming telephone volume up to 5 times higher with full clarity. Has recessed volume control. Precision built for reliable performance. Shpg. Wt. 1 lb. Less battery.

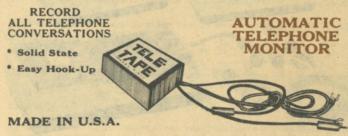
32A4013-1. High Quality Import.

\$14.95

21A5000-0. Battery for above. Net Each



Allows everyone in the room to hear or speak over the phone with perfect clarity. Ideal for conference calls in home, shop or office. Also perfect aid for the hard of hearing. Completely portable, solid state, battery powered, requires no installation of any kind. When in use, the telephone handset is placed on the unit much like a normal telephone cradle. Switch the solid state amplifier on to provide room volume for everyone to hear. Has extension speaker and adjustable volume control. When conversation is completed phone is simply returned to its normal position. Case is durable break-resistant polystyrene plastic.



FUNCTIONS AS VOICE OPERATED SWITCH FOR RECORDING

Record both sides of telephone conservations with any tape recorder which uses a remote control mike. Connects at any point of your phone line. Does not interfere with normal operation of your phone. Turns on recorder, automatically turns off when conversation ends. Makes recordings while monitor is attached at one phone and conversation is made at extension phone. Easy way to keep permanent records of incoming and outgoing phone calls. Reliable solid state circuit. Size  $1\,^{1}\!\!/_2$  x  $1\,^{1}\!\!/_2$  x  $2\,^{1}\!\!/_2$  "

No. 11A7540-5.

### HANDSET TYPE TELEPHONE INTERCOM

Amazing power and clarity. Simple to use, like ordinary telephone with hand-operated "on" and "call" buttons. Excellent voice fidelity: Long distance communication for either outdoor or indoor use. Electronic tone call signal. Only 2 "C" flashlight batteries required for each handset. Simple to install with 2 conductor cable. No current drain when in standby. Wall hanger supplied. Japan import. Shpg. wt. 2 lbs.
32A469-9.
Per Pgir

\$48.95 21A328-0. Battery (requires 2) Each 40 2A9889-5. 2-Conductor Cable

100 Ft. . . \$5.25



### 25 FT. TELEPHONE EXTENSION CORD WITH LUGS

3-conductor telephone cable. Makes any phone portable. Instructions included. Shpg. wt. 2 lbs.

32A4035-4. Black 32A4037-0. White 32A4094-1. Beige

YOUR CHOICE EACH \$2.99

### LOW COST INTERCOMS FOR EVERY NEED

Classic Series CLASSIC IN STYLING, ADVANCED IN FEATURES, DECORATOR DESIGNED IN IVORY AND BROWN WITH WOOD GRAIN ACCENTS, SPACE-AGE INTEGRATED CIRCUITS FOR GREATER OUTPUT AND RELIABILITY, ALL "IN" UNITS INSTANT INSTALLATION . . NO TOOLS OR TECHNICAL KNOWLEDGE N°EDD. UL LISTED.



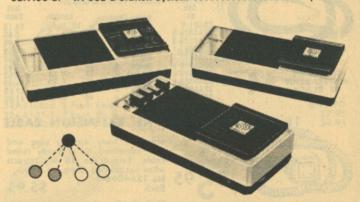
2-CHANNEL WIRELESS INTERCOM SYSTEM
Features hi-power IC circuit for extra range and sensitivity. Two-channel operation permits wider use with less interference. Special filter circuit minimizes background line noise. Operates room-to-room or between buildings on the same line. Units have pilot light, on/off volume control, talk-listen switch with lock position for continuous transmission and channel selector switch. System can be expanded by adding several extra single stations. Ivory and brown with wood grain accents. 117 V AC. 7 X 3½ X 2". Shpg. wt. 3½ lbs. 5.8 IN-505 System.

IN-505 System. 32A455-8. \$29.95 32A456-6. IN-500 Single Wireless Station. 13/4 lbs. Each.....



Exclusive design features plug-in connectors for "instant installation". Fully selective; any station can speak to one or more other stations. Up to 5 stations in a system. Permits conference calls. Two separate conversations may proceed 





"STARTER SET" 3-STATION INTERCOM SYSTEM

Versatile system features the IN-400 Master Station, two IN-2 Indoor Remote Stations, two lengths of 50 ft. cable. Master unit accepts up to 4 Remote Stations, Indoor or Outdoor. Master calls any or several rooms desired. IC circuit for greater output and sensitivity. Pilot light. Remotes have "beep call" signal. Ivory/brown with wood grain accents. 7 X 3½ X 2". 117 V AC. Shpg. wt. 434 lbs.

32A463-2. 2C-100. 100 Ft. Cable with Plugs. Wt. ½ lb. Each . . . . . \$6.95



2-STATION INTERCOMS

Ultra-sensitive 3-fransistor system installs in minutes for 2-way conversation. Ideal for home, office, camper. Fine voice clarity. "Beep Signal" circuity. Use up to 150 ft. apart. With 50 ft. plug-in cable. Brown styrene cabinet 3 X 4 X 2". Shgs. wt. 2½ lbs.

AC Operated Intercom
32A405-3. AC-3. Per Set
Battery Operated (9 V. Battery)
32A418-6. DC-2. Per Set
21A305-8. 9 V.Battery. Each. \$22.50 \$15.95 Entry Sentry Door Intercom. Like AC-3 above except has outdoor remote. 32A513-4. ES-1. Per Set ...... \$21.95 WIRELESS 2-STATION INTERCOM
Works where others fail! No installation... just
plug units into standard AC outlets. Move from
room-to-room, between buildings (as long as on
same power line). Picks up every sound... perfect
for baby listening, business, office, garage, etc.

Budget priced, operate for pennies a week. Has special squelch circuit. Each unit has press-to-talk button and slide lock for continuous talking, on-off volume control and pilot light. Brown styrene cabinet 3 X 4 X 2". 32A409-5. WS-4. Wt. 2 lbs. Per Set.. \$39.95



WIRELESS ECHO BABY-COM
Listen continuously to baby through any AM radio,
either AC or battery operated, even the car radio.
Baby-Com works on either batteries or AC, too, so
you can listen to Baby even in the yard where no
power is available. No installation, just turn it on and
Baby-Com transmits to any radio tuned to about
1400Hz (adjustable 1200 to 1650Hz) up to approximately 200 feet away. Use for security and protection
in the home or office, too. Antenna wire and 115VAC
power supply included. Size: 3-5/8" W x 1¾" H x 55/8" D. Shpg. Wt. 2 lbs.

WIRELESS ECHO BABY-COM

32A510-0. BC-1 Baby-Com. Each . . . . \$15.95 21A305-8. 9 Volt battery for Baby-Com. Each 89

### NuTone

### FM/AM MUSIC INTERCOM SYSTEM





IS-25



15-60

- Remotes can control operation.
- AM /FM radio plus auxiliary input jack.
- · Automatic AFC
- · Richly finished in dark walnut.

### ADD UP TO A TOTAL 8 REMOTES . . . NOW OR LATER.

Know what is happening in your home with this economical system. Master station has AM/FM radio plus an auxiliary input. Answering calls is "hands free" from all speakers. Has "all call/all listen" feature, each remote station controls its own function. Music functions are automatically silenced during calls.

Monitor permits listening to selected locations by latching that speaker function to listen. Master can accommodate up to 8 remote speakers. Included in kit are one IM-203D Master, three IS-25 inside speakers, and one IS-60 built-in door speaker with talk-listen switch. To fully complete installation rough-in kit IR-13 is required. Shop, wt. 16 lbs.

required. Stipg. Wt. 10 lbs.
32A507-6. IM-203DK Each
Rough-In Kit. Includes all frames and housings, transformer, antenna and 200 ft. 3-conductor cable. Shpg. wt. 7 lbs. 32A508-4. Model IR-13. Each
32A509-2. Model IS-25 5 Inch Inside Speaker. Eggshell-white finish. Shpg. wt. 5 lbs
32A503-5. IR-5. Rough-In Housing for IS-25. Shpg wt. 1 1/2 lbs \$1.49
3-Conductor Flat Cable. Use from each remote to master. 2A223-6. Per Ft



Ultra-quiet 2 channel, 2 station FM wireless intercom system for home, office and factory. Advanced phase-locked loop FM circuitry, blanks out hum, static and

interference on the power line.

No installation is required. Each master is plugged into an AC outlet and uses the house or office electrical wiring as a message path. Any number of masters may be operated on the same line. Two channels permit two simultaneous talk paths or selective calling of a particular station.

paths or selective calling of a particular station.

Has press-to-talk panel with lock switch for continuous talking, monitoring or "haby sitting" combination speaker-microphone, "ready" light and on-"baby-sitting", combination speaker-microphone, "off/volume control. Instant operation with no warm up. Charcoal brown and black with woodgrained accents. Size: 7" W x 1¾" H x 3¾" D. Shpg. Wt. 4 lbs.

### NuTone INTERCOM SYSTEM





15-38D









ISA-35

15-79

15-61

15-63

303 Series offers luxury features without a luxury price tag. Master station has AM/FM radio plus 2 auxiliary jacks. Master includes eight 3-position switches to control the remote stations. Master station can accommodate up to 12 remote speakers, it also has talk-listen push-buttons for room-to-room intercom and "hands free" answering. Music muting silences radio, tape or phono during intercom calls. Monitor to listen-in on selected locations by switching the remote station control switch. Shpg. wt. 9 lbs.

32A492-1. IM-303D. Dark Walnut Finished Master.

Choice \$184.95

32A494-7. IR-10. Rough-In Housing for master station. Includes transformers and omni-directional AM/FM antenna. Shpg. wt. 3 lbs. Each ......\$10.99

8 Inch Inside Speaker. Rotary volume control plus push-buttons. Shpg. wt. 6 | lbs. | 32A495-4. IS-38D. Walnut Finish | 32A496-2. IS-38L. Golden Elm Finish Your Choice Each . . . . . . . \$25.99 | 32A497-0. IR-8. Rough-In Housing for IS-38 speakers. Wt. 1 ½ lb. . . . \$2.49 \$25.99

Wide-Range 5 Inch Inside Speaker. Includes the same controls as the IS-38D. 

High Fidelity 8 Inch Built-In Patio Speaker. Weather-resistant with aluminum panel. Use IC-31 remote control in IA-19 weather shield.

32A498-8. IS-79. Shpg. wt. 4 lbs. Each \$18.99

32A499-6. IR-9. Rough-In Housing for IS-79. Wt. 21/2 lbs. Ea. . . . . . . \$4.29

Surface Mounted Weather Shield for outside control. Shpg. wt. 1 lb. 

Built-In Door Speaker. Controlled from inside speaker or remote control to allow callers to answer "hands free". Weather-resistant black finish with gold 

32A505-0. IR-6. Rough-In Housing for IS-61. Shpg. wt. 11/2 lbs. . . . . . \$1.69

Surface Mounted Door Speaker. Controlled from inside speakers so no switch is required. No rough-in required. Housed in tough weather-resistant housing in parchment tan with gold anodized grille. Shpg. wt. 1 ½ lbs. 32A506-8. IS-63. Fach

..... \$12.99 3-Conductor Flat Cable. Use from each remote to master. 2A223-6. Per Ft. ..... 8° 100 Ft. For ..... \$4.75

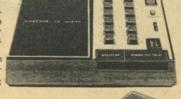


### **DELUXE SOLID STATE INTERCOM SYSTEMS**

ALL MASTER SYSTEM uses up to seven Director 7 or thirteen Director 13 Masters and permits any station to selectively communicate with any other station or group of stations in the system. Up to three simultaneous conversations may take place in a Director 7 system (six in a Director 13 system). Conferences between several stations can also be held.

MASTER TO REMOTE SYSTEM permits one Director 7 Master to converse with MASTER TO REMOTE SYSTEM permits one Director 7 Master to converse with up to six model Director 1 Remotes (twelve remotes with the Director 13 Master). Master can selectively speak with any one or more remotes, however, remotes cannot speak to each other. Remotes reply to the master "hands-free" and can operate either private or non-private by use of the privacy switch. Full 1 watt power masters have volume control On/Off switch, talk/listen switch with lock position and U.L. listed power supply for 110-120 VAC. Brown with wood grain accents and brushed aluminum trim. Size 9½ x 6¾ " x 3½". Cable requirements: One more conductor than total number of stations in system. Add one shielded wire for each PR-15 Paging/Talk-back relay. Order cable from page 151.

32A474-9. Model Director 7.
Shpg. wt. 3 lbs. Each
32A472-3. Model Director 13. Thirteen Station Master. ..... \$57.95 32A472-3. Model Director 13. Hillieth Station Haster. \$74.95 Shpg. wt. 4 lbs. Each . . . \$19.95 32A473-1. Model Director 1 Remote. Shpg. wt. 2 lbs. Each . . . \$19.95 32A4023-0. Model PR15B Paging/Talk-back Relay. Connects Director 7 and Director 13 to PA system for Paging/Talk-back. Wt. 1 lb. Each . . \$32.95



USE AS MASTER-TO-MASTER OR MASTER-TO-REMOTE SYSTEM

**DIRECTOR 13** 







#### AVAILABLE IN NORMAL POWER OR HIGH POWER MASTERS

Permits use of up to 5 remotes with KML-5 or K-AC-5406 master or up to 10 remotes with K-ML-10 or K-AC-5411 master. Master can talk and listen to any remote individually, more than one remote at once or to all remotes at same time. Remotes can originate calls to master, but cannot talk to each other.

Remotes can operate as private or non-private. When in non-private remotes can be answered from distance. Master is always private, and cannot be "eavesdropped on."

only one master can be used in master remote systems. Master is only station that needs power. Masters size  $101/2^{\prime\prime\prime}$  W. x  $83/4^{\prime\prime\prime}$  D. x  $31/8^{\prime\prime\prime}$  H. Wt. 7 lbs, Case is grey vinyl clad and brushed chrome. Remotes size  $71/2^{\prime\prime\prime}$  W. x  $83/4^{\prime\prime\prime}$  D. x  $27/8^{\prime\prime\prime}$  H. Wt. 41/2 lbs. Finished in grained baked enamel and brushed chrome. Wall mounting remote model K-LR-3R is 61/2 x 41/8 x  $2^{\prime\prime\prime}$  D. Two types of masters are available, one for normal noise areas (offices, etc.) the other for hi-noise areas (factories, etc.).

K-ML-5 NORMAL POWER MASTER for up to 32A426-9. Mfg. List \$115.00. Net Each	
K-ML-10 NORMAL POWER MASTER for up to 32A428-5. Mfg. List \$142.00. Net Each	10 remotes. 602 00
K-AC-5406 HI-VOLUME MASTER for up to 5 t 32A427-7, Mfg. List \$142.00, Net Each	remotes.
K-AC-5411 HI-VOLUME MASTER for up to 10 32A429-3. Mfg. List \$168.00.Net Each	
K-LR-3M DESK STYLE REMOTE. 32A430-1. Mfg. List \$39.50. Net Each	THE PARTY OF A LOCAL DESIGNATION OF THE PARTY OF THE PART
K-LR-3R FLUSH WALL MOUNTING REMOTE. 32A431-9. Mfg. List \$39.50 Net Each	
For cable requirements measure from master 5303 listed with two station system at right.	to each remote, order cable

**ACCESSORIES** FOR TALK-A-PHONE INTERCOMS





All master systems in either 5 or 10 station capacity. Available in normal power models for average room level or high volume models (10 times volume output of normal unit) for noisy and larger areas. Each master can call and converse with other masters, selectively and privately, (cannot be eavesdropped on by other stations) or hold conferences with 2 or more masters. Several 2-way conversations can be held simultaneously without interfering with one another. Each master controls incoming volume. Cabinets of Crey vinyl and brushed chrome. Normal power Masters operate from 120 V. AC or DC, High power Masters operate from 120 V. AC or DC, High power Masters operate from 120 V. AC only and cannot be intermixed with normal power models. For 5 Master System run 6 conductor cable listed below between Masters. For 10 Master System run 11 conductor cable between Masters. All masters are 10½" W. x 8 3¼" D. x 3½" H.

\$67.60
\$83.30
A ALL AND A SHAPE OF THE PARTY
. \$83.30
\$98.80
C-505 Master. 3 lbs. 17°
C-510 Master. 5 lbs. 32°

### K-LC-2 TWO-STATION INTERCOM SYSTEM

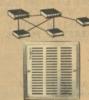


Provides finest two-way communications with unmatchable dependability for continuous duty. Complete system includes a master station, a remote and 50 ft. of cable, Additional cable of up to 2000 ft. may be added (listed below). Both master and remote can be set for private (one cannot "eavesdrop" on the other) yet either can originate calls, even in private setting. Remote in non-private position may be answered from a distance without switching. Only master need be plugged into 110-120V. AC or DC outlet. Master has volume control, talk-listen switch and pilot light. Charcoal grey finish steel case with brushed chrome face plate. Remote has only talk-listen switch. Master size:  $3V_8 \times 10V_2 \times 8^3/4^n$ . Sub.  $2V_8 \times 10V_2 \times 8^3/4^n$ . K-LC-2 COMPLETE 2-STATION SYSTEM with 50 ft. of cable. Shpg. wt. 13 lbs.

\$69.95 32A423-6. Mfg. List \$119.00 Net... 32A476-4. Master only. Each ...... \$61.00 5303. 3-CONDUCTOR INDOOR CABLE, Wt. per 100 ft. 1 lb. 60 2A9939-8







A system combining one or more master stations with one to ten remote-stations. Masters can call and communicate with any station. Remote can reply at distance, but remote cannot originate calls. Masters are available in 5 and 10-station capacity, operates on 120 VAC or DC. Masters can call and carry on a conversation with any other station selectively, or with any group of stations. Separate 2-way conversations can be held at the same time without interfering with one another. Remote can be exclusive to one or more masters.

Built-in control enables masters to be switched "private" or "non-private" at will and remain in position desired. Persons at "non private" masters can reply at a distance. When master is "private" other stations cannot listen-in. Masters can receive calls from other masters whether in "private" or "non-private" position. Remote-stations are always "non-private". Rugged, high-gain transistorized amplifier is built to withstand continuous use and to require a minimum of maintenance. Volume is adjustable from a bare whisper to the full output of the powerful, high-gain amplifier. Masters are finished in charcoal gray and brushed chrome. Size: Masters - 10½ X 8¾ X 3½". Remotes - 7½ X 8¾ X 2-7½".

K-CL-5 5-Station Master. Wt. 7 lb \$80.00 K-CL-10 10-Station Master. Wt. 7 lbs. 

MASTER	AND THE PERSONS HER MADE AND THE PERSON NAMED IN	
K-AC-605 Hi- 32A480-6.	Volume 5-Station Master. Wt. 7 lb: Mfg. List \$167.00 Net Each	\$98.00
K-AC-610 Hi-	Volume 10-Station Master. Wt. 7   Mfg. List \$191.00 Net Each	DS. \$110.00
	ned baked enamel finished remote Mfg. List \$39.50 Net Each	
	wall mounted remote.  Mfg. List \$39.50. Net Each	
32A485-5.	Mounting Accessory for K-LR-2R. \ Mfg. List \$10.20 Net Each	\$3.73
Approx. O.D. 2A9884-6. 13 Pair Cabl	(6210) for interconnecting K-CL-5. F 5/16". Wt. per 100' 5 lbs. Net per ft. le (6226) for interconnecting K-CL-1	0. For indoor or outdoor
2A9883-8. 2 Conductor master. Appro	O.D. 5/8". Wt. per 100', 12 lbs.  Net per tt.  Cable (6902) for connecting K-LR-'  IX. O.D. 1/16". Wt. per 100', 1 lb.  Net per ft.	2M and N-LR-2K to nearest
THE RESERVE TO STATE OF THE PARTY.		_

Burstein-Applebee Co., 3199 Mercier, Kansas City, Mo. 64111 - Phone (816) 756-2525

## PAGING, PA, INTERCOM PHONES

### **MULTI-CHANNEL SYSTEM** WITH OPTIONAL VERSATILE REMOTES



 Remotes may be wired for common-line reply or secretarial intercept. Remotes may be wired for common-line reply or secretarial intercept.

Up to 16 masters, or 15 masters plus remotes, with up to eight separate conversations at the same time in a 16-station system. Page through your PA system with TRD Adaptor. Up to four masters can converse in a conference call. Makes an intermix system, using one or more selector buttons to provide any master with remotes who can call and reply only to him.

TSL-16X has paging button, ring button, and fifteen station selector buttons. Size: 9 ½ "W., 3 ¼ "D., 3 ¾ "H. Shpg. wt. 4 lbs.

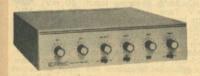
\$62.85

PRS-16A Power Supply for TSL-X. One PRS-16A is required for each system. Connect to any junction box. For 120 VAC. Size: 6" W., 4½" D., 2" H. Shpg.

CABLE REQUIREMENTS FOR TSL-X SYSTEMS

TSL-16X all master system requires 20 conductors common to all masters.
 TSL-8X all master system requires 12 conductors common to all masters.
 To include common-line paging in either system use 5 conductors from each TSL-1X Remote to nearest master. Use 5-conductors of 7SC.

(4) To connect a single master to one or more TSL-1X Remote tors from the master to each remote.  (5) Intermix systems use (1) or (2) and (3).	s use 7 conduc-
(1) 2A9880-4. 20SC 20 Conductor Cable. 9 lbs. per 100 ft.	
Per Ft	\$33.75
Per Ft	\$19.10
(3) 2A9873-7. 7SC. 7-Conductor Cable. 8 ½ lbs. per 100 ft.  Per Ft	COLUMN TO ALL THREE





Perfect for small theatres, auditoriums, night clubs, etc. Power output 35 watts RMS. Circuit breaker protection. Microphone precedence. Special impedance switch on each microphone input to select Hi-Z or Lo-Z. Selector switch converts Mic-3 to auxiliary for installations where two auxiliary inputs are required. Separate bass and treble controls. 25 and 70 volt balanced lines. Inputs for 3 mikes and 1 aux or 2 mikes and 2 aux. Frequency Response 50Hz to 15KHz ± 2dB. Output Impedance 4 ohms, 8 ohms, 25 and 70 volt line. Hum and Noise: Mic-65dB, Aux-70dB. AC power 120 volts 60 Hz. Size: 13½" x 10-7/8" x 3-9/16".





Sensitive FM no-drift tuning, dependable AM reception. Designed and construct-Sensitive FM no-drift funing, dependable AM reception. Designed and constructed to provide continuous operation around the clock at temperatures from -20°C (-4° F) to +65° C (+149° F). Features illuminated full vision dial, AFC defeat switch, 2 audio output jacks, and antenna inputs for 75 ohm unbalanced or 300 ohm balanced. Hum and noise level -55dB. Frequency response AM, 20 Hz to 5KHz ± 3dB; FM 20 Hz to 20KHz. Sensitivity: AM 10uV, FM 2uV. Power Consumption: 5 watts. Has built-in Hi-Q ferrite loopstick AM antenna. Size: 9½" x 7" x 3½". AC power 120 volts Shpg. wt. 5 lbs.

49A260-3. Model 822. Each ...... \$109.95

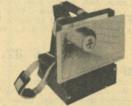
### **ROVING ROSTRUM**

With both battery and AC capability the S-122 Roving Rostrum is the most popular Ampli-Vox sound system. This suitcase style scuffproof unit with height adjustment is the table top model for audiences up to 1,000 people. Ideal for sales meetings, auctions, demonstrations, classrooms, etc.

Powered by 10 "D" cells (200 hrs) or AC adaptor. The unit is supplied

with a Shure cardioid dynamic mi-crophone complete with lavalier and adjustable gooseneck holder

The two full fidelity high efficiency 10 oz. magnet 6 X 9" speakers each can handle full amplifier power and special anti-feed back speaker housing allows high volume without howls. One speaker is housed in the table and one in the case with a 40 ft. cable Shpg. wt. 24 lbs.



### 35 WATT RMS HALF-MILE MEGAPHONE

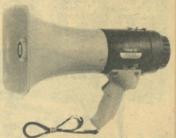
This sturdy megaphone is weatherproof, abuse-proof and projects a sound that can be heard clearly a half mile away. Ideal for crowd control, auctions, etc.

Inputs: 105 db gain for ceramic or dynamic mike and auxiliary input for phono, tuner,

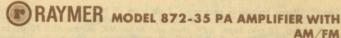
tape recorder, etc. Outputs: two phone jacks. For 4, 8 and 16 ohm speaker or recorder. Power source 10 "D" cell batteries (200 hrs. operation). Mike: cardioid probe type, noise cancelling, hand-held, supplied with 8 ft. coil cord, push-to-talk switch. Has gripper with shoulder strap included. Shpg. wt. 15 lbs.



**FANON TRANSISTORIZED** MEGAPHONE



300 yard range. Exceptionally efficient for outdoor-indoor coverage such as fire department, police dept., and other municipal organizations. Ruggedly constructed of spun aluminum with baked enamel finish, equipped with weatherproof mike. Operates on 6 "C" batteries. Features anti-howl damping fog horn, "May day". Pistol grip on-off switch. Rated 5 watts. 6 4" X 13" overall. Shpg. wt. 5





All solid state, delivers 35 watts RMS. Features include INTERLOCK, which permits paralleling of other 35 watt amplifiers to increase total output power in multiples of 35 watts to a speaker line. Separate volume controls for microphone and radio/auxiliary. Function switch for source selection and microphone precedence to suppress music when paging. Has loopstick antenna for AM reception. Circuit breaker protection. Specifications: Output 35 watts RMS. Output impedance 40hms, 80hms, 25 and 70 volt line. Amplifier Frequency Response 50Hz to 20KHz. Audio inputs: 1 Mic Hi-Z or Lo-Z unbalanced, 1 phono/aux Hi-Z. Tuner Sensitivity FM 2uV, AM 10 uV. AC power 120VAC 60 Hz. Size: 13 ½ " x 10-7/8" x 3-9/16". Shpg. wt. 15 lbs.

49A261-1. Model 872-35 Each ...... \$229.95

### **BOGEN SOLID STATE P.A. AMPLIFIERS**

BOGEN SERIES "C" SOLID STATE PA AMPLIFIERS



SOLID STATE PA AMPLIFIERS

Simultaneous mixing of 3 inputs with the C35, C60, C100: two microphones and one of two auxiliary inputs.

C20A allows mixing of 2 inputs: one microphone and one of two auxiliary inputs. C10 also allows mixing of 2 inputs: one mic and one auxiliary inputs. C10 also allows mixing of 2 inputs: one mic and one auxiliary input. Special circuitry protects amplifier at both inputs and outputs against accidental misuse, overload, or short circuit. High impedance microphone inputs. Outputs include tape/booster amplifier (except C20A, C10) constant voltage balanced 25 V. and 70 V., balanced 4, 8, 16 ohms, 500/600 ohm zero level line with optional WMT-1 transformers. Can be wired for mic precedence (music muting). Separate master volume, bass, treble controls on the C35, C60 and C100. High output sensitivity: low noise and hum, wide frequency response for maximum clarity and intelligibility. C35, C60, C100 have two loudspeaker plug-in sockets, plus screw terminals. Models C10 and C20A have screw terminals only. Use

**60 WATT PA AMPLIFIER** 



### BOGEN SERIES "CT" ACOUSTA-MASTER SOLID STATE AMPLIFIERS

A distinctive feature of the CT amplifiers is the built-in equalizer filter circuitry, which provides a means of boosting or attenuating any or all of five selected frequencies to suit room acoustics. The electronic limiter assures a uniform output from the amplifier regardless of variations in the input level. Thermal cutout in output circuit protects power transistors. 3 wire line cord for 120V. 50/60 Hz. Quick-disconnect plugs provided for speaker outputs. Use Switcherst 4.3 to connect microphone. craft A3F to connect microphone.

Specifications: Frequency response:  $\pm 2$  db from 50 Hz to 15 KHz. Sensitivity: HI-Z MIC. 3mV; LO-Z MIC. 3mV; Bridging Input, 30 mV; AUX. 0.3V. Output levels; bridging, 30 mV; Tape, 0.68 V. Hum and Noise; MIC. 60 db below rated 3 inputs for both low and high impedance: AUX. 70 db below rated output; Fundamental, 80 db below rated output; Inputs: 4 HI-Z MIC. inputs, each convertible to LO-Z MIC. 2 AUX. inputs with fader control; bridging input; 500/600 ohm telephone line with optional WMT-1 accessory; 3 inputs for remote volume control. (Special order option.) Outputs: 4, 8, 16-ohm speaker taps; 25-volt CT and 70 V balanced lines. Tape, booster and bridging outputs; 500/600 ohm telephone line input or output with WMT-1 optional accessory. Filter control action:  $\pm$  10 db at following frequencies: 80, 300, 1K, 5K, 10KHz.

35 WATT PA AMPLIFIER

Model CT-35. 35 watts at 1 KHz at less than 2% distortion. Gain 112 db. Semi-conductors: 18 silicon transistors, 2 zener diodes, 6 silicon diodes. Size: 16-3/8" W. X 12¾" D. X 4¾" H. Shpg. wt. 19 lbs. 49A239-7.

Mfg. suggested list \$374.80. Each ...... \$224.90

Model CT-60. 60 watts at less than 2% distortion. Gain 115 db. Semiconductors: 20 silicon transistors, 2 zener diodes, 6 silicon diodes. Size: 16-3/8" W. X 13¾" D. X 4¾" H. Shpg. wt. 22 lbs.

49A240-5. Mfg. suggested list \$424.90. Each ...... \$254.90

100 WATT PA AMPLIFIER

Model CT-100. 100 wats at less than 2% distortion. Gain 118 db. Semiconductors: 22 silicon transistors, 2 zener diodes, 6 silicon diodes. Size: 16-3/8" W. X 13¾" D. X 4¾" H. Shpg. wt. 26 lbs.

### **ACCESSORIES FOR SOLID STATE AMPLIFIERS**



Perfect for small paging operations. Hum and noise: Mic. -60 db, aux. -70 db. Sensitivity: Mic. input 3 MV: aux. input 0.3 V. Tone control: Treble -11 db (10 KHz). Semiconductors: 7 transistors, 4 diodes. Power consumption 46 watts, 120 VAC, 60 Hz. Size: 11-3/8" W. X 2-7/8" H. X 7¾" D. Shpg. wt. 8 lbs. Mfg. suggested list \$137.25.

49A253-8. Model C10. Each ..... \$ 82.35

20 WATT PA AMPLIFIER

C-20A for small auditoriums, area with low noise levels, etc. Hum and noise Mic. -60 db, aux. -70 db. Sensitivity Mic 3 Mv, Aux. 0.3 volt. Tone control: Treble -11 db (10 KHz). Semiconductors: 7 transistors and 4 diodes. Power consumption 60 watts, 120 VAC, 60 Hz. Size: 11-3/8" W. X 7-3/4" D. X 2-7/8" H. Shpg. wt. 9 lbs. Mfg. suggested list \$157.25

49A234-8. Model C20A. Each ..... \$ 94.35

### 35 WATT PA AMPLIFIER

Most popular size amplifier. Handles the majority of installations, Hum and noise Mic. —60 db, aux. —70 db. Sensitivity Mic. 3MV, aux. 5 volts. Tone control action: Treble ±11 db (10 KHz), Bass ±11 db (100 Hz). Semi-conductors: 10 transistors, 6 diodes. Power consumption: 96 watts 105-125 Volts AC. 50-60 Hz. Size: 14% "W. X 13¾" D. x 3¾" H. Shpg. wt. 14 lbs. 49A235-5. Model C35

\$130.35 Mfg. list \$217.25. Each



### BOGEN SERIES "CHS-A" SOLID STATE PA AMPLIFIERS

Output circuits have thermal cut-out to protect power transistors. 2 output jacks allow quick disconnect of speakers. All models are for 120 V. 60 Hz. Use Switchcraft A3F to connect microphones.

Specifications: Frequency response ± 2 db from 70 Hz to 12 KHz. Sensitivity: HiZ MIC 3 mV; Lo-Z MIC .3 mV; Bridging input 45 mV; AUX .3 V. Output levels; Bridging, 18 mV; Tape, .65V. Hum and noise; MIC-60 db; AUX-70 db below rated output. Inputs: 2 HI-Z MIC inputs, each convertible to Lo Z unbal. (300 ohm) and Lo-Z bal. with plug-in accessory transformers. 2 aux. 500 K ohm, bridging 100 K ohm. Bridging input is Hi Z, convertable to 500/600 ohm line by using optional WMT-1 transformer. Outputs 8, 16 ohm (4,16 on CHS-100A) speaker taps; 25 volt CT and 70 volt balanced lines. Tape, booster and bridging outputs Hi-Z convertible to 500/600 ohm line using WMT-1 transformer. Controls: MIC-1, MIC-2, AUX-1, AUX-2, Bass/Treble, Master/Compression, Power switch.

35 WATT PA AMPLIFIER

Model CHS-35A. 35 watts RMS at 1 KHz. 12 silicon transistors, 2 zener diades, 6 silicon diades. Size 16-3/8" W X 13¾" D. X 4¾" H. Shpg. wt. 20 lbs. Mfg. suggested list \$262.30-49A248-8. Each

60 WATT PA AMPLIFIER

Model CHS-60A. 60 watts RMS at 1 KHz. 14 silicon transistors, 2 zener diodes, 6 silicon diodes. Size 16-3/8" W. X 13¾" D. X 4¾" H. Shpg. wt. 23 lbs. Mfg. suggested list \$312.30. 49A249-6. Each ...... \$187.35

Model CHS-100A. 100 watts RMS at 1 KHz. 16 silicon transistors, 2 zener diodes, 6 silicon diodes. Size: 16-3/8" W. X 13¾" D. X 4¾" H. Shpg. wt. 26 lbs. Mfg. suggested list \$362.30 49A250-4. Each ..... \$217.35

## YOUR HEADQUARTERS FOR FINE P.A. EQUIPMENT

### BOGEN "CHB" PA AMPLIFIERS



#### **BOGEN CHB** AMPLIFIERS FOR EVERY NEED!

More useable features than other Amplifiers selling for much more!
All are designed for continu-

ous, heavy duty operation. Output impedances 4, 8 and 16 ohms, 25 V. line, 70 V. line. Connect microphones with Amphenol 75MCIF connectors.

#### 35-WATT PA AMPLIFIER

Ideally suited to small theatres, auditoriums, night clubs, etc. Power output 35 watts. Inputs for 2 mikes (125 db gain; 4 MV sensitivity), high impedance; 1 magnetic phono (115 db gain; 12 MV sensitivity) and 2 aux. (100 db gain; 2 volt sensitivity), high impedance, high level. Controls are Mike =1 Volume—Mike =2 Volume, Fader for 2 auxiliary inputs—Master Volume—Bass—Tre-ble—Power Switch—Magnetic Phono Switch, provision for remote control of Mike =1 and Mike =2 or magnetic phono. Tubes (5) 1-6EU7, 2-7868, 1-12AX7, 1-6C4, 2 silicon rectifiers and 1 silicon diode. 105-125 VAC, 50-60 Hz. Size: 6 ¾" H. x 15¾" W. x 10" D. Shpq. wt. 20 lbs. 49A224-9. CHB35A. Mfg. suggested list \$231.25. Net Each...\$138.75

### 100-WATT PA AMPLIFIER

Provides ample power for large auditoriums and vast outdoor areas. Inputs: 2 Mike (125 db gain; 5 MV sensitivity), high imp.; 1 magnetic phono (115 db gain; 15 MV sensitivity) 2 aux. (100 db gain; 3 volt sensitivity), high impedance, high level. Controls: Mike =1 Volume, Mike =2 Volume, Fader for 2 aux. inputs, Master Volume, Bass, Treble, Power Switch, Magnetic Phono Switch, provisions for remote control of Mike =1 and Mike =2 or mag. phono. Tubes (7) 1-6EU7, 1-12AX7, 4-7868, 1-6C4 and silicon rectifier. Size 6¾ "H. x 15¾ "W. x 10"D. Shpa. wt. 25 lbs. 49A227-2. CHB100. Mfg. suggested list \$322.25. Net Each.. \$193.35

### BT-20A SOLID STATE MOBILE PA AMPLIFIER



Excellent for police, fire, CD and boats, wherever mobile sound is needed. Temperature range - 4° to +149°F. Power output: 25 watts. Sensitivity: mic., 1 MV; aux., O.4 V. Gain: mic., 110 db; aux., 90 db. Inputs: 1 mic. (low impedance); 1 aux. Output impedance: 4, 8, 16 ohms. Controls: 1 mic.; 1 aux./ power. 5 transistors. Power consumption: Full power; 2.8 amps; Guiescent: .26 amps; 6·15 VDC (6 W. output on 6 VDC). Size: 4½ W. X 4 D. X 6½ "H. Shpg. wt. 4 lbs. No. 49A246-2. 49A246-2.

BT-20A. Mfg. suggested list \$149.75. Each . \$89.85 **BOGEN AMPLIFIER ACCESSORIES** 



(2) 2PC-4A. 3-Speed Matching Phono Top. Attaches to top of C35, C60, C100 and all CHB, CHS and CT models. Has rubber turntable mat and 45 RPM adaptor. Size: 4¾" H. X 13" W. X 9½" D. Wt.

49A207-4, Mfg. sug. list \$65.95. Each .. \$40.45

### 15 WATT MOBILE PA AMPLIFIER

Small size, 2" H. X 4" W. X 4½" D: Can be used in any 12 volt car, truck, boat or plane. Positive or negative ground. Solid state, no warm-up. Input for high impedance mike and tape or phono. Use with any 4, 8, or 16 ohm speaker or trumpet. Operates on 12 VDC. Shpg. wt. 4 lbs.

Import Special Each ..... \$44.95



### **COMPLETE MOBILE 15 WATT PA SYSTEM**

ONLY 4" WIDE JUST HOOK TO ANY 12 VDC SOURCE



Mounts on car or truck in minutes. Mike comes with 5 ft. cord. 15 watt amplifier listed above. Speaker is waterproof, rustproof, and shockproof. A complete system ready to attach, all brackets, plugs, and cables included. For any 12 volt

49A8000-5. Complete 15 Watt System - Each ...... \$79.95

35-WATT PA SYSTEM WITH COLUMNS

**B-A COMPLETE P.A. SYSTEMS** 



### 35-WATT PORTABLE PA SYSTEM



Features Bogen C-35 Amplifier, two 6.8 oz. 12" Speakers, each with 35' cable and plug, split type carrying case, size 15 X 17 X 24", provides separate baffles for the two speakers plus convenient, secure carrying case for the amplifier. Supplied with Shure cardioid dynamic 545SD mike that will slip out of the stand mount for hand-held use. Mike has 15' detachable cable and plug and Atlas MS10C floor stand, adjustable from 35" to 63". Amplifier operates from 117 V. 60 Hz. AC. Shpg. wt. 60 lbs. Less phono top.

\$288.95



Features Bogen C35 Amplifier, 4 heavy-duty 12" speakers, 4 walnut vinyl finish baffles, famous Shure 545SD microphone with cables and Atlas MS10C floor stand. Perfect for larger areas where bigger speakers with more sound output is required. Order speaker wire listed below.

PORTABLE SPEAKER CASE

Dual Speaker - Amplifier Case. For TWO 12" speakers. Inside dimensions 24 ¼ " H, X 17" W, X 14 ¼ " D. Plywood leatherette covered. 49A4010-8. Wt. 13 lbs. Each . . . . . \$34.95

WRITE DEPT. CS-PA FOR SPECIAL QUOTATIONS

# SPEAKERS & BAFFLES TO FILL EVERY NEED

### **ARGOS PATIO** SPEAKER

Enjoy music or ball games outdoors by the patio, garden or pool. Has full fidelity sound, built-in volume control to adjust sound level. Attaches to any amplifier or receiver with 8 ohm output. Completely weatherproof construction. Enclosure of Genuine Redwood for years of use.



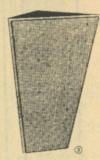
\$27.85



### WALL SPEAKER SYSTEMS







### THINLINE AND PRESTIGE

Good looking, excellent quality. Easy to install with the exclusive Argos speedy mounting clip. Has quality 8" speaker with 1 oz. magnet that handles all low-level sound applications, such as TV, radio extensions, PA background music. 6 watts capacity, 8 ohms voice coil. Baffle is vinyl clad in your choice of walnut or bland wood grain, with cane grill cloth. Size, 93/4" H. x 121/4" W. x 43/8" D. Shpp. wt. 41/2 lbs. Specify color.

34A95-0-001-8. WB-108CS. Blande Baffle with speaker. Each \$13.95 34A95-0-002-6. WB-108CS. Walnut Baffle with speaker. Each . . . \$13.95

Baffle with Speaker and Volume Control 34A97-6-001-8. WB-108CSV. Blonde 34A97-6-002-6. WB-108CSV. Walnut

Your Choice Each ..... \$15.95

Baffle with Speaker, Volume Control and 70.7 Transformer for use in multi-

ple speaker installations. Shpg. wt. 5 lbs. 34A98-4-001-8. WB-108CSVT. Blonde 34A98-4-002-6. WB-108CSVT. Wainut

Your Choice Each ..... \$21.25

### 3 ARGOS PRESTIGE BAFFLES

The finest you can buy. New heavy duty 8" speaker with 6 oz. magnet has 15 watt capacity, handles both voice and music superbly. 8 ohms impedance. Fine furniture finishes in **Antique Birch or Dusk Walnut**. 9¾" H. x 11" W. x 5-3/8" D. Sheg. wt 5¾ lbs. **Specify color**.

34A99-2-001-8. TPB508CS. Birch Baffle 34A99-2-002-6. TPB508CS. Walnut Baffle

Your Choice Each ..... \$19.95

Baffle and Speaker and Volume Control. 

Your Choice

Baffle, Speaker, Volume Control and 70.7 Volt Transformer for use in multi-

3 ARGOS CORNER BAFFLES

Efficient slant-front corner design aids performance because it aims sound downward and corner location increases effective air mass. Easily installed with Argos speedy mounting clips. Front clips-in. Has 8" Jensen speaker with 6 oz. ceramic magnet, handles 15 watts. 8 ohms impedance. Vinyl clad, in choice of walnut or blond finish. 18" H. x 12½" W. and 6¾" D. at top. Shpg. wt. 6 lbs.

34A7004-5-001-8. SCB-208S. Blonde Baffle 34A7004-5-002-6. SCB-208S. Walnut Baffle Each \$24.45

### Argos

### DURABLE SPEAKER ENCLOSURES

Durable walnut vinyl finish.

Beautiful lasting Saran plastic grille. Fine acoustic design for improved tone.

Acoustically designed solid speaker baffles. Combine lasting beauty and quality sound. 3/8" wood baffles with hot-glue locked mitre joints for strength and rigidity. Blends easily with any surrounding. Ideal for schools, clubs, halls - any location where good sound distribution is essential.

Stock No.	Speaker Size	High	Wide	Deep	Shpg. Wt.	Each
34A151-1 34A182-6 34A159-4	6"	6¼" 8¾" 11"	6½" 8" 10"	2" 2" 3"	2 lbs. 3 lbs. 4 lbs.	\$6.26 6.89 7.49
34A161-0	12"	14"	14"	4½"	7 lbs.	11.35

103/4 34A7005-2 12" 13-5/8" 34A7007-8

### **ARGOS DELUXE EXTENSION SPEAKER**

Extend music to the wall of any room Hangs as easily as a picture. Beautiful walnut woodgrain finish on hardwood. Great sound from an 8" wide range speaker. Built-in volume control. Comes with connectors attached to 20 wire. 10-watt power capacity. 8 m impedance. Size 12<sup>1</sup>/<sub>4</sub>" x 9<sup>3</sup>/<sub>4</sub>" x 4<sup>3</sup>/<sub>4</sub>". Shpg. wt. 4<sup>3</sup>/<sub>4</sub> lbs. 



### Lowell

### FLUSH MOUNTING WALL AND CEILING BAFFLES

#### IN PLASTIC OR METAL







\$2.39

\$4.19

\$4.09

\*\*Beautiful Functional Design. Excellent dispersion of sound. Mounts standard round 8" speakers. Self-tapping screws furnished for speaker mounting. No drilling necessary. Baffle size 12-5 8" O.D. 5 8" D. White color may be painted to match surroundings.

Same as above except 4 @ 10 @ 34A228-7. Brushed Aluminum. Ea. . . \$6.19 Ea. . \$5.69 Ea. . . \$5.19 @ SRound 10" Diameter Spun-Aluminum Baffle takes 8" speaker. Mounts directly to ceiling or wall by wood screws, toggle bolts or mollys. Edge has slight bevel. Shpg. wt. 1 lb. bevel. Shpg. wt. 1 lb. 34A76-0. Net Each







① Flush Mounting Wall or Ceiling Baffle. 10" square, mounts 8" speaker. Attractive brushed aluminum with beveled edges. Mounts readily with wood screws, toggle bolts or mollys. Perfect for background music systems. If desired may be painted to match any decor. Shpg. wt. 1 lb.

34A77-8. Net Each . . . \$4.39 4 @ Each . . \$3.59 10 @ Each . . \$3.59 Similar in appearance to above Grille except is 12" Square and has 9/16" lip. Designed to replace a block of acoustical tile. To install, you need only remove block of acoustical tile and replace with this unit. Takes any 8" speaker.

Brushed aluminum. Shop, wt. 1 lb.

34A78-6. Net Each . . . \$7.79 4 @ Each . . \$7.09 10 @ Each . . \$6.39

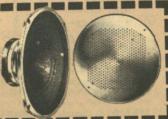
NEW 12-5/8" Round White High Impact Styrene Grille. Mounts any 8" speaker by self-tapping screws supplied. May be attached to wall or ceiling by wood screws, toggle bolts or mollys. Can be painted any color desired. Shop.

wt. 12 oz.
34C96-8. Net Each . . . . \$2.99 4 @ Each . . \$2.69 10 @ Each . . \$2.39 @ 10" Square White Plastic Grille with Concentric Spirals. Designed to add beauty as well as camouflage the speaker. Mounts any 8" speaker, Attaches to wall or ceiling by wood screws, toggle bolts or mollys. Can be painted any color desired. Shpg. wt. 1 lb.
34A80-2. Net Each . . . \$4.79 4 @ Each . . \$4.39 10 @ Each . . \$3.99

### SAVE \$\$\$ WITH B-A's COMBINATION OFFER

Big, heavy duty 8" speaker plus handsome brushed aluminum baffle. Ideal for background music. Handles up to 10 watts power. Buy in quan-tities and save... and make more

Comb. Speaker & Baffle. 49A4011-6 



# utah

COMPLIANCE **SPEAKERS** 



Outstanding base response in a small sealed enclosure makes this the perfect woofer for tiny bookshelf systems or other special speaker systems. Has enormous power handling capacity of 18 watts with its extra-heavy 10 oz. Ceramic magnet. Frequency response 65-17,000 Hz. Complete with design specifications for enclosure. 51/8" Dia. x 21/8" D. Shpg. wt. 2 lbs. \$11.95 34A493-7. Each .

#### 3 8", 2-WAY, HIGH COMPLIANCE SPEAKER

Full size 8" woofer for any multiple high-fidelity speaker system. Produces driving bass in sealed enclosures handling up to 30 watts. Plans provided for both sealed cabinet and bass reflex type enclosure. Whizzer cone extends highs and flattens overall response curve of 30-20,000 Hz. All this yet only 3" deep (Dia. 81/8"). Shpg. wt. 23/4 lbs. 34A495-2. Each



### PROFESSIONAL QUALITY SPEAKERS

Outstanding performance with minimum cost. Gives very high Speech intelligibility and music quality. Rugged construction. Screw terminals to speed installation. 8 ohm impedance. W suffix indicates dual cone for extended highs. WCR-cloth roll plus dual cone, D8 - dual voice coil. With Barium Ferrite mag-

Stock No.	Utah No.	Size	Mag. Wt.Oz.		Range Freq.	Spk. Depth	Wt.	Net Each
34A482-0	PA8JC	8"	10		32-15M	3		\$11.99
34A483-8	PASJC-W	8"	10	30	32-19M	3	23/4	
34A484-6	PASJC-WCR	8"	10	30	30-20M	3	23/4	15.59
34A460-6	PA12JC	12"	10	36	30-12M	4-7/16		21.29
34A487-9	CS12JC-W	12"	10	32	28-18.5M	4-7/16	3 3/4	21.29

REPLACEMENT SERIES SPEAKERS









1) ② ③
Includes sizes and magnet weight to provide a complete range of service replacement and original equipment. All series are 3-4 ohm except those with \* which are 8 ohms.

Fig.	Stock No.	Size	Magnet Wt.	Power Watts	Speaker Depth	Utah No.	Shpg. Wt.	Price Each
3332212222	34A437-4 34A4438-2 34A441-6 34A443-2 34A444-0 34A446-5 34A448-1 34A449-9 34A453-1 34A454-9	3" Square 3½" Square 4" Square 4x6" Oval 4x8" Oval 5" P.C. 5x7" Oval 5x7" Oval 6x9" Oval 6x9" Cloth	.68 oz. .68 oz. 1.2 oz. 1.2 oz. 1.2 oz. 1.2 oz. 1.47 oz. 5.5 oz. 1.47 oz.	3 3 5 5 7 5.5 6.5 8 8	138 19/16 1-23/32 1-27/32 29/16 1-29/32 2-9/32 21/8	SP3Y SP35Y SP4B *SP46D *SP48D SP58 SP57D *C57FC-W *SP69D	1/4 Lb. 1/2 Lb. 3/4 Lb. 3/4 Lb. 1 Lb. 1 Lb. 1 Lb. 1 1/4 Lb. 1 1/4 Lb.	\$4.16 4.75 4.03 5.69 6.29 5.19 6.39 9.19 8.19
4 4 4	34A458-0 34A459-8 34A460-6	Roll 8" Round 10" Round 12" Round	10. oz. 6.8 oz. 10. oz. 10. oz.	15 12 13 36	3 41 /16 411 /16 47 /18	*C69JCWCR *SP8J-8 *MH10JC *PA12JC	2½ Lbs. 3¼ Lbs. 3 Lbs. 3¾ Lbs.	12.49 12.49 19.36 21.29

### 5-WATT 70 AND 25 V. LINE TRANSFORMERS

MATCHES 4 TO 8 OHM VOICE COILS IN MULTIPLE SPEAKER SYSTEMS

MATCHES 4 TO 8 OHM VOICE COILS IN MULTIPLE Enables volume adjustment at each speaker in the system. Provides excellent wide range response. Primary impedance tapped for 5, 2.5, 1.25, .62 and .31 watts. For mounting on speaker. Shpg. wt. 1 lb. 13A955-0. 70 V. Choice 13A954-3. 25 V. Each .......\$2.99 10 Each .....\$2.59 25 Each .....\$2.39





HEAVY DUTY 10 WATT @ 70 V

Tapped for 10, 5, 2.5, 1.25, 0.625 watts. Secondary 4 or 8 ohms. Size 2 X 1 ½ X 1-5/8" H. Wt. 1 ¼ lbs. Imported at big savings. 13A953-5. Each. \$3.49 10 Lots Ea . . . . \$2.99 25 Lots Ea . . . . \$2.69

### UNIVERSITY PH TRUMPET AND 30-WATT DRIVER



**BOTH FOR** PH TRUMPET ... \$43.80 ID30 DRIVER ... \$29.40

> PURCHASED SEPARATELY WOULD COST .... \$73.20

PH University trumpet and 30 watt driver, an unbeatable combination for performance and reliability. Re-entrant horn provides more volume over entire range. Low frequency cut-off 150 Hz. 41" air column length. 85° dispersion. 20-3/8" bell dia. 15¾" long less driver. Overall response 85-7,500 Hz. 16 

### UNIVERSITY TRUMPETS AND DRIVERS



Fully weatherproof. High efficient trumpets require less amplifier power. PH and Cobreflex are metal, CLH is fiberglass. Require drivers, order below.

Stock	Mfgrs.	Bell	Horn	Low	Dis-	Wt.	Net
No.	Model	Dia.	Length		persion	Lbs.	Each
49A4012-4 49A4013-2 49A4049-6	Cobreflex	20-3/8" 18½"×9 21½"X1	15¾" ¼" 10¼" 1½" 20"	150 Hz 200 Hz 120 Hz 1	85° 120×60° 20° X 60°	101/4	

### UNIVERSITY'S MOST POPULAR DRIVER

49A4014-0. Model ID30. 30 Watts power. 85-7500 Hz. V.C. 16 ohms. wt. 334 lbs. Net Each.

UNIVERSITY MODEL ID-30T DRIVER

Same as the ID-30, but contains an integrated line-matching transformer, 70 V. line power taps: 30/15/10/5/2.5/1.25 watts. Impedance taps: 167/335/500/1000/2000/4000 ohms. Adjustment for impedance or power taps is easily made with slide-on push clips. 85-7500 Hz. frequency response. 30 watts I.P.M. 4 ½" dia. x 6"d. Shpg. wt. 4 lbs. 



All weatherproof, breakdown proof, designed to fit needs of indoor or outdoor

All weatherproof, breakdown proof, designed to fit needs of indoor or outdoor systems requiring concentrated power.

FID-15T. Reflex horn-type speaker designed for moderate power, general-purpose paging and talk-back applications. Rugged diaphragm and tropicalized voice coil. Lightweight Cycolac plastic enclosure is virtually indestructible. 15 watts power; frequency response 260-14,500 Hz; 120° dispersion. 9" dia. X 8 ½" L. Shpg. wt. 3¾ lbs.

49A4050-4. Model FID-15T. Each

Model IB-A8. World's most widely used medium power speaker, with full 30 watts continuous duty power capacity and improved lower frequency response to 250 Hz. Tropicalized, weatherproof for trouble-free lifetime operation. 105 degree wide angle dispersion. Frequency response 250-13,000 Hz. Universal swivel mtg. bracket. Size 10½" dia. x 9½" deep. Shpg. wt. 4½ lbs.

49A4015-7. Model IB-A8. 8 ohm voice coil. Net Each.

\$36.00

Model MIL-A8. 10 watt. Full range, Improved lower frequency response to

49A4018-1. Model CFID32-8 with 8 ohm voice coil. Net Each ... \$36.00

### POPULAR SPEAKERS AT MONEY SAVING PRICES!

SD.MSD Series

### ARGOS SOUND COLUMNS

### GREATLY MINIMIZE FEEDBACK PROBLEMS

Argos Sound Columns actually "focus" sound so one column can cover an entire audience evenly. No loud spots or unintelligible areas. Ideal for churches, auditoriums, meeting rooms, audidors, wherever sound is required.

Provide vertical dispersion from 15 to 22 decrease and horizontal dispersion 120 degrees. grees and horizontal dispersion 120 degrees. Easily mounted with speedy mounting clips.

Model SD-1064. 6-Speaker System for voice reinforcement in rooms up to 60 ft. 30 watts power, 16 ohms. 6 5½" speakers. Frequency response 200-10,000 Hz. Clad in walnut woodgrained vinyl with attractive cane grill. Size 30 ¼ " X 7" X 3 ½ "D. Shpg. wt. 9 lbs. 49A4033-0.

\$49.95 Net Each .....

Model SD-1100. 10 Speaker System handles up to 50 watts power for voice reinforcement in rooms up to 200 ft. 16 ohms. 200 to 10,000 Hz. response. 10 specially designed 5½" speakers are balanced and acoustically damped. Size 49½" X 7" X 6" D. Shpg. wt. 22 lbs.
49A4032-2. Net Each \$87.50

Model MSD-1060. Six heavy magnet 8" speakers handle 60 watts of power. Uniform sound level of voice and music under auditorium conditions. Two will cover large indoor areas with ease. Walnut wood grain finish, cane grille. Response 70 to 15,000 Hz. Will outperform 10 baffles, horns or ceiling speakers. 16 ohms. Size 10¾" x 50½" x 8¼". Shpg. wt. 48 lbs. 16 ohms. Size 10<sup>3</sup>4" 1 49A4044-7. Each

#### FOR HIGH FIDELITY MUSIC

Model MSD-1121. Projects music over a large area with a focused sound beam that controls reverberation, projects music at uniform audio levels. 12 speakers — 6 woofers and 6 tweeters, with crossover network. Provides 50 to 17,000 Hz reproduction at 30 watts power. Impedance 16 ohms. Hand-rubbed oiled walnut finish with cane grille. Size: 14½" x 42" x 5"D. Shpg. wt. 43 lbs.

### MINI-SOUND COLUMN

Model MIN-1. Only 17" high, Mini-Column is a true sound column with six  $2\frac{1}{2}$ " speakers that focus sound exactly like Argos full size columns. Will outperform regular single cone loudspeaker in small listening area. Frequency response 200 to 3,000 Hz. Power rating 10 watts. Impedance 8 ohms. Size: 17" x  $3\frac{1}{2}$ " x  $2\frac{1}{2}$ "D. Shpg. wt. 4 lbs. 49A4054-6. Each ...... \$23.95

### POLY-PLANAR SUPER-THIN SPEAKERS





The Poly-Planar is a new type of speaker design which employs a lightweight polystyrene acoustical panel sup-ported by a frame of compatible plastic material to re-produce a wide range of frequencies. Due to the high acoustic efficiency, there is also a minimum of piston mo-tion resulting in low distortion. The unique construction of this electromagnetic loudspeaker provides a combination of physical and electrical characteristics not available from conventional cone speaker designs. All are 8 ohm impedance.

(1) Model RP-8. 10 Watts RMS. Frequency range 40-20KHz, Size 8" diameter, 1" depth. Wt. 11 ozs.

34A469-7. Each ...... \$10.50 (3) Model P-5B. 10 Watts RMS. Frequency range 60-20KHz. Size 13/16" x 4 ½" x 8 ½". Wt. 10 ozs.

49A4024-9. Each ...... \$9.50

(4) Model P-40. 25 Watts RMS. Frequency range 30-20KHz. Size 1-7/16" X 1134" X 14-11/16". Wt. 19 ozs.

POLY-PLANAR SPEAKERS WITH GRILLES 34A542-1. Each .

(2) Model G81-P. 10 Watts RMS. 8" speaker Model RP-8 above mounted on 12%" white grille. Has facility for transformer mounting.

(5) Model G401-P. 25 Watts RMS. Frequency range 30-20KHz. Size 1-9/16" X 13 4" X 16 4". Wt. 31 ozs. 34A543-9. Each ...... \$20.95

(6) Model G51P - Ivory finish. Weatherproof speaker systems ready to insert into walls, doors, cabinets, bulkheads, ceilings or vehicles. Tilt them up, tilt them down or mount them flush. Power handling: 10 Watts RMS. Freq. range: 60 hz - 20 KHz. 8 ohms. Size 7/8" X 6" X 10" Wt. 14 ozs.

### ALL PURPOSE SPEAKERS

FOR INDOORS, OUTDOORS, PAGING, PA AND MUSIC











Rugged, high power trumpet speaker for outdoor public address. Conservatively rated 12 watts. Will handle up to 20 watts of power. Waterproof, rustproof, shockproof. Driver is completely enclosed. Gives crisp, clear, widenangle response even in high noise level areas. 340-7000 Hz. 5x8" horn, 8" L. 8 ohms. Grey hammertone. U-bracket and wire lead. Shpg. wt. 5 lbs. 4984006.6

\$34.95

Compact speaker with wide frequency range, 300 to 12,000 Hz. Perfect for Public Address, Citizens Band or music. Will fit behind grille on most cars. Has adjustable mounting bracket. Power capacity 5 watts, 8 ohms impedance. Size 534" dia. × 3" D. Shpg. wt. 1½ lbs. \$14.95

49A4001-7. Net Each.

(a) MINIATURE WATERPROOF REFLEX SPEAKER

Unlimited in applications. Penetrating quality makes it ideal for CB and Ham mobile work as well as for paging where a high noise level makes the typical cone speaker ineffective. Small size, only 31/4" dia. and 2" deep. Yoke type mounting bracket mounts by two holes, allows over 180° vertical movement. Ideal for mounting under dash, or under hood for listening outside of car. Frequency range 400-6500 Hz., handles 3 watts, impedance 8 ohms. Frequency range Shpg. wt. 1 lb. 49A4009-0. Im Import Special.....

### WEATHERPROOF PATIO SPEAKERS

Enjoy your favorite program outdoors. A chemically treated, 8" speaker in a steel case with baked on finish for maximum resistance to weathering. Step-saving volume control. Key-hole slots for easy mounting. Connect the pre-attached 25 foot cable to your Hi-Fi, radio or TV.  $10\frac{7}{8}$  x  $10\frac{7}{8}$  x  $34\frac{7}{8}$  x  $40\frac{7}{15}$ ,000 Hz.; 20 watts peak; impedance, 8 ohms. Shpg. wt.  $6\frac{7}{4}$  lbs. 34A476-2

\$19.95

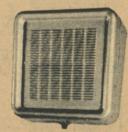
### **EXTENSION SPEAKER**

### POLY-PLANAR AUTO STEREO SPEAKER SET

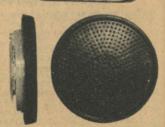
Waterproof-Flat Design fits anywhere!

Unique flat speakers designed to fit anywhere - only 7/8" mounting depth. A pair of heavy duty air-suspension, 10 Watts RMS, 5 ¼" speakers, black soft padded vinyl snap-on grille, and all necessary wire, hardware, and instructions. Shpg. wt. 6 lbs.

38A6061-2. Model A2000V. \$22.95







### **MICROPHONE STANDS AND ACCESSORIES**



### MICROPHONE FLOOR STANDS

Functional, modern, widest selection for all applications. Long lasting rust resistant, chrome plated, seamless upright tubing. All models terminated with standard 5/8" -27 threads for microphone or microphone holder. Famous wear-proof clutches for positive locking control. Anti-tip stabilizers added between self-leveling shock absorbing pads to protect desk, table or floor. Made in

MS10C and MS11C use 7/8'' and 5/8'' tube, MS-20 and MS-25, 1 %'' and 7/8'' tube, MS-25 has controlled "air lock" cushion for extra quiet adjustment of stand. MS-11C, and MS-20 have low profile bases.

Fig. Stk. No. Mode	l Height	Weight	Base	Each	3 Each
1 29A7003-4 MS-10	35" to 63"	7 lbs.	10" Charcoal	\$14.59	\$12.00
2 29A7006-7 MS-11	C 34" to 62"	13 lbs.	10" Chrome	17.99	14.90
3 29A7001-8 MS-20		15 lbs.	12" Wrinkle	23.59	19.35
4 29A7002-6 MS-25	38" to 67"	22 lbs.	17" Wrinkle	39.99	33.25

(4) DELUXE "THREE-LEGGED" FLOOR STAND. Heavy cast iron base padded on each leg. 15" dia. Very stable and more convenient to use since base allows "toe room". Demountable 2-section aun metal grey wrinkle base, full chrome stem, 34" to 62" height. Shpg. wt. 9 lbs. Mfg. Suggested List \$21.55.

29A7004-2. Atlas CS-52. Each ......\$17.99 3 Each ...... \$15.10 (5) TRIANGULAR BASED GENERAL PURPOSE STAND. Grip action clutch. (5) INTANGULAR BASED GENERAL PORPOSE STAND. Grip action clurch. Scuff resistant steel base with protective pads. Upper tube chrome plated, lower tube and stand base in gloamed black. Height 35" to 63", Base 14 ½". Wt.

(6) BOOM ATTACHMENT. Contemporary styling. Single positive-action triangular knob to control motion and positioning of die-cast one-piece universal swivel. For use with any 5/8" -27 threaded adjustable microphone stand. Chrome tube 31" long, tapered gloamed black counterweight. Recessed cable guide for professional appearance. Wt. 3½ lbs. 29A7017-4. Model BB-44. Each ..... \$10.99 3 Each ..... \$9.25



#### 5/8"-27 MIKE MOUNTING ESSORIES

		ALL CHROME PLATED		
Fig.	Stock No.	Description	Each	3 Each
0	29A3004-6	6" Flexible Coose Neck-		\$2.40
0	29A3005-3	13" Flexible Goose Neck	\$2.85 3.85 5.35	3.25
8	29A3006-1 29A3007-9	19" Flexible Coose Neck	5.35	4.60
000000	29A3008-7	Snap-on Mike to Stand Adaptor	6.99	3.25 4.60 6.00 3.90
0	29A3001-2	Lock on Mike-to-stand Adaptor with		
		thumb release	4.99	4.25
(3)	29A3010-3	Cable Hanger for stand	3.99 1.55 1.39	3.40
0	29A3011-1	Male Flange 11/4" diameter	1.55	1.35
0	29A3012-9	Female Flange 1 1/4" diameter	1.39	1.15
8	29A3013-7	Threaded Nipple 3/4" L.	.79	.05
9	29A3014-5	Female Threaded Coupling	1.30	1 15
8	29A3015-2 29A3016-0	3" L. Extension Tube	1.37	1.10
00000000	29A3017-8	6" L. Extension Tube Right Angle Bend	1.39 1.29 2.45	3.40 1.35 1.15 .65 .85 1.15 1.10 2.10
-	Z/A001/-0	William Million Delig		The second second





# COLORED WINDSCREEN

Provides additional protection from breath blast (pop) and wind noise in outdoor applications. Comes packaged with color identification dots to color code console controls to the microphones, allowing the identification of specific microphone in multi-microphone applications. Fits all Shure "ball-type" microphones including the SM61 and other makes.

29A3064-0. A61WS-BR. Blue 29A3068-1. A61WS-OR. Orange 29A3069-9. A61WS-BR. Brown 29A3065-1. A61WS-RD. Red 29A3066-5. A61WS-GN. Green 29A3067-3. A61WS-VL. Yellow 29A3081-4. A61WS-WH. White

ded feet, charcoal finish, 5/8"-27 thread. Wt. 2 lbs. Mfa. Suggested List \$6. 29A7011-7. Atlas DS-5. Each\$5.59 3 Each\$4.4	
(8) ADJUSTABLE DESK STAND. Grip action clutch adjusts. Height 8" to 13 Chrome tube. 5/8"-27 thread. 6" charcoal base. Wt. 3 lbs. Mfg. Suggest List \$9.75	
29A7012-5. Atlas DS-7. Each\$7.99 3 Each \$6	.60
(9) "STREAMLINED" DESK STAND. Features concealed rear cable exit a functional design. Perfect for any mike. Charcoal enamel and chrome w rubber bumpers. 5/8"-27 thread. Wt. 2 lbs. Mfg. Suggested List \$11.10.	ith
29A7014-1. Atlas DS-10. Each \$9.99 3 Each \$8	

(7) VALUE! CHROME TUBE DESK STAND, Stem 4" high, base 6" dia., pad-

(10) CLAMP-ON BRACKET. Holds securely on flat surface 2" thick or less. Chrome 6" long tube, 5/8"-27 thread. Wt. 2 lbs. Mfg. Suggested List \$7.35. 29A3018-6. Atlas BC-1. Each ..............\$6.59 3 Each ..................\$5.10 (11) DELUXE BANQUET STAND. Adjustable height 141/2" to 26". Chrome tube 5/8"-27 thread. Chrome low silhouette base of trim modern design. Wt. 5½ lbs. Mfg. Suggested List \$18.35. 29A7005-9. Atlas TS-8. Each ...... \$14.59 3 Each ..... \$12.15

**SWITCHCRAFT** 4-CHANNEL MIXMASTER MIXER/AMPLIFIER



Solid state, sicreo/monaural mixer amplifiers designed for remote or studio professional use or home high fidelity. All input-output jacks are standard  $\frac{1}{4}$  "dia. phone jacks. Use mikes, magnetic phono, tuners or tape recorders as pro-

gram source. Specifications: Freq. resp.  $\pm$  0.5 db. 20 Hz to 20KHz with equalization Specifications: Freq. resp. ± 0.5 db. 20 Hz to 20KHz with equalization switched "out". Output: up to 4 volts RMS Distortion: 1% max. (0.5% typical). Signal to noise ratio: 60 db, referred to 1 mv input. Recommended load: 600 ohms or greater. Low level inputs: Four. Voltage gain: 60 db. Overload: greater than 100 mv. Magnetic phono inputs: Two. Voltage gain: 40 db at 1KHz. Auxiliary inputs: Four. Voltage gain: 20 db. Overload: greater than 10 volts. Size: 3½ " H. X 12" W. X 7¼ " D. Model 308TR. Operates on 117 volts AC. Wt. 5½ lbs. \$152.00

..... \$152.00

### SHURE MICROPHONE ATTENUATORS AND EQUALIZERS

INPUTS ARE FEMALE CANNON XL TYPE, OUPUTS ARE MALE CANNON XL TYPE



29A3043-4. S	icrophone Attenuator. Provides 15 db attenuation (150 hpg. wt. 1 lb. Net Each	\$18.00
Model A15PR 1 29A3044-2.	Phase Reverser. Reverses phase of any balanced line. Shpg. wt. 1 lb. Net Each	\$18.00
Model A15HP 1 29A3045-9.	High Pass Filter. Reduces low frequency noise.	\$18.00
Model A15LP L 29A3046-7.	ow Pass Filter. Reduces high frequency noise. Shpg. wt. 1 lb. Net Each	\$18.00
Model A15PA	Presence Adapter. Increases presence range of low im	pedance
microphones. 29A3047-5.	Shpg. wt. 1 lb. Net Each	\$18.00
Model A15RS F 29A3048-3.	Response Shaper, Reduces sibilant sounds.	\$18.00
Model A15LA	ine Input Adapter. Converts low impedance microphor	ne input
to high-Z or 6	500 ohms line input. hpg. wt. 1 lb. Net Each	\$18.00
	THE COLLEGE EXTENSION CAL	7 5 PM



### MICROPHONE EXTENSION CABLE 20', 2-conductor shielded mike cable pre-wired with male and female professional 3-pin audio connectors. Shpg.

\$19.35 No. 29A3072-3. Model C50CN. Each .

SHURE MODEL A15TG TONE GENERATOR



Portable, self-powered, microphone level signal source generates a 700 Hz sinusoidal signal, capable of driving low impedance balanced lines. 4-inch diameter case with a male 3-pin audio output connector. Uses RM 675 mercury battery (included). Check line levels, connections, mixer inputs, and cables. Size: 5-9/16 X 4". Wt. 4 oz. 29A3056-6. A15TG. Each \$23.40 21A5025-7. RM675 Battery. Each



# HIGH PERFORMANCE UNIDYNE CARDIOID DYNAMIC MICROPHONES oid microphones are uni-directional. They pick up sound mainly MODEL 589S UNIDYNE "C"

Shure Cardioid microphones are uni-directional. They pick up sound mainly from the front, while suppressing sound and noise coming from the back. Allows user to work farther away from microphone and greatly reduces

### MODEL 548SD UNIDYNE IV

### MODEL 545SD UNIDYNE III

pin audio connection at amplifier end. Net Each \$76.80 29A758-0 Model 545D. Same as above but with no on-off switch. 29B235-9. Model 545S. On-off switch is built into swivel mount and uses Amphenol type connectors. Each \$73.20 29A366-2. S33B. Black Desk Stand. Each \$12.90



Feedback-free, dynamic cardioid ball-type microphone for quality hi-fi recording and PA use, indoors or out. Features a long life magnetic reed "On-Off" switch incorporated into the microphone case, Wire mesh screen protects from breath blasts and wind. Response: 50-15,000 Hz. Outputs: 50-250 ohms, —57 db, Hi-Z —54.5 db. 15 ft. detachable cable. Swivel stand adapter. Chrome and black, 6 x 2". Shpg. wt. 2½ lbs.

\$81.00 29A674-9 Net Each .

### MODEL 585 UNISPHERE A SERIES

These rugged dynamic microphones are recommended for entertainers, interviewers, singing groups, etc. Spherical screen prevents pop, blast and wind noise. Adaptable to hand or stand use. On-Off switch and 15 ft. detachable cable. Satin chrome finish, black trim and black swivel 5/8"-27 stand adapter. Low impedance recommended where long microphone cables are to be used Average size 6½", approximately 2" dia. Wt. 2 lbs.

Pickup Impedance Response Output Pattern Ohms Hz. Level Net Each Shure Type Stock Hz. Leve 50-13,000—59 db. 50-13,000—58 db. No. 29B217-7 Cardioid Cardioid 29B218-5 585SB

#### SHURE TRANSFORMERS



Match impedance of 25-50 ohm or 150-250 ohm to high-impedance.

Model A95U. Single contact high impedance screw terminal (MCIM) to low impedance 3 pin male audio connector (A3M). Adaptors: 1 MCIF to phone plug; 1 MCIF to phone jack. Transformer length: 2 ½ ".

Model A95UF. Single contact high impedance screw terminal (MCIM) to low impedance 3-pin female audio connector (A3F). Adaptors: 1 MCIF to phone plug; 1 MCIF to phone jack. Transformer length: 3½".

29A3071-5. Model A95UF. Shpg. wt. 1 lb. Each ...... \$18.75

Perfect for PA entertainment for indoor or outdoor service. Features dual imped-

MODEL 580SA UNIDYNE

For better PA entertainment and improved home recording. Slips out of stand swivel mount for hand-held use. Response 50-11,000 Hz. Hi-Z output, —56.5 db. Satin chrome. Size: 6-5/8x1¾" dia. 15 ft. attached cable and switch. Wt. 3 lbs.

29B214-4. Model 580SA. High Impedance. Net Each .......... \$49.65

MODEL 515SA-SB UNIDYNE "B"

MODEL 515SA-SB UNIDYNE "B"

Lowest cost Unidyne ever! Excellent choice for PA where budget is prime consideration. Has feedback suppression and symmetrical cardioid pattern features that have made Unidyne world famous. For stand or hand. Size: 6 1/2 dia. With 15 ft. attached cable, built-in switch and swivel adapter. Response-80-13,000 Hz. Hi-Z output —58 db. Lo-Z —59.5 db. Shpg. wt. 2 lbs. 29A615-2. Model 515SA. High Impedance. Net Each \$32.40 29A616-0. Model 515SB. Low Impedance. Net Each \$32.40 29A675-6. Same as 515SB above with integral 18" gooseneck and mounting flange. Grip-to-talk relay controlling leaf switch. For permanent mounting. Wt. 3 lbs. Model 515SB-G18. Net Each \$38.10

55 SERIES UNIDYNE II

Famous for dependable indoor and outdoor service in regular or rugged duty. Response 50-15,000 Hz. Output —55 db. Selectable 35-50, 150-250 or high impedance. Tilt head, 'detachable 18 ft. cable. Size: 73/8x21/8x31/8" D Wt. 3 lbs. 29A241-7. Satin Chrome Model 55SW, with Switch, Net Each. \$70.20



### SHURE BALL-TYPE MICROPHONES

588 Series. Feedback-free cardioid pickup pattern, shock-mounted cartridge, wind, pap and blast filters, lockable On-Off switch, 15 ft. single conductor detachable cable. Includes swivel stand adaptor. 6½ X 2" dia. Wt. 1½ lbs. \*588SAC has prewired MCIF microphone connector with ¼" phone plug

adapter; others, less plug.

579SB. Extremely rugged. Ideal choice for high quality FA, entertaining, recording and studio applications. 20 ft. 2-cond. detachable cable, lockable On-

516EQ. Hand-held equalizer microphone with 4-position switch tunes out feedback, changes from mellow to bright, smoothes out "sss" sounds, eliminates resonating boominess. Unlimited cable length can be used. Includes line transfor-merx for high impedance inputs, phone plug adaptor, 20 ft. cable, swivel adaptor and carrying case.

516EQ-PR. Same as above. Two mikes for superb stereo recording. 29A784-6 516EQ Cardioid Low 50 - 15,000 - 59dl 75.00 -59dB 29A784-6 Lowx 50 - 15,000 29A785-3 516EQ-PRCardioid Low X -59dB 135.00 Net Each Stock No. 29A633-5 Ohms High Output Response Shure Pickup Hz 80-13,000 80-13,000 Level —59.5 db. —59.5 db. Pattern Cardioid Type 588SA \$46.65 Cardioid Omni-29A634-3 High 29A636-8 \_\_59 db. 54.45 directional Low 50-15.000

### SHURE LAVALIER MICROPHONES

Rugged dynamic mikes having frequency response specially engineered for lavalier use. 560 size  $3\frac{32}{3}$ " x  $1\frac{1}{3}$ " D. high or low imped. 5705 size  $3\frac{32}{3}$ " dia., has on-off switch, response 50-12,000 Hz. 50-250 ohm imped. Attached light weight cables. Shpg. wt. 1½ lbs.

Stock	Shure	Output	Cable	Net
No.	No.		Length	Each
29A268-0	560	—56.5 db.	18 ft.	\$35.10
29A269-8	570S	—59 db.	30 Ft.	85.80

The world's smallest dynamic lavalier microphone. Half the size of ordinary microphone connector, SM11 has professional sound quality ideal for broadcasting, motion pictures, sound reinforcement. Includes cord, clasp, tie-tack assembly, belt-clip connector. Omnidirectional, frequency response 50 - 15,000 Hz, low impedance, power level -64dB. Only 9/16" dia., 1-5/16" long. Net wt. 0.28 oz.

29A786-1. Each ......\$57.00

### SHUREMIKE MIXERS, ACCESSORIES

### SHURE MODEL M610 FEEDBACK CONTROLLER



Designed to improve sound reinforcement systems by allowing the user to smooth out irregularities in the overall frequency response which tend to limit gain before feedback. Convenient inputs, outputs, and controls simplify installation and adjustment in either new or existing systems. Eight linear motion potentiometers allow gain reduction in each of eight octave frequency regions, high and low frequency roll-off switches, inputs and outputs for high or low impedance microphone lines and auxiliary high level lines. For 120 volts AC or 30 volts DC operation. Size: 2-23/32 X 11-15/16 X 6-31/32". Wt. 2 lbs. 29A3057-4.

\$134.40 M610. Each

### SHURE M62V AUDIO LEVEL CONTROLLER



Now with a variable input level control that makes it possible to use any input signal . . . even preamplified or phone line signals . . . in addition to regular microphone level signals. Also has a new aux. high level output which allows

microphone level signals. Also has a new aux. high level output which allows you to drive any high impedance amp. mixer or recorder requiring one volt or less (in addition to regular hi or lo impedance mic. level output). Insert between Amplifier and any input. This transistorized variable input level controlling device will prevent fadeout, roller coaster sound level or "close up" blasting. It will upgrade tape recordings by preventing distortion and overloading of the tape recorder. Also prevents "ear splitting" feedback from becoming excessively loud. Distance selector switch can be set at 6", 12" or 18" for best pickup area to the ear regardless of shouting or overly close talking. Battery operated (9V. battery included). Frequency response 20 to 20,000 Hz. Requires one each Switchcraft A3F and A3M. Size 2½" x 11-3/8" x 5¾" Wt. 2¾ lbs.

Net Each \$72.00 29A3034-3.

### SHURE MODEL M63 AUDIO CONTROL CENTER



Designed to give maximum flexibility in control of volume, bass response, treble response, high and low frequency roll-off. Works ideally with M68 series of mixers. Provides the means to shape response to equalize sound systems for correction of room acoustics, reduce feedback and room noise.

All inputs are RCA phono jacks; mic. level output takes XLR-3-11C or Switchcraft A3F matting connector.

Features: ballistically correct VU meter, 5 outputs, 600 ohm balanced line, Hi-Z high level, Hi-Z mike level, Lo-Z mike level and headphone jack. Two inputs: high level, Hi-Z mike level, Lo-Z mike level and headphone jack. Two inputs: both accept mixer, tape recorder or tuners. Continuously variable 6 db per octave Hi-Pass and Lo-Pass filters. Bass and treble tone controls. Either 105-130 50/60 Hz or 30 V.D.C. power. Size: 2½ X 11-3/8 X 6". Shpg. wt. 4 lbs. 29A3050-9. Net Each \$115.20

### MODEL M677 ACCESSORY ADD-ON MIXER



Provides a convenient way to add six additional inputs (Mic or line) to existing mixer. Compatible with M63 or M610 equipment, or to M67, M68 series, M688 or SE30 mixers. Powered from 28 - 30 volt DC outlet of these units, or can be used with any piece of equipment when provided with a DC power source. Has individual level controls, lo-cut/flat filter switches, Mic/line input switches. Inputs accept A3Maudio connector. Switchable Hi/Lo output impedance. Frequency response flat  $\pm 2\text{dB}$  from 30 Hz to 20 KHz. Size: 11-3/8" x 7" x 2½". Shpg. wt. 5 Lb.

29A3079-8. Model M677. Each ..... \$181.20

### SHURE **MODEL SE30** GATED COMPRESSOR/ MIXER



29A3058-2. SE30. Each ...... \$355.20

#### SHURE MICROPHONE MIXERS



### M68 SERIES MICROPHONE MIXERS

29A3033-5. Model M68. With male Cannon-type inputs.
(Use XLR-3-11C/A3F Mating Connector). Net Each.
29A3037-6. Model M68FC. With Female Cannon-type inputs \$108.00
(Use XLR-3-12C/A3M Mating Connector). Net Each.
MODEL M68P MIKE MIXER With standard ¼" phone jack input receptacles for 4 high impedance microphones and a fifth phono plug input for tape, tuners, etc. Otherwise same as M68 above.
29A3038-4. Net Each.
\$82.20

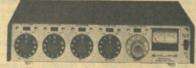
MODEL M68RM REVERBERATION MIXER. Use XLR-3-12C or Switchcraft A3M connector. Has built-in adjustable intensity reverb for special effects. Response 40-20,000 Hz. Four inputs and jack for remote reverb. \$139.80 29A3039-2. Each

### MODEL M688 STEREO MIKE



Designed to be used with stereo tape recorders and sound reinforcement systems. It has four dual impedance microphone inputs: three switchable to either left or right channel and the fourth with a pan control (any position between L and R). Two aux. inputs. Individual volume controls plus a stereo master volume control. Mono/stereo switch. Stereo high impedance, hi level outputs, plus L and R mic. level output, hi or lo impedance. 120V. AC or 30V. DC operation. (Use XLR-3-12 Type or Switch-craft A3M mating connectors for mic. inputs). Size 2-1/2" X 11-3/8" X 7" Shpg. wt. 7 lbs. 29A3054-1. Each \$136.80

### SHURE M67 **PROFESSIONAL** MICROPHONE



Compact, lightweight microphone mixer/remote amplifier for studio and remote broadcasting, recording and sound reinforcement. Four low impedance balanced microphone inputs and one line input. Built-in tone oscillator for ringing up line. Response ±2 db from 20 to 20,000 Hz. Gain 90 db. 150 ohm microphone into 600 ohm line. Hum and noise -125 db. Has illuminated VU meter calibrated +4 and +10 dbm out, two-level headphone monitor jack. Low noise AC or battery operation. Size 11-3/8 x 7-1/2 x 2-1/2". Wt. 5-1/2 lbs. Use XL-3-12C or Switchcraft A3M for mic. inputs; and XL-3-11C or Switchcraft A3F for mic. output. mic. output 29A3040-0. Net Each .....

### MODEL M675 BROADCAST PRODUCTION MASTER



When used with the Shure Model M67 (above) provides four additional channels for magnetic phono and line inputs with cue provision for previewing the material supplied to these added inputs. The M67-M675 combination makes a compact console, permitting mixing of four microphones, four line inputs, and two turntables. (For mic. inputs use XLR-3-12C or Switchcraft A3M mating connectors). Battery or M67 powered. Stacking hardware included, Frequency response: 30 to 20,000 Hz  $\pm$  2 db. Distortion: less than 1% THD. Size 2-1/2" X 11-3/8" X 7-1/2".wt. 8 lbs. \$179.40

### **SHURE M625 VOICEGATE**



Functions between microphone and mixer holding microphone output at a level approximately 16 db below unity level until microphone is excited by a voice. Voicegate then raises mic output to unity almost instantaneously and holds mic output at that level for a predetermined period. Allows all microphones in a multi-microphone installation to be "on" at all times without ambient noise pickup, without feedback denses and without ambient noise pickup, without feedback danger, and without a sound engineer to monitor and control mic gain. For 120 VAC or 30 VDC. Size: 4-7/32 X 3-11/32 X 10-15/32". Shpg. wt. 4½ lbs.

29A3061-6. Model M625. Each ...... \$137.40 Model M625AM. A "Modular" unit which takes it power from the M625. One M625 can power three M625AM units for a total of four gain controls. 29A3062-4. Model M625AM. Each ...... \$116.20



SM61 OMNIDIRECTIONAL DYNAMIC MICROPHONE

Virtually eliminates cable, handling and mechanical shock noises. Super efficient "Blast Barrier" and wind filters cut breath and wind noise to insignificant levels. Surprisingly rugged, ideal for location recording, sports coverage and remote broadcasts. 40-15,000 Hz. frequency response. Omnidirectional pickup. 150 ohm impedance. With 20 ft. cable. Non-reflecting matte metallic finish. 7 %" long. Net wt. 5.6 oz. Shpg. wt. 2 lbs. 29A700-2. Each \$79.20

Model SM61-CN. Same as above with prewired male three-pin audio connector

at amplifier end \$82.80 29A757-2. Each .....

### SM62 UNIDIRECTIONAL DYNAMIC MICROPHONE

Its small size and light weight make the SM62 ideal for inconspicious podium use and hand-held use. Effective filter design minimizes wind and pop noises. Flat, uncolored response and uniform cardioid pick-up pattern provides superb control of background noise and feedback. 100-10kHz. frequency response. 150ahms impedance. With 20 feet cable. Non-reflecting matte metallic finish. 4-29/32" long. Net Wt. 4 ozs. Shpg. Wt. 2 lbs

29A755-6. Each ...... \$90.00

### SM58 UNIDIRECTIONAL DYNAMIC MICROPHONE

The performance characteristics, built-in wind and "pop" filter, and compact size of this microphone make it especially well suited to remote sports, news and interview pickups...as well as location and studio vocal music recording, and a variety of broadcast, stage, and recording applications in which the microphone must be used outdoors or close to the mouth. 50 to 15,000 Hz frequency response. Unidirectional pickup. 150 ohm impedance. With 20 ft. cable. Nonglare dark gray. 6-3/8" long. Net wt. 15 ozs. Shpg. wt. 3 lbs. 29A733-3

Each ... \$115.20

### SM53 UNIDIRECTIONAL DYNAMIC MICROPHONE

Solve troublesome broadcast, recording and sound reinforcement assignments. Wide-range, natural, flat response. Cardioid pattern uniform at all frequencies. Very effective shock mount significantly reduces stand, cable and handling noise. Built-in hum rejection system. Integral "pop" filter limits explosive breath sounds and wind noise. Extremely rugged. 70-16,000 Hz. frequency response. Matches any input from 50 to 150 ohms impedance. Output level -58.5 db. With 20 ft. cable. Non-glare matte metallic finish. Fits 5/8"-27 stand. 7-3/16" long X 1½" dia. Net wt. 8 oz. Shpg. wt. 2 lbs.

\$183.00 29A699-6. Each .....

### SM7 UNIDIRECTIONAL DYNAMIC MICROPHONE

For vocal and instrument pickup and all applications where performance demands are uncompromisingly high. Features a unique response - tailoring system with a choice of four response curves for optimum performance; built-in mechanical isolation shock mount; and extremely effective "pop" filter. Nonglare dark finish, fits 5/8"-27 stand. Impedance: 150 ohms. Response 40-16,000 Hz. Size: 7½ X 2-7/16" diameter. Shpg. wt. 4½ lbs. 29A739-0. Model SM7. Each \$274.80

### SHURE COMMUNICATIONS MICROPHONES

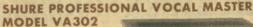


Problem-solving paging and communications microphone. Cardioid pickup pattern, dynamic element. Reduces noise pick-up. Provides utmost voice intelligibility. Adjustable 9¾" to 12½" H. Tough Armo-Dur base and case. Dual high or low impedance. Locking or non-locking push bar for relay and microphone. 7 ft. cord cable. Shpg. wt. 2 lbs.

\$50.85

Model 526T. Base station microphone with transistorized preamplifier and adjustable output level. Helps maintain maximum transmitter modulation. Fingertip lockable control bar. Normal/VOX switch for push-to-talk or VOX-operated transmitters. Sturdy, high-impact Armo-Dur case. Uses standard 9V battery (not included).

29A787-9. Each ..... \$42.00







Consists of a control console and two speaker columns. Rated at 100 watts RMS continuous. Extraordinary penetrating power and unusually smooth response. Six in-put channels, each channel with its own volume, treble, bass, and reverb in-out (and auxiliary echo) controls. May be used with any high quality, low-impedance dynamic, ribbon, or condenser microphone. Master controls may be used without disturbing the individ-ual settings. These include a master volume con-trol, a master reverb intensity control, a master reverb in-out switch, and master reverb treble and bass. Four anti-feed back switches. Exclusive built-in protection against short circuits. Freq. resp: amplifier ± 2 db 40 Hz to 20,000 Hz, speaker columns 50 Hz to 10,000 Hz. Distortion: 5% maximum at rated output. Power consumption 400 worts maximum. Power requirements: tion 400 watts maximum. Power requirements: 120 VAC, 60°Hz. Console wt. 41 lbs. Console size: 8-3/8" H. X 25" W. X 14¾" D. Speaker column: Freq. range 50 Hz. to 10,000 Hz. Speaker column wt. 70 lbs. (including cable).



### MODEL 627C CARDIOID FOR HAND AND STAND

A true Cardioid dynamic microphone. Features single direction pickup. Has fast action adaptor for stand. Made for entertainers who like to work "close up." Has smooth, peak-free response, shaped for presence. Emphasizes low frequencies when used close up. Dual high or low impedance. Has built-in pop and dust filter, on/off switch, satin chrome finish. Response 60-13,000 Hz. Output -58 db. Size 61%", 1-5/8" dia. 34" shank. Net Wt. 7½ ozs. Shpg. wt. 3 lbs. Complete with 16 ft. detachable cable, no plug.

MODEL 635A BROADCAST DYNAMIC MIKE

Omnidirectional pickup. Perfect for hand and stand use. Effective four stage pop and blast filter. Response 80 to 13,000 Hz. Output -55 db. Low impedance. 18 ft. cable and stand adaptor supplied. 6" long X 1-3/8" dia. with 34" shank. Net wt. 6 ozs. Shpp. wt. 2½ lbs.

### MODEL 664 "VARIABLE D" DYNAMIC CARDIOID MIKE

Especially recommended for PA service; churches, schools, clubs, recording, communications—truly the work horse of the microphone field.

Has Cardioid directional pattern at all frequencies. Built to take rough treatment, yet a superb performer sounding smooth and natural on voice and music. Response 60-15,000 Hz. —58 db output. Has on-off switch, 15 ft. detachable cable. High impedance or 150 ohm low impedance by moving one wire in connector. 1%" max. dia. 7.16" Ig. Net Wt. 26 ozs. Shpg.

\$78.00 29A200-3. Satin Chrome Each

Matching Desk Stands Model 418 for 664, 644, 623 29A408-2. Model 418. Grey. Net Each..... \$15.00

MODEL 644 SOUND SPOT DYNAMIC

Most directional PA microphone yet! Has farthest front pickup, better than 2.5 times that of non-directional types, yet works close-up, too. Range 40-10,000 Hz. High output, -53 db. Dual high or low impedance. Satin chrome. ¾" dia., 16" long extension tube. Rear dia. 2-5/16". 15 ft. detachable cable. Off-on switch, swivel stand mounting. Net wt. 41 ozs. Shpg. wt. 5 lbs. Desk stand Model 418 above.

29A198-9. Net Each \$120.00



MODEL S-500 CARDIOID. Outstanding performer everywhere because of technical uniformity, near perfect cardioid pickup and trequency response. "Live" at front, "dead" to sounds from rear, allows close up or moving about with great freedom. Cures feedback problems.

Response 40-15,000 Hz. High or low impedance selection. Output, high —55 db; 150 ohms —79 db. Detachable 20 ft. cable. Very outstanding mechanical design and appearance. Shock mounted for severe service. Withstands extremes of temperature and humidity. Slips from 5/8"-27 tilt stand adaptor for hand held use. Satin chrome, 1-17/32 dia., 6-13/16" L. Stand adaptor is supplied. Shpa. wt. 3 lbs.

#### **TURNER PAGING MICROPHONES**

The workhorse of paging microphones found in many applications. Designed to stand on a table, one-piece die-cast case incorporates a touch bar to actuate leaf spring switches and a locking lever to permit either momentary or locked-in use of the touch bar. Response: 60-10,000 Hz. Wide range dynamic, has satin chrome finish and rubber feet. 7 ¼ X 5 ½". Shpg. wt. 4 lbs. Mfg. List 570.00

29A736-6. Model 252. High Impedance. Output level: -52 db. 7 ft. 3-conductor (one shielded) cable. ..... \$42.00

29A737-4. Model 253. Low Impedance. Output level: -52 db. 7 ft. 4-con 

TURNER BALLADIER MUSICIAN'S CARDIOID DYNAMIC MICROPHONES WITH CARRYING CASES



20-ft. cable with phone plug for direct plug-in to any guitar amplifier. Rugged stand adaptor for in-hand or on-stand use. Built-in blast filters to eliminate "pop", "howl", or wind noise. All are high impedance. Shpg. wt. 4 lbs.

MODEL 866H.Cardioid performance at a low price. Ball screen styling. 100-13,000 Hz frequency response. Permanently attached cable. No on-off switch. Mfg. suggested list \$45.00.

29A667-3. Each. \$27.00 29A667-3.

Model 766H Ball screen styling, excellent cardioid performance. 40-15,000 Hz frequency range. Heavy duty chrome finish. Removable 20 ft. cable, on-off switch. Mfg. suggested list \$95.00.

### **TURNER MOBILE CB MICROPHONES**



**Expander 400.** Pre-amplified ceramic microphone features fine tuning volume control and battery monitor light. Extended range compression circuit assures even audio input, compensations. ing for wide variations in mouth-to-mike distances and speech characteristics. 6-wire cable provides wiring for all transceivers (relay or electronic switching). Output impedance 5000 ohms. Frequency response 300 to 3500 Hz. Maximum output level 42dB adjustable. Black Cycolac case accented by simulated brushed aluminum grille. Includes 9 volt battery. Shpg. wt. 2

29A777-0. Model EX-400. Each ...... \$45.00

29A778-8. Expander 400NC. Same as Expander 400 except noise cancelling version. Black wire mesh screen grille with rubber lip guard.

Road-King 70. High output compression amplifier has capacity to fully modulate any transceiver. Frequency response: 300-5000Hz. Impedance: 1000 ohms. Output level: 42 dB. Noise cancelling features reduces back ground noises. Wired for relay switching.

Shpg. Wt. 2 lbs. Mfg. suggested list. \$70.00.

29A753-1. Road-King 70. Each .......\$42.00

29A754-9. Road-King 70J. Same as Road-King 70 except is wired for electronic switching. Each . . . . \$42.00

### TURNER COMMUNICATIONS MICROPHONES

TURNER EXPANDER 500 PRE-AMPLIFIED BASE STATION MICROPHONE Compatible with all transceivers, the Expander 500 features separate slide-type volume and tone controls, a built-in meter for reading audio input and battery condition, and a 6-wire cable for relay or electronic switching. The compression pre-amplifier prevents over-modulation and the resulting distortion that can occur when mouth-to-mike distance or speaker level varies during transmission. Output impedance 5000 ohms. Maximum output level -30dB adjustable. 9 volt battery included. Dynamic cartridge. Die-cast metal base and neck with chrome

finish and black trim. 

SUPER SIDEKICK. Designed to work with almost any transceiver, transistorized SUPER SIDERICK. Designed to work with almost any transceiver, fransistorized low impedance as well as tube type high impedance. Has two gain controls, one for normal gain control and one for matching to different transceivers. Dynamic interior, rugged and durable, and provides higher fidelity. 300-3500 Hz. frequency response. Touch-to-talk bar which can be locked "On". Output level -25 db, output impedance 100 ohms. Nine volt easily replaceable battery. Shpg. wt. 4 lbs. Mfg. suggested list \$90.00

29A741-6. Each 29A741-6. Each \$55.00 "+3" TRANSISTOR AMPLIFIED BASE STATION MICROPHONE. Bold new styling, new compression amplifier circult and exclusive new ceramic interior design make the "+3" the finest, most professional base station microphone offered. Allows user to talk close up or far from mike without varying output signal. Response 300-3,000 Hz, for voice clarity. Has slide lock switch, touch bar, volume control, 3 conductor coiled cord. Blue gun metal and chrome. With wiring instructions for more than 100 popular transceivers. Shpg. wt. 3 lbs.
29A645-9. Model +3. Mtg. suggested list \$85.00. Net Each \$52.00

TRANSISTOR AMPLIFIED BASE STATION MICROPHONE WITH VARIABLE OUTPUT LEVEL. Puts the zip back into your CB set and keeps it up to full strength. Features a two transistor preamp with volume control—gives up to 50 times the output level you now have. Just dial your desired signal for maximum modulation all the time. You can even work close or far away from the microphone or change the output for a big or little voice. Has tailored frequency response 300-3500 Hz., exclusive touch-to-talk and lock on-off switching. Works with all tube or transistor sets. Blue and chrome finished. Attached coiled cord. Shpg. wt. 3½ lbs. 29A295-3. Mfg. List \$70.00. \$45.00

DESK MIKES FOR BASE STATION OR PAGING

Most popular microphone made for desk use. Operates by touch bar on-off switch, or lever lock switch. Comes with 7 ft. cable wired for relay control. Response 100-8000 Hz. Deluxe light grey hammertone and chrome finish. 73¼" H., 5½x5" base, Mfg. sug. list \$42.50. Shpg. wt. 3 lbs. 29B286-2. Model 254HC. Ceramic. Output — 50 db. Net Each \$30.00 Turner Mike Cartridges. Fits 350 and 254 mikes. 29A293-8. Model B0-1115-2. Ceramic 1-29/32"D x ½". Each .... \$7.20 "SINGLE SIDEBAND" DESK MIKE

Specially tailored voice response for maximum communications intelligibility. Response 300-3,000 Hz. Operates by touch bar on-off switch, lever lock switch or VOX, in relay controlled circuits. Lustrous black and chrome. Size as above. Mfg. suggested list \$47.50. Shpg. wt. 3 lbs.
29A379-5. Model 454HC. Ceramic. Output -54 db. Net Each... \$30.00



M+2 TRANSISTOR AMPLIFIED MOBILE MIKE Adds range to CB mobiles because of full voice power. Has built-in 2 transistor pre-amp with volume control that lets you adjust your modulation for the best performance. Has tailored frequency response, 350-3500 Hz. press-to-talk switch, 5 ft. coiled cord. Internal transistor amplifier takes power from internal battery. Mfg. sug. list \$60.00. Wt. 1 lb. Choice Each 29B276-3. Model M+2U. relay switching. \$36.00 Model J-M+2U. electronic switching.

### M+3 TRANSISTORIZED MIKE WITH VOLUME CONTROL

Stylish mobile mike has slide-action volume control and new compression amp. circuit, talk close to or far from mike without varying output. Ceramic interior. 300-3500Hz freq. resp. Push-to-talk switch. Uses TR175, 7 V. battery included. White and blue case with blue rubber cord. (3 cond., 1 shielded) Mfg. list, \$65.00. Shpg. wt. 1 lb. 29A683-0. Model M+3 for Relay Switching Each

\$40.00

TURNER PROFESSIONAL LAVALIER

MODEL 35. Omni-directional, very high quality dynamic microphone for professional PA or recording applications. Features small size, "4" dia., 3" long. Wt. 12 oz. with attached 25 ft. 3-conductor cable. High or 150 ohm low impedance selected at end of cable. Response: 70-10,000 Hz. Output -61 db. Desert Gold finished. With Lavalier Neck Cord. Shpg. wt. 1 ½ lbs. 29A626-9. Mfg. suggested list \$85.00. \$51.00

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Each professional audio application has its own special nature, and its own inherent problems. At Burstein-Applebee Pro-Audio Division we try to research the heart of those problems in order to fully understand the nature of the application. Then, only after exhaustive theoretical and practical analysis, we begin designing a system suited to the users special requirement.

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26-01400-1 6AFAG 11.10 7.39 6.69 5.59 26-02840-7 6DOS 10.45 6.99 5.29 26-04200-2 6LIBA 7.80 5.19 4.69 3.89 26-01420-9 6AFG 11.10 7.39 6.69 5.59 26-02840-7 6DOS 10.45 6.99 5.29 26-04200-2 6LIBA 7.80 5.19 4.69 3.89 26-01420-9 6AFG 7.10 4.79 4.29 3.59 26-02840-7 6DOS 10.45 6.99 6.29 5.29 26-04200-2 6LIBA 7.80 5.19 4.69 3.89 26-01420-9 6AFG 7.10 4.79 4.29 3.59 26-02840-7 6DOS 10.45 6.99 6.29 5.29 26-04200-2 6LIBA 7.80 5.19 4.69 3.89 26-01420-9 6AFG 7.30 4.89 4.39 3.69 26-02840-5 6DS4 11.10 7.29 26-09 2.69 2.19 26-01440-7 6AGS 7.30 4.89 4.39 3.69 26-02840-5 6DTA 4.40 2.99 2.69 2.19 26-01500-8 6AK5/EF95 6.70 4.49 3.99 3.39 26-0290-9 6DTB 6.35 4.29 3.79 3.19 26-01500-8 6AK5/EF95 6.70 4.49 3.99 3.39 26-0290-9 6DTB 6.35 4.29 3.79 3.19 26-01500-8 6AK5/EF95 6.81 3.30 2.19 1.89 1.59 26-01530-5 6AL3/EF88 3.05 2.09 1.89 1.59 26-01530-5 6AL3/EF88 3.05 2.09 1.89 1.59 26-01530-5 6AL3/EF88 3.05 2.09 1.89 1.59 26-01550-3 6AL11 8.85 5.89 5.29 4.49 26-0290-9 6E88 8.00 5.39 4.79 3.99 26-01550-3 6AL11 8.85 5.89 5.29 4.49 26-01550-3 6AL11 8.85 5.89 5.29 4.49 26-01550-3 6AL11 8.85 5.89 5.29 4.49 26-01550-3 6AL11 8.85 5.89 5.29 2.69 2.79 26-01560-0 6ANSA 6.05 4.09 3.69 3.09 2.69 2.69 2.79 26-01550-1 6ARSA 6.05 4.09 3.69 3.09 2.69 2.69 2.79 26-01550-1 6ARSA 6.05 4.09 3.69 3.09 2.99 2.69 2.79 26-01500-1 6ANSA 6.05 4.09 3.69 3.09 2.99 2.69 2.79 26-01500-1 6ANSA 6.05 5.39 4.89 4.99 2.69 3.69 3.09 2.99 2.69 2.99 2						6.19		/6DA4										
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26-01530-3 6AL11 8.85 5.89 5.29 4.49 4.99 26-0390-7 6EB7/EF183 5.10 3.39 3.09 2.59 26-04300-0 6IT8 5.45 3.69 3.29 2.79 26-01590-9 6AQSA 4.50 2.99 2.69 2.99 26-0300-7 6EB7/EF183 5.10 3.39 3.09 2.59 26-03300-7 6EB7/EF183 5.10 3.39 3.99 2.59 26-03300-7 6EB7/EF183 5.10 3.39 3.99 2.59 26-03300-7 6EB7/EF183 5.10 3.39 3.09 2.59 2.99 26-03300-7 6EB7/EF183 5.10 3.39 3.09 2.59 2.99 2.99 2.99 2.90 2.90 2.90 2.90 2.9							26-02950-4		10.80	7.09	6.49	5.39	26-04280-4	6LR6				
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26-01580-0 6ANBA 6.05 4.09 3.69 3.09 26-03300-7 6EH7/F163 3.10 3.39 2.09 1.79 26-01590-9 6AQSA 4.50 2.99 2.09 1.79 26-0300-7 6EH7/F163 3.10 3.39 2.89 2.39 26-04330-7 6IX8 5.55 3.69 3.39 2.79 26-04360-3 6AR5 2.70 1.79 1.59 1.39 26-0300-4 6EH7/6EH7 7.50 4.99 4.49 3.69 26-0300-4 6EH7/6EH7 7.50 4.99 4.99 26-0300-4 6EH7/6EH7 7.50 4.99 4.99 26-0300-4 6EH7/6EH7 7.50 4.99 4.99 26-0300-4 6EH7/6EH7 7.50 4.99 3.99 3.59 2.99 26-04380-2 6EH7/6EH7 7.50 4.99 3.99 3.59 2.99 26-04380-2 6EH7/6EH7 7.50 4.99 4.99 2.99 26-0300-8 6EU7 5.90 3.99 3.59 2.99 26-04380-2 6EH7/6EH7 7.50 4.99 2.99 26-0300-8 6EU7 5.90 3.99 3.59 2.99 26-04380-2 6EH7/6EH7 7.50 4.99 2.99 26-0300-8 6EU7 5.90 3.99 3.59 2.99 26-04380-2 6EH7/6EH7 7.50 4.99 2.99 26-0300-8 6EU7 5.90 3.99 3.59 2.99 26-04380-2 6EH7/6EH7 7.50 4.99 2.99 26-0300-8 6EU7 5.90 3.99 3.59 2.99 26-04380-2 6EH7/6EH7 7.50 4.99 2.99 26-0300-8 6EU7 5.90 3.99 3.59 2.99 26-04380-2 6EH7/6EH7 7.50 4.69 4.29 3.59 26-0300-9 6EH7/6EH7 7.50 4.99 2.99 2.99 2.99 2.99 2.90 2.90 2.90 2	26-01570-1			15 5.9	9 5.49	4.59	26-02980-1								0.40	4.29	3.69	-
26-01590-9 6AQSA 4.50 2.99 2.69 2.29 2.09 1.79 26-013020-3 6EH7/ 26-01620-4 6AQS/ECQSS 3.45 2.29 2.09 1.79 26-033020-3 6EH8 4.75 3.19 2.89 2.39 26-04330-7 6LY8 5.55 3.69 3.39 2.79 26-01630-3 6ARS 2.70 1.79 1.59 1.39 26-03303-4 6EM5 5.45 3.69 3.29 2.79 26-03435-5 6MD8 7.80 5.19 4.69 3.89 26-031650-1 6ARI1 8.05 5.39 4.89 4.09 3.39 26-03405-0 6EM7/6EA7 7.50 4.99 4.49 3.69 26-03405-0 6MB8 8.25 5.49 4.99 4.19 26-03608-8 6AT6 2.55 1.69 1.59 1.29 26-03608-9 6ES8/ ECC189 5.90 3.99 3.59 2.99 26-03430-2 6MG8 8.15 5.49 4.89 4.09 26-0310-4 6EV5 5.20 3.49 3.09 2.59 26-03485-1 6MJ6/6LQ6/ 6JGCC 11.80 7.89 7.09 5.89 26-03170-3 6AUSGT 10.05 6.59 5.99 4.99 4.99 26-03130-2 6EW7 7.95 5.29 4.79 3.99 26-03440-4 6S4A 6.85 4.59 4.09 3.49 26-03130-3 6EW6 4.75 3.19 2.89 2.39 2.99 26-03130-2 6EW7 7.95 5.29 4.79 3.99 26-04440-6 6NT 6.90 4.79 3.49 26-01720-2 6AUSGT 10.05 6.59 5.99 4.99 26-03150-0 6F5 11.40 7.49 6.89 5.69 26-0440-6 6NT 6.85 4.59 4.09 3.49 26-01730-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6F67 7.60 5.09 4.59 3.79 26-04440-1 6SF5 9.10 5.99 5.49 4.59 26-03180-7 6F67 7.60 5.09 4.59 3.79 26-04470-1 6SF5 9.10 5.99 5.49 4.59	26-01580-0	6AN8	A 6.	05 4.0	9 3.69				5.10	3.39	3.09	2.34	20-0-320-0		3.50	2.39	2.09	
26-01620-4 6AG8/ECC85 3.49 2.29 2.09 1.79 1.59 1.39 26-01303-6 ARS 2.29 2.70 1.79 1.59 1.39 26-03030-4 6EM5 5.45 3.69 3.29 2.79 26-04350-5 6MD8 7.80 5.19 4.69 3.89 26-01650-1 6AR11 8.05 5.39 4.89 4.09 3.39 26-01660-0 6AS5 8.25 5.49 4.99 4.19 26-01680-8 6AT6 2.55 1.69 1.59 1.29 26-03080-9 6ES8/ ECC189 5.90 3.99 3.59 2.99 26-01680-8 6AT6 2.55 1.69 1.59 1.29 26-0310-3 6EW6 4.75 3.19 2.89 2.59 26-0310-3 6EW6 4.75 3.19 2.89 2.39 2.60 310-3 6EW6 4.75 3.19 2.89 2.39 26-04350-5 6MD8 7.80 5.19 4.69 3.89 26-04360-4 6ME8 8.15 5.49 4.89 4.09 26-0310-3 6EW6 4.75 3.19 2.89 2.39 2.60 2170-3 6AUSGT 10.05 6.59 5.99 4.99 26-0310-3 6EW6 4.75 3.19 2.89 2.39 26-04440-4 6W88 7.05 4.69 4.29 3.59 26-03110-3 6AUSGT 10.05 6.59 5.99 4.99 26-03130-2 6EW7 7.95 5.29 4.79 3.99 26-04440-6 6W18 7.05 4.69 4.29 3.59 26-03110-3 6EW6 4.75 3.19 2.89 2.39 26-04440-4 6W18 7.05 4.69 4.29 3.49 26-01710-3 6AUSGT 10.05 6.59 5.99 4.99 26-03160-9 6F6 11.60 7.69 6.99 5.79 26-04440-4 6S4A 6.85 4.59 4.09 3.49 26-01730-1 6AUSA 7.15 4.79 4.29 3.59 26-03160-9 6F6 11.60 7.69 6.99 5.79 26-04440-4 6S5A 6.80 4.59 4.09 3.49 26-01750-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6FG7 7.60 5.09 4.59 3.79 26-04440-1 6SF5 9.10 5.99 5.49 4.59	26-01590-9					2.29	26-03020-5		4.75	3.19	2.89	2.39		6LY8	5.55	3.69	3.39	2.79
26-01650-1 6AR1 8.05 5.39 4.89 4.09 26-03040-3 6EM7/6EA7 7.50 4.99 4.49 3.69 26-03360-4 6ME8 8.15 5.49 4.89 4.09 26-01660-0 6AS5 6.80 4.59 4.09 3.39 26-03080-9 6ES8/ ECC189 5.90 3.99 3.59 2.99 26-0310-0 6AS8 8.25 5.49 4.99 4.19 26-03090-8 6EU7 5.90 3.99 3.59 2.99 26-0310-0 6AS8 7.15 4.79 4.29 3.59 26-0310-2 6EW7 7.95 5.29 4.79 3.99 26-0310-3 6EW6 4.75 3.19 2.89 2.39 26-0310-3 6EW6 4.75 3.19 2.89 2.39 26-0310-3 6EW7 7.95 5.29 4.79 3.99 3.59 2.99 26-0310-3 6EW7 7.95 5.29 4.79 3.99 3.59 2.	26-01620-4						26-03030-4						26-04350-5	6MD8	7.80	5.19	4.69	
26-01660-0 6AS5 6.80 4.59 4.09 3.39 26-03080-9 6ES8/ ECC189 5.90 3.99 3.59 2.99 26-01670-9 6AS8 8.25 5.49 4.99 4.19 26-01670-9 6AS8 8.25 5.49 4.99 4.19 26-01670-9 6AS8 8.25 5.49 4.99 4.19 26-01690-7 6AT8A 7.15 4.79 4.29 3.59 26-03110-4 6EV5 5.20 3.49 3.09 2.59 2.60 26-01710-3 6AUSGT 10.05 6.59 5.99 4.99 26-03110-4 6EV5 5.20 3.49 3.09 2.59 2.60 26-01710-3 6AUSGT 10.05 6.59 5.99 4.99 26-03130-2 6EW7 7.95 5.29 4.79 3.99 26-04420-6 6N7 6.90 4.59 4.99 26-03130-2 6EW7 7.95 5.29 4.79 3.99 26-04420-6 6N7 6.90 4.59 4.99 26-03150-0 6F5 11.40 7.49 6.89 5.69 26-04420-6 6N7 6.90 4.59 4.09 3.49 26-01750-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6F6 11.60 7.69 6.99 5.79 26-04440-4 6S4A 6.85 4.59 4.09 3.49 26-01750-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6F6 7.60 5.09 4.59 3.79 26-04440-2 6SC7 8.25 5.49 4.99 4.19 26-01750-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6FG 7.60 5.09 4.59 3.79 26-04440-2 6SC7 8.25 5.49 4.99 4.19 26-01750-7 6AV8A 5.95 3.99 3.59 2.99 26-032180-7 6FG 7.60 5.09 4.59 3.09 26-04470-1 6SF5 9.10 5.99 5.49 4.59													26-04355-4					
26-01670-9 6AS8 8.25 5.49 4.99 4.19 26-03108-8 6EU7 5.90 3.99 3.59 2.99 26-04385-1 6MId/6IQ6/ 6IR8 7.15 4.79 4.29 3.59 26-0310-4 6EV5 5.20 3.49 3.09 2.59 26-01710-3 6AUGTA 6.55 4.39 3.99 3.29 26-03110-4 6EV5 5.20 3.49 3.09 2.59 26-01710-3 6AUGTA 6.55 4.39 3.99 3.29 26-03110-2 6EW7 7.95 5.29 4.79 3.99 26-04410-7 6MU8 7.05 4.69 4.29 3.59 26-01710-3 6AUGTA 4.35 2.89 2.59 2.19 26-03130-2 6EW7 7.95 5.29 4.79 3.99 26-04420-6 6MT 6.90 4.59 4.19 3.49 26-01720-2 6AUGA 4.35 2.89 2.59 2.19 26-03150-0 6F5 11.40 7.49 6.89 5.69 26-0440-4 654A 6.85 4.59 4.09 3.49 26-01750-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6F67 7.60 5.09 4.59 3.79 26-04460-2 6SC7 8.25 5.49 4.99 4.19 26-01750-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6F67 7.60 5.09 4.59 3.69 3.09 26-04460-3 6SF5 9.10 5.99 5.49 4.59				80 4.5	9 4.09	3.39		6ES8/					26-04360-4					
26-01680-8 6A76 2.55 1.69 1.59 1.29 26-033090-8 6EU7 5.90 3.99 3.59 2.59 26-03100-7 6A18A 7.15 4.79 4.29 3.59 26-03110-3 6EW6 4.75 3.19 2.89 2.59 26-03110-3 6AUSGT 10.05 6.59 5.99 4.99 26-03120-3 6EW6 4.75 3.19 2.89 2.39 26-04440-4 6AUSGT 10.05 6.59 5.99 4.99 26-03120-3 6EW7 7.95 5.29 4.79 3.99 26-04420-6 6MV8 7.05 4.69 4.29 3.59 26-03120-3 6EW7 7.95 5.29 4.79 3.99 26-04440-4 6AUSGT 10.05 6.59 5.99 4.99 26-03130-2 6EW7 7.95 5.29 4.79 3.99 26-04440-4 6AUSGT 10.05 6.59 5.99 4.99 26-03130-2 6EW7 7.95 5.29 4.79 3.99 26-04440-4 6AUSGT 10.05 6.59 5.99 4.99 26-03130-2 6EW7 7.95 5.29 4.79 3.99 26-04440-4 6AUSGT 10.05 6.59 5.99 4.99 26-03160-9 6F6 11.60 7.69 6.89 5.69 26-04440-4 6AUSGT 10.05 6.50 6AUSGT 10.05 6.50 6.50 6.50 6.50 6.50 6.50 6.50	26-01670-9	6AS8	8.	25 5.4	9 4.99	4.19									3.00	2.37	2.17	
26-01690-7 6AT8A 7.15 4.79 4.29 3.59 26-03110-3 6EW6 4.75 3.19 2.89 2.39 26-04410-7 6MU8 7.05 4.69 4.29 3.59 26-01710-3 6AUSGT 10.05 6.59 5.99 4.99 26-03130-2 6EW7 7.95 5.29 4.79 3.99 26-04440-6 6N7 6.90 4.59 4.19 3.49 26-01720-2 6AU6A 4.35 2.89 2.59 2.19 26-03130-0 6F5 11.40 7.49 6.89 5.69 26-04440-4 6S4A 6.85 4.59 4.09 3.49 26-01730-1 6AU8A 7.15 4.79 4.29 3.59 26-03160-9 6F6 11.60 7.69 6.99 5.79 26-04450-3 6SA7 6.80 4.59 4.09 3.49 26-01750-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6FG7 7.60 5.09 4.59 3.79 26-04440-2 6SC7 8.25 5.49 4.99 4.19 26-01750-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6FG7 7.60 5.09 4.59 3.79 26-04440-2 6SC7 8.25 5.49 4.99 4.59	26-01680-8																	
26-01710-3 6AUSGT 10.05 6.59 5.99 4.99 26-03130-2 6EW7 7.95 5.29 4.79 3.99 26-04440-4 654A 6.85 4.59 4.09 3.49 26-01720-2 6AU6A 4.35 2.89 2.59 2.19 26-03150-0 6F5 11.40 7.49 6.89 5.69 26-04440-4 654A 6.85 4.59 4.09 3.49 26-01730-1 6AU8A 7.15 4.79 4.29 3.59 26-03160-9 6F6 11.60 7.69 6.99 5.79 26-04450-3 65A7 6.80 4.59 4.09 3.39 26-01750-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6FG7 7.60 5.09 4.59 3.79 26-04440-4 65F5 9.10 5.99 5.49 4.59	26-01700-4													6MU8	7.05			
26-01720-2 6AU6A 4.35 2.89 2.59 2.19 26-03150-0 6F5 11.40 7.49 6.89 5.69 26-03440-4 0.54 0.09 3.39 26-01730-1 6AU8A 7.15 4.79 4.29 3.59 26-03160-9 6F6 11.60 7.69 6.99 5.79 26-03440-3 6SA7 6.80 4.59 4.09 3.39 26-01750-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6FG7 7.60 5.09 4.59 3.79 26-03460-2 6SC7 8.25 5.49 4.99 4.19 26-031770-7 6AU8A 5.95 3.99 3.59 2.99 26-03210-2 6FM7 6.15 4.09 3.69 3.09 26-03470-1 6SF5 9.10 5.99 5.49 4.59	26-01710-3						26-03130-2	6EW7	7.95	5.29	4.79	3.99						
26-01730-1 6AU8A 7.15 4.79 4.29 3.59 26-03180-7 6FG7 7.60 5.09 4.59 3.79 26-04460-2 6SC7 8.25 5.49 4.99 4.19 26-01750-9 6AV6 3.70 2.49 2.19 1.89 26-03180-7 6FG7 7.60 5.09 4.59 3.79 26-04470-1 6SF5 9.10 5.99 5.49 4.59 26-03180-7 6.15 4.09 3.69 3.09 26-04470-1 6SF5 9.10 5.99 5.49 4.59	26-01720-2	6AU6	A 4.	35 2.8	9 2.59	2.19	26-03150-0	6F5										
26-01/30-9 0AV0 3.70 1.49 1.09 26-03210-2 0FM7 6.15 4.09 3.69 3.09 26-04470-1 0SF5 9.10 5.99 5.49 4.59	26-01730-1	6AU8	A 7.	15 4.7														4.19
NOTE: Optional List Prices Above Are Those Suggested by The Manufacturer		DAW	on 3.	3.9	LOTE	0	al List D.							nufacture	r			
	106			-	OIE:	Option	idi Lisi Pri	res Apove	Ale I	11036	2099	Jieu	y The mic	o.ucioie	A FRES			

### **RECEIVING TUBES - CONTINUED**

end at		Optional	Net	Net	50 or	Stock Ma		Optional	Net	Net	50 or Over
Stock No.	Туре	List	1-5	6-49	Over	Stock No.	Туре	List	1-5	6-49	The second second
26-04490-9	6SG7	7.65	5.09	4.59	3.89	26-06410-5	15KY8A	9.70	6.39	5.79	4.89
26-04500-5	6SH7	10.75	7.09	6.49 4.89	5.39	26-06520-1	17AY3A 17BE3/	5.05	3.39	3.09	2.59
26-04510-4 26-04530-2	6SJ7 6SK7	8.15 9.00	5.99	5.39	4.49	26-06530-0	17BZ3	5.05	3.39	3.09	2.59
26-04550-0	6SL7GT	7.65	5.09	4.59	3.89	26-06540-9	17BF11	7.95	5.29	4.79	3.99
26-04560-9	6SN7GTB/	5.05	3.39	3.09	2.59	26-06550-8	17BS3A/				
26-04570-8	6SQ7	8.40	5.59	5.09	4.19		17DW4A	4.70	3.19	2.79	2.39
26-04580-7	6T8A	7.70	5.19	4.59	3.89	26-06620-9	1704	5.50	3.69	3.29	2.79
26-04590-6 26-04610-2	6T10 6U8A/6KD8	7.50 5.20	3.49	3.09	3.79	26-06650-6	17EW8/ HCC85	3.25	2.19	1.99	1.69
26-04630-0	6U10	5.40	3.59	3.29	2.69	26-06670-4	17GT5A	7.55	5.09	4.59	3.79
26-04650-8	676	11.90	7.89	7.19	5.99	26-06680-3	17GW6/				
26-04660-7	6V6GTA	6.10	4.09	3.69	3.09	0 K & 1 C - 1 1	17DQ6B	7.55	5.09	4.59	3.79
26-04670-6	6W4GT	4.45	2.99	2.69	2.29	26-06690-2	17JB6A	8.00	5.39	4.79	3.99
26-04680-5	6W6GT	7.85	5.29	4.69	3.99	26-06720-7	17JM6A	8.05	5.39	4.89	4.09
26-04690-4	6X4	4.85	3.29	2.89	2.49	26-06730-6 26-06750-4	17JN6	7.20	4.79	4.29 3.59	3.59
26-04710-0	6X5GT 6X8A	4.90 6.10	4.09	3.69	3.09	26-06760-3	17JZ8 17KV6A	5.90 9.70	6.49	5.79	4.89
26-04720-9	6X9/	0.10	4.0	0.01	0.01	26-06850-2	1918	10.35	6.79	6.19	5.19
	ECF200	5.55	3.69	3.39	2.79	26-06860-1	20AQ3/	W221			
26-04730-8	6Y6GA/		32	WELL CO	450-34	Maria Augusta	LY88	3.90	2.59	2.39	1.99
	6Y6G	7.55	5.09	4.59	3.79	26-06880-9	21GY5	6.70	4.49	3.99	3.39
26-04750-6	6Z10/6J10	8.15	5.39	4.89	4.09	26-06900-5	21JZ6 21LR8	7.00 6.30	4.69	4.19 3.79	3.49
26-04850-4 26-04860-3	8AR11 8AW8A	8.20 7.30	4.89	4.89	3.69	26-06930-2 26-06940-1	21LU8	6.20	4.19	3.69	3.09
26-04870-2	8810	6.00	3.99	3.59	2.99	26-06960-9	228W3	5.50	3.69	3.29	2.79
26-04880-1	8BA11	7.50	4.99	4.49	3.79	26-06980-7	22JF6	8.85	5.89	5.29	4.49
26-04890-0	88M11	7.65	5.09	4.59	3.89	26-06990-6	22JG6A	10.30	6.79	6.19	5.19
26-04920-5	88Q11	6.60	4,39	3.99	3.29	26-07000-3	22JR6	9.10	5.99	5.49	4.59
26-04930-4	8BU11	7.65	5.09	4.59	3.89	26-07010-2	22JU6	9.30	6.19	5.59	4.69 5.19
26-04960-1 26-04980-9	8CW5/XL86 8FQ7/BCG7	2.95 4.05	1.99	1.79	1.49	26-07020-1	22KM6 23Z9	6.35	4.29	3.79	3.19
26-05010-4	8JU8A	4.55	3.09	2.79	2.29	26-07070-6	24LQ6/	2 1 1		18	CONTENTS.
26-05020-3	8JV8	6.20	4.19	3.69	3.09		24JE6C	10.65	7.09	6.39	5.39
26-05030-2	8KA8	7.95	5,29	4.79	3.99	26-07090-4	25C5	5.05	3.39	3.09	2.59
26-05050-0	8LT8	5.35	3.59	3.19	2.69	26-07110-0	25CG3	4.60	3.09	2.79	2.29
26-05060-9	9A8/PCF80	3.10	2.09	1.89	1.59	26-07160-5	25EH5	5.00	3.39	2.99	2.49
26-05190-4	10CW5/	2.40	2.29	2.09	1.69	26-07170-4	25L6GT/ 25W6GT	5.05	3.39	3.09	2.59
26-05210-0	10DX8/	3.40	2.29	2.09	1.07	26-07200-9	27GB5/PL500		3.39	3.09	2.59
20-03210-0	LCL84	3.25	2.19	1.99	1.69	26-07205-8	30AE3/PY88	3.90	2.59	2.39	1.99
26-05250-6	10GF7A	6.90	4.59	4.19	3.49	26-07230-6	31JS6C	9.65	6.39	5.79	4.89
26-05260-5	10GK6	6.05	4.09	3.69	3.09	26-07240-5	31LQ6	10.15	6.79	6.09	5.09
26-05270-4	10GN8	6.40	4.29	3.89	3.19	26-07250-4	31LZ6	11.25	7.49	6.79	5.69
26-05280-3	10HF8	8.20	5.49	4.89	4.09	26-07280-1	33GY7A	10.45	6.89	6.29	5.19
26-05300-9	10JT8	8.50	5.59	5.09	4.29	26-07310-6	35C5	4.35	2.89	2.59	2.19
26-05310-8	10JY8	5.00	3.39	2.99	2.49	26-07320-5	35EH5	4.60	3.09 5.49	2.79 4.99	2.29
26-05400-7	118Q11	8.20	5.49	4.89	4.09 5.09	26-07330-4 26-07350-2	35L6GT 35W4	8.35 2.95	1.99	1.79	1.49
26-05410-6 26-05460-1	11BT11 11HM7	7.15	6.69 4.79	6.09 4.29	3.59	26-07370-0	35Z5GT	4.70	3.19	2.79	2.39
26-05480-9	11KV8	7.35	4.89	4.39	3.69	26-07380-9	36AM3B	3.05	2.09	1.89	1.59
26-05490-8	11LQ8	7.20	4.79	4.29	3.59	26-07385-8	36MC6	11.40	7.59	6.89	5.69
26-05520-2	12AB5	4.70	3.19	2.79	2.39	26-07390-8	38HE7	9.75	6.39	5.89	4.89
26-05540-0	12AD6	4.60	3.09	2.79	2.29	26-07400-5	38HK7	9.55	6.29	5.69	4.79
26-05560-8	12AE10	8.85	5.89	5.29	4.49	26-07440-1 26-07460-9	42KN6 50B5	9.15 4.05	6.09	5.49	2.09
26-05570-7	12AF3/ 128R3/12RK1	9 5.20	3.49	3.09	2.59	26-07470-8	50C5	4.10	2.79	2.49	2.09
26-05590-5	12AL5	5.00	3.39	2.99	2.49	26-07490-6	50EH5	4.90	3.29	2.99	2.49
26-05600-2	12AQ5	5.90	3.99	3.59	2.99	26-07520-0	50HK6	2.85	1.89	1.69	1.49
26-05610-1	12AT6	3.75	2.49	2.29	1.89	26-07530-9	50L6GT	6.50	4.39	3.89	3.29
26-05620-0	12AT7/	1	2.00	2.70	2.29	26-07550-7 26-07590-3	60FX5 5879	5.10 7.45	3.39	3.09	2.59
26-05630-9	ECC81 12AU6	4.55	3.09	2.79	2.29	26-07600-0	5881	6.50	4.39	3.89	3.29
26-05640-8	12AU7A/	4.00	4.17	2.07	2.07	26-07610-9	6973	6.15	4.09	3.69	3.09
TEM STORE	ECC82	4.10	2.79	2.49	2.09	26-07620-8	7025	3.75	2.49	2.29	1.89
26-05660-6	12AV6	3.40	2.29	2.09	1.69	26-07630-7	7027A	9.10	6.09	5.49	4.59
26-05670-5	12AV7	6.70	4.49	3.99	3.39	26-07640-6	7189 7199	5.75	3.89	3.49	2.89 3.49
26-05680-4	12AX4GTB	4.50	2.99	2.69	2.29	26-07650-5 26-07660-4	7247	6.85 5.10	3.39	3.09	2.59
26-05690-3	12AX7A/ ECC83	3.75	2.49	2.29	1.89	26-07670-3	7355	6.35	4.29	3.79	3.19
26-05720-8	12AZ7A	- 5.80	3.89	3.49	2.89	26-07690-1	7581A	9.40	6.29	5.69	4.69
26-05730-7	12B4A	5.90	3.99	3.59	2.99	26-07700-8	7591A	4.50	2.99	2.69	2.29
26-05740-6	12BA6	3.85	2.59	2.39	1.99	26-07720-6	7868	6.85	4.59	4.09	3.49
26-05770-3	12BE6	4.05	2.69	2.49	2.09	26-07730-5	8417	8.05	5.39	4.89	4.09
26-05800-8	128H7A	5.25	3.49	3.19	2.69	CD.	ECIAL D	IIDD	SE	THE	S
26-05840-8	12BQ6GTB/	5.75	3.89	3.49	2.89	3P	ECIAL P				- Day 10
26-05880-0	12CU6 12BY7A/	3./3	3.07	3.44	2.07	H . ALDIE	Int: Internat				
20-03000-0	128V7/12DQ	7 4.75	3.19	2.89	2.39		NE: Nat	tional Ele	ctronic	S	113
26-05890-9	12CA5	5.35	3.59	3.19	2.69	12010	Tube		239050	Prices	Each
26-05910-5	12CU5/					Stock No.	Туре	M	ake	1-4	5-15
TIQ 16	12C5	7.35	4.89	4.39	3.69	25-00010-0	0A2	COLUMN TO THE OWNER.	CA	\$1.87	\$1.78
26-05940-2	12DS7	6.40	4.29	3.89	3.19	25-00010-0	OB2		CA	2.24	2.13
26-05960-0	12DT8 12FQ7	4.90 4.55	3.29	2.99	2.29	25-00060-5	0C3	R	CA	2.48	2.36
26-06000-4	12FX5	4.45	2.99	2.69	2.29	25-00070-4	0D3	R	CA	2.29	2.18
26-06010-3	12GE5	7.05	4.69	4.29	3.59	25-00130-6	IP39	R	CA	9.65	9.17

12GW6

12DQ6B 12HG7/ 12GN7A

12HL7

12JB6A

12MD8 12SA7

12SG7

12517

12SQ7

12V6GT 12W6GT

12X4 13DE7

13FM7/

13GF7A 13Z10/

13110

14BL11

14BR11

15BD11A 15CW5/PL84

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26-06030-1

26-06070-7

26-06080-6 26-06120-0 26-06130-9

26-06150-7

26-06160-6 26-06170-5 26-06200-0

26-06210-9

26-06230-7 26-06240-6 26-06250-5

26-06260-4

26-06270-3

26-06310-7

26-06350-3

26-06360-2 26-06370-1 26-06380-0 26-06390-9

Stock No.	Туре	Make	1-4	5-15
25-00010-0	OA2	RCA	\$1.87	\$1.78
25-00040-7	082	RCA	2.24	2.13
25-00060-5	OC3	RCA	2.48	2.36
25-00070-4	0D3	RCA	2.29	2.18
25-00130-6	IP39	RCA	9.65	9.17
25-00140-5	IP40	RCA	12.55	11.95
25-00190-0	2021	RCA	2.24	2.13
25-00210-6	2E26	RCA	6.35	6.03
25-00240-3	3828	RCA	14.37	13.65
26-00250-2	NL-3C23	N.E.	13.20	12.54
25-00390-6	5R4GB	RCA	3.22	3.05
25-00400-3	5UP1	RCA .	50.40	47.88
25-00433-4	6FG6/EM84	Int.	1.82	1.73
25-00436-7	6V4/EZ80	Int.	2.14	2.03
25-00440-9	NL-C6J	N.E.	38.50	36.58
25-00620-6	83	RCA	6.82	6.48
25-00930-9	NL-615	N.E.	13.90	13.21
25-00940-8	NL-623	N.E.	23.25	22.09
25-00950-7	NL-635/7019	N.E.	21.85	20.76
25-00990-3	NL-710/6011	N.E.	14.45	13.73
25-01010-9	NL-714	N.E.	16.10	15.30
25-01090-1	807	RCA	6.65	6.32
25-01120-6	810	RCA	46.20	43.89
25-01130-5	811A	RCA	11.00	10.45
25-01140-4	812A	RCA	10.85	10.31
25-01180-0	833A	RCA	86.94	82.59
25-01200-6	866A	RCA	6.80	6.46
25-01220-4	872A	RCA	15.40	14.63
25-01230-3	884	RCA	6.05	5.75
25-01260-0	922	RCA	7.13	6.77
25-01290-7	927	RCA	15.70	14.92
25-01310-3	930	RCA	11.15	10.59

	Tube		Prices	Each
Stock No.	Туре	Make	1-4	5-15
25-01410-1	1614	RCA	19.05	18.10
25-01420-0	1619	RCA	19.42	18.45
25-01460-6	1629	RCA	5.67	5.39
25-01540-5	2050	RCA	3.38	3.21
25-01550-4 25-01606-4	2050A 5557	RCA RCA	3.29	3.13
25-01640-3	5582	RCA	12.55	11.92
25-01660-1	NL-5632/C3J	N.E.	19.35	18.38
25-01680-9	5651A	RCA	2.65	2.52
25-01690-8	5654	RCA	3.20	3.04
25-01700-5	NL-5665/C16J	N.E.	75.50	71.73
25-01770-8	5692	RCA'	11.40	10.83
25-01780-7	5693	RCA	16.52	15.69
25-01790-6	5696	RCA	2.90	2.76
25-01800-3	5725	RCA	4.93 3.20	4.68
25-01810-2 25-01820-1	5726 5727	RCA	4.32	4.10
25-01820-1	5749	RCA	4.79	4.55
25-01840-9	5751	RCA	4.22	4.00
25-01860-7	5814A	RCA	3.74	3.55
25-01880-5	5823	RCA	2.37	2.25
25-01920-9	5963	RCA	2.72	2.58
25-01940-7	6005	RCA	5.30	5.04
25-01950-6	6012	RCA	14.47	13.75
25-01960-5	NL-6014/C1K	N.E.	17.90	17.00
25-01970-4	6072	RCA	5.45	5.18
25-01980-3	6080	RCA	7.70	7.32
25-02000-9	6136	RCA	4.61	4.38
25-02010-8	6146A	RCA	6.00	5.70 6.27
25-02020-7	6146B/8298A 6146W	RCA	6.60 8.35	7.93
25-02030-6 25-02060-3	6201	RCA	4.67	4.44
25-02070-2	6202	RCA	3.74	3.55
25-02080-1	6211	RCA	3.92	3.72
25-02081-9	6267/EF86	Int.	3.22	3.06
25-02120-5	6360A	RCA	8.71	8.27
25-02150-2	6550	RCA	7.28	6.92
25-02190-8	6661/68H6	RCA	3.07	2.92
25-02200-5	6669/6AQ5A	RCA	2.82	2.68
25-02220-3	6678/6U8A	RCA	2.93	2.78
25-02230-2	6679/12AT7	RCA	2.66	2.53
25-02240-1 25-02250-0	6680/12AU7A 6681/12AX7A	RCA RCA	2.29	2.16
25-02230-0	7054	RCA	2.90	2.76
25-02320-1	7059	RCA	2.64	2.51
25-02330-0	7060	RCA	4.65	4.42
25-02340-9	7061	RCA	4.13	3.92
25-02370-6	7167	RCA	2.86	2.72
25-02390-4	7360	RCA	9.33	8.86
25-02400-1	7551	RCA	5.30	5.04
25-02410-0	7558	RCA	5.45	5.18
25-02420-9	7586	RCA	9.82	9.33
25-02427-4	7788/E810F 7895	Int. RCA	10.84	10.30
25-02430-8 25-02450-6	8032	RCA	6.25	5.94
25-02470-4	8077/7054	RCA	2.17	2.06
25-00355-9	8621/4CX250FG	RCA	43.50	41.33
		DUIN	1000	Control Section
CHICAGO CANADA & AD	ED CD CD		See La	

### RGA VIDICONS

25-02537-0. RCA No. 8844. A 3" Vidicon with separate mesh connection, replaces No. 8823.
Each ...... \$48.50 5 Up Each .... \$46.08

25-02426-6. RCA 7735. A 1" Vidicon with integral mesh replaces 1319, 2456, 2640, 4478, 6198, 7038, 7697 and 8484. Each . . . \$44.50 5 Up Ea.\$42.28

25-02536-2. RCA 8507. A 1" Vidicon with separate mesh connection replaces 4502, 4599, 8485, 8572 and 8625. Ea. . . . \$80.00 5 Up Ea. . . . \$76.00

### IRES NUMITRON DIGITAL DISPLAY

4.5 V. segment voltage and 24 mA segment current. Fit standard 9 pin sockets, 1.625" seated height. Numerals 0 thru 9, DR2010 has decimal.

1-99 100 RCA No. DR-2000 DR-2010 Ea. Up Ea. \$5.52 \$4.52 5.77 4.77 Stk. No. 25-01500-9 25-01510-8



5.52

107



### **NATIONAL ELECTRONICS READOUT TUBES**

Red-orange 0 thru 9 for good readibility. 170 volt operation. Mfg. No. Char. Size Each 0.6 in. \$12.25 Stk. No. 25-02270-8 0.6 in. 25A02520-6 NL8422/ 0.6 in. 17.50 5991

**SOCKETS FOR READOUT TUBES** For 6844A Stk. No. 12A5029-0 12A5031-6 Mfg. No. For RTS-1 6844A RTS-4 NL8422/5991 Each 90

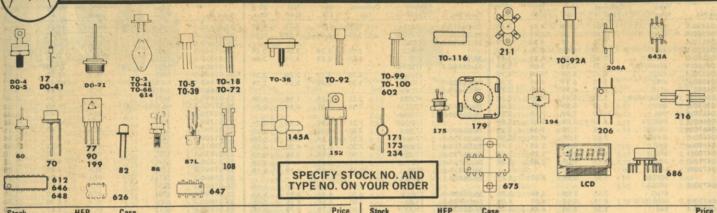
INTERNATIONAL SERVICEMASTER 10M

Designed for 10,000 hour performance.
Stock No.
25-00471-4
12AU7/ECC82-10M
25-00472-2
12AY7/ECC83-10M
6267/EF86-10M \$3.92 5.20 MATCHED PAIR OUTPUT TUBES 6BQ5MP/EL84MP 6CA7MP/EL34MP KT88MP \$5.20 13.80 32.20 25-00424-3 25-00427-6 25-00750-1 25-02380-5

5.09 6.19 4.89 4.49 1.79 Burstein-Applebee Co., 3199 Mercier St., Kansas City, Mo. 64111



# MOTOROLA HEP SEMICONDUCTORS



22.08109-4   C0900P   T0-116   C.HTL-Dual 4-Hopt Line Driver   S167   Z2.0815-3   C0900P   C0900P   C1-116   C.HTL-Dual 5-Hopt MAND Gate   1.51   Z2.0815-0   C0900P   C1-116   C.HTL-Dual 2-Hopt MAND Gate   1.51   Z2.0815-0   C0900P   C1-116   C.HTL-Dual 4-Hopt MAND Gate   2.0815-0   C0900P   C1-116   C.HTL-Dual 4-Hopt MAND Gate   3.08   Z2.0815-0   C0900P   C.HTL-Dual 4-Hopt MAND Gate   3.08   Z2.0815-0   C0900P   C.HTL-Dual 4-Hopt MAND Gate   3.08   Z2.0815-0   C0900P   C.HTL-Dual 4-Hopt Buffer   3.08   Z2.0815-0   C0900P   C.HTL-Dual 4-Hopt MAND Gate   3.08   Z2.0815-0   C0900P   C.HTL-Dual 4-Hopt MAND Gate   3.08   Z2.0815-0   C0900P   C.HTL-Dual 4-Hopt Buffer   3.08   Z2.0815-0   C090	Each
22.08120-2 C09904 T0-116	1.52 lator 2.50 1.55
22.08130-1 C099069 10-116	5.52 6.60
12-0813-8	3.00 2.36 2.30
22-08139-2 C091   P T0-116   C-HTL-Dual Monostable Multivibrator C0912   T0-116   C-HTL-Dual Monostable Multipibrator C0912   T0-HTL-Dual Monostable Multipibrator C0912	2.72 3.14
22-08196-5 C 10329 T 10-116 L 10-11-10-114 -	6.20
22-0818-6-  Clu38	3.00 or 3.75 1.98
2-08117-3	2.96
22-08220-0 C1058P T0-116 IC-0TL-0ual J-K Flip-Flop	
22-0824-5   C2001P   T0-116   C-RTL-Dual C-Input Expander   C-Input Color	6.32
22-08247-3   C2004P   T0-116   C-RTL-J-K Filip-Flop   C2-08248-1   C2005P   T0-116   C-RTL-J-K Filip-Flop   C2-08248-9   C20066   T0-99   C-RTL-Dust VARIOR Gate   C2-08250-7   C20076   T0-99   C-RTL-Dust VARIOR Gate   C-RTL-Dust VARIO	2.64 3.36 3.96
22-08250-7 C20076 T0-99 IC-RTL-Jual 2-Input NOR Gate 3.00 22-08597-1 C6073P 675 IC-Linear-2/Watt Audio Amp IC-RTL-Jual Buffer 3.68 22-08598-9 C6074P 647 IC-Linear-FM Multiplex Stereo Demodulator C2-08251-5 C20086 T0-99 IC-RTL-Jual Buffer 3.68 22-08599-7 C6075P T0-116 IC-Linear-IV Color Processing Circuit 22-08252-3 IC-20106 T0-99 IC-RTL-Jual 2-Input NOR Gate 3.00 22-08600-3 C6076P T0-116 IC-Linear-IV Color Processing Circuit 22-08252-5 C2500P T0-116 IC-RTL-Dual 4-Input Expander 2.78 22-08601-1 C6077P T0-116 IC-RTL-Dual 4-Input Expander 2.78 22-08601-1 C6077P T0-116 IC-RTL-Dual 4-Input More Gate 22-08275-4 C2502P T0-116 IC-RTL-Dual 4-Input NOR Gate 22-08275-4 C2502P T0-116 IC-RTL-Dual 2-Input NOR Gate 22-08280-4 C2503P T0-116 IC-RTL-Dual 2-Input NOR Gate 22-08601-1 C6080P T0-116 IC-RTL-Dual 2-Input NOR Gate 22-08601-1 C6080P T0-116 IC-RTL-Dual 2-Input NOR Gate 22-08601-1 C6080P GAT IC-Linear-IF Amp and Quadrature Detector Draw Attenuator 22-08305-9 C3001P T0-116 IC-TTL-Dual 2-Input NOR Gate 3-8 22-08607-8 C6083P GAT IC-Linear-IF Amp Imiter Stereo Preamp IC-Linear-IF Amp Input NOR Gate 3-8 22-08607-8 C6083P GAT IC-Linear-IF Amp Input NOR Gate 3-8 22-08607-8 C6083P GAT IC-Linear-IF Amp Input NOR Gate 3-8 22-08607-8 C6083P GAT IC-Linear-IF Amp Input NOR Gate 3-8 22-08607-8 C6083P GAT IC-Linear-IF Amp Input NOR Gate 3-8 22-08607-8 C6083P GAT IC-Linear-IF Amp Input NOR Gate 3-8 22-08607-8 C6083P GAT IC-Linear-IF Amp Input IC-Linear-IF Amp Input NOR Gate 3-8 22-08607-8 C6083P GAT IC-Linear-IF Amp Input NOR Gate 3-8 22-08607-8 C6083P GAT IC-Linear-IF Amp Input IC-Linear-IF Multiplex Stereo Demodulate 3-8 22-08639-1 C6089P GAT IC-Linear-IF Multiplex Stereo Demodul	3.36 3.36
22-08252-3	3.24 4.22 3.62
22-08270-5   C2501P   612   IC-RTL-BCD-to-Decimal Decoder   2.64   22-08603-7   C8079P   626   IC-Linear-Low-Noise Stereo Preamp   C2-08280-4   C2503P   T0-116   IC-RTL-Bullitiunction Device (1 J-K Flip-Pip. 1 inverter. 2 buffers)   4.52   22-08606-5   C6083P   647   IC-Linear-I-F Amp and Quadrature Detector   C2-08305-9   C3001P   T0-116   IC-TTL-Bull AND Gate   C2-08305-9   C3001P   T0-116   IC-TTL-Bull AND Gate   C2-08320-8   C3000P   T0-116   IC-TTL-Bull Alpin NAND Gate   C2-08330-7   C3030P   T0-116   IC-TTL-Bull Alpin NAND Gate   C3040P	3.68 2.74 6.90
22-08306-0 C3000L T0-116 IC-TIL-Quad 2-Input NAND Gate IC-TIL-Guad IC-TIL-Guad IC-TIL-Guad 2-Input NAND Gate IC-TIL-Guad IC-TI	14.89 2.94 5.88
22-08305-9   C3001P   T0-116   IC-TTL-Quad 2-Input NAND Gate (Direct output)   C3001P   T0-116   IC-TTL-Hex Inverter   C3001P   T0-116   IC-TTL-Hex Inverter   C3001P   T0-116   IC-TTL-Hex Inverter   C3001P   T0-116   IC-TTL-Hiple 3-Input NANA Gate   C3001P   T0-116   IC-TTL-Dual 4-Input NANA Gate   C3001P   T0-116   IC-TTL-Dual 4-Input NANA Gate   C3001P   T0-116   IC-TTL-Bual 4-Input NANA Gate   C3001P   IC-TTL-Bual 4-Input NANA Gate   C3001P   T0-116   IC-TTL-Bual 4-Input NANA Gate   C3001P   T0-116   IC-TTL-Bual 4-Input NANA Gate   C3001P	
22-08325-7   C3020P   T0-116   IC-TTL-Dual 4-Input NAND Gate   .58   .65   .22-08617-7   .60936   .602   IC-Linear-Audio Power Amp   .65   .60936   .602   IC-Linear-Audio Power Amp   .65   .60936   .602   IC-Linear-Audio Power Amp   .60936   .603   .60936   .603   .60936   .603   .60936   .603   .60936   .603   .60936   .603   .60936   .	2.66 4.40 2.98
22-08340-6   C3041P   612   IC-TIL-BcU-to-Decimal Decoder and High-Level   22-08620-1   C6096P   T0-116   IC-Linear-FM Multiplex Stereo Demodulated   2-0845-5   C3050P   T0-116   IC-TIL-Dual 2-Wide 2-Input and-or-invert Gate   2-0855-5   C3073L   T0-116   IC-TIL-Dual J-K Flip-Flop   2-0855-4   C3075P   612   IC-TIL-Dual Latch   1.25   C6099P   626   IC-Linear-FM Miltiplex Stereo Demodulated   1.25   IC-Linear-FM Multiplex Stereo Demodulated   1.25   IC-Linear-Demodulated   1.25   IC-Linear-Demo	3.98 5.49 3.62
22-08345-5         C3050P         T0-116         IC-TTL-Dual 2-Wide 2-Input and-or-invert Gate         58         22-08624-3         C6100P         T0-116         IC-Linear-Automatic Frequency Control IC-Linear-FM IF Amp Limiter. Detector.           22-08355-4         C3075P         612         IC-TTL-Dual J-K Flip-Flop         1.25         Preamp         Preamp           22-08385-1         C3800P         T0-116         IC-TTL-Duad Latch         1.31         22-08626-8         C6102P         626         IC-Linear-Dual Operational Amp           22-08390-1         C3801L         T0-116         JC-TTL-Divide-By-Twelve Counter         2.37         22-08627-6         C6103P         626         IC-Linear-Operational Amp	3.80
22-08385-1 C3800P T0-116 IC-TTL-Decade Counter 1.31 22-08626-8 C6102P 626 IC-Linear-Dual Operational Amp 22-08390-1 C3801L T0-116 JC-TTL-Divide-By-Twelve Counter 2.37 22-08627-6 C6103P 626 IC-Linear-Operational Amp	Audio 2.58
	3.00 2.24 .79
22-08400-8 C3803P T0-116 IC-TTL-Retriggerable Monostable Multivib. 1.98 22-08629-2 C6105P 199 IC-Linear-Voltage Regulator 22-08605-7 C3804P T0-116 IC-TTL-Programmable Module-N Decode Counter 5.84 22-08631-8 C6107P 626 IC-Linear-Operational Amp	2.16 3.84 1.86
22-08410-7 C3805P T0-116 IC-TTL-Dual Voltage-Controlled Multivibrator 3.48 22-08635-9 C6111P 199 6.0V Positive Voltage Regulator 3.48 22-08635-9 C6111P 199 6.0V Positive Voltage Regulator 3.48 22-08635-9 C6112P 199 6.	4.00 4.00 4.00
22-08417-2 C4001P 646 Quad 2-Input NAND Gate 42 22-08638-3 C6114P 199 15.0V Positive Voltage Regulator 22-08418-0 C4002P 646 Triple 3-Input NAND Gate 42 22-08638-3 C6114P 199 15.0V Positive Voltage Regulator 42 22-08638-3 C6114P 199 199 199 199 199 199 199 199 199 19	4.00 4.00 4.00
	4.00 5.50 5.50
22-08423-0 C4020P 648 Dual Type D Flip-Flop 85 Z2-08644-1 C6120P 199 5.2V Negative Voltage Regulator 22-08424-8 C4021P 646 Dual J-K Flip-Flop 1.13 22-08644-1 C6120P 199 6.0V Negative Voltage Regulator 22-08426-8 C4021P 646 Dual J-K Flip-Flop 1.13 22-0864-1 C6120P 199 6.0V Negative Voltage Regulator 22-08426-8 C4021P 646 Dual J-K Flip-Flop 1.13 22-0864-1 C6120P 199 6.0V Negative Voltage Regulator 22-08426-8 C4021P 646 Dual J-K Flip-Flop 1.13 22-0864-1 C6120P 199 6.0V Negative Voltage Regulator 22-08426-8 C4021P 646 Dual J-K Flip-Flop 1.13 22-0864-1 C6120P 199 6.0V Negative Voltage Regulator 22-08426-8 C4021P 646 Dual J-K Flip-Flop 1.13 22-0864-1 C6120P 199 6.0V Negative Voltage Regulator 22-0864-1 C6120P 199 6.0V	5.50 5.50
22-0842-3	5.50 5.50 5.50
22-08428-9 C4033P 648 Dual BCD Up Counter 2.93 22-08648-2 C6124P 199 18V Negative Voltage Regulator 22-08429-7 C4040P 648 Duad Latch 1.69 22-08649-0 C6125P 199 24V Negative Voltage Regulator 22-08430-5 C4041P 648 BCD-7 Seement Latch/Decoder/ Driver 4.80 22-08650-8 C6126P 646 Quadraphonic Decoder	5.50 5.50 \$4.96
22-08431-3 C4042P 648 As above for LCD Display 5.36 Z2-08651-6 C6127P 648 Quadraphonic Voltage Controlled Attenuator	7.80
22-08434-7 C4052P 648	13.33 4.95 1.48
22-08436-2     C4053P     648     Phase-Locked-Loop     3.72       22-08437-0     C4054P     646     Programmable Osc /Timer     3.64       22-08438-8     C4055P     648     Industrial Time Base Generator     2.34       22-08439-6     C4056P     648     2-of-8 Tone Encoder     14.95       22-08439-6     C4056P     648     2-of-8 Tone Encoder       14-95     22-0855-3     00001     T0-116     7-seg. LED Display. Com Anode.	3.96 3.60
22-08441-2     C4057L     40 pin 612     Clock Circ. (hours, secs., date)     21.07     22-08451-1     D0002     T0-116     7-seq. LED Display. Com Cath       22-08443-8     C4057T     40 pin 612     C4057L plus Quartz Crystal     22-09990-7     D1000     LCD     3½ Digit Liq. Cry. Display       22-08443-8     C4058P     648     CMOS Programmable Timer     7.33     22-09981-5     D10007     LCD     D10007     D10007	3.60 18.03 18.90
22-08443-8 C4058P 648 CMOS Programmable Timer 7.33 22-09901-5 D1000T LCD D1000 Plus Socket F0010 T0-72 Field Effect Transistor Audio-N-Channel B-A Stocks The Complete Motorola HEP Line	1.72

# MOTOROLA HEP SEMICONDUCTORS

Stock No.	HEP No.	Case	Description	Price	Stock	HEP	Case		Price
22-10205-7 22-10210-7	F0015 F0021	T0-92 T0-92	Field Effect Transistor-RF-N-Channel	\$1.38	No. 22-14243-4	No. R0878	Style 179	Full-Wave Bridge Rectifier, 400Volt 12Amp	\$9.80
22-10220-6 22-10221-4	F1035 F1036	T0-92 T0-72	Field Effect Transistor-VHF/UHF-N-Channel Field Effect Transistor-RF-P-Channel Field Effect Transistor-Audio Rf-P-Channel	1.78 1.38 3.38	22-14244-2 22-14251-7 22-14246-7	R0879 R0880 R0881	179 179 179	Full-Wave Bridge Rectifier, 600Volt 12Amp Full-Wave Bridge Rectifier, 50Volt 27Amp Full-Wave Bridge Bertifier, 100Volt 27Amp	12,95 8.74 9.16
22-10230-5 22-10240-4	F2004 F2005	T0-72 T0-72	Held Effect Transistor-Audio RT-P-Channel MOS FET-UalG date-VHF-N-Channel MOS FET-UalF (aste-VHF-N-Channel MOS FET-UalG date-N-Channel Ge RF Transistor-PNP-200MHz 150mW Ge RF Transistor-PNP-30MHz 100mW Ge RF Transistor-PNP-400MHz 100mW Ge Gen Pur Transistor-PNP-200MHz 225mW Ge General Purposa Audio Amp.PNP	2.40 2.54 2.20	22-14247-5 22-14248-3	R0882 R0883	179 179	Full-Wave Bridge Rectifier, 100Volt 27Amp Full-Wave Bridge Rectifier, 200Volt 27Amp Full-Wave Bridge Rectifier, 400Volt 27Amp	9.98
22-10250-3 22-10379-0 22-10380-8	F2007 G0001 G0002	206 T0-3 T0-5	Ge RF Transistor-PNP-200MHz 150mW	2.20 3.92 5.10	22-14249-1 22-14250-9 22-14255-8	R0884 R1001	179 T0-92	Full-Wave Bridge Rectifier, 400Volt 27Amp Full-Wave Bridge Rectifier, 600Volt 27Amp Thyristor (SCR-30V 800mA Thyristor (SCR)-60V 800mA	16.95
22-10381-6 22-10383-2	G0003 G0005	T0-72 T0-5	Ge RF Transistor-PNP-400MHz 100mW Ge Gen Pur Transistor-PNP-200MHz 225mW	5.00	22-14260-8 22-14265-7	R1002 R1003 R1004	T0-92 T0-92 T0-92	Thyristor (SCR)-100V 800mA Thyristor (SCR)-150V 800mA Thyristor (SCR)-150V 800mA	1.06
22-10384-0 22-10385-7	G0006 G0007	T0-5 T0-5	Ge General Purpose Audio Amp-PNP Ge General Purpose Audio Amp-PNP	1.86	22-14270-7 22-14283-0	R1005 R1202	T0-92 87L	Thyristor (SCR)-200V 800mA Thyristor (SCR)-50V 8Amp	1.08 1.15 5.44
22-10386-5 22-10387-3 22-10389-9	G0008 G0009 G0011	T0-18 T0-18 T0-18	Ge General Purpose Audio Amp-PNP Ge General Purpose RF/IF Osc-PNP Ge RF Transistor PNP-25MHz 200mW Ge RF Transistor PNP-150MHz 150mW	1.86 3.20 1.50	22-14284-8 22-14285-5 22-14286-3	R1205 R1215 R1216	87L 77 77	Thyristor (SCR)-400V 8Amp Sensitive-Gate Thyristor (SCR)-30Volt 4Amp	5.44 4.56 1.10
22-10439-2 22-10441-8	G6000 G6002	T0-3 T0-36	Ge High Current Pwr Transistor-30V 3A 90W Ge High Cur Pwr Transistor-PNP-40V 65A	1.30	22-14287-1 22-14288-9	R1217 R1218	77	Sensitive-Gate Thyristor (SCR)-60Volt 4Amp Sensitive-Gate Thyristor (SCR)-100Volt 4Amp Sensitive-Gate Thyristor (SCR)-200Volt 4Amp	1.18 1.28 1.74
22-10443-4	G6004	T0-3	170W Ge High Cur Pwr Transistor-PNP-30V 15A	1.60	22-14290-5 22-14295-4	R1220 R1221	90	Sensitive-Gate Thyristor (SCR)-200Volt 4Amp Thyristor (SCR)-50 V 8A Thyristor (SCR)-200V 8A	1.37
22-10444-2 22-10445-9	G6005 G6006	T0-3 T0-3	Ge High Cur Pwr Transistor-PNP-70V 7A 90W Ge High Cur Pwr Transistor-PNP-65V 15A	2.80	22-14300-2 22-14305-1 22-14310-1	R1222 R1223 R1241	90 90 86	Thyristor (SCR)-400V 8A Thyristor (SCR)-600V 8A Thyristor (SCR)-50V 8A	2.30 5.10 3.00
22-10446-7	G6007	T0-3	170W Ge High Cur Pwr Transistor-PNP-200V 5A 56W	2.40	22-14315-0 22-14320-0	R1242 R1243	86	Thyristor (SCR)-100V 8A Thyristor (SCR)-200V 8A	3.43 3.52 3.77
22-10448-3 22-10449-1	G6009 G6010	T0-41 T0-36	Ge High Cur Pwr Transistor-PNP-80V 25A 106 Ge High Cur Pwr Transistor-PNP-75V 30A 170	W 720	22-14325-9 22-14330-9 22-14335-8	R1244 R1245 R1246	86 86 86	Thyristor (SCR)-300V 8A Thyristor (SCR)-400V 8A Thyristor (SCR)-500V 8A	3.77 3.91 6.90
22-10452-5 22-10390-7	G6012 G6013	T0-5 T0-3	Ge High Cur Pwr Transistor-PNP-100V 3A 20W	8.60	22-14340-8 22-14355-6	R1247 R1300	86 175	Thyristor (SCR)-600V 8A Thyristor (SCR)-25V 20A	9.20 3.50
22-10453-3 22-10392-3	G6015 G6016 G6018	TO-3	Ge High Cur Pwr Transistor-PNP-80V 10A 85W Ge High Current Pwr Transistor-PNP-30V 7A 57	6.98 N 2.14	22-14360-6 22-14365-5	R1301 R1302	175 175	Thyristor (SCR)-50V 20A Thyristor (SCR)-100V 20A	3.76 4.30
22-10454-1 22-13800-2 22-13810-1	P0001 P0002	T0-3 82 173	Ge High Cur Pwr Transistor-100v 10A 90W Si Phototransistor-NPN Si Phototransistor-NPN	5.50 4.22 1.96	22-14370-5 22-14375-4 22-14380-4	R1304 R1306 R1307	175 175 175	Thyristor (SCR)-200V 20A Thyristor (SCR)-300V 20A Thyristor (SCR)-400V 20A	5.50 6.35 7.80
22-13811-9 22-13830-9	P0003 P1001	171 TO-92	Si Phototransistor-NPN Si Darlington Amplifier Phototransistor-NPN	2.70	22-14400-0 22-14405-9	R1471 R1472	175 175	Thyristor (SCR)-50V 35A Thyristor (SCR)-100V 35A	5.35 6.20
22-13810-2 22-13811-9 22-13830-9 22-13850-7 22-13860-6 22-13870-5 22-13880-4 22-13881-2	P2000 P2001 P2002	171 234 171	Light-Emitting Diode Light-Emitting Diode InFrared-Emitting Diode	1.88	22-14410-9 22-14415-8	R1473 R1475	175 175	Thyristor (SCR)-200V 35A Thyristor (SCR)-400V 35A	7.40 10.75
22-13880-4 22-13881-2	P2003 P2004	171	Light-Emitting Diode Light-Emitting Diode (Diffused Lens)	2.30 1.26 .64	22-14435-6 22-14440-6 22-14445-5	R1721 R1722 R1723	90 90 90	Triac-50V 8A Triac-100V 8A Triac-200V 8A	1.75 2.00 2.15
22-13882-0 22-14010-7 22-14011-5 22-14012-3	P2005 R0050	234 00-41	Light-Emitting Diode Silicon Rectifier 50PIV 1 Amp	.64	22-14450-5 22-14470-3	R1725 R1781	90 175	Triac-400V 8A Triac-50V 25A	2.75 5.25
22-14011-5 22-14012-3 22-14013-1	R0051 R0052 R0053	D0-41 D0-41 D0-41	Silicon Rectifier, 100PIV 1 Amp Silicon Rectifier, 200PIV 1 Amp Silicon Rectifier, 400PIV 1 Amp	.40	22-14475-2 22-14480-2 22-14485-1	R1782 R1783 R1785	175 175 175	Triac-100V 25A Triac-200V 25A Triac-400V 25A	6.15 7.50 12.95
22-14013-1 22-14014-9 22-14015-6 22-14016-4	R0054 R0055	D0-41 D0-41	Silicon Rectifier, 600PIV 1 Amp Silicon Rectifier, 800 PIV 1 Amp	.55 .60 .68	22-14500-7 22-14501-5	R2001 R2002	T0-92 T0-92	Si Bidirectional Switch-8V 2A Si Bilateral Trigger Diode	1.26
	R0056 R0080 R0081	D0-41 70 70	Silicon Rectifier, 1000PIV 1 Amp Di Rectifier-50PIV 3A	1.76	22-14510-6 22-14515-5	R2021 R2500	T0-92 T0-92	Si Unidirectional Switch-8V 2A Si Voltage-Variable Capacitance Diode-	1.14
22-14030-5 22-14035-4	R0082 R0084	70	Si Rectifier-100PIV 3A Si Rectifier-200PIV 3A Si Rectifier-400PIV 3A	1.92 2,16 2.30	22-14520-5	R2501	T0-92	6.1 to 7.5 pf Si Voltage-Variable Capacitance Diode- 9.0 to 11.0 pf	.98
22-14020-5 22-14030-5 22-14030-5 22-14040-4 22-14045-3 22-14055-2 22-14060-2 22-14065-1 22-14065-1	R0086 R0090 R0091	70 60 60	Si Rectifier-600PIV 3A Si Rectifier-50PIV 3A Si Rectifier-100PIV 3A	3.56 1.98	22-14525-4	R2502	T0-92	Si Voltage-Variable Capacitance Diode- 13.5 to 16.5 pf	.82
22-14055-2 22-14060-2	R0092 R0094	60	Si Rectifier-200PIV 3A Si Rectifier-400PIV 3A	2.20 1.90 2.60	22-14530-4	R2503	TO-92	Si Voltage-Variable Capacitance Diode- 29.7 to 36.3 pf	.82
22-14065-1 22-14070-1 22-14075-0 22-14080-0	R0096 R0097 R0098	60 60 60	Si Rectifier-600PIV 3A Si Rectifier-800PIV 3A Si Rectifier-1000PIV 3A	2.98	22-14535-3	R2504 R2505	T0-92 T0-92	Si Voltage-Variable Capacitance Diode- 50.4 to 61.6 pf Si Voltage-Variable Capacitance Diode-	.98
22-14080-0 22-14085-9 22-14090-9	R0100 R0101	194 194	Si Rectifier-50PIV 6A Si Rectifier-100PIV 6A	3.90 1.34 1.44 1.56 1.74	22-14541-3	R3010	DO-41	90.0 to 110.0 pf Si Fast Recovery Rectifier-1200PIV 3 Microsec	.98 1.36
22-14090-9 22-14095-8 22-14100-6 22-14105-5	R0102 R0104 R0106	194 194 194	Si Rectifier-200PIV 6A Si Rectifier-400PIV 6A Si Rectifier-600PIV 6A	1.56	22-14543-7	R3012 R9001	D0-41	Si Fast Recovery Rectifier-1600PIV 1Amp 3 Microsec.	1.96
22-14110-5	R0130 R0131	D0-4 D0-4	Si Rectifier-50PIV 12A Si Rectifier-100PIV 12A	2.60 1.42 1.57	22-14551-0 22-14552-8	R9002 R9003	T0-92 T0-92 T0-92	Si Dual Diode-Common Cathode Si Dual Diode-Common Anode Si Dual Diode-Series Connected	.54 .54 .54 .52
22-14115-4	R0132 R0134	D0-4 D0-4	Si Rectifier-200PIV 12A Si Rectifier-400PIV 12A	1.65	22-14559-3 22-14560-1	R9134 R9135	T0-18 T0-18	Ge Diode	.52
22-14125-3 22-14130-3 22-14135-2	R0136 R0137 R0138	D0-4 D0-4 D0-4	Si Rectifier-600PIV 12A Si Rectifier-800PIV 12A Si Rectifier-1000PIV 12A	3.14 6.30 9.40	22-15045-2 22-15056-9 22-15057-7	\$0005 \$0008 \$0009	T0-92 T0-92 T0-92	Si General Purpose High Voltage Amp-NPN Si VHF Transistor 1st and 2nd Video IF-NPN Si VHF Transistor Mixer and 3rd Video IF-NPN	.52 .90 1.12 1.12
22-14140-2 22-14145-1	R0160 R0161	D0-5 D0-5	Si Rectifier-50PIV 15A Si Rectifier-100PIV 15A	3.04	22-15057-7 22-15058-5 22-15059-3 22-15051-0	S0010 S0011	T0-92 T0-18	Si VHF/UHF Transistor Mixer/Oscillator-NPN Si General Purpose Amp Si RF Transistor-PNP-150MHz 600mW	.95
22-14150-1 22-14155-0 22-14160-0	R0162 R0164 R0166	D0-5 D0-5 D0-5	Si Rectifier-200PIV 15A Si Rectifier-400PIV 15A Si Rectifier-600PIV 15A	3.40	22-15051-0 22-15052-8 22-15053-6	S0012 S0013 S0014	T0-5 T0-18 T0-5	Si RF Transistor-PNP-150MHz 600mW Si RF Transistor-PNP-200MHz 400mW Si RF Transistor-NPN-200MHz 600mW	1.28 1.48 1.12
22-14163-4 22-14164-8	R0170 R0180	D0-41 D0-41	Si Rectifier 1000PIV 2.5 Amp Si Rectifier 400 PIV 6 Amp	4.98 .30 1.10	22-15060-1	S0015	T0-92	Si General Purpose Transistor Low-Power Large-Signal-NPN	.90
22-14165-9 22-14166-7	R0220 R0220R	D0-21 D0-21	Si Rectifier-50PIV 25 A	1.38	22-15061-9	\$0016	TO-92	Si VHF/UHF Transistor FM and TV Mixer/ Oscillator-NPN	1.16
22-14170-9 22-14171-7 22-14175-8	R0222 R0222R R0250	D0-21 D0-21 D0-5	Si Rectifier-200PIV 25 A Reverse R0222 Si Rectifier-50PIV 35A	1.76 1.76 2.98	22-15054-4 22-15046-0	S0017 S0019	T0-72 T0-92	Si UHF Oscillator Mixer RF Amp-NPN Si General Purpose Medium Current Amp and Switch-PNP	1.42
22-14180-8 22-14185-7	R0251 R0253	D0-5 D0-5	Si Rectifier-100PIV 35A Si Rectifier-200PIV 35A	2.29	22-15062-7 22-15066-8	S0020 S0024	T0-92 T0-92	Si Transistor Low-Level Low-Noise-NPN	1.18
22-14190-7 22-14195-6	R0254 R0255	D0-5 D0-5	Si Rectifier-300PIV 35A Si Rectifier-400PIV 35A	3.60 4.40	22-15067-6 22-15068-4 22-15069-2	\$0025 \$0026 \$0027	T0-92 T0-92 T0-92	Si General Purpose Transistor Amp/Switch-NPN Si Gen Pur Transistor Audio Driver/Output-PNP	.98
22-14205-3 22-14218-6	R0256 R0257 R0600	D0-5 D0-5 D0-41	Si Rectifier-500PIV 35A Si Rectifier-600PIV 35A Si Fast Recovery Rectifier, 50PIV 1 Amp	5.20 5.90	22-15009-2	S0027	TO-92	Si High-Voltage Transistor Complement to S0028-NPN Si High-Voltage Transistor Complement to	1.38
22-14171-75-8 22-14180-8 22-14185-7 22-14195-7 22-14195-6 22-14200-4 22-14201-3 22-14218-6 22-14220-2 22-14222-8 22-14223-1 22-14231-9 22-14234-3 22-14234-3 22-14234-3 22-14235-0	R0602 R0604	D0-41 D0-41	Si Fast Recovery Rectifier, 200PIV 1 Amp Si Fast Recovery Rectifier, 400PIV 1 Amp	.96 1.18 1.28	22-15071-8	\$0029	TO-92	S0027-PN	1.58
22-14230-1	R0606 R0700 R0801	DO-41 TO-92A	Si Fast Recovery Rectifier, 600PIV 1 Amp Si UHF Diode (Hot-Carrier) Full Wave Bridge Rectifier-50PIV 1 Amp	1.78 1.16 1.48	22-15072-6	\$0030		Si High-Voltage General Purpose Transistor Amp/Mixer Driver-PNP General Purpose RF Amp-NPN	1.38
22-14232-7 22-14233-5	R0802 R0803	T0-92 108 108	Full Wave Bridge Rectifier-100PV 1 Amp Full Wave Bridge Rectifier-200PIV 1 Amp	2.36 1.98	22-15073-4 22-15074-2 22-15075-9	\$0031 \$0032 \$0033	T0-92 T0-92 T0-92 T0-92	General Purpose Amp-NPN Medium Speed Switch-PNP General Purpose-NPN	1.36 .98 1.38
22-14234-3 22-14245-9	R0804 R0805	108	Full Wave Bridge Rectifier-400PIV 1 Amp Full Wave Bridge Rectifier-600PIV 1 Amp	2.66	22-15076-7 22-15077-5 22-15078-3	S0034 S0035	TO-92 TO-92	Si Transistor Driver for CB Si Transistor 27 MHz Osc for CB	1.38
22-14235-0 22-14236-8 22-14237-6	R0841 R0842 R0843	216 216 216	Full-Wave Bridge Rectifier, 5UVolt 1.8Amp Full-Wave Bridge Rectifier, 100Volt 1.8Amp Full-Wave Bridge Rectifier, 200Volt 1.8Amp	2.46	22-15079-1	S0036 S0037	T0-92 T0-92	Gen. Pur. Amp NPN Gen. Pur. Amp PNP	.90
22-14238-4 22-14239-2	R0845 R0846	216 216	Full-Wave Bridge Rectifier, 400Volt 1.8Amp Full-Wave Bridge Rectifier, 600Volt 1.8Amp	2.86 2.96 3.58	22-15081-7 22-15082-5 22-15080-9	\$0038 \$0039	T0-92 T0-72	Lo Power Amp NPN VHF/UHF Lo Noise Amp	1.00
22-14240-0 22-14241-8 22-14242-6	R0875 R0876 R0877	179 179 179	Full-Wave Bridge Rectifier, 50Volt 12Amp Full-Wave Bridge Rectifier, 100Volt 12Amp Full-Wave Bridge Rectifier, 200Volt 12Amp	7.14 7.26 7.36	22-15080-9	\$3001 \$3002	T0-39	Si RF Power Transistor-NPN-65V 1A 5W P Out  © 500MHz  Si Medium Power Transistor-NPN-80V 5A 6W	3.72
5.48		Taja Ch	More Meteral		I Mary Edit			30MH7	9.95



# MOTOROLA HEP SEMICONDUCTORS Price Stock HEP Case Style Description

7.	Y	MU	1	JKULA HEP	DI
Stock No.		HEP No.	Case	Description	Price Each
22-15	090-8	\$3003	TO-39	Si Medium Power Transistor-PNP-80V	almen 1
22-15		\$3004	TO-39	Si RF Power Transistor-NPN-27MHz 3.4W	\$19.95
22-15		\$3005	145	Si RF Power Transistor-NPN-36V 1A 2W P out @ 175MHz	9.95
22-15	100-5	\$3006	145	Si RF Power Transistor-NPN-36V 3A 10W P out @ 175MHz	13.98
22-15		\$3007	145	Si RF Power Transistor-NPN-36V 5A 25W P out @ 175MHz	16.50
22-15	110-4	\$3008	T0-39	Si RF Power Transistor-NPN-55V 400mA 1.5W P out @ 400MHz	1.92
22-15	111-2	\$3009	145	Si RF Power Transistor-NPN-36V 6A 40W P out @ 175 MHz	22.85
22-15	115-3	\$3010	T0-39	Si Medium Power Transistor-NPN-70V 4A	9.95
22-15	116-1	\$3011	T0-39	Si Medium Power Transistor-NPN-70V 1A 1W- 100MHz Complement to S3012	1.90
22-15	117-9	\$3012	TO-39	Si Medium Power Transistor-PNP-70V-1A-1W 100MHz Complement to S3011	
22-15 22-15		\$3013 \$3014	T0-39 T0-39	Si RF Power Transistor-NPN-250MHz 3W Si RF Power Transistor-NPN-250MHz 3W	1.90
22-15 22-15	121-1	\$3019 \$3020	152	Si High Voltage Audio Amp-NPN Medium Power Transistor-NPN-60V 1A 5W-150MH	2.56
22-15	125-2	S3021	152 Si	High Voltage Transistor-NPN-250V 1A 5W-100MHz	1.84
22-15 22-15	160-9	\$3024 \$3028	152 Si 152	General Purpose Amp-NPN-35V 1.5A 8W-50MHz Si General Purpose Amp-PNP-35V 1.5A 8W-	
22-15	196-3	\$3032	152	50MHz Si Medium Power Transistor-PNP-100V 2A	
22-15	197-1	S3033	T0-39	10W-100MHz Si Medium Power Transistor-NPN-160V 100mA	1.90
22-15	198-9	S3034	TO-39	1W-110MHz Si Medium Power Transistor-NPN-210V 100mA	1.90
22-15	199-7	\$3035	T0-39	1W-110MHz Si Medium Power Transistor-NPN-270V 100mA	1.50
22-15	200-3	\$3036	211 Si	1W-110MHz RF Power Transistor NPN 20W(PEP) 30MHz	1.32
22-15		\$3037	211	Si RF Power Transistor NPN 65W(PEP)	26.10
22-15		\$3038 \$3039	TO-39 145A	STAF Power Transistor NPN 2W(PEP)150MHz Si RF Power Transistor NPN 15W(PEP)	2.89
22-15		\$3040	145A	150MHz Si RF Power Transistor NPN 28W(PEP)	9.79
22-15		\$3041	145A	150MHz Si RF Power Transistor NPN 40W(PEP)	13.73
22-15	206-0	\$3042	TO-39	150MHz Si Transistor, CB Driver Stage	20.60 1.96
22-15 22-15	208-6	S3043 S3044	152 77	Si Transistor, CB Driver Stage Si RF Power Transistor, CB Final Si RF Power Transistor, CB Final 27 MHz RF Power Output RF Power, 80 W., 150MHz	2.40 2.80
22-15	210-2	S3045 S3046	77	27 MHz RF Power Output RF Power, 80W, 150MHz	2.80 45.00
22-15	211-0	S3047 S3048	199 199	Duowatt Amp NPN Duowatt Hi Voltage Amp NPN	1.70 1.98
22-15 22-15	213-6	\$3049 \$3050	199 199	Duowatt Hi Voltage Amp NPN Duowatt Amp PNP	1.80
22-15	216-9	\$3051 \$5000	199	Duowatt Hi Voltage Amp NPN General Purpose Power Amp-NPN-80V 4A 40W	2.60
22-152	215-1	\$5004	90 Si	General Purpose Power Amp-NPN-90V 7A 90W	2.72
22-15; 22-15;	225-0	\$5005 \$5006		i General Purpose Power Amp-PNP-80V 4A 40W	
22-152 22-152 22-152	47-4	\$5006 \$5011 \$5012	T0-66	Si Pwr Transistor-NPN-300V 500mA 10W Si High Power Transistor-NPN-160V 5A 40W Si Med Power Transistor-PNP-60V 3 6W (Comp. to 243)	2.57
22-152		\$5013	TO-5	(Comp. to 243)	1.85
22-152		S5014	TO-5	Si Med Power Transistor-NPN-60V 3A 6W (Comp. to 242)	1.75
22-152		S5015 S5018	77 Si TO-66	High Voltage Pwr Transistor-NPN-300V 500mA Si General Purpose Audio Amp-PNP	2.06 5.25
22-15	252-4	\$5019 \$5020	T0-66 T0-3	Si Ganaral Purnose Audio Amn-NPN	1.80 7.96
22-15 22-15	254-0	\$5021 \$5022	TO-3 TO-18	Si High Voltage High Pwr-NPN 400V 10Amp) Si High Voltage High Pwr-NPN 700V 3.5Amp) Si Low Pwr FI Amp-PNP Si Low Freq RF and Audio Amp-PNP	7.96
22-15	256-5	\$5023 \$5024	T0-5 T0-39	Si Low Freq RF and Audio Amp-PNP Si General Purpose Audio Amp-NPN	1.38 1.74 3.24
22-15	258-1	\$5025 \$5026	TO-5 TO-5	Si Low Freq Oscillator Mixer RF Amp (NPN) Si Low Freq Oscillator Mixer RF Amp (NPN)	3.25 2.56
22-15: 22-15:	262-3	\$5027 \$5028	77	Si Power Audio Transistor, NPN Si Power Audio Transistor, PNP	2.08
22-15	345-6	\$7000	TO-3 Si	High Power Transistor-NPN-100V 30A 200W High Power Transistor-PNP-100V 30A 200W	
22-15: 22-15:	350-6 351-4	\$7001 \$7002	TO-3	Si High Power Transistor-NPN-70V 10A 150W	3.62
22-15: 22-15:	252 N	\$7003 \$7004	TO-3	Si High Power Transistor-PNP-70V 10A 150W Si General Purpose Audio Amp NPN	3.96
22-15 22-15	370-4	\$7005 \$9001	TO-92	High Voltage High Power-NPN-(1400 Volts 2.5 Amp Programmable Unijunction Transistor (unijunction	1
22-153	cteristic 871-2	s can be altered	TO-92	mmed) by changing gate bias and supply resistors) Si Unijunction Transistor 300mW	1.28
22-153		\$9101	T0-92	Si Darlington Amp-NPN Si Darlington Amp-NPN-60V 4A 40W	1.58
22-153 22-153	387-8	S9102 S9103	90 152	Si Darlington Amp-NPN-60V 5A 70W Medium Power Darlington Amp-NPN	1.30
22-15; 22-15;	391-0	S9120 S9121	T0-92	Si Darlington Amp-PNP Si Darlington Amp-PNP-60V 4A 40W	2.36
22-15: 22-15:	393-6	\$9122 \$9123	90	Si Darlington Amp-PNP-60V 5A 70W Medium Power Darlington Amp-PNP Si Darlington Amp-NPN-60V 5A 90W	3.18
22-15: 22-15:	395-1 196-9	S9141	T0-3 T0-3	Si Darlington Amp-PNP-60V 5A 90W	3.78 5.18
22-15: 22-15:	397-7	\$9143	T0-3 T0-3	Si Darlington Amp-NPN-100V 16A 150W Si Darlington Amp. PNP-100V 16A 150W	12.98
22-20:	300-4 305-3	Z0206 Z0208	TO-92A TO-92A	3.3 Volt Zener Diode 500mW	.50
22-20:	310-3 315-2	Z0210 Z0211	TO-92A TO-92A	5.1 Volt Zener Diode 500mW	.50
22-20	320-2	Z0212 Z0214	TO-92A TO-92A	6.2 Volt Zener Diode 500mW	.50
22-20 22-20 22-20	331-9	Z0215 Z0216	TO-92A TO-92A	6.8 Volt Zener Diode 500mW 7.5 Volt Zener Diode 500mW	.50
22-20:	335-0 340-0	Z0217 Z0219	TO-92A TO-92A	8.2 Volt Zener Diode 500mW 9.1 Volt Zener Diode 500mW	.50
22-20 22-20 22-20	345-9 350-9	Z0210 Z0211 Z0211 Z0212 Z0214 Z0215 Z0216 Z0217 Z0219 Z0220 Z0222	TO-92A TO-92A	10 Volt Zener Diode 500mW 12 Volt Zener Diode 500mW	.50
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No.	No.	Style	Description	Each
22-20355-8	Z0225 Z0228 Z0230 Z0231	TO-92A	15 Volt Zener Diode 500mW	\$0.50
22-20360-8 22-20365-7	Z0228	TO-92A TO-92A TO-92A	18 Volt Zener Diode 500mW 20 Volt Zener Diode 500mW	.50
22-20370-7	20231	TO-92A	22 Volt Zener Dinde 500mW	.50
22-20375-6	/11/34	TO-92A	27 Volt Zener Diode 500mW	.50
22-20380-6 22-20381-4 22-20401-0	Z0254 Z0255 Z0401	TO-92A TO-92A	130 Volt Zener Diode 500mW 140 Volt Zener Diode 500mW	.50
22-20401-0	20255	DO-41	3.3 Volt Zener Dinde 1 Watt	.85
22-20402-8	Z0402	D0-41	3.6 Volt Zener Diode 1 Watt	.85
22-20403-6	Z0403 Z0405	D0-41 D0-41	3.9 Volt Zener Diode 1 Watt 4.7 Volt Zener Diode 1 Watt	.85
22-20405-1 22-20406-9	Z0405 Z0406	D0-41	5.1 Volt Zener Diode 1 Watt	.85
22-20A07-7	7114117	D0-41	5.6 Volt Zener Diode 1 Watt 6.2 Volt Zener Diode 1 Watt	.85
22-20408-5 22-20409-3 22-20410-1	Z0408 Z0409 Z0410	D0-41 D0-41	6.2 Volt Zener Diode 1 Watt 6.8 Volt Zener Diode 1 Watt 7.5 Volt Zener Diode 1 Watt	.85
	Z0410	D0-41		.85
22-20411-9 22-20412-7	Z0411 Z0412	D0-41 D0-41	8.2 Volt Zener Diode 1 Watt 9.1 Volt Zener Diode 1 Watt	.85
22-20412-7	20412	00-41	10 Volt Zener Diode 1 Watt	.85
22-20414-3	Z0414	D0-41	11 Volt Zener Dinde 1 Watt	.85
22-20415-0 22-20416-8	Z0415	D0-41 D0-41	12 Volt Zener Diode 1 Watt 13 Volt Zener Diode 1 Watt 14 Volt Zener Diode 1 Watt	.85
22-20417-6	Z0416 Z0417	DO-41	14 Volt Zener Diode 1 Watt	.85
22-20418-4	Z0418	00-41	15 Volt Zener Diode 1 Watt	.85
22-20419-2 22-20420-0	Z0419 Z0420 Z0421 Z0422 Z0423 Z0424 Z0425 Z0426 Z0427 Z0428	D0-41 D0-41	16 Volt Zener Diode 1 Watt 18 Volt Zener Diode 1 Watt	.85
22-20421-8	Z0421	D0-41	20 Volt Zener Diode 1 Watt	.85
22-20421-8 22-20422-6 22-20423-4	70422	D0-41 D0-41	20 Volt Zener Diode 1 Watt 22 Volt Zener Diode 1 Watt 24 Volt Zener Diode 1 Watt 27 Volt Zener Diode 1 Watt	.85
22-20424-2	Z0424	DO-41	27 Volt Zener Diode 1 Watt	.85
22-20425-9	Z0425	D0-41	78 Volt Zener Diode 1 Watt	.85
22-20426-7 22-20427-5	Z0420 Z0427	D0-41 D0-41	36 Volt Zener Diode 1 Watt	.85
22-20428-3	Z0428	DO-41	39 Volt Zener Diode 1 Watt	.85
22-20430-9 22-20432-5	Z0430 Z0432	D0-41 D0-41	47 Volt Zener Diode 1 Watt 56 Volt Zener Diode 1 Watt	.85
22-20433-3	Z0432 Z0433	D0-41	62 Volt Zener Diode 1 Watt	.85
22-20436-6	ZU436	D0-41	82 Volt Zener Dinde 1 Watt	.85
22-20438-2 22-20439-0	Z0438 Z0439	D0-41 D0-41	100 Volt Zener Diode 1 Watt 110 Volt Zener Diode 1 Watt 120 Volt Zener Diode 1 Watt	.85
22-20440-8	Z0440	D0-41	120 Volt Zener Diode 1 Watt	.85
22-20442-6	Z0442 Z0444	D0-41 D0-41	150 Volt Zener Uiode 1 Watt	.85
22-20444-4 22-20445-9	Z0444 Z0445	00-41	200 Volt Zener Diode 1 Watt	.85
22-20595-9	Z2500	17	3.3 Volt Zener Diode 5 Watt	1.78
22-20600-7 22-20605-6	Z2502 Z2504	17 17	3.9 Volt Zener Diode 5 Watt 4.7 Volt Zener Diode 5 Watt	1.78 1.78
22-20605-6 22-20610-6	Z2504 Z2506 Z2508	17	5.6 Volt Zener Diode 5 Watt	1.78
22-20615-5 22-20620-5	Z2508 Z2510	17	6.2 Volt Zener Diode 5 Watt 7.5 Volt Zener Diode 5 Watt	1.78
22-20625-4	Z2513	17 17 17	9.1 Volt Zener Diode 5 Watt	1.78
22-20630-4 22-20635-3	Z2513 Z2514 Z2516	17	10 Volt Zener Diode 5 Watt 12 Volt Zener Diode 5 Watt	1.78 1.78
22-20640-3	72519	17	15 Volt Zener Diode 5 Watt	1.78
22-20645-2 22-20650-2	Z2522	17 17	18 Volt Zener Diode 5 Watt	1.78
22-20650-2	Z2522 Z2525 Z2526 Z2528	17	22 Volt Zener Diode 5 Watt 24 Volt Zener Diode 5 Watt	1.78
22-20651-0 22-20655-1	72528	17	27 Volt Zener Diode 5 Watt	1.78
22-20659-3 22-20660-1	Z2530 Z2531 Z2537	17	30 Volt Zener Diode 5 Watt	1.78
22-20665-0	72537	17	33 Volt Zener Diode 5 Watt 56 Volt Zener Diode 5 Watt	1.78
22-20670-0	72542	17	82 Volt Zener Diode 5 Watt	1.78
22-20675-9 22-20680-9	Z2545 Z2547 Z2548	17	100 Volt Zener Diode 10 Watt 120 Volt Zener Diode 10 Watt	1.78
22-20681-7	Z2548	17	120 Volt Zener Diode 10 Watt 130 Volt Zener Diode 10 Watt	1.78
22-20684-1 22-20700-5 22-20705-4	Z2551	17	160 Volt Zener Diode 10 Watt	1.78
22-20700-5	Z3500 Z3502	D0-4 D0-4	3.9 Volt Zener Diode 10 Watt 4.7 Volt Zener Diode 10 Watt 5.6 Volt Zener Diode 10 Watt	3.60
22-20/10-4	Z3504	D0-4	5.6 Volt Zener Diode 10 Watt	3.60
22-20715-3 22-20720-3	Z3505 Z3507	D0-4 D0-4	6.2 Volt Zener Diode 10 Watt 7.5 Volt Zener Diode 10 Watt	3.60 3.60
22-20725-2 22-20730-2	Z3511 Z3512	00-4	9.1 Volt Zener Diode 10 Watt	3.60
22-20730-2	Z3512	00-4	10 Volt Zener Diode 10 Watt	3.60
22-20735-1 22-20740-1	Z3514 Z3516	D0-4 D0-4	12 Volt Zener Diode 10 Watt 15 Volt Zener Diode 10 Watt	3.60 3.60
22-20745-0	Z3518	D0-4	18 Volt Zener Diode 10 Watt	3.60
22-20750-0	Z3520	D0-4 D0-4	22 Volt Zener Diode 10 Watt 27 Volt Zener Diode 10 Watt 33 Volt Zener Diode 10 Watt	3.60 3.60
22-20755-9 22-20760-9	Z3522 Z3524 Z3530	D0-4	27 Volt Zener Diode 10 Watt 33 Volt Zener Diode 10 Watt	3.60
22-20765-8	Z3530	D0-4	56 Volt Zener Diode 10 Watt	3.60
22-20770-8 22-20775-7	Z3534 Z3536	D0-4 D0-4	82 Volt Zener Diode 10 Watt 100 Volt Zener Diode 10 Watt	3.60 3.60
_		The second second	uide and Catalog. Each	\$1.00
10-01110-0.0	0001 61022	mererence u	uluo alla vatalog. Labil	91.00





LIGHT EMITTING DIODES

All are similar to 234 except P2005 is case 279. High brightness red LEO's, except P2002 output is invisible for photocell detection, P2004 has diffused lens.

Stock No.	Motorola No.	Rev. Volts	Fwd. MA	Brightness (FL)	Dia. Inches	Each
22-13850-7	P2000	4.	50	1100	.15	\$1.88
22-13860-6	P2001	3.	40	750	.075	1.50
22-13870-5 22-13880-4	P2002 P2003	and 3. votes	40 80 50 20	50	.15	2.30
22-13881-2	P2004	4	20	750	075	.64
22-13882-0	P2005	4	60	750	20	.64

#### MOTOROLA MOUNTING ACCESSORIES

Stock No.	Motorola No.	Description	Each
22-10950-8	A0450	Transistor Mounting Kit—T03	\$0.66
22-10951-6	A0451	Integrated Circuit Socket (Pkg. of 2) 10 Pin	2.86
22-10952-4	A0452	Transistor Mounting Kit—T0-66	.66
22-10953-2	A0453	Integrated Circuit Socket 14 Pin	.52
22-10954-0	A0454	IC Socket—8 Pin—Pkg. of 2	2.00
22-10955-7	A0455	TO-36 Mounting Kit	.66
22-10956-5	A0456	Mounting Kit 18"Stud	.60
22-10957-3	A0457	Mounting Kit 11" Stud	.66 .60 .62 1.50
22-07200-3	A0458	Integrated Circuit Socket 16 Pin	1.50
22-11000-1	A0500	Heat Sink—TO-3	6.50
22-11001-9	A0501	Heat Sink—T0-36	5.40
22-11002-7	A0502	Heat Sink—T0-5	.80

Motorola Case Styles are on Page 108

# MOTOROLA

## MOTOROLA SEMICONDUCTOR MANUALS



The Motorola library consists of soft bound books and paper back brochures. Average shipping weight ½ lb. each

Motorola HEP Semiconductor Cross Reference Guide and Catalog, contains descriptions and package details of all HEP devices and 85 page cross reference

Field Effect Transistor Projects Manual. Easy to build FET projects with parts

No. 16-00894-8. Motorola B0410. Silicon Rectifier Handbook. Each \$4.00 No. 16-00895-5. Motorola B0413. Zener Diode Handbook. Each ... \$4.50 No. 16-01117-3. Motorola HMA32. Tips on Using 1C's. Brochure. No. 16-00897-1. Motorola HMA33. Tips on Using FET's, Brochure.

Each ..... FREE

MOTOROLA EXPERIMENTERS KITS

HEK-1 Integrated Circuit Experimenter Kit. Includes 5 RTL integrated circuits (1 each HEP 581 4-input Gate, HEP 582 dual buffer, HEP 583 J-K flip-flop, and 2 HEP 580 (dual 2-input gates). 22-10480-6 Motorola HEK-1. Complete Kit ....\$15.90

HEK-2 FET Experimenters Kit. Includes 1 N-channel audio FET, 1 N-channel RF FET, 1 NPN silicon transistor, 1 PNP silicon transistor, FET cross reference guide, tips on using FET's and 9 interesting and useful FET projects circuits

22-10485-5 Motorola HEK-2. Complete Kit ..... \$4.70

HEK-3 Radio Amateur's IC Projects Kit. Includes: 2 HEP 590 RF-IF Linear IC's, 1 HEP 570 Quad, 2-Input Positive Logic NOR Gate and 10 projects to build.

22-10490-5 Motorola HEK-3. Complete Kit. ..... \$7.25

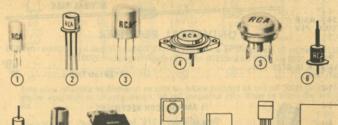
HEK-4 Home Construction Projects Kit. Includes: 1 Silicon controlled Rectifier, 1 Unijunction, 1 Photodiode, 1 Silicon Rectifier and 1 Silicon NPN Transistor.

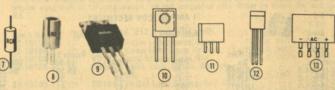
22-10495-4

Motorola HEK-4. Complete Kit ..... \$5.95



#### RCA TOP-OF-THE-LINE SOLID STATE DEVICES FOR HOBBYIST, EXPERIMENTER & SERVICE TECHNICIANS





Description

Stock No. RCA No. Fig.

22-15430-6	SK3003	1	Germanium PNP AF Output, Driver, Low Level Amp. to 9V	\$0.99
22-15435-5	SK3004	1	Germanium PNP AF Output, Driver, Low Level Amp. to 15V	1.14
22-15440-5	SK3005	1	Germanium PNP RF Amp., Converter, IF Amp. AM 12V	1.17
22-15445-4	SK3006	2	Germanium PNP RF Amp., IF Amp., Converter AM-FM 108	di Jan
22 45450 4	CM2007	-	MHz, 15V.	1.41
22-15450-4	SK3007	3	Germanium PNP RF Amp., 'IF Amp., Converter to 30 MHz	1.26
22-15455-3	SK3008	1	Germanium PNP RF Amp., IF Ampl. Converter Auto Radio	1.23
22-15460-3	SK3009	4	Germanium PNP AF Audio Output Auto Output Auto Radios.	1.20
22-13400-5	0113003		Hi-Fi Amps.	2.34
22-15465-2	SK3010	1	Germanium NPN Class A Voltage Amp. & Driver 15 V.	1.26
22-15470-2	SK3011	1	Germanium NPN RF Amp., IF Amp., Converter AM 18 V.	1.62
22-15475-1	SK3012	5	Germanium PNP Audio Output Auto Radios 5 W.	2.88
22-15495-9	SK3016	6	Silicon Rectifier 500V @ 1 Amp.	.57
22-15510-5	SK3018	2	Silicon NPN VHF TV Tuners, TV IF Amp., FM Tuner 25 V. Silicon NPN UHF TV Oscilator 25 V.	1.35
22-15515-4 22-15520-4	SK3019 SK3020	2 2	Silicon NPN AF Amp. & Driver 25 V.	1.32
22-15525-3	SK3021	4	Silicon NPN AF Output for AC Radios, etc., to 120 VDC 1 W	1.32
22-10020-0	SKJUZI		output	1.95
22-15540-2	SK3024	2	Silicon NPN Audio Driver to 80 Volts	1.98
22-15545-1	SK3025	2	Silicon PNP Audio Driver to 80 Volts	2.70
22-15550-1	SK3026	4	Silicon NPN Audio Output 40V.	1.80
22-15555-0	SK3027	4	Silicon NPN Audio Output to 80 Volts	3.15
22-15565-9	SK3029 SK3030	4 7	Matched Pair SK3027 Class B output 40W. Silicon Rectifier 200 Volt 1 Amp.	6.30
22-15570-9 22-15580-8	SK3032	7	Silicon Rectifier 800 Volt 1 Amp.	.61
22-15585-7	SK3033	6	Silicon Rectifier 1000 Volt 1 Amp.	.81
22-15595-6	SK3035	4	Germanium PNP TV Horizontal-Deflection-Output 36 V.	5.49
22-15600-4	SK3036	4	Silicon NPN AF Power Transistor 80 V.	5.85
22-15610-3	SK3038	2	Silicon NPN AF Preamplifier 18 V.	1.44
22-15620-2	SK3040	8	Silicon NPN Video Output 140 V.	2.25
22-15625-1	SK3041	9	Silicon NPN AF Power Transistor 18 V.	5.58
22-15660-8 22-15680-6	SK3048 SK3052	2	RF-Output Stages for CB Transmitter to 12 Volts TO-66 Germanium PNP A.F. Output to 18V.	2.35
22-15690-5	SK3054	9	si NPN AF Driver, Output to 50V.	2.70
22-15825-7	SK3081	7	Silicon Rectifier, 1000V 2 Amp. Insulated Case	.90
22-15831-5	SK3087	7	IN34A Germanium Signal Diode 60 V. 50mA	.33
22-15832-3	SK3088	7	INCO Compaium Cianal Diada 25 V 50mA	3.3
22-15833-1	SK3089	7		.96
22-15834-9	SK3090	7	IN270 Germanium Signal Diode 80 V. 90mA IN295 Germanium Video Det. Diode 40V. 35mA AF Output 120V 1W	.29
22-15835-6	SK3091	7	AF Output 120V 1W	1 80
22-15847-1 22-15848-9	SK3103 SK3104		AF Video Output Color Amo for TV	2 90
22-15849-7		13	Full Wave Bridge Silicon Rect 100V 2A	1.35
22-15855-4	SK3111	4	AF Video Output, Color Amp. for T.V. Full Wave Bridge Silicon Rect. 100V. 2A Hor. Output for T.V., 100 V.P.S. Small Sin, I. Noise AF Preamo 40V	8.55
22-15856-2	SK3112	12		1.35
22-15858-8	SK3114	8	Small Sig. Lo Noise A.F., Preamp 55V.	1.45
22-15859-6	SK3115	4	Hor. Output for T.V., 150 V.P.S.	9.90
22-15860-4	SK3116	2	RF Amp and Mixer for FM or AM, 15V.	1.30
22-15863-8 22-15866-1	SK3119 SK3122	8	Dual Diode Arrays for T.V. and FM Selenium AF and RF Amp. for AM, FM, Hi-Fi, 65V.	1.30
22-15868-7	SK3124		Silicon NPN, AF Driver/Output, 30 V	1.30
22-15917-2	SK3503		Silicon NPN, AF Driver/Output, 30 V SCR 600V, 7 Amp Gate 2 V 15 MA	1.42
22-15937-0		7	Silicon Thyristor Trigger Diode	.92
16A1122 1 6	ex Carica	Panla	Silicon Thyristor Trigger Diode cement Guide. Each	\$1.00
With Order of	f \$10.00 a	uebia	e	FREE
TTICH DING! O	. 4.4.00 0			DESCRIPTION OF

### MALLORY FULL WAVE **BRIDGE RECTIFIERS**

Rated at 2 amperes. Size .687 X .468 X .25. Black molded insulated case.

Stock	Mallory		1-99	100 Up
No.	No.	PIV	Each	Each
22-10260-2	FW50	50	\$1.17	\$0.78
22-10270-1	FW100	100	1.21	.81
22-10280-0	FW200	200	1.27	.85
22-10290-9	FW300	300	1.33	.89
22-10300-6	FW400	400	1.50	1.00
22-10320-4	FW600	600	1.66	1.11

#### MALLORY UNIVERSAL RECTIFIER

Replaces all axial lead rectifiers rated up to  $2\frac{1}{2}$  amps and 1000 V. (PIV). Covers all 600 mA, 750 mA, 1000 mA, 2000 mA, and 2500 mA units, with voltages ranging from 50 PIV to 1000 PIV.

10 Lots 59c 49c Each...

#### MALLORY SILICON ZENER DIODES

All types rated at 25° C. 1 watt. Tolerance 10%. .405" long X .24" dia. with 1 ¼" leads.

		Nom.	IZT	ZZT at			Nom.	IZT	ZZT at	STATE AS AT THE SE	門 智能 重佈 持續	Nom.	IZT	ZZT at
Stock	Mallory	Zener	Test	IZT	Stock	Mallory	Zener	Test	IZT	Stock	Mallory	Zener	Test	IZT
No.	No.	Volts	mA	Ohms	No.	No.	Volts	mA	Ohms	No. 22-20895-3	No.	Volts	mA	Ohms
22-20795-5	ZB6.8A	6.8	37	3.5	22-20845-8	ZB18A	18	14	20	22-20895-3	ZB47A	47	5.5	80
22-20800-3	ZB7.5A	7.5	34	4.0	22-20850-8	ZB20A	20	12.5	22	22-20900-1	ZB51A	51	5.0	95
22-20805-2	ZB8.2A	8.2	31	4.5	22-20855-7	ZB22A	20	11.5	23	22-20905-0	ZB56A	56	4.5	110
22-20805-2 22-20810-2	ZB9.1A	9.1	28	5.0	22-20860-7	ZB24A	24	10.5	25	22-20910-0	ZB51A ZB56A ZB62A ZB68A ZB75A	51 56 62 68	4.0	125
22-20815-1	ZB10A	10	25	7	22-20865-6	ZB27A	27	9.5	35	22-20915-9	ZB68A	68	3.7	150
22-20815-1 22-20820-1	ZB11A	11	23	8	22-20870-6	ZB30A	30	8.5	40	22-20920-9	ZB75A	15	3.3	175
22-20825-0	ZB12A	12	21	9	22-20875-5	ZB33A	33	7.5	45	22-20925-8	ZB82A ZB91A	82 91	3.1	200 250 350
22-20830-0	ZB13A	13	19	10	22-20880-5	ZB36A	36	7.0	60	22-20930-8	ZB91A	91	2.8	250
22-20835-9	ZB15A	15	17	14	22-20885-4	ZB39A	39	6.5	60	22-20935-7	ZB100A	100	2.5	350
22-20840-9	ZB16A	16	15-5	16	22-20890-4	ZB43A	43	6.0	70					

Price

## I.R. SEMICONDUCTORS

#### INTERNATIONAL RECTIFIER SILICON RECTIFIERS

ACTUAL SIZE

21/2 AMP

#### UNIVERSAL RECTIFIER

Exact replacement for Mallory M2.5A or Motorola HEP170. Replaces all axial lead rectifiers rated 600 , 750 mA, 1000 mA, 2000 mA and 2500 mA, with voltages ranging up to 1000 PIV. 14162-6. IR R170. Each 49° 20 Lots Each



#### 1 AMP SILICON RECTIFIERS

Body 205" dia. X 375" long. Molded.

Stock No. 22-00844-5 22-00851-0 22-00856-9	Int. Rect. No. 1 N2069 1 N2070 1 N2071	PRV 200 400 600	1-9 \$0.34 .39 .47	Prices Each 10-99 \$0.30 .34 .41	100 Up \$0.25 .29 .35
		CON Sources	o June 1911	100-1	

		3-AMP SILII 205" dia Le	con RECTIFI		
Stock No. 22-5526-3 22-5529-7 22-5530-5 22-5531-3 22-5533-9	Int. Rect. No. 30S1 30S2 30S4 30S6 30S10	PRV 100 200 400 600 1000	1-49 \$0.47 .51 .60 .70	Prices Each 50-99 \$0.41 .45 .53 .61	100 Up \$0.35 .38 .45 .52

#### STUD MOUNT RECTIFIERS

Hermetically sealed, ¼-28 stud. Standard polarity-cathode connected to stud. Reverse polarity-anode connected to stud. Mounting hardware not included. See listing below.

STANDARD POLARITY										
Stock No.	IR Numbers	Volt	Rating	Current	1-49	Prices Each 50-99	100 Up			
22-05625-3 22-05635-2	40HF5 40HF10	100	35 70	40 40	\$1.63	\$1.43 1.79	\$1.22			
22-05645-1 22-05655-0	40HF20 40HF40	200	140	40 40	2.99	2.61 4.07	2.23			
22-05665-9 22-05800-2	40HF60 70H10A	600	420	40 70	6.30	5.49 3.49	4.68			
22-05810-1 22-05820-0	70H20A 70H40A	200	140	70	5.30	4.60	3.90			
22-05830-9	70H60A	600	280 420	70 70	7.61 9.98	6.63 8.69	5.65 7.40			
REVERSE POLARITY										
					1	BOOK B				
Stock No.	IR Numbers	Volt PRV	RSE POLA Rating RMS	Current AMPS	1-49	Prices Each	100 Un			
22-05630-3	40HFR5	Volt PRV 50	Rating RMS 35	Current AMPS 40	1-49 \$1.63	50-99 \$1.43	100 Up \$1.22			
22-05630-3 22-05640-2 22-05650-1	40HFR5 40HFR10 40HFR20	Volt PRV 50 100 200	Rating RMS 35 70 140	Current AMPS 40 40 40	\$1.63 2.05 2.99	50-99 \$1.43 1.79 2.61	\$1.22 1.52 2.23			
22-05630-3 22-05640-2 22-05650-1 22-05660-0 22-05670-9	40HFR5 40HFR10	Volt PRV 50 100	Rating RMS 35 70	Current AMPS 40 40 40 40	\$1.63 2.05 2.99 4.67	50-99 \$1.43 1.79 2.61 4.07	\$1.22 1.52 2.23 3.47			
22-05630-3 22-05640-2 22-05650-1 22-05660-0 22-05670-9 22-05805-1	40HFR5 40HFR10 40HFR20 40HFR40 40HFR60 70HR10A	Volt PRV 50 100 200 400 600 100	Rating RMS 35 70 140 280 420 70	Current AMPS 40 40 40 40 40 70	\$1.63 2.05 2.99 4.67 6.30 3.99	50-99 \$1.43 1.79 2.61 4.07 5.49 3.49	\$1.22 1.52 2.23 3.47 4.66 2.98			
22-05630-3 22-05640-2 22-05650-1 22-05660-0 22-05670-9	40HFR5 40HFR10 40HFR20 40HFR40 40HFR60	Volt PRV 50 100 200 400 600	Rating RMS 35 70 140 280 420	Current AMPS 40 40 40 40 40	\$1.63 2.05 2.99 4.67 6.30	50-99 \$1.43 1.79 2.61 4.07 5.49	\$1.22 1.52 2.23 3.47 4.66			

#### "BASIC 16" UNIVERSAL POWER RECTIFIERS

Eliminate costly breakdown delays with these stock rectifiers. The Basic 16 devices are specifically selected to satisfy the vast majority of replacement requirements for industrial electronic equipment. They correctly replace over 1.000 types listed in the alpha-numeric cross reference below. You may order by your rectifier number if you don't know the correct replacement number.

Stock No.	Part No.	Polarity	AMP	PRV	Each
22-05651-9	40HF30	Fwd.	40	300	\$3.83
22-05652-7	40HFR30	Rev.	40	300	3.83
22-05665-5	40HF60	Fwd.	40	600	6.30
22-05670-9	40HFR60	Rev.	40	600	6.30
22-05816-8	70H30A	Fwd.	70	300	6.46
22-05817-6	70HR30A	Rev.	70	300	6.46
22-05830-9	- 70H60A	Fwd.	70	600	9.98
22-05835-8	70HR60A	Rev.	70	600	9.98
22-05840-8	150K30A	Fwd.	150	300	21.53
22-05841-6	150KR30A	Rev	150	300	21.53
22-05850-7	150K60A	Fwd.	150	600	30.79
22-05851-5	150KR60A	Rev.	150	600	30.79
22-05860-6	300U30A	Fwd.	300	300	27.83
22-05861-4	300UR30A	Rev.	300	300	27.83
22-05865-5	300U60A	Fwd.	300	600	43.05
22-05866-3	300UR60A	Rev.	300	600	43.05
22-05870-5	40-1361*	The second	THE PARTY OF THE P	A Primar Bi	.49
22-05871-3	* STA-LOK	The state of the s		***	3.95

\*40-1361 adapter is used for converting the 150 amp %-24 UNF-2A (150K and 150KR) stud to a ½-20 UNF-2A stud. STA-LOK chemical sealant cures in room temperature. It locks the adapter to the stud of the 150 amp devices.

JD 653A. Alpha-Numeric Rectifier Cross Reference Brochure ...... FREE 16-01266-8

#### RECTIFIER MOUNTING HARDWARE



#### **WORKMAN IR RECTIFIER 4 AMP RMS SCR's**

Plastic case. Mtg. tab internally connected to anode 1.2" long X .38" wide overall including leads. Mtg. tab .5" long with .12" hole. Body

3 long.							200
Stock No.	Int. Rect.	Reverse Voltage	Gate Firing	Require MA	ments 1-9	Prices Each 10-99	100 Up
22-12540-5	IR106Y 1	30	1	.5	\$0.79	\$0.68	\$0.56
22-12530-6	IR106F 1	50	1	.5	.82	.70	
22-12500-9	IR106A 1	100	1	.5	.85	.73	.61 .64 .66
22-12510-8	IR106B 1	200	1	.5	.95	.81	.66
22-12520-7	IR106C 1	300	1	.5	1.18	1.01	.83

#### **IR2160 UNIJUNCTION TRANSISTOR**

Provides accurate timing and Rating 400 MW, 30 V, max.	triggering	for Silicon	Controlled	Rectifier	circuits.
No. 22-12560-3. I.R. No. IR 2160.	1-4 Each	\$1.4	9 5-9 Eac	h	. \$1.35
10-99 Each	\$1.20	100-299 Eac	h		. \$1.10

#### **SEMICONDUCTORS** FOR RADIO AND TV SERVICING

#### SILICON RECTIFIER TUBE REPLACEMENT

A plug-in replacement for 5U4, 5AW4, 5T4, 5V4, 5AV4, 5AX4, 5W4, 5Y3, 5Z4, 6004. Contains a surge limiting resistor which adds to its practically unlimited life. Lower forward voltage drop characteristic results in higher equipment voltage. \$4.50 0



### DIODES AND SELENIUM RECTIFIERS

Stock No. 22-00100-2 22-00115-0 22-00125-9 22-00130-9	Int. Rect. No. Fig. 1N34A (1) 1N60 (1) 1N64 (1) 1N82AG (1) FIG (2) DU	60 Volt, 50 MA 6 30 Volt, 50 MA 6 25 Volt, 50 MA 6	Germanium Diode Germanium Diode JHF Silicon Diode	1-9 \$0.30 .30 .30 .87	10-99 \$0.25 .25 .25 .74	100 Up \$0.20 .20 .20 .67
22-10000-2 22-10010-1 22-10020-0	DD04 DD05 DD07	Seri	n. Cath. es Con. n. Anode	.72 .72 1.25	.58 .58 1.12	.54 .54 .99
22-10050-7 22-10051-5 22-10052-3 22-10053-1	No. E075L E150L 7 E300L 15	MA RMS Volts To 75 130 5-150 130 0-300 130 0-500 130	Inches	1-4 1.90 3.60 3.20 3.94	5-9 1.58 2.98 2.66 3.26	10-99 1.25 2.36 2.12 2.58

## - IOR COLOR TV CARTRIDGE RECTIFIER

61-8968 used as voltage booster rectifier and 61-8969 used as focus rectifier. 

#### JAPANESE ORIGINAL **EQUIPMENT TRANSISTORS**

The real thing not universal replacements. Driginal equipment transistors Made in Japan 10-99

100 Up Each \$0.522. .711. .366. .963. .963. .1.37. .1.511. .366. .344. .494. .388. . Stock No. 22-04866-4 22-04867-4 22-04867-6 22-04868-0 22-04871-6 22-04871-6 22-04873-0 22-04873-0 22-04874-8 22-04876-3 22-04876-3 22-04878-9 22-04887-9 22-04888-9 22-04888-7 2 Type
2SA495
2SA564A
2SB186
2SB187
2SB367A
2SB405
2SB474
2SB481
2SC2818
2SC2818
2SC372
2SC372
2SC372
2SC373
2SC38 DAO
2SC458B
2SC458B
2SC458B
2SC458B
2SC535B
2SC536B
2SC537B
2SC538A
2SC634A 2SC644

16-01267-6 Japanese Transistor Cross Reference Guide. Brochure ......

FREE

# & 国

#### WORKMANOIR EXPERIMENTER PHOTOCELLS AND SUN BATTERIES





May be used for powering transistor radios, light meters, operating small motors from sunlight. B2MC is  $\frac{1}{2}$  x  $\frac{3}{4}$ " with mounting brackets. Others are 1 1/8" square molded case. All have leads.

Stock	Mfg.			Output		Prices	Each
No. 22-08000-6	No. B2MC	Material Selenium	Fig.	Voltage	MA	1-9 \$2.76	10-99
22-15000-7	SIMC	Silicon	(2)	.34	10-16	2.78	2.50
22-15010-6	S4MC S5MC	Silicon Silicon	(2)	.34	25-40 18-25	4.65 5.55	4.19
22-15015-5	SOME	Silicon	(2)	.003	10-23	3.33	3.00

#### (2) CADIUM SULPHIDE PHOTO-CONDUCTIVE CELL

Light-sensitive resistor for use in operating relays, counting devices, door openers, turning on street lights, etc. Does not generate electricity. Enclosed in plastic case. Max. applied volt, 20. Power dissipation. 4 watt. Dark resistance, 1600 ohms; resistance 100 FC illumination. 11 ohms. 1 3-/6" square. 22-09840-4. CS120

2-07040-4. 63120		A STATE OF THE PARTY OF THE PAR	San
1-9 Each	\$2.35	10-99 Each	 \$1.88

#### SOLAR PHOTOCELL EXPERIMENTER KITS



7 Piece Kit contains 3 selenium, 2 silicon solar and 2 cadmium sulphide cells. Ideal kit for schools, experimenters and hobbyists.

22-12700-5. K421	STATE OF STATES	THE REAL PART PART PART PART PART PART PART PART	er 20
Kit of 7 For	\$5.95	5 Kits Each	\$5.36

Solar Cell and Photocell Handbook. 75 light operated circuits. Contains projects and demonstrations of selenium and silicon solar cells. 112 pages
No. 16-01118-1 HB-30. Each \$2.10



#### EXPERIMENTERS MOTOR

Special Anti-Friction Bearing Type—Designed to operate directly from the power supplied by Solar Cells. Offers many fascinating experiments and science projects. Runs on .3 to 1.5 V. Recommended cell is S4MC above.

#### 

#### I.R. INDUSTRIAL RECTIFIERS









4

#### FIG. (1) FILLI WAVE BRIDGE SELENIUM STACKS

Stock No.	Mfg. No.	Input AC Volts	DC 0		Inches Size	1-9 Each	10-24 Each
22-12610-6	J29B1		29	1.5	1½x1½x1½	\$ 4.47	\$ 3.91
22-12620-5	J29B5		29	4.8	3x3x2%	12.54	10.97

#### SELENIUM BATTERY CHARGING RECTIFIERS

Stock No.	Mfg. No.	Fig.	Input V. AC	Output DC V.	Output Amps	Size Inches	1-9 Each	10-99 Each
22-12660-1	JD116K	(2)	16.5	6-12	2	3x3x.5	\$3.39	\$2.96
22-12670-0 22-12680-9	JD117K JD241K	(2) (2) (2)	16.5	6-12	6	4x4x.5 6x5x.5	4.48 6.06	3.92 5.30
22-08015-4	BCF-100	com. Pos.	(3) 33	6-12	50-1001	6x4x3.9	19.75	17.25
22-08020-4	Full wave	com. Neg. e, ratings w	ith FAN cod	6-12 oling.	50-100†	6x4x3.9	19.75	17.25

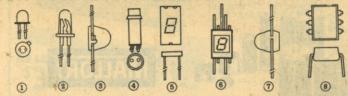
#### FIG. (4) SILICON UNIVERSAL RECTIFIER ASSEMBLY

Two stud mount rectifiers with 4.8" leads mounted on a 4X6" heat sink plate. 33 VAC input. 6 or 12 VDC 100 amp output. 22-08010-5. No. 8C101. 1-24 Each \$20.17 25 Up Each \$17.25



## PHOTO CELL

#### SPRAGUE LIGHT EMITTING DIODES (LED'S)



Solid state reliability, no filaments, no time lag where switched on and off. Exact replacements for original equipment or for experimental, lab and production uses. Order by Stock No. and Sprague No.

					1-24	25-99
Stock No.	Spr	raque No.	Description	Size	Each	Each
22-10104-2	(2)	ED112	Visible Light Source, Green	.185D X .340"L	\$2.95	\$2.05
22-10105-9	(2)	ED122	Visible Light Souce, Yellow	.185D X .340"L	2.95	2.05
22-10106-7	(2)	ED123	Panel hdicator Light, Red	.1850 X .340"L	.50	.46
22-10108-3	(3)	ED150	Visible Light Source, Red, clear			
	100		lens	.1000 X .100"L	.45	.35
22-10109-1	(3)	ED151	Visible Light Source, Red, Red			
0.0	101		Lens	.100D X .095"L	.45	.35
22-10110-9	121	ED154	Visible Light Source, Red	.200D X .340"L	.35	.31
22-10111-7	(2)	ED155	Visible Light Source, Red	.090D X .120"L	.50	.43
22-10112-5	(1)	ED163	Visible Light Source, Red	200D X .340"L	.67	.50
22-10113-3	(1)	ED174	Visible Light Source, Red, Hi	2000		
22-10113-3	111	20114	Brightness	120D X .200"L	.67	.50
22-10114-1	(2)	*ED190	Visible Light Source, Red or	.1200 A .200 L		COL SE
22-10114-1	121	EDISO	Green	.1850 X .340"L	4.35	3.65
22 40445 0	141	ED191	Cartridge Indicator Light, Red	288D X 1.10"L	1.60	1.45
22-10115-8	(4)	ED201	Alpha-Numeric Display, Red 27"	.2000 A 1.10 L	1.00	1.70
22-10116-6	(2)	EDZUI		400W X .740"H	9.55	7.30
	101		.27" high	168W X 240"H	4.40	3.30
22-10122-4	(6)	ED213	Digital Display, Red, 127" high	.100W A .24U II	4.40	3.30
22-10126-5	(5)	ED264	Alpha-Numeric Display, Red 4"	FOOM V 700"	0.20	7 20
	Part of	TO SOUTH	high	.530W X .760"H	8.20	7.20
22-10135-6	(8)	ED702	Coupled Pair Opto-Isolator	.250W X .340"L	2.25	1.90
*Color depend	ds on d	direction of	current flow.	CHIEF PART	1	
A CONTRACTOR OF STREET				The state of the s		
Catalog Sheet	and s	pecificatio	ns on the above LED's.			FREE
No. 16A1216	-3. WI	th your ord	er for any merchandise	*************	10 10 1000	INEL



### SARKES TÄRZIAN BRIDGE RECTIFIERS

① 2 AMP. FULL WAVE SILICON BRIDGE RECTIFIERS
Only \*/ne" square x ¼" high. Insulated case with solder lug terminals. Rated 2 Amps. resistive-inductive load, derate 20% for canacitive load.

3

Stock	Sarkes Tarzian	Voltage	Rating	1-24	25-99
No.		PIV	RMS	Each	Each
22-15279-7	\$6230	200	140	\$ 1.47	\$ 1.26
22-15280-5	\$6230-1	400	280	1.77	1.52
22-15281-4	\$6230-2	600	420	2.11	1.80
22-15285-4	\$6230-4	1000	700	3.47	2.97

② 6 AMP. FULL WAVE SILICON BRIDGE RECTIFIERS
1-15/32" diameter 15/8" above mounting surface. Epoxy case with solder terminals. 8-32 mounting end 8 Amps. for resistive inductive lead.

Stock No.	Sarkes Tarzian	Voltage	Rating RMS	1-24 Each	25-99 Each
22-15259-9 22-15264-9	S6121-1 S6121-3	200 400	140 280 420	\$ 4.21 4.41 5.61	\$ 3.60 3.78 4.81
22-15269-8	312 AMP FILL WA	VE SILICON BI	THE LABOR TO LABOR.	The Later of the L	4.01

Only 560" diameter. Less than 1" above mounting surface including terminals. Requires no heat sink when mounted on metal chassis. Rated 12 Amps. for resistive-inductive load.

Stock Sarkes Tarzian Voltage Rating 1-24 25-99

Stock No.	Sarkes Tarzian No.	Voltage	Rating	1-24 Each	25-99 Each
22-15305-0	S6240-2	200	140 280	\$ 3.76	\$ 3.22
22-15310-0 22-15315-9	S6240-4 S6240-6	400 600	420	6.70	5.73
22-15325-8	\$6240-10	1000	700	10.00	8.45

#### SARKES TARZIAN M500/40M CLIP-IN RECTIFIER



For TV replacement, experiments, wherever a quick replaceable type is needed. Similar to Jedec 1N1084. 1 amp at 400 PIV. 3/8" D. X 1" L.

#### RECTIFIER MOUNTING HARDWARE

### SILICON SOLAR CELLS



Generate electricity when illuminated. Used for counters, control devices, and to power small electronic devices such as radios, light meters and small motors. Charges batteries. Same as used in satellites. Supplied in plastic case. Current outlet in bright sunlight: 25 to 30 ma. Connect several in series for higher voltage and in parallel for higher current.

22-12570-2. .5 volt. Each ... \$2.50 22-12571-0. 1 volt. Each ... \$4.50 22-12573-6. 1.4 volt. Each ... \$6.50

Burstein-Applebee Co., 3199 Mercier St., Kansas City, Mo. 64111



BATTERIES

FRESH BATTERIES FROM B-A LAST LONGER



# MALLORY

# DURACELL ALKALINE BATTERIES LAST UP TO 5 TIMES LONGER THAN ORDINARY BATTERIES

Stock No.	Mallory No.	Quantity	Ea:	Quantity	Ea.	Quantity	Ea.
21A5000 -0 21A5001 -8 21A5002 -6 21A5003 -4 21A5004 -2 21A5005 -9	MN 9100 N Size Cell MN 1400 C Size Cell MN 1500 AA Penligh MN 1300 D Size Cell MN 2400 AAA Size MN 1604 9 Volt	1-5 1-5 1-5 1-5	.75 .90 .80 .90 .75	6-23 6-23 6-23 6-23 6-23 6-23	\$0.60 .72 .64 .72 .60 1.27	24 up 24 up 24 up 24 up 24 up 24 up	\$0.47 .58 .52 .58 .46 1.05
68 59	MALLO	RY SILVER OXIDE	BAT	TERIES	197	1111	1 101-
21A5007 -5 21A5008 -3 21A5009 -1		x.31" 1-5 x.46" 1-5 x.46" 1-5	.60 .60 .99	6-23 6-23 6-23	.48 .48 .79	24 up 24 up 24 up	.39 .39 .64
are the solid	MALLO	RY CALCULATOR	BAT	TERIES	3313	CELL PO	711010
21A5099-2 21A5091-9	5K65 9 Volt 7K67 6 Volt		.95	6-23 6-23	\$2.36 1.83	24 Up 24 Up	\$1.92

### MALLORY DURACELL MERCURY BATTERIES

Stock No.	Mallory No.	Volts	Size Inches O.D. H.	Quantity Each	Quantity Each	Quantity	Each
21A5093-5	MP401	1.4	29/64 x 1-1/8	1-3 \$1.65	4-11 \$1.32	12 Up	\$1.08
21A5092-7	MP 675	1.4	.455 X .210	1-3 .98	4-11 .78	12 Up	.64
21A5010-9	RM1	1.4	5/8x21/32	1-3 1.55	4-11 1.24	12 up	1.00
21A5011 -7	RM3R	1.35	1.x21/32	1-3 2.85	4-11 2.28	12 up	1.85
21A5012-5	RM4R	1.35	1.2x21/32	1-3 3.65	4-11 2.92	12 up	2.38
21A5013 -3	RM12	1.4	5/8x1-61/64	1-3 2.65	4-11 2.12	12 up	1.72
21A5014-1	RM12R	1.35	5/8x1-61/64	1-3 2.85	4-11 2.28	12 up	1.85
21A5016-6 21A5017-4	RM42R RM400R	1.35	1.2x2-3/8	1-3 8.05 1-3 1.55		12 up	5.23
21A5017-4	RM401	1.35	29/64x9/64 29/64x1-1/8	1-3 1.55 1-3 1.55	4-11 1.24	12 up	1.00
21A5020-8	RM575	14	455x.129	1-3 .41	4-11 .32	12 up	.28
21A5021-6	RM625	14	5/8x1/4	1-3 1.45	4-11 1.16	12 up	.94
21A5022-4	RM625R	1.35	5/8x1/4	1-3 1.60	4-11 1.28	12 up	1.04
21A5023-2	RM630	1.4	5/8x1/4	1-3 1.40	4-11 1.12	12 up	.90
21A5024-0	RM640	1.4	5/8x7/16	1-3 1.45	4-11 1.16	12 up	.94
21A5025-7	RM675	1.4	29/64 x 13/64	1-5 .75	6-23 .60	24 up	.49
21A5026-5	TR115R	6.75	21/32x1-5/16	1-3 5.40	4.9 4.32	10 up	3.52
21A5069-5	TR126	8.4	3/4x2	1-2 3.75	3-5 3.00	6 up	2.43
21A5027-3	TR132R	2.7	21/32x1-5/16	1-3 3.20	4-9 2.56	10 up	2.08
21A5028-1 21A5029-9	TR133 TR133R	4.2	21/32x2 21/32x2	1-3 3.85	4-11 3.08	12 up	2.50
21A5030-7	TR134R	5.40	21/32 x 2-29/64	1-3 4.10 1-3 4.90	4-11 3.28 4-9 3.92	12 up	
21A5031-5	TR135R	6:75	21/32 x 2-29/64 21/32x3-1/4	1-3 5.80	4-9 4.64	10 up	3.20
21A5032-3	TR136R	8.1	21/32x3-29/32	1-3 6.60	4-9 5.28	10 up	4.28
21A5033-1	TR146X	8.4	1 x 21/32 x 134	1-2 2.79	3-5 2.23	6 up	1.80
21A5034-9	TR163	4.2	21/32x1-5/16	1-3 4.20	4-9 3.36	10 up	2.72
21A5035-6	TR164	5.6	21/32x1-3/4	1-3 3.75	4-11 3.00	12 up	2.43
21A5036-4	TR165	7	21/32x2-3/16	1-3 4.75	4-9 3.80	10 up	3.08
21A235-7	TR175	7.	31/64x1-1/32	7-3 3.29	4-9 2.63	10 up	2.13
21A5037-2	TR177	9.8	35/64x1-29/32	1-3 3.30	4-11 2.64	12 up	2.15
21A5038-0	TR233	4.2	1-1/64x1-31/32	1-3 6.60	4-9 5.28	10 up	4.28
21A5057-0	TR289	12.6	1 x 2-25/64	1-2 7.39	3-5 5.91	6 up	4.80
21A5039-8	ZM-9	1.4	1/2x1-31/32	1-5 1.69	6-23 1.35	24 up	1.09

#### MALLORY PHOTOGRAPHIC BATTERIES

21A5079-4	7R31	4.5	Instamatic X30	1-5	2.98	6-11	2.38	12 up	1.94
21A196-1	PX13B	1.35	Instamatic M24	1-5	1.55		1.24	12 up	1.00
21A5068-7		5.6	Retina S1	1-5	1.65	6-11	1.32	12 up	1.07
21A5080-2	PX30	3.0	Instamatic X35	1-5	1.98	6-11	1.58	12 up	1.29
21A5006-7	PX825	1.5	Flashcube	1-5	.99	6-11	.79	12 up	.61

## RAYOVAC SILVER II WATCH BATTERIES

WH4 WH12NM

				TAICH DA				
Stock No.	Ray-O-Vac No.	Size Cor Eveready	mparables Malfory	Other	Voltage	1-9 Each	10-29 Each	30 Up Each
21A346-2	RW42	303 357	WS14 10L14	Timex A Bulova 288	1.5	\$2.25	\$1.80	\$1.46
21A347-0	RW44	301 386	WS11 10L124	Timex D Litronix	1.5	2.00	\$1.60	\$1.30
21A350-4	RW47	384	WS10 10L125	ON SOL	1.5	2.00	1.60	1.30
21A349-6	RW48	309 393	HOL WAS	Microma	1.5	2.00	1.60	1.30
21A351-2	RW49	J. Bross	A motor	in many	1.5	2.00	1.60	1.30
-que es		MERC	URY V	VATCH BA	TTERI	ES		7.3
21A352-0 21A353-8 21A354-6	RW51 RW52 RW54	387 313 354	W2 WH3 10R11	Bulova 214	1.35 1.35 1.35	1.80 1.35 1.95	1.44 1.08 1.56	1.15 .86 1.25

1.85

1.48

1.19

# EVEREADY









#### BATTERIES

Ever- eady Stk. No. Number	Wt.	Dimensions	Quantity	Ea.	Quantity	Ea.	Quantity	E
21A304-1 206 21A305-8 216 21A306-6 226 21A307-4 228 21A309-0 246 21A310-8 266 21A311-6 276 21A312-4 332 21A314-0 1035 21A315-7 1052 21A315-7 1052	9 08 9 Vo 9 1 1 0 12 14 1 0 9 3 1 3 4 9 44 1 3 4 9 1.0 2 4 4 06 662 1 2 05 AA C 1 2 0 Ce	eniays, cou	1-3 1-3 1-3 1-2 1-3	1.20 .89 1.50 2.55 2.80 2.50 3.70 1.80 .35 .45 1.29	4-11	0.96 .71 1.20 2.04 2.24 2.00 2.96 1.44 .28 .36 .36 1.03	12 up \$ 12 up 12 up 6 up 12 up 6 up 12 up 24 up 24 up 24 up 12 up 13 up 14 up 15 up 15 up	1.0 1.7 1.9 1.6 2.4 1.2 2.2 2.8

ALKALINE LONGLIFE HIGH DRAIN TYPES

21A5045-5 523 21A5046-3 582		.662" Dia. x 1.965 .664" Dia. x 1.67	1-3 2.29 1-3 2.00	4-11 1.83 4-11 1.60	12 up 1.53 12 up 1.34
		SECONDARY ALKA	ALINE BATTERI	ES	
21A5047-1 561 21A5048-9 563	15 6 4½ 9	85 hex213 hex51/8" 1-23/64" Dia.	1 22.44	2-3 17.95	4 up 14.96
		x7-5/32"	1-2 5.94	3-5 4.75	6 up 3.96
21A5049-7 564 21A5103-2 565	131/2 5.5	85 /16x213 /16x5 1/6" 21/4x23/4x53/6"	1 21.90	2-3 17.52 2-11 8.45	4 up 14.60 12 Up 7.04
	FLASHL	GHT, LANTERN, EN	MERGENCY LIGI	THE RESERVED OF THE PERSON NAMED IN	
21A316-5 No. 6	112 2	25a" Dia. x 6-21/32"	1-3 2.98	4-11 2.38	12 up 1.99
21A318-1 509	6 1.3	Lantern	1-3 2.98 1-3 2.38 1-3 2.48	4-11 1.90	12 up 1.58
21A319-9 510S 21A321-5 715	6 1.4 7 <sup>1</sup> 2 7.9 9 9.3	258x258x4' 16" 714x4' 16x6' 16"	1 11.90		4 up 7.93
21A322-3 716 21A323-1 731	9 9.3 6 3.1 12 3.2	8-37/64x4' 16x6' 16 Radar Lite	1 13.78 1-2 5.25	2-3 11.02 3-5 4.20	4 up 9.19 6 up 3.51
21A324-9 732	12 3.2	Radar Lite	1-2 6.50	3-5 5.20	6 up 4.33
21A326-4 912	112 01	Size N AAA Size	1-11 .30	12-23 .24	24 up .13 24 up .20
21A327-2 915 21A328-0 935	112 .04	AA Size C Cell	1-11 .30 1-11 .40	12-23 .24 12-23 .32	24 up .20 24 up .20 24 up .27
21 A 220 B OFO	114 9	D Call		12 22 22	24 40 27

#### PHOTO FLASH BATTERIES

Stock No.	Eveready Type	Voltage	Wt. Lbs.	Quantity	Each	Quantity	Each	Quantity	Each
21A218-3	489	225	2.7	1-2	\$21.75	3-5	\$17.40	6 up	\$14.50
21A219-1	491	240	.8	1-2	13.80	3-5	11.04	6 up	9.45
21A205-0	497	510	1.6	1	24.20	2-3	19.36	4 up	16.58
21A128-4	504	15	.03	1-5	1.90	6-11	1.52	12 up	1.30
21A195-3	531	41/2	.08	1-5	2.29	6-11	1.83	12 up	1.53

### RADIO - INSTRUMENT - ELECTRONIC EQUIPMENT

	NA.	ADIO - IM	SINUME	MI - EL	ECINUN	ic Euoi	LMENI	
21B123-5	W353	11/2	.8	1-2	3.30	3-5	2.64	6 up 2.26
21871-6	411	15	.05	1-2	1.70	3-5	1.36	6 up 1.16
21A27-8	412	221/2	1	1-2	2.20	3-5	1.76	6 up 1.51
21869-0	413	30	1 .1 .3 .1 .2 .3 .5 .5 .5 .5 .5 .7	1-2 1-2 1-2 1-2 1-2 1-2	2.10	3-5	1.68 2.64 2.88	6 up 1.44
218138-3	415	45 67½	.1	1-2	3.30	3-5	2.64	6 up 2.20 6 up 2.47 6 up 3.83
21B164-9	416	6/1/2	.3	1-2	3.60	3-5 3-5	2.88	6 up 2.47
210165-6	417	15	- 1	1-2	3.60 5.74 7.25	3-5	4.59	6 up 3.83 6 up 4.83
21B104-5 21B110-2	420 425P	221/2	.2	1-2	1.25	3-5	5.80 8.24 4.48	6 up 4.83
21A17-9	455	221/2	.5	1-Z	10.30 5.60	3-5	8.24	6 up 6.87
21B67-4	457	45 67 ½	.5	1-2	5.00	3-5	7.04	6 up 6.87 6 up 3.73 6 up 5.87
21A18-7	467	671/2	.5	1-2	8.80 6.50	3-5	5.20	6 up 5.87
21B26-0	477	671/2	.0	1-2	6.90	3-5	5.20	6 up 4.46 6 up 4.73
21B132.6	479	90	2 2 3	1-2 1-2 1-2 1-2 1-2	8 50	3-5 3-5 3-5 3-5	5.52 6.80 7.36 9.92 7.92	6 up 4.73 6 up 5.81
21B132-6 21A19-5	482	45	2.0	1.2	9.20	3-5	7 36	
21C143-3	484	45	2.0	1.2	8.50 9.20 12.40 9.90	3.5	9.92	6 up 6.30 6 up 8.27
21820-3	490	90	10	1.2	9.90	3.5	7.92	6 up 6.60
21868-2	493	300	1.0	1	17.90 2.20 3.30 3.25 3.30	3-5 2 3-5 3-5 3-5	14 32	2 10 12 26
218145-8	505	221/2	.04		2.20	3-5	1.76 2.64 2.60	3 up 12.26 6 up 1.51 6 up 2.26 6 up 2.17
21B93-0 21B70-8	703	41/2	3	1-2	3.30	3-5	2.64	6 up 2.26
21870-8	717	71/2	- 6	1-2	3.25	3-5	2.60	6 up 2.17
21B66-6	724	6	2	1-2	3.30	3-5	2.64	6 up 2 26
21B122-7 21A192-0	735	11/2	1.5	1-2	2.78	3-5	2.22	6 up 1.85
21A192-0	738	45	1.5	1-2	6.90	3-5	5.52	6 up 4.74
21A12-0	742	11/2	1.5 1.5 1.4 1.4	1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2	2.78 6.90 3.56 3.20	3-5	2.64 2.22 5.52 2.85	6 up 1.85 6 up 4.74 6 up 2.44 6 up 2.19
21A31-0	744	6		1-2	3.20	3-5	2.50	6 up 2.19
21B102-9	762S	45	3.3	1-2	13.25 6.15	3-5 3-5	10.60	6 up 8.83
21B100-3	763	221/2	3.3 .7 .6 1.5	1-2	6.15	3-5	4.92	6 up 4.09
21A23-7	773	71/2	.6	1-2	5.95	3-4	4.76	5 up 3.97 4 up 9.58
218101-1	778	221/2	1,5	. 1	14.00	2-3	11.20	4 up 9.58
21A9-6	781	41/2	4	1-2	3.65	3-4	2.92	5 up 2.43
21A135-9	2356N	9 00		1-2	7.40	3-5	5.92	6 up 4.93

#### EVEREADY NICKEL-CADMIUM 1.25 V. RECHARGEABLE BATTERIES

Stock No.	Туре	Amp. Hours	Replaces	1 Each	2-5 Each	6 Up Each	Wt.
21A5056-2 21A194-6	CH 15	.5	Size AA 915	\$2.76	\$2.21	\$1.84	.06
21A194-6 21A234-0	CH1.8 CH4	1.5	Size C 935 Size D 950	11.35 9.20	7.36	7.55 6.14	3

21A355-4

RAY-O-VAC

RECHARGEABLE **NICKEL CADMIUM** BATTERIES

> CHARGING MODULE



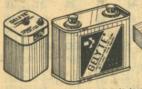


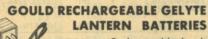
Recharge up to 1000 times to last 3 years or more under normal use when re-charged regularly. Replaces all regular batteries in 1.5 volt applications.

	Ray-O-Vac		Shpg.	Pkg.
Stk. No.	No.	Description	Wt.	of 2
21A5076-0	613-2	Size D, 1.2 a.h., 1.25 V.	8 oz.	\$6.80
21A5100-8	M613-2	Size D with charging module	9 oz.	7.80
21A5077-8	614-2	Size C, 1.2 a.h., 1.25 V.	6 oz.	6.60
21A5101-6	M614-2	Size C with charging module	7 oz.	7.60
21A5078-6	615-2	Size AA, .5 a.h., 1.25 V.	5 oz.	6.20
21A5102-4	M615-2	Size AA with charging module	6 oz.	7.20
1240075.0	MINI CHARC	en note of be	Martin Tab.	tab

13A8075-9. MINI-CHARGER. Recharge any pair of batteries a charging module. For 115 VAC. Shpg. wt. 8 ozs. Ray-O-Vac CH222-1.

13A8046-0. FOUR-POSITION CHARGER. Recharges two or four of any type batteries above at the same time. For 115 VAC. Shpg. wt. 1 Lb. Ray-O-Vac Each





Rechargeable 6 volt lantern batteries. Give at least 500 hours use. Recharge overnight

with charger shown. PB645L replaces Eveready 509, Burgess F4M, NEDA908. Size 2-5/8 X 2-5/8 X 3-3/4" H. plus spring terminals. 4.5 AH

rated. Shpg. wt. 1.5 21A5104-0. Each 1.5 lbs.

PB660L replaces Eveready 731, Burgess TW1, NEDA918. Size 2-3/4 X 5-1/4 X 4-3/8" H. plus binding post terminals. 6 AH rated. Shpg. wt. 3.2 lbs. 21A5105-7. Each \$16.10 13A8076-7. Type 45122 Charger. Wt. 1 lb. Each \$5.00







#### 1) GEL/CELL RECHARGEABLE BATTERIES

Combine the power and rechargeability of wet batteries with the handling ease of dry batteries. Gelled electrolyte will not ooze out. Never add water or electrolyte. 200 to 500 complete charge/discharge cycles. Lose very little capacity in storage. Use in any position. Operating temperature range — 75° to + 140°F. Rated @ 68°F. High impact polystyrene case. Combination solder lug/quick disconnect tab terminals. B series batteries listed are for general service. For continuous charge float service the same type batteries at the same prices are available with suffix A. A types give somewhat longer life on float service but are not recommended for general service. Specify A SPECIAL instead of B for float service types and allow 2 extra weeks for delivery.

	Mfg. (	np-mo	urs		Subd	10	10-99	
Stock	Mtq. (11	20 H	K-1	Size	114	Each	10-99	
No.	No.	Kate	Voltage	e sa un size	10000000			
21A5070-3	610-1B	.9	6	2"WX2.24"HX1.65"D			\$8.88	
21A5071-1	1215-1B	1.5		7.02"WX2.65"HX1.33"D		19.88		
21A5072-9	626-1B	2.6		5.28"WX2.63"HX1.33"D				
21A5073-7	1245-1B	4.5	12	5.95"WX4.02"HX2.52"D	4.5	21.67	19.45	
21A5074-5	680-1B	7.5	6	5.96"WX3.97"HX1.97"D	3.3	16.98	15.25	

② GEL/CELL RECHARGEABLE POWER PACKS 

50c No. 16A1212-2. Each

#### GLOBE gel/Dell **BATTERY CHARGERS**

Will fully recharge batteries in 16 hours or less in fast mode, 24 to 36 hours in float mode. The state of the battery charge can be estimated by the brilliance of the indicating lamp which extinguishes when the battery is approximately 90% charged (60% on float setting). Protected from accidental shorts and reversed polarity. Black bakelite case, natural finish aluminum top. Size: 5-7/8" L. X 3 %" W X 2¾" H. Wt. 2 lbs.



Stock No.	Number	Output	nd of Charge Fast	Voltage Float	Use with Battery Nos.	Each
13A8056-9	GRC6350M	350 ma.	7.2 + .2V	6.9 ± .1V	610,620,626 645,660.680 1215 1245 12200	\$27.50
13A8057-7	GRC6750M	750 ma.	7.2 ± .2V	6.9 ± .1V	645,660.680	27.50
13A8058-5	GRC12350M	350 ma.	14.6 + .2V	13.8 ± .1V	1215	27.50
13A8059-3	GRC12750M	750 ma.	14.6 + .2V	13.8 + .1V	1245 12200	30.80

SKIPPER FLASHLIGHTS



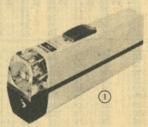
Rugged, good looking flashlights. Dependable push switch. Waterproof design. Bright red color. All use standard "D" cell batteries. (1) 41A8073-0. 8251. 2 Cell

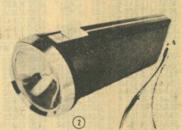
Shpg. wt. 1 lb. Each . . . . \$(1) 41A8074-8. 8351. 3 Cell \$3.59 \$3.99

Shipg. wt. 1 lb. Each (2) 41A8075-5.8552. 5 Cell Searchlight. \$7.99 Shpg. wt. 1 1/2 lbs. Ea. . . .



#### RECHARGEABLE **FLASHLIGHTS**





Powered by rechargeable nickel cadmium batteries. Leave plugged into wall socket. Always fully charged for emergency use in event of power failure.

(1) SMALL POCKET SIZE.

Built in rechargeable batteries. Twin bulbs for red or white beams. May be recharged hundreds of times from any 120 VAC household outlet. Shpg. wt. 8

(2) POWERFUL WETPROOF EMERGENCY POWER LIGHT.

Strong powerful beam. Weatherproof, operates when wet. Never buy batteries recharge hundreds of times from any 120 VAC household outlet. Shpg. wt. 1

No. 41A8071-4. Each ....



Plug it in any wall outlet. Constant glow bulb serves as night light while recharging. The instant there is a power failure powerful lantern light comes on. Un-plug it . . . carry it anywhere . . . shines brightly. Has rechargeable Ni-Cad batteries. Weighs only 6 ½ ozs. Shpg. wt. 8 ozs. Size 2-7/16" W. X 1-9 16" D. X 3-3 8" H. Operates on 115 V. 50-60 Hz. No. 41A6038-5.

Special Each ...... \$16.99

PREMIUM

GIVE UP TO 4 TIMES THE LIFE OF AMERICAN MADE NAME BRAND BATTERIES



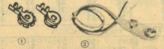


An independent testing company report shows they last up to 4 times longer than American made name brand batteries. Three year shelf life. Absolutely the finest zinc carbon battery we have offered.

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Stk. No.	No.	Description	
21A333-0	UMID	D Cell	P
21A334-8	UM2D	C Cell	P
21A335-5	UM3D	AA Pencell	P
21A336-3	006PD	9 Volt Transistor	E

Pkg. of 2	\$1.00	12 pkgs. E	a
Pkg. of 2		12 pkgs. E	
Pkg. of 4		12 pkgs. E	
Each	.1.19	12 up Ea.	-



BA		13.	RY
SN	AP.	0	NS

\$0.80

1.28

(1) Individual Snap Fasteners for 455, 457, 467, etc. Male and female.  No. 12-01341-3  Per Set. 90 Up, Per Set. Per Set.	34°
(2) Snop-On Strip for 9 valt transistor battery. Fits 216, 2U6, 415, VS-323, etc.	U30,
No. 12-02012-9. Each 39° Each 34° Each	29

Burstein-Applebee Co., 3199 Mercier St., Kansas City, Mo. 64111

## CORNELL-DUBILIER CAPACITORS

#### CORNELL DUBILIER DPMS DIPPED PAPER-MYLAR CAPACITORS



Combination paper-Mylar in high-impact rock-hard dipped casing affords excellent protection against moisture and soldering iron contacts. Leads are straight. Operates from  $-55\,^{\circ}$  C. to  $+\,125\,^{\circ}$  C. at full rated voltage. 20AWG tinned copper leads. Order by stock number and capacity.

	^	•	387	*	-	-	
- 4		u	W	v	ш	ы	

Stock No.	uf -	DPMS No.	Size D. X L.	Lead Spacing	1-5 Each	6-24 Each	25-49 Each	50-99 Each	100 Up Each
15A421-1-210-5 15A421-1-220-4 15A421-1-310-3 15A421-1-322-8 15A421-1-350-9	.01 .02 .1 .22	4S1 4S2 4P1 4P22 4P5	.390 X .660 .390 X .855 .520 X 1.180 .620 X 1.560 .850 X 1.600	.530 .688 1.00 1.375 1.375	\$0.38 .38 .51 .69 1.06	\$0.28 .28 .38 .48 .79	\$0.19 .19 .26 .35	\$0.15 .15 .21 .27 .46	\$0.13 .13 .18 .23 .40
THE RESERVE	The state of the s		600 WVI	DC	9.3 O.		TERM	2 12	
15A422-9-110-7 15A422-9-115-6 15A422-9-122-2 15A422-9-133-9 15A422-9-139-6	.001 .0015 .0022 .0033	6D1 6D15 6D22 6D33 6D39	.340 X .660 .340 X .660 .340 X .660 .370 X .660	.530 .530 .530 .530	.38 .38 .38	.28 .28 .28 .28	.19 .19 .19 .19	.15 .15 .15	.13 .13 .13

15A422-9-115-6         0015         6015         340 X 660         530         .38         .28         .19         .15         .13           15A422-9-122-2         0022         6022         340 X 660         .530         .38         .28         .19         .15         .13           15A422-9-133-9         0033         6033         .370 X 660         .530         .38         .28         .19         .15         .13           15A422-9-139-6         0039         6039         .370 X 660         .530         .38         .28         .19         .15         .13           15A422-9-147-9         .0047         6047         .400 X 690         .530         .38         .28         .19         .15         .13           15A422-9-150-3         .0050         6D5         .400 X 690         .530         .38         .28         .19         .15         .13           15A422-9-182-6         .0082         .6082         .370 X .870         .688         .38         .28         .19         .15         .13           15A422-9-210-5         .010         .681         .390 X .870         .688         .38         .28         .19         .15         .13           15A422-9-220-4	13A4ZZ-9-11U-/	.001	ועס	.34U X .DDU	.530	.38	.28	.19	.15	.13
15A422-9-122-2       0022       6022       340 X. 660       530       .38       28       19       15       13         15A422-9-139-6       0033       6039       .370 X. 660       530       .38       .28       19       .15       .13         15A422-9-147-9       .0047       .6047       .400 X. 690       .530       .38       .28       .19       .15       .13         15A422-9-150-3       .0050       .605       .400 X. 690       .530       .38       .28       .19       .15       .13         15A422-9-182-6       .0068       .6068       .430 X. 690       .530       .38       .28       .19       .15       .13         15A422-9-182-6       .0082       .6082       .370 X. 870       .688       .38       .28       .19       .15       .13         15A422-9-182-6       .010       .6S1       .390 X. 870       .688       .38       .28       .19       .15       .13         15A422-9-210-5       .010       .6S1       .390 X. 870       .688       .38       .28       .19       .15       .13         15A422-9-221-0       .020       .6S22       .470 X. 870       .688       .38       .28       .19	15A422-9-115-6	.0015	6D15	.340 X .660	.530	.38	.28	.19	.15	.13
15A422-9-133-9       0033       6033       370 X 660       530       .38       .28       .19       .15       .13         15A422-9-139-6       0039       6039       .370 X 660       .530       .38       .28       .19       .15       .13         15A422-9-147-9       .0047       .6047       .400 X 690       .530       .38       .28       .19       .15       .13         15A422-9-168-5       .0068       .6068       .400 X 690       .530       .38       .28       .19       .15       .13         15A422-9-168-5       .0082       .6082       .370 X .870       .688       .38       .28       .19       .15       .13         15A422-9-210-5       .010       .651       .390 X .870       .688       .38       .28       .19       .15       .13         15A422-9-220-4       .020       .652       .445 X .870       .688       .38       .28       .19       .15       .13         15A422-9-223-4       .020       .652       .45 X .870       .688       .38       .28       .19       .15       .13         15A422-9-223-3       .033       .6533       .470 X .870       .688       .38       .28       .19	15A422-9-122-2	.0022	6D22	340 X 660	.530	.38	.28	.19	.15	.13
15A422-9-139-6       0039       6039       370 X 660       530       .38       28       19       15       13         15A422-9-147-9       0047       6047       400 X 690       .530       .38       28       19       .15       .13         15A422-9-168-5       0068       6058       400 X 690       .530       .38       .28       .19       .15       .13         15A422-9-182-6       0082       6082       370 X 870       688       .38       .28       .19       .15       .13         15A422-9-210-5       010       681       .390 X 870       688       .38       .28       .19       .15       .13         15A422-9-220-4       .020       682       .445 X 870       .688       .38       .28       .19       .15       .13         15A422-9-223-0       .022       6822       .470 X 870       .688       .38       .28       .19       .15       .13         15A422-9-233-7       .033       .6833       .430 X 1.150       1.00       .42       .31       .23       .18       .16         15A422-9-239-4       .039       .6339       .470 X 1.150       1.00       .42       .31       .25       .19	15A422-9-133-9	.0033	6D33	.370 X .660	.530	.38	.28	.19		.13
15A422-9-147-9         .0047         6047         .400 X .690         .530         .38         .28         .19         .15         .13           15A422-9-168-5         .0068         .6068         .430 X .690         .530         .38         .28         .19         .15         .13           15A422-9-182-6         .0082         .6082         .6082         .370 X .870         .688         .38         .28         .19         .15         .13           15A422-9-210-5         .010         .651         .390 X .870         .688         .38         .28         .19         .15         .13           15A422-9-220-4         .020         .652         .445 X .870         .688         .38         .28         .19         .15         .13           15A422-9-222-0         .022         .6522         .470 X .870         .688         .38         .28         .19         .15         .13           15A422-9-233-7         .033         .6533         .470 X 1.150         .100         .42         .31         .23         .18         .16           15A422-9-239-4         .039         .639         .470 X 1.150         .100         .42         .31         .23         .18         .16	15A422-9-139-6	.0039	6D39	370 X 660	530	.38				.13
15A422-9-168-5         0068         6068         430 X 690         530         .38         28         .19         .15         .13           15A422-9-182-6         0082         6082         .370 X 870         .688         .38         .28         .19         .15         .13           15A422-9-210-4         .020         .681         .390 X 870         .688         .38         .28         .19         .15         .13           15A422-9-222-0         .022         .6822         .470 X 870         .688         .38         .28         .19         .15         .13           15A422-9-233-7         .033         .6833         .430 X 1.150         1.00         .42         .31         .23         .18         .16           15A422-9-239-4         .039         .6339         .470 X 1.150         1.00         .42         .31         .23         .18         .16           15A422-9-247-7         .047         .6847         .490 X 1.150         1.00         .51         .38         .26         .21         .18           15A422-9-249-1         .050         .685         .490 X 1.150         1.00         .51         .38         .26         .21         .18           15A422-9-310-3	15A422-9-147-9		6D47			.38			.15	13
15A422-9-168-5         0068         6068         430 X 690         530         .38         28         .19         .15         .13           15A422-9-182-6         0082         6082         .370 X 870         .688         .38         .28         .19         .15         .13           15A422-9-210-4         .020         .681         .390 X 870         .688         .38         .28         .19         .15         .13           15A422-9-222-0         .022         .6822         .470 X 870         .688         .38         .28         .19         .15         .13           15A422-9-233-7         .033         .6833         .430 X 1.150         1.00         .42         .31         .23         .18         .16           15A422-9-239-4         .039         .6339         .470 X 1.150         1.00         .42         .31         .23         .18         .16           15A422-9-247-7         .047         .6847         .490 X 1.150         1.00         .51         .38         .26         .21         .18           15A422-9-249-1         .050         .685         .490 X 1.150         1.00         .51         .38         .26         .21         .18           15A422-9-310-3	15A422-9-150-3	0050	605						15	13
15A422-9-182-6     .0082     6082     .370 x 870     .688     .38     .28     .19     .15     .13       15A422-9-210-5     .010     .681     .390 x 870     .688     .38     .28     .19     .15     .13       15A422-9-220-4     .020     .682     .445 x 870     .688     .38     .28     .19     .15     .13       15A422-9-223-7     .033     .6832     .470 x 870     .688     .38     .28     .19     .15     .13       15A422-9-233-7     .033     .6832     .470 x 870     .688     .38     .28     .19     .15     .13       15A422-9-239-4     .039     .6839     .470 x 1150     1.00     .42     .31     .23     .18     .16       15A422-9-247-7     .047     .6847     .490 x 1.150     1.00     .51     .38     .26     .21     .18       15A422-9-250-1     .050     .685     .490 x 1.150     1.00     .51     .38     .26     .21     .18       15A422-9-310-3     .1     .640 x 1.300     1.125     .60     .45     .34     .26     .23		0068	6068							13
15A422-9-220-5         0.10         6S1         3.90 X.870         688         .38         .28         .19         .15         .13           15A422-9-222-4         0.20         6S2         .445 X.870         .688         .38         .28         .19         .15         .13           15A422-9-222-0         0.22         .6822         .470 X.870         .688         .38         .28         .19         .15         .13           15A422-9-233-7         .033         .6S33         .430 X.1.150         1.00         .42         .31         .23         .18         .16           15A422-9-239-4         .039         .6S39         .470 X.1.150         1.00         .40         .35         .25         .19         .17           15A422-9-247-7         .047         .6847         .490 X.1.150         1.00         .51         .38         .26         .21         .18           15A422-9-240-1         .050         .685         .490 X.1.150         1.00         .51         .38         .26         .21         .18           15A422-9-310-3         .1         .610         .640 X.1.300         .1.125         .60         .45         .34         .26         .23										13
15A422-9-220-4     020     682     445 X 870     688     .38     .28     .19     .15     .13       15A422-9-222-0     022     6822     .470 X 870     688     .38     .28     .19     .15     .13       15A422-9-233-7     033     6833     .430 X 1.150     1.00     .42     .31     .23     .18     .16       15A422-9-239-4     039     6839     .470 X 1.150     1.00     .46     .35     .25     .19     .17       15A422-9-247-7     047     6847     .490 X 1.150     1.00     .51     .38     .26     .21     .18       15A422-9-250-1     .050     .685     .490 X 1.150     1.00     .51     .38     .26     .21     .18       15A422-9-310-3     .1     .640 X 1.300     1.125     .60     .45     .34     .26     .23										13
15A422-9-222-0     022     6822     470 X 870     688     38     28     .19     .15     .13       15A422-9-233-7     033     6833     470 X 1150     1.00     .42     .31     .23     .18     .16       15A422-9-239-4     039     6839     470 X 1150     1.00     .46     .35     .25     .19     .17       15A422-9-247-7     047     6847     490 X 1.150     1.00     .51     .38     .26     .21     .18       15A422-9-250-1     050     685     .490 X 1.150     1.00     .51     .38     .26     .21     .18       15A422-9-310-3     1     6P1     .640 X 1.300     1.125     .60     .45     .34     .26     .23										13
15A422-9-233-7     033     6833     430 X 1.150     1.00     42     31     23     1.8     16       15A422-9-239-4     039     6839     470 X 1.150     1.00     46     .35     .25     .19     .17       15A422-9-247-7     047     6847     490 X 1.150     1.00     .51     .38     .26     .21     .18       15A422-9-250-1     .050     685     .490 X 1.150     1.00     .51     .38     .26     .21     .18       15A422-9-310-3     1     6P1     .640 X 1.300     1.125     .60     .45     .34     .26     .23										12
15A422-9-239-4     0.38     6839     470 X 1.150     1.00     .46     .35     .25     .19     .17       15A422-9-247-7     0.47     6847     .490 X 1.150     1.00     .51     .38     .26     .21     .18       15A422-9-250-1     .050     685     .490 X 1.150     1.00     .51     .38     .26     .21     .18       15A422-9-310-3     .1     .6P1     .640 X 1.300     1.125     .60     .45     .34     .26     .23						12				16
15A422-9-247-7 047 6847 490 X 1.150 1.00 .51 .38 .26 .21 .18 15A422-9-250-1 .050 685 .490 X 1.150 1.00 .51 .38 .26 .21 .18 15A422-9-310-3 .1 .6P1 .640 X 1.300 1.125 .60 .45 .34 .26 .23						46	35			17
15A422-9-250-1 050 6S5 490 X 1.150 1.00 .51 .38 .26 .21 .18 15A422-9-310-3 .1 6P1 .640 X 1.300 1.125 .60 .45 .34 .26 .23						61			21	10
15A422-9-310-3 .1. 6P1 .640 X 1.300 1.125 .60 .45 .34 .26 .23						61				10
		1								
194422-3-22-1 .25 0F25 .050 A 1.500 1.375 1.01 .76 .55 .4337		25								
	13M422-9-323-1	.20	0172	.03U X 1.30U	1.3/5	1.01	./0	.33	.43	.31

	1		2000 WV	DC					
15A2282-5-110-7	.001	2001	.360 X .870	.688	.46	.35	.26	.20	.17
15A2282-5-127-1	.0027	20027	.415 X 1.187	1.00	.55	.41	.30	.23	
15A2282-5-139-6	.0039	20039	.465 X 1.187	1.00	.60	.45	.33	26	.22
ISA2282-5-147-9	.0047	20047	.495 X 1.187	1.00	.64	.48	.30 .33 .34	27	.23
I5A2282-5-212-1	.012	20512	.600 X 1.250	1.125	.83	.62	.46	36	31
5A2282-5-222-0	.022	20S22	.585 X 1.750	1.125	.92	.69	.52	.20 .23 .26 .27 .36 .41	.20 .22 .23 .31 .35 .46
ISA2282-5-239-4	.039	20539	735 X 1.750	1.562	.124	.93	.68	.53	.46
5A2282-5-250-1	.050	2055	.800 X 1.750	1.562	1.29	.97	.73	.53	.49



### **CORNELL-DUBILIER** WMF WRAPPED **MYLAR TUBULARS**

WMF axial lead, Mylar tubular capacitor is ideal where space is limited and requirements are demanding. Minimum size and maximum moisture resistance. Tolerance is ±10%. Operating temperature range is —55C to +125C. For temperature above 85C, derate voltage 10% at 100C, and 50% at 125C.

#### SPECIFY STOCK NUMBER AND CAPACITY ON ALL ORDERS

#### 50 WVDC

	Stock No.	uf	WMF No.	Size Inches	1-5 Each	6-24 Each	25-49 Each	50-99 Each	100 Up Each
	15A2283-3-310-3	40.1	05P1	.25X13/16	\$0.52	\$0.39	\$0.30	\$0.23	\$0.20
	15A2283-3-315-2	.15	05P15	.285X13 /16	.54	.40	.31	.24	.20
	15A2283-3-322-8	.22	05P22	.33X13/16	.59	.42	.32	.25	.21
	15A2283-3-333-5	.33	05P33	4X13 /18	.67	.50	.38	.30	.25
	15A2283-3-347-5	.47	05P47	.375X11/16	.67	.62	.47	.37	.31
4	15A2283-3-410-1	1.0	05W1	.5X13/8	1.46	1.09	.83	.65	.20 .21 .25 .31 .55 .91
	15A2283-3-420-0	2.0	05W2	.6X 15%	2.42	1.81	.138	1.07	.91
	15A2283-3-430-9	3.0	05W3	.73X15/8	3.39	2.54	1.94	1.50	1.27
	15A2283-3-450-7	5.0	05W5	.85X11/8	4.99	3.73	2.85	2.21	1.87

1		100 WVD	CUAN				341
Stock No.	wMF uf No.	Size Inches	1-5 Each	6-24 Each	25-49 Each	50-99 Each	100 Up Each
15A996-2-110-7 15A996-2-133-9 15A996-2-147-9 15A996-2-210-5 15A996-2-222-0 15A996-2-223-7 15A996-2-247-7 15A996-2-310-3 15A996-2-332-5 15A996-2-333-5 15A996-2-347-5 15A996-2-410-1 15A996-2-440-0	.001 101 .0033 1033 .0047 1047 .01 1S1 .022 1S22 .033 1S33 .047 1S47 .1 1P1 .22 1P22 .33 1P33 .47 1P47 .1.0 1W1	.15X½ .15X½ .15X½ .15X½ .2X½ .2X½ .2X½ .27X% .3X% .26X¾ .29X% .38X1 .41X1¼ .47X1¼ .62X1½ .95X1¾	\$0.43 .43 .43 .43 .43 .44 .47 .51 .61 .74 .132 2.18	\$0.32 .32 .32 .32 .32 .33 .35 .38 .46 .55 .99	\$0.24 .24 .24 .24 .24 .25 .27 .29 .35 .42 .75	\$0.19 .19 .19 .19 .19 .19 .21 .23 .27 .33 .59	\$0.16 .16 .16 .16 .16 .16 .18 .19 .23 .28 .49
- bud o	A SALES TO SA	400 WVD	C	The way	CAL .		2000
15A998-8-210-5 15A998-8-222-0 15A998-8-247-7 15A998-8-310-3 15A998-8-322-8 15A998-8-347-5 15A998-8-410-1	.01 4S1 .022 4S22 .047 4S47 .1 4P1 .22 4P22 .47 4P47 1.0 4W1	.3X% 32X¾ 4X% 46X1 56X1¾ .7X1% .875X2	\$0.48 .48 .50 .54 .65 1.26 1.83	.36 .36 .37 .41 .49 .94	.27 .27 .28 .31 .37 .72 1.05	.21 .21 .22 .24 .29 .56	.18 .18 .19 .20 .24 .47 .69



#### CORNELL-DUBILIER DMF MINIATURE DIPPED MYLAR CAPACITORS

Flat pressed mylar dielectric radial lead capacitor. Moisture and humidity resistant. 85°C operating temperature at full rated voltage. Tolerance ± 10%. Lead spacing % for ¾" length, ¼ for 1½". 20AWG leads.

Order by Stock No. and Capacity

#### 100 WVDC

Stock No.	uf	DWF No.	Size	1-5 Each	6-24 Each	25-49 Each	50-99 Each	100 Up Each
15A410-4-250-1	.015	1815	3 /16X5 /16X3/4	\$0.38	\$0.28	\$0.20	\$0.16	\$0.14
15A410-4-222-0	.022	1522	3 /16X5 /16X3/4	.38	.28	.20	.16	.14
15A410-4-233-7	.033	1533	7/32X11/32)	(34 .38	.28	.21	.17	.14
15A410-4-247-7	.047	1847	7/32X11/32X	3/4 .42	.31	.24	.19	.16
15A410-4-268-3	.068	1568	1/4 X 3/8 X 3/4	.42	.31	.24	.18	.16
15A410-4-310-3	.1	1P1	5/16X7/16X3/4	.46	.35	.26	.21	.18
15A410-4-315-2	15	1P15	9/32X11 /16X3/4	.60	.45	.33	25	.18 .22 .26
15A410-4-322-8	22	1P22	3/8X3/4X3/4	.69	.52	.38	.30	.26
15A410-4-333-5	.33	1P33	1 heX27/32X3/4		.59	.43	.33	.29
15A410-4-347-5	.47	1P47	3/8X3/4X11/8	.87	.66	.50	.39	.29
15A410-4-410-1	1.0	1W1	9/16X15/16X11/8	1.34	1.00	.75	.58	.50

2	n	0	W	u	v	n	
Z	U	U	¥	V	V	U	١

						-	-	
15A420-3-210-5	.01	251	3 /16X5 /16X3/4	.38	.28	.20	.16	.14
15A420-3-247-7	.047	2547	1/4 X 3/8 X 3/4	.38	.28	.20	.17	.14
	.041			.30				
15A420-3-310-3		2P1	5/16X23/32X3/4	.46	.35	.26	.21	.18
15A420-3-322-8	.22	2P22	15/32X27/32				Laboratory of the laboratory o	E.West
Section in the section of the sectio		1000,000,00	¥3/a	.69	.52	.38	.30	.26
15 A A 20 2 2 A 7 E	1.0 1999 100	2047	14.074.04.14					
15A420-3-347-5	.47	2P47	1/2X1/8X11/8	.87	.66	.50	.39	.33

#### CORNELL-DUBILIER DIPPED SILVERED MICAS



Rated 500 working volts DC. Temperature range —55° to +125 C. 5% tolerance except 5 pf is  $\pm 1/2$  pf. Size of CD15 from .45 x .36 x .17 to .49 x .42 x .24". Size of CD19 from .65 x .51 x .20 to .71 x .59 x .37". Size of CD30 is .80 x .89 x .34". Specify Stock No. and Capacity on Orders

Stk. No.	Cap.	Mfg. Type	1-5 Ea.	6-24 Ea.	25-99 Ea.	100 Up Ea.
15A2122-3-005-9	5	CD15CD050D03	\$0.39	\$0.29	\$0.19	\$0.14
15A2122-3-010-9	10	CD15CD100J03	.39	.29	.19	.14
15A2122-3-022-4	22	CD15ED220J03	.31	.23	.16	.12
15A2122-3-027-3	27	CD15ED270J03	31	.23	.16	.12
15A2122-3-033-1	33	CD15ED330J03	.31	.23	.16	.12
15A2122-3-039-8	39	CD15ED390J03	.31	.23	.16	.12
15A2122-3-047-1	47	CD15ED470J03	.31	.23	.16	.12
15A2122-3-051-3	51	CD15ED510J03	.31	.23	.16	.12
15A2122-3-056-2	56	CD15ED560J03	.31	.23	.16	.12
15A2122-3-068-7 15A2122-3-075-2	68 75	CD15ED680J03 CD15ED750J03	.31	.23	.16	.12
15A2122-3-075-2 15A2122-3-110-7	100	CD15FD101J03	.32	.24	.16	112
15A2122-3-115-6	150	CD15FD151J03	.37	.27	.18	14
15A2122-3-120-6	200	CD15FD201J03	.43	.32	.21	.16
15A2122-3-127-1	270	CD15FD271J03	.51	.38	.26	.19
15A2122-3-130-5	300	CD15FD301J03	.55	.40	.27	.20
15A2122-3-136-2	360	CD15FD361J03	.63	.47	.32	.24
15A2122-3-139-6	390	CD15FD391J03	.66	.49	.33	.25
15A2122-3-143-8	430	CD15FD431J03	.71	.53	.35	.27
15A2122-3-147-9	470	CD15FD471J03	.74	55	.37	.28
15A2122-3-151-1	510	CD15FD511J03	.79	.59	.40	.30
15A2122-3-156-0 15A2122-3-168-5	560 680	CD19FD561J03 CD19FD681J03	.50	.37	.25	.19
15A2122-3-175-0	750	CD19FD751J03	.59	44	.30	.22
15A2122-3-182-6	820	CD19FD821J03	.59	44	.30	.22
15A2122-3-210-5	1000	CD19FD102J03	.65	.48	.32	.24
15A2122-3-215-4	1500	CD19FD152J03	.78	.58	.39	.29
15A2122-3-220-4	2000	CD19FD202J03	.96	.72	.48	.36
15A2122-3-243-6	4300	CD19FD432J03	1.92	1.44	.96	.72
15A2122-3-251-9	5100	CD19FD512J03	2.20	1.65	1.10	.82
15A2122-3-310-3	10,000	CD30FD103J03	2.94	2.20	1.47	1.10

#### CORNELL-DUBILIER FAH COMPUTAMITE COMPUTER QUALITY CAPACITORS

Reliable long life Aluminum Electrolytic Capacitors for power supply filtering, charge-discharge applications and others requiring high Mfd X volts per cubic inch. Shock and vibration resistant. Meets MIL-STD-202. All aluminum construction. Stable capacitance vs temperature. Temperature range —40° C to +85° C. Tolerance at 3 to 50 DCV —10 + 100%, 51 to 350 DCV —10 + 75%, 351 to 450 DCV —10 + 50%.

Stk. No.	Mfg. No. FAH-	Cap.	DC	Size Dia. X L.	1-24 Each	25-49 Each	50-99 Each	100 Up Each
15A5237-6 15A5238-4	8500-10-A1	8,500	10	1%X21/8	\$2.92	\$2.29	\$2.00	\$1.59
15A5238-4 15A5239-2	14500-10-A2 22000-10-A3	14,500 22,000	10	1%X31/8 136X41/8	\$3.50	2.78	2.46	1.88
15A5242-6	6500-15-A1	6,500	15	13/8X21/8	2.92	2.29	2.00	1.59
15A5243-4 15A5245-9	12000-15-A2	12,000	15	13/8X31/8	3.50	2.78	2.46	1.88
15A5246-7	28500-15-E3 42500-15-B3	28.500 42.500	15	1¾X4½ 2X4½	5.44 6.17	4.35	3.81	2.94 3.30
15A5247-5	60000-15-B6	60,000	15	2X5%	7.75	6.22	5.46	4.18
15A5249-1	3700-25-A1	3,700	25	1%X21/8	2.92	2.29	2.00	1.59
I5A5250-9 I5A5251-7	6000-25-A2 11000-25-A3	6,000	25 25	1%X31/8 13/8X41/8	3.50	2.78 3.29	2.46	1.88
15A5252-5	16000-25-E3	16,000	25	134X41/8	5.44	4.35	3.81	2.94
15A5254-1	59000-25-D3	59,000	25	3X41/8	13.21	10.57	9.25	7.13
15A5255-8 15A5260-8	4900-30-A2 1600-50-A1	4,900	30 50	1% X 3% 1%X2%	3.50	2.78	2.46	1.88
		AAAAA -	Part March	The second second	2.92	The same of	-	
15A5261-6 15A5262-4	3000-50-A2 4500-50-A3	3,000 4,500	50	1%X31/8 13%X41/8	3.50	2.78	2.46 2.87	1.88
15A5263-2	7500-50-E3	7.500	50	134X41/8	5.44	4.35	3.81	2.94
15A5264-0	9500-50-B3	9,500	50	2X41/8	6.17	4.93	4.27	3.30
15A5265-7 15A5266-5	23000-50-D3 640-200-A3	23,000	50	3X41/8 13/8X41/8	13.21	10.57	9.25	7.13 2.41
15A5269-9	2500-350-D6	2.500	350	3X5%	19.75	15.79	13.80	10.65
15A5270-7	180-450-A3	180	450	13/8X41/8	4.42	3.57	3.14	2.41
15A5271-5 15A5272-3	325-450-E3 600-450-B6	325	450	1%X4%	6.02	4.82	4.22	3.25 4.88
13M3212-3	000-430-00	600	450	2X5%	9.00	7.22	6.34	4.80

# CON AND SPRAGUE CAPACITO

#### WBR TUBULAR ELECTROLYTICS

All the characteristics of the Blue Beaver BR Series updated in smaller size, with Theymoplastic insulation for more compact circuitry. Tinned wire leads. Rated 85 C. except 500 V. and higher 65 C. Tolerance to 50 V.-10% to +150%. 75 to 250 V.-10% to +100%, 450 V. and over -10% to +50%. Can size shown.

			WBR SING	F SECTIO	N			
Stock No.	uf	WV	Size	1-5 Each	6-24 Each	25-49 Each	50-99 Each	100-Up Each
15A5605 -4 15A5606 -2	100 500	16 16	5/16X3/4" 1/2X1-7/16	\$1.26	\$0.95 1.35	\$0.73	\$0.53 .75	\$0.40
15A5607 -0	1000	16	5/8X1-11/16"	2.26	1.69	1.30	.94	.71
15A5608 -8 15A5594 -0	2000 5000	16 16	3/4X2" 1X2-3/16"	2.70 4.06	2.03 3.04	1.55	1.13	1.27
15A5609 -6 15A5610 -4	1U 25	25 25	1/4X1/2" 5/16X5/8"	1.30	.78 .85	.60	.43 .47	.33
15A5611 -2	50	25	5/16X3/4"	1.47	.88	.67	.49	.37
15A5612 -0 15A5613 -8	100 250	25 25	3/8X3/4" 1/2X1-7/16"	1.81	1.08	1.17	.60 .85	.45
15A5614 -6 15A5615 -3	1000	25 25	5/8X1-7/16" 3/4X1-11/16"	3.30 5.45	1.98	1.51	1.10	1.36
15A5616 -1 15A5226 -9	2000	25 35	3/4X2-1/2" 3/8X1"	6.71	4.03	3.08	2.24	1.68
15A5228 -5	500	35	5/8X1-7/16"	2.64	1.98	1.51	1.10	.83
15A5229 -3 15A5230 -1	1000	35 35	3/4X1-11/16" 7/8X2-1/2"	4.36 5.37	3.27	2.55	1.82	1.36
15A5231 -9 15A5595 -7	3000	35 50	1X2-1/2" 1/4X1/2"	6.15	4.62	3.53	2.56	1.92
15A5596-5	5	50	1/4X1/2"	1.04	.78	.60	.43	.33
15A5617-9 15A5618-7	10 25	50 50	3/8X5/8" 3/8X5/8"	1.04	.78 .85	.60	.43	.33
15A5619-5 15A5620-3	100	50 50	3/8X1" 1/2X1-7/16"	1.31	.98	.75	.55	.41
15A5621-1 15A5622-9	150 250	50 50	5/8X1-7/16" 5/8X1-7/16"	1.64 2.07	1.23	.94	.68	.51
15A5623-7	500	50	3/4X1-11/16"	2.74	2.06	1.57	1.14	.86
15A5624-5 15A5625-2	1000	50 50	7/8X2" 1X2-11/16"	4.60 6.38	3.45 4.79	2.64 3.66	1.92 2.66	1.44
15A5220 -2 15A5234 -3	3000 500	50	1X4-1/16" 7/8X2"	7.19	5.40	4.12	3.00 1.60	1.20
15A5235-0 15A5236-8	1000	75 75	1X2-1/2" 1-3/8X2-9/16"	4.60 7.67	3.45 5.75	2.64	1.92	1.44 2.40
15A5627 8	8	150	3/8X3/4"	1.35	1.01	.78	.56	.42
15A5628 6 15A5597 3	10	150	3/8X7/8" 3/8X1"	1.45	1.08	.83	.60	.45
15A5629 4 .	20	150 150	3/8X1-1/4" 3/8X1-1/2"	1.58	1.18	.91	.66	.47
15A5630 -2 15A5631 -0	40	150	5/8X1-7/16" 5/8X1-7/16"	1.71 2.12	1.28	.98 1.22	.71	.54
15A5632 -8 15A5633 -6	50 80	150 150	3/4X1-7/16"	2.26 2.53	1.69	1.30 1.45	1.05	.71 .79
15A5634 4 15A5635 -1	100	150	3/4X1-11/16" 7/8X1-11/16	2.62 2.75	1.96 2.06	1.50 1.58	1.09 1.15	.82
15A5598 -1	250	150	1X1-11/16"	3.66	2.74	2.10	1.52	1.14
15A5638 -5 15A5639 -3	8	250 250	1/2X1-1/16" 1/2X1-7/16"	1.18	1.35	1.04	.49	.37
15A5640 -1 15A5641 -9	12 20	250	1/2X1-7/16" 3/4X1-1/16"	1.85	1.39	1.06	.77	.58
15A5642 -7 15A5643 -5	30 40	250 250	3/4X1-7/16" 5/8X1-11/16"	2.34	1.76	1.35	.98	.73
15A5644 -3	50	250	3/4X1-11/16"	2.58	1.86	1.43	1.03	.78
15A5645 -0 15A5646 -8	100	250	7/8X2" 1X2-11/16"	3.38	2.54	1.94	1.41	1.06 1.18
15A5647 -6 15A5648 -4	2 4	450	5/8X1-1/16" 5/8X1-1/16"	1.90	1.42	1.09	.79	.59
15A5649 -2	8	450 450	3/4X1-1/16" 3/4X1-1/16"	2.12	1.59	1.22	.88	.66
15A5650 0 15A5591 6	16	450	3/4X1-7/16"	2.12	1.59	1.22	.92	.66
15A5651 8 15A5652 -6	20 30	450 450	3/4X1-11/16" 7/8X1-11/16"	2.26 3.16	1.69 2.37	1.30	1.32	.71
15A5653 -4 15A5599 -9	40 50	450 450	7/8X2" 7/8X2-1/2"	3.38	2.54 2.74	1.94 2.10	1.41	1.06
15A5654 -2	80	450 450	1X2-11/16" 1X3-9/16"	3.83 5.19	2.87	2.20	1.60	1.20 1.62
15A5655 -9 15A5656 -7	160	450	1-1/8X4-1/16"	5.86	4.39	3.37	2.44	1.83
15A5657 -5 15A5590 -8	225	450 500	1-3/8X3-5/8" 5/8X1-1/16"	6.99 2.03	5.24 1.52	4.02	2.91	2.19
15A5658 -3 15A5600 -5	8	500 500	3/4X1-1/16" 3/4X1-11/16"	2.26 2.48	1.69 1.86	1.30	1.03	.71 .78
15A5593 -2 15A5659 -1	20	500 500	3/4X2" 7/8X1-11/16"	2.70	2.03	1.55	1.13	.85 1.06
15A5660-9	20	600	15/16X3-11/16	4.50	3.38	2.59	1.88	1.41
15A5592-4 15A5604-7	10	700	15/16X3 <sup>13</sup> / <sub>6</sub> " 15/16X4-5/16"	4.24 4.50	3.17	2.43	1.77	1.32
	100	-						

#### ANTENNA ROTOR CAPACITORS



Wide range types cover all rotor capacitor needs. Intermittent AC voltage rated 50 V. AC.

No15A5092-5, CD ETZ 10002-1. 66 to 92 uf. 7/8" x 234"
No15A5093-3 CD ETZ 10011. 120 to 140 uf 1 x 27/8". 7/8" x 23/4". Each 1 x 27/8". Each... \$1.76

#### TYPE 36D "POWERLYTIC" ELECTROLYTICS

Maximum capacitance in a given case size for space economy. Extremely long shelf life. Uses most reliable seal developed by Sprague with pressure type silicone rubber safety vents. Low 32" screw insert terminal. Plastic outer tube.



Size Code: AA—1¾" Dia. X 2¼" L; AB—1¾" Dia. X 3½" L.; AC—1¾" Dia. X 4½" L; BB—2" Dia. X 3½" L.; BC—2" Dia. X 4½" L.; CC—2½" Dia. X 4½" L.; CD—2½" Dia. X 4½" L.; DC—3" Dia. X 4½" L.; DD—3" Dia. X 4½" L.; DF—3" Dia. X 5%" L.

Stock	Manufacturers	55190	WV	Case 1-5	6-24	25-49	50-99 100	Up
No.	Number	uf	DC	Code Each	Each	Each	Each Ea	ich_
15A5484 -4	36D462G015AA2A		15	AA \$4.35	\$2.89	\$2.10	\$1.50 S	1.37
15A54851	36D133G015AC2A		15	AC 6.15	4.10	2.89		1.94
15A5486 -9	36D313G015BC2A		15	BC 7.35	6.13	4.46	3.19	2.90
15A5488 -5	36D272G025AA2A		25	AA 4.35	2.89	2.10	1.50	1.37
15A5489 -3	36D552G025AB2A		25	AB 5.25	3.49	2.54	1.82	1.65
15A5490 -1	36D822G025AC2A	8,200	25	AC 6.15	4.10	2.98		1.94
15A5491 -9	36D323G025CC2A		25	CC 10.68	8.91	6.48		4.21
15A5492 -/	36D553G025DD2A		25	DD 17.02	14.61	10.30		6.70
15A5493 -5	36D132G050AA2A		50	AA 4.35	2.89	2.10		1.37
15A5494 -3	36D262G050AB2A		50	AB 5.25	3.49	2.54		1.65
15A5495 -0 15A5496 -8	36D392G050AC2A 36D602G050BB2A		50	AC 6.15 BB 6.75	4.10	2.98		1.94
15A5497 -6	36D902G050BC2A		50		5.17	3.76		2.44
15A5498 -4	36D153G050CC2A		50		6.13	4.46		2.90
15A5499 -2	36D223G050DC2A		50		8.91	6.48		4.21
15A5500 -7	36D252G075AC2A		75		12.54	9.12		5.93
15A5501 -5	36D392G075BB2A		75		4.43	3.22		2.09
15A5502 -3	36D592G075BC2A		75		5.39 6.79	3.92		2.55
15A5503 -1	36D113G075CD2A		75	BC 8.16 CD 14.20	11.83	8.60		3.21 5.59
15A5507 -2	36D901F150AC2A		150	AC 6.20	4.43	3.22		2.09
15A5508-0	36D212F150BC2A		150	BC 8.16	6.79	4.94		3.21
15A5509 -8	36D362F150CC2A	3.600	150	CC 12.82	10.67	7.76		5.04
15A5510 -6	36D122F250BC2A	1.200	250	BC 8.16	6.79	4.94		3.21
15A5511-4	36D452F250DF2A	4.500	250	DF 23.64	19.69	14.32		3.31
15A5515-5	36D252F350DF2A		350	DF 23.64	19.69	14.32		3.31
15A5516-3					6.79	4.94		
15A5517-1					15.10	10.98		7.14
15A5516-3 15A5517-1	36D331F450BC2A 36D861F450DC2A	330	450 450	BC 8.16 DC 18.12	6.79	4.94	3.53	3.21

#### VERTICAL MOUNTING CLAMPS

Stk. No.	Type	Diameter	1-5 Ea.	6-24 Ea.	25-49 Ea.	50-99 Ea.	100 Up Ea.	
15A5518 -9		13/8"	\$0.72	\$0.48	\$0.43	\$0.40	\$0.36	
15A5519-7		2"	1.08	.72	.65	.60	.54	
15A5520-5		21/2"	1.08	.72	.65	.60	54	
15A5521-3	4586-2	3"	1.26	.84	.76	.70	.63	

### TYPE 39D "POWERLYTIC"

ELECTROLYTIC CAPACITORS
High capacitance units in axial-lead tubular configuration, Furnished with outer insulating sleeve. Operating temperature range -20° C to +85° C.



	10 WVDC,	12 VDC SURGE				
Stock No. Mfg. No.	uf		-5 6-24 ach Each	25-49 Each	50-99 Each	100 Up Each
15A5522-1 39D108G010FJ4 15A5523-9 39D258G010GL4 15A5524-7 39D508G010HP4	5000	.687X1.750 \$3. .812 X 2.250 3. .937 X 2.750 4.	15 2.30	\$1.00 1.15 1.39	\$0.88 1.01 1.22	\$0.65 .75 .91
15A5525-4 39D128G015FL4 15A5526-2 39D258G015GP4 15A5527-0 39D408G015JL4	1200 2500	C, 18 VDC SURGE 687 X 2.250 3. 812 X 2.750 3. 1.062 X 2.250 4.	69 2.46	1.06 1.23 1.43	.93 1.08 1.26	.69 .80 .93
	25 WVD	C. 30 VDC SURGE				
15A5530-4 39D207G025EJ4 15A5531-2 39D507G025HE4 15A5532-0 39D108G025GL4 15A5533-8 39D228G025HP4 15A5534-6 39D408G025JS4	200 500 1000 2200	.562 X 1.750 2. .937 X 1.250 3. .812 X 2.250 3. .937 X 2.750 4.	82 1.88 21 2.14 45 2.30 17 2.78 10 3.40	.94 1.07 1.15 1.39 1.70	.83 .94 1.01 1.22 1.49	.62 .70 .75 .91
15A5535-3 39D257G030EL4 15A5536-1 39D507G030FL4 15A5537-9 39D118G030GP4	250 500 1 1100		18 2.12 69 2.46	.97 1.06 1.23	.85 .93 1.08	.63 .69 .80
15A5538-7 39D308G030JS4		C. 65 VDC SURGE	10 3.40	1.70	1.49	111
15A5539-5 39D506G050EE4 15A5540-3 39D107G050EJ4 15A5541-1 39D257G050HE4 15A5542-9 39D507G050GL4 15A5543-7 39D118G050HP4	100 250 500 1100	.562 X 1.250 2. .562 X 1.750 2. .937 X 1.250 3. .812 X 2.250 3. .937 X 2.750 4.	82 1.88 21 2.14 45 2.30 17 2.78	.90 .94 1.07 1.15 1.39	.79 .83 .94 1.01 1.22	.59 .62 .70 .75
15A5544-5 39D238G050JT4		1.062 X 3.750 5.1 C. 95 VDC SURGE	50 3.70	1.85	1.62	1.21
15A5545-2 39D257G075JE4 15A5546-0 39D507G075HL4	500	1.062 X 1.250 3.4 .937 X 2.250 3.1	84 2.56	1.15	1.01	.75
15A5547-8 39D256F150EJ4 15A5548-6 39D506F150FJ4 15A5549-4 39D107F150FP4	25 50 100	.562 X 1.750 2.687 X 1.750 3.687 X 2.750 3.	82 1.88 00 2.00 33 2.22	.94 1.00 1.11	.83 .88 .98	.62 .65 .73
15A5552-8 39D206F250EL4 15A5553-6 39D107F250HL4 15A5554-4 39D207F250JP4 15A5555-1 39D307F250JT4	20 100 200	.937X2.250 3. 1.062X2.750 4.	91 1.94 84 2.56 65 3.10 55 3.70	.97 1.28 1.55 1.85	.85 1.12 1.36 1.62	.63 .84 1.01 1.21
15A5557-7. 39D167F350JT4	350 WVD		55 3.70	1.85	1.62	1.21



B-A IS YOUR SOURCE FOR ALL SPRAGUE ENERGY STORAGE CAPACITORS FOR PHOTOFLASH AND LASER APPLICATIONS.

## GUE CAPACITORS

#### TE LITTL-LYTIC ELECTROLYTICS

Ultra-small, dependable all welded construction for transistorized and miniature assemblies. Withstands temperatures to 85° C. Low leakage current, long shelf life. With clear plastic insulating sleeves.

Size Code: BA—.260 X .536"; BB—.260 X .723"; CB—.322 X .723"; CC—.322 X .848"; DC—.385 X .848"; DD—.385 X .973"; DF—.385 X "1.286"; DH—.385 X 1.536".

No. No. uf WVDC Size Each Each Each Each Each Each Each Each	Stock	Mfg.				1-5	6-24	25-49	50-99	100 Up
15A5278-0	No.	No.		WVDC	Size	Each	Each	Each	Each	Each
15A5291.3   TE-1093   35				3						\$0.25
15A5291.3   TE-1093   35	15A5277-2	TE-1058		3			.60	.42	.33	.25
15A5291.3   TE-1093   35	15A5278-0	TE-1059.5		3		1.04	.69	.47	.38	.28
15A5291.3   TE-1093   35	15A5280-6	TE-1064	200	3	CC	1.08	.72	.50	.40	.30
15A5291.3   TE-1093   35	15A5281-4			3		1.08	.72	.50	.40	.30
15A5291.3   TE-1093   35	15A5282-2	TE-1068	500	3		1.22	.81	.56	.45	.34
15A5291.3   TE-1093   35		TE-1080	1	6		.90	.60	.42	.33	.25
15A5291.3   TE-1093   35	15A5285-5	TE-1081	2	6	BA		.60	.42	.33	.25
15A5291.3   TE-1093   35	15A5286-3	TE-1084	5	6				.42		.25
15A5291.3   TE-1093   35	15A5287-1	TE-1087	10	6	BA		.60	.42	.33	.25
15A5293.9         TE-1102         100         6         CC         1.08         .72         .50         .40         .30           15A5334-1         TE-1104         200         6         DC         1.08         .72         .50         .40         .30           15A5335-8         TE-1107         5         500         6         DD         1.13         .75         .51         .40         .30           15A5338-2         TE-1107         5         500         6         DH         1.31         .87         .60         .48         .36           15A5339-0         TE-1121         2         12         BA         .90         .60         .42         .33         .25           15A5342-4         TE-1128         10         12         BA         .90         .60         .42         .33         .25           15A5342-4         TE-1128         15         12         BA         .90         .60         .42         .33         .25           15A5344-0         TE-1131         25         12         BA         .90         .60         .42         .33         .25           15A5345-7         TE-1133         50         12         CB	15A5289-7			6	BB	.90	.60	.42	.33	.25
15A5293.9         TE-1102         100         6         CC         1.08         .72         .50         .40         .30           15A5334-1         TE-1104         200         6         DC         1.08         .72         .50         .40         .30           15A5335-8         TE-1107         5         500         6         DD         1.13         .75         .51         .40         .30           15A5338-2         TE-1107         5         500         6         DH         1.31         .87         .60         .48         .36           15A5339-0         TE-1121         2         12         BA         .90         .60         .42         .33         .25           15A5342-4         TE-1128         10         12         BA         .90         .60         .42         .33         .25           15A5342-4         TE-1128         15         12         BA         .90         .60         .42         .33         .25           15A5344-0         TE-1131         25         12         BA         .90         .60         .42         .33         .25           15A5345-7         TE-1133         50         12         CB	15A5290-5			6		.90	.60	.42	.33	.25
15A5335-8         TE-1107         5         6         DD         1.13         .75         .51         .40         .30           15A5337-4         TE-1107         5         500         6         DH         1.31         .87         .60         .42         .33         .25           15A5338-2         TE-1120         1         12         BA         .90         .60         .42         .33         .25           15A5341-6         TE-1127         5         12         BA         .90         .60         .42         .33         .25           15A5342-4         TE-1129         15         12         BA         .90         .60         .42         .33         .25           15A6343-7         TE-1139         15         12         BA         .90         .60         .42         .33         .25           15A6344-0         TE-1131         25         12         BA         .90         .60         .42         .33         .25           15A6344-7         TE-1135         100         12         CB         1.04         .69         .47         .38         .28           15A6347-3         TE-1135         200         12         DF	15A5291-3			6	BB	.90	.60	.42	.33	.25
15A5335-8         TE-1107         5         6         DD         1.13         .75         .51         .40         .30           15A5337-4         TE-1107         5         500         6         DH         1.31         .87         .60         .42         .33         .25           15A5338-2         TE-1120         1         12         BA         .90         .60         .42         .33         .25           15A5341-6         TE-1127         5         12         BA         .90         .60         .42         .33         .25           15A5342-4         TE-1129         15         12         BA         .90         .60         .42         .33         .25           15A6343-7         TE-1139         15         12         BA         .90         .60         .42         .33         .25           15A6344-0         TE-1131         25         12         BA         .90         .60         .42         .33         .25           15A6344-7         TE-1135         100         12         CB         1.04         .69         .47         .38         .28           15A6347-3         TE-1135         200         12         DF	15A5293-9	TE-1102		6	CC	1.08	.12	.50	.40	.30
15A5337-4 TE-1107.5 500 6 DH 1.31 87 60 48 .36 15A5338-0 TE-1120 1 12 BA .90 .60 .42 .33 .25 15A5339-0 TE-1121 2 12 BA .90 .60 .42 .33 .25 15A5341-6 TE-1127 5 12 BA .90 .60 .42 .33 .25 15A5342-4 TE-1128 10 12 BA .90 .60 .42 .33 .25 15A5342-4 TE-1128 15 12 BA .90 .60 .42 .33 .25 15A5342-7 TE-1131 25 12 BA .90 .60 .42 .33 .25 15A5344-0 TE-1131 25 12 BA .90 .60 .42 .33 .25 15A5345-7 TE-1131 25 12 BB .90 .60 .42 .33 .25 15A5345-7 TE-1133 .50 12 CB .104 .69 .47 .38 .28 15A5346-7 TE-1138 .250 .12 CB .104 .69 .47 .38 .28 15A5347-3 TE-1137 .200 12 CC .108 .72 .50 .40 .30 .30 .15A5347-3 TE-1138 .250 .12 DF .122 .81 .56 .45 .34 .15A5351-5 TE-1138 .250 .12 DF .122 .81 .56 .45 .34 .15A5351-5 TE-1148 1 16 BA .90 .60 .42 .33 .25 .15A529-7 TE-1152 5 16 BA .90 .60 .42 .33 .25 .15A529-7 TE-1152 5 16 BA .90 .60 .42 .33 .25 .15A529-7 TE-1152 5 16 BA .90 .60 .42 .33 .25 .15A529-7 TE-1155 10 16 BA .90 .60 .42 .33 .25 .25 .15A529-7 TE-1155 10 16 BA .90 .60 .42 .33 .25 .25 .15A529-7 TE-1155 10 16 BA .90 .60 .42 .33 .25 .25 .15A529-7 TE-1155 10 16 BA .90 .60 .42 .33 .25 .25 .25 .25 .25 .25 .25 .25 .25 .25	15A5334-1	TE-1104	200	6	DC		.12	.50		.30
15A5338-2 TE-1120										
15A5339-0 TE-1127		TE-1107.5		6		1.31		.60	.48	.36
15A5342-4     TE-1128     10     12     BA     .90     .60     .42     .33     .25       15A5344-0     TE-1131     25     12     BB     .90     .60     .42     .33     .25       15A5344-0     TE-1131     25     12     BB     .90     .60     .42     .33     .25       15A5346-5     TE-1133     50     12     CC     1.04     .69     .47     .38     .28       15A5347-3     TE-1137     200     12     CC     1.08     .72     .50     .40     .30       15A5348-1     TE-1138     250     12     DF     1.22     .81     .56     .45     .34       15A5351-5     TE-1148     1     16     BA     .90     .60     .42     .33     .25       15A5292-7     TE-1152     5     16     BA     .90     .60     .42     .33     .25       15A5295-4     TE-1155     10     16     BA     .90     .60     .42     .33     .25       15A5295-4     TE-1155     10     16     BA     .90     .60     .42     .33     .25	15A5338-2	TE-1120	1	12		.90		.42	.33	.25
15A5342-4     TE-1128     10     12     BA     .90     .60     .42     .33     .25       15A5344-0     TE-1131     25     12     BB     .90     .60     .42     .33     .25       15A5344-0     TE-1131     25     12     BB     .90     .60     .42     .33     .25       15A5346-5     TE-1133     50     12     CC     1.04     .69     .47     .38     .28       15A5347-3     TE-1137     200     12     CC     1.08     .72     .50     .40     .30       15A5348-1     TE-1138     250     12     DF     1.22     .81     .56     .45     .34       15A5351-5     TE-1148     1     16     BA     .90     .60     .42     .33     .25       15A5292-7     TE-1152     5     16     BA     .90     .60     .42     .33     .25       15A5295-4     TE-1155     10     16     BA     .90     .60     .42     .33     .25       15A5295-4     TE-1155     10     16     BA     .90     .60     .42     .33     .25			2	12		.90	.60	.42	.33	.25
15A5346-5     TE-1135     100     12     CC     1.08     .72     .50     .40     .30       15A5347-3     TE-1137     200     12     DF     1.22     .81     .56     .45     .34       15A5348-1     TE-1138     250     12     DF     1.22     .81     .56     .45     .34       15A5351-5     TE-1148     1     16     BA     .90     .60     .42     .33     .25       15A5352-3     TE-1149     2     16     BA     .90     .60     .42     .33     .25       15A5295-7     TE-1152     5     16     BA     .90     .60     .42     .33     .25       15A5295-7     TE-1155     10     16     BA     .90     .60     .42     .33     .25	15A5341-6	TE-1127	5	12		.90	.60	.42	.33	.25
15A5346-5     TE-1135     100     12     CC     1.08     .72     .50     .40     .30       15A5347-3     TE-1137     200     12     DF     1.22     .81     .56     .45     .34       15A5348-1     TE-1138     250     12     DF     1.22     .81     .56     .45     .34       15A5351-5     TE-1148     1     16     BA     .90     .60     .42     .33     .25       15A5352-3     TE-1149     2     16     BA     .90     .60     .42     .33     .25       15A5295-7     TE-1152     5     16     BA     .90     .60     .42     .33     .25       15A5295-7     TE-1155     10     16     BA     .90     .60     .42     .33     .25	15A5342-4	TE-1128		12		.90		.42	.33	.25
15A5346-5     TE-1135     100     12     CC     1.08     .72     .50     .40     .30       15A5347-3     TE-1137     200     12     DF     1.22     .81     .56     .45     .34       15A5348-1     TE-1138     250     12     DF     1.22     .81     .56     .45     .34       15A5351-5     TE-1148     1     16     BA     .90     .60     .42     .33     .25       15A5352-3     TE-1149     2     16     BA     .90     .60     .42     .33     .25       15A5295-7     TE-1152     5     16     BA     .90     .60     .42     .33     .25       15A5295-7     TE-1155     10     16     BA     .90     .60     .42     .33     .25	15A5343-2	TE-1129		12	BA	.90		.42	.33	.25
15A5346-5     TE-1135     100     12     CC     1.08     .72     .50     .40     .30       15A5347-3     TE-1137     200     12     DF     1.22     .81     .56     .45     .34       15A5348-1     TE-1138     250     12     DF     1.22     .81     .56     .45     .34       15A5351-5     TE-1148     1     16     BA     .90     .60     .42     .33     .25       15A5352-3     TE-1149     2     16     BA     .90     .60     .42     .33     .25       15A5295-7     TE-1152     5     16     BA     .90     .60     .42     .33     .25       15A5295-4     TE-1155     10     16     BA     .90     .60     .42     .33     .25				12	BB	.90	.60	.42	.33	.25
15A5348-1     TE-1138     250     12     DF     122     81     .56     .45     .34       15A5351-5     TE-1148     1     16     BA     .90     .60     .42     .33     .25       15A5352-3     TE-1149     2     16     BA     .90     .60     .42     .33     .25       15A5294-7     TE-1152     5     16     BA     .90     .60     .42     .33     .25       15A5295-4     TE-1155     10     16     BA     .90     .60     .42     .33     .25	15A5345-7			12	CB		.69	.4/	.38	.28
15A5348-1     TE-1138     250     12     DF     122     81     .56     .45     .34       15A5351-5     TE-1148     1     16     BA     .90     .60     .42     .33     .25       15A5352-3     TE-1149     2     16     BA     .90     .60     .42     .33     .25       15A5294-7     TE-1152     5     16     BA     .90     .60     .42     .33     .25       15A5295-4     TE-1155     10     16     BA     .90     .60     .42     .33     .25	15A5346-5	TE-1135	100	12	CC	1.08	.12	.50	.40	.30
15A5351-5 TE-1148 1 16 BA .90 .60 .42 .33 .25 15A5292-7 TE-1152 5 16 BA .90 .60 .42 .33 .25 15A5294-7 TE-1155 10 16 BA .90 .60 .42 .33 .25 15A5295-4 TE-1155 10 16 BA .90 .60 .42 .33 .25	15A5347-3			12		1.22	.01	.50	.40	.34
15A5352-3 TE-1149 2 16 BA .90 .60 .42 .33 .25 15A5294-7 TE-1152 5 16 BA .90 .60 .42 .33 .25 15A5295-4 TE-1155 10 16 BA .90 .60 .42 .33 .25			250					.50	.45	35
15A5294-7 TE-1152			1			.90		.42	.33	.25
15A5295-4 TE-1155 10 16 BA .90 .60 .42 .33 .25	15A5352-3		2						.33	
									.33	
15A5296-2 1E-1156 15 16 BB .90 .60 .42 .33 .25			10						.33	
	15A5296-2	TE-1156	15	16	RB	.90	.60	.42	.33	.25

Stock	Mfg.	C. S.	700		1-5	6-24	25-49	50-99	100 Up
No.	No.	uf	WVDC	Size	Each	Each	Each	Each	Each
15A5297-0	TE-1157	20	16	BB	\$0.90	\$0.60	\$0.42	\$0.33	\$0.25
15A5298-8	TE-1157.1	25	16	BB	.90	.60	.42	.33	.25
15A5299-6	TE-1158	30	16 16	CB	1.04	.69	.47	.38	.28
15A5300-2	TE-1160	50			1.04	.69	.47	.38	.30
15A5301-0	TE-1162	100	16	DC	1.08	.72	.50	.40	.30
15A5302-8	TE-1163	150	16	DD DF	1.13	.75	.51	.40	.30
15A5303-6	TE-1164 TE-1164.5	250	16	DF	1.22	.81	.56	.45	34
15A5304-4	TE 1200	250	25	BA	.90	.60	.42	.33	.30 .34 .34 .25
15A5307-7 15A5308-5	TE-1200 TE-1201	2	25	BA	.90	.60	42	.33	25
15A5308-5	TE-1201.1	2	25	BA	.90	.60	.42	.33	25
15A5310-1	TE-1202	2 3 5	25	BA	.90	.60	.42	33	25
15A5311-9	TE-1204	10	25	BB	.90	.60	42	33	25
1545311-3	TE-1205	15	25	BB	.90	.60	.42	.33 .33 .33 .33	.25 .25 .25 .25 .25
15A5312-7 15A5313-5	TE-1206	20	25	CB	1.04	.69	.47	.38	.28
15A5314-3	TF-1207	25	25	CB	1.04	.69	.47	.38	.28
15A5315-0	TE-1207 TE-1208	35	25	CB	1.04	.69	.47	.38	.28
15A5316-8	TE-1209	50	25	CC	1.08	.72	.50	.40	30
15A5317-6	TE-1211	100	25	DD	1.13	.75	.51	.40	.30
15A5318-4	TE-1212 TE-1213	150	25	DF	1.22	.81	.56	.45	.34
15A5319-2	TE-1213	200	25	DH	1.31	.87	.60	.48	.36
15A5320-0	TE-1300	1	50	BA	.90	.60	.42	.33	.25
15A5321-8	TE-1301	2	50	BA	.90	.60	.42	.33	.25
15A5323-4	TE-1303	5	50	BB	.90	.60	.42	.33	.25
15A5324-2	TE-1304	10	50	CB	1.04	.69	.47	.38	.28
15A5325-9	TE-1305	20	50	CC	1.08	.72	.50	.40	.30
15A5326-7	TE-1305.5	25	50	CC	1.08	.72	.50	.40	.30
15A5327-5	TE-1306	35	50	DC	1.08	.72	.50	.40	.30
15A5328-3	TE-1307	50	50	DD	1.31	.87	.51	.48	.36
15A5329-1	TE-1309	100	50	DH	1.22	.81	.55	.44	.33
15A5332-5	TE-1404	20	100		1.35	.90	.62	49	.37
15A5354-9	TE-1409			DF	1.44	.96	.66	.43 E2	.40
15A5356-4	TE-1411	30	100	DH	.99	.66	.00	.53	28
15A5357-2	TE-1500	2	150	BB	.99	.66	46	.37	.28
15A5358-0	TE-1501	5	150	CC	1.22	.81	.55	.44	.33
15A5361-4	TE-1504 TE-1507	10	150	DD	1.22	.81	.55	44	33
15A5362-2 15A5363-0	TE-1507	15	150	DF	1.35	.90	.62	.49	.33
15A5364-8	TE-1509	20	150	DH	1.44	.96	.66	.53	.40
10A0304-0	15-1909	20	130	DII	411	5 .00	.00	.00	103/200

#### SPRAGUE "ATOM" ELECTROLYTICS

Dependable tubulars designed for 185° F operation. Will withstand high temperatures, ripple and surge currents. Hermetic aluminum can with heat shrinkable plastic sleeve.

Stk. No.	Mfg. No.	uf	WVDC	Dia. X L.	1-5	6-49	50-99	100 Up
15A5396-0	TVA-1161	250	16	13/X1%6	\$1.49	\$0.99	\$0.64	\$0.48
15A5397-8	TVA-1162	500	16	13/32X111/32	1.76	1.17	.75	.56 .71 .33 .35
15A5398-6	TVA-1163	1000	16	13/6X113/6	2.21	1.47	.94 .44 .47 .49	.71
15A5399-4	TVA-1204	10	25	%2X 3/4	1.04	.69	.44	.33
15A5400-0	TVA-1205	25	25	11/32X3/4	1.13	.75	.47	.35
	TVA-1206	50	25	11/32X 7/8	1.13	.75	.49	.38
	TVA-1207	100	25	13/32X1	1.40	.93	.60	.45
	TVA-1208	250	25	15/32X15/16	1.98	1.32	.85	.64
15A5404-2		500	25	3/4 X113/6	2.57	1.71	1.10	.83
15A5405-9	TVA-1211	1000		16X1-21/32	4.19	2.79	1.82	1.36
15A5406-7		2	50	3/2X 13/32	.95	.63	.40	30
15A5407-5	TVA-1303	5	50	%2X 3/4	1.04	.69	.44	.33
15A5408-3	TVA-1304	10	50	11/ <sub>32</sub> X 3/ <sub>4</sub> 11/ <sub>32</sub> X 7/ <sub>8</sub>	1.04	.69	.44	.33
15A5409-1	TVA-1306	25	50	11/32X 7/8	1.13	75	.47	.35
15A5410-9	TVA-1308	50	50	13/32X1	1.26	.84	.55	.41
15A5411-7	TVA-1310	100	50	13/32X111/32	1.40	.93	.60	.45
15A5412-5	TVA-1311	150	50	15/32X119/32	1.58	1.05	.68	.41 .45 .51 .65
15A5413-3	TVA-1312	250	50	1/2X 1 9/16	1,98	1.32	.86	.65
15A5414-1	TVA-1315	500	50	1X1%6	2.66	1.77	1.14	.86
15A5415-8	TVA-1402	4	150	11/32X 1/8	1.21	.81	.53	.40
15A5416-6	TVA-1403	5	150	11/37X 1/8	1.21	.81	.53	.40
15A5379-6	TVA-1406	10	150	1352X1	1.40	.93	.60	.45
	TVA-1410	20	150	13/32X119/32	1.53	1.02	.66	.49

Stk. No. Mfg. No.	uf	WVDC	Dia. X L.	1-5	6-49	50-99	100 Up
15A5381-2 TVA-1412	30	150	15/ <sub>12</sub> X11% <sub>2</sub>	\$1.67	\$1.11	\$0.71	\$0.54
15A5382-0 TVA-1413	40	150	13/6X1%6	2.03	1.35	1.88	.66
15A5384-6 TVA-1418	80	150	15% X1%	2.43	1.62	1.05	.79
15A5385-3 TVA-1420	100	150	15/6X21/16	2.52	1.68	1.09	.82
15A5386-1 TVA-1422	150	150	11/6X21/16	2.66	1.77	1.15	.86
15A5389-5 TVA-1501	4	250	13/32X1	1.17	.78	.51	. 38
15A5390-3 TVA-1503	8	250	13/32X111/32	1.76	1.17	.75	.56
15A5391-1 TVA-1504	10	250	15/32X15/16	1.76	1.17	.76	.57
15A5392-9 TVA-1508	20	250	13/6X1%	2.21	1.47	.94	.1
15A5394-5 TVA-1511	40	250	13 /16X1-13/32	2.39	1.59	1.03	.71
15A5395-2 TVA-1512	50	250	15%6X1 13%6	2.45	1.65	1.07	.81
15A5365-5 TVA-1604	10	350	3/4 X1%6	1.98	1.32	.85	.64
15A5366-3 TVA-1608	20	350	13/6X113/6	2.30	1.53	1.00	.7!
15A5367-1 TVA-1620	100	350	11/16X213/16	3.76	2.46	1.60	1.2
15A5368-9 TVA-1700	1	450	13/32X 7/8	1.85	1.23	.79	.5
15A5370-5 TVA-1702	4	450	15/32X1%6	1.89	1.26	.81	8888.6
15A5371 -3 TVA-1704	8	450	1/2X19/16	2.03	1.35	.88	.6
15A5372-1 TVA-1705	10	450	1/2X19/16	2.03	1.35	.88	.6
15A5373-9 TVA-1708	16	450	13/6X113/6	2.24	1.56	1.02	.7
15A5374-7 TVA-1709	20	450	15/6X113/6	2.24	1.56	1.02	.7
15A5375-4 TVA-1712	40	450	1 /16X2-13/32	3.29	2.19	05 1.41	1.0
15A5376-2 TVA-1713	50	450	11/6X21/6	3.51	2.34	1.52	1.1
15A5377 -0 TVA-1716	80	450	11/6X311/6	4.55	3.03	1.98	1.41
15A5378-8 TVA-1718	100	450	11/16X3-5/32	5.36	3.57	2.32	1.7

#### SPRAGUE CERA-MITE CERAMIC CAPACITORS

Small general application types for by-pass and coupling. All values below .05 uf are rated 1000 WVDC. .05 and .1 are 500 WVDC. Rated for 85  $^\circ$  C, Tol.  $\pm$  20%.

Stock No.	Cap.	Sprague No.	Stock No.	Cap.	Sprague No.	Stock No.	Cap.	Sprague No.
15A2440-9	5	5GA-V50	15A2457-3	56	5GA-Q56	15A2479-7	820 pt	5GA-T82
15A2444-1	10	5GA-Q10	15A2461-5	100	5GA-T10	15A2480-5	.001	5GA-D10
15A2445-8	12	5GA-Q12	15A2462-3	120	5GA-T12	15A2482-1	.0015	5GA-D15
15A2446-6	15	5GA-Q15	15A2465-6	200	5GA-T20	15A2484-7	.002	5GA-D20
15A2447-4	18	5GA-Q18	15A2466-4	220	5GA-T22	15A2485-4	.0022	5GA-D22
15A2448-2	2 20	5GA-Q20	15A2467-2	250	5GA-T25	15A2487-0	.0027	5GA-D27
15A2449-0	22	5GA-Q22	15A2468-0	270	5GA-T27	15A2488-8	.003	5GA-D30
15A2450-8		5GA-Q25	15A2469-8	300	5GA-T30		.0033	5GA-D33
15A2451-6	27	5GA-Q27	15A2470-6	330	5GA-T33	15A2492-0	.0047	5GA-D47
15A2452-4		5GA-Q30	15A2472-2	390	5GA-T39		.005	5GA-D50
15A2453-2		5GA-Q33	15A2473-0	470	5GA-T47		.01	5GA-S10
15A2454-0		5GA-Q39	15A2474 -8	500	5GA-T50	15A2498-7	.02	5GA-S20
15A2455-		5GA-Q47	15A2476-3	680	5GA-T68	15A2501-8	.05	5GA-S50
15A2456-	50	5GA-Q50	THE WAY		PART OF THE	15A2502-6	.1	5GA-P10

Values	6-99 Each	100 Up Each
5 pf thru .005 uf	\$0.15	\$0.12
.02 uf	 .27 .36	.21 .29 .55

SPRAGUE HYPERCON LOW VOLTAGE CERAMIC DISCS
Ultra miniature, ideal for by-pass and coupling in transistor circuitry where low power factor is required. Tolerance +50, -20%.

Stock	Sprague				1-5	6-99	100 Up
No.	No.	uf.	WVDC	Dia. X L.	Each	Each	Each
15A2580-2	HY340	.022	12	1/4 X 5/32"	\$0.23	\$0.15	\$0.12
15A2582-8	HY350	.047	12	3/8 X 5/32"	.27	.18	Published 14
15A2584-4	HY360	.1	12	7/16 X 5/32"	.32	.21	.17
15A2586-9	HY370	.22	12	5/8 X 5/32"	.50	.33	.26
15A2587-7	HY375	.33	12	3/4 X 5/32"	.68	.45	.36
15A2588-5	HY380	.47	12	7/8 X 5/32"	.86	.45	.26 .36 .45
15A2589-3	HY625	.022	16	1/4 X 5/32"	.23	.15	.12
15A2590-1	HY630	.033	16 16	5/16 X 5/32"	.23	.15	.12
15A2591-9	HY635	.047	16	3/8 X 5/32"	.27	.18	commence 14
15A2593-5	HY650	.1	16	1/2 X 5/32"	.32	.21	.12 .14 .17 .12 .12 .14
15A2597-6	HY720	.015	25	1/4 X 5/32"	.23	.15	.12
15A2598-4	HY725	.022	25	5/16 X 5/32"	.23	.15	.12
15A2600-8	HY735	.047	25	7/16 X 5/32"	.27	.18	.14
15A2601-6	HY740	.068	25	1/2 X 5/32"	.27	.18	.14
15A2602-4	HY750	1	25	19/32 X 3/8"	.32	.21	.17
15A2603-2	HY765	.15	25	11/16 X 3/8"	.45	.30	.24
15A2604-0	HY770	.22	25	7/8 X 3/8"	.50	.33	.26
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## MINIATURIZED DISCS FOR TRANSISTOR CIRCUITS 100 WVDC, Tolerance ± 20%

Stk. No.	uf	Dia.	Sprague No.	1-5 Each	6-99 Each	100 Up Each
15A2503-4	.05	11/16"	TGL-S50	\$0.32	\$0.21	\$0.17
15A2504-2	.005	5/16"	TG-D50	.23 .23 .23 .23	.15	.12
15A2505-9	.01	3/8"	TG-S10	.23	.15	12
15A2506-7	.02	1/2"	TG-S20	.23	.15	.12 .12 .12
15A2507-5	.025	1/2"	TG-S25	.23	.15	.12
15A2509 -1	.05	1/2"	TG-S50	.59	.39	.30
15A2510-9	.1	11/16"	TG-P10	.77	.51	.40

# AGUE CAPACITO



#### SPRAGUE TYPE 503D VERTI-LYTIC

 $85^{\circ}\text{C}$  miniature Electrolytics. Use in high density printed circuit packaging. Meets 1000 hour test at  $85^{\circ}\text{C}$  for stability, series resistance and leakage. Size code is last two letters of mfg. no.

Size Code: AS-236" Dia. X. 433" L.; BB-315" Dia. X. 492 L.; CB-394" Dia. X. 492" L.; CD-394" Dia. X. 630" L.; CG-394" Dia. X. 787" L.; DG-512" Dia. X. 787" L.; DK-512" Dia. X. 984" L.; EK-630" Dia. X. 984" L.; ER-630" Dia. X. 1.437" L.; ET-630" Dia. X. 1.614" L.; HS-197" Dia. X. 433" L.

				1-5	6-24	25-99	100 Up
Stk. No.	Mfg. No.	uf	V	Each	Each	Each	Each
15A5699 -7	503D476G6R3AS	47	6.3	\$0.45	\$0.30	\$0.20	\$0.15 .17 .23
15A5700 -3	503D107G6R3BB	100	6.3	.50	.33	.22	1.17
15A5701 -1	503D477G6R3CG	470	6.3	.72	.48	.31	.23
15A5702 -9	503D108G6R3DK	1000	6.3	1.13	.75	.50	.38
15A5703 -7 15A5704 -5	503D228G6R3ER 503D338G6R3ET	2200	6.3 6.3 6.3	1.67 2.16	1.11	.74	.55
15A5705 -2	503D107G010CB	100	10	.54	.36	.24	.38 .55 .72 .18
15A5706 -0	503D227G010CD	220	10	.63	.42	.27	.20
15A5707 -8	503D477G010DG	470	10	,95	.63	.41	.31
15A5708 -6	5030108G010EK	1000	10	1.40	.93	.62	.47
15A5709 -4	503D228G010EU	2200	10	1.85	1.23	.80	.60
15A5710 -2 15A5711 -0	503D106G016HS 503D476G016BB	10	16 16	.45	.30	.20	a constant
15A5712 -8	503D107G016CD	100	16	.63	.42	27	.60 .15 .17 .20 .23
15A5713 -6	503D227G016CG	220	16	.72	.48	.31	23
15A5714 -4	503D477G016DK	470	16	1.13	.75	.50	.38
15A5715 -1	503D108G016ER	1000	16	1.67	1.11	.74	.55
15A5716 -9	503D158G016ET	1500	16	2.16	1.44	.96	.72
15A5717 -7 15A5718 -5	503D474G025HS 503D105G025HS	47	25 25	.45	.30	.20	.15
15A5719 -3	503D225G025HS	22	25	.45	.30	.20	B-Addition
15A5720 -1	503D475G025HS	2.2	25	.45	.30	20	150015
15A5720 -1 15A5721 -9	503D106G025AS	10	25	.45	.30	.20	.55 .72 .15 .15 .15 .15 .17 .17
15A5722-7	503D226G025BB	22	25	.50	.33	.22	.17
15A5723-5	503D336G025BB	33	25	.50	.33	.22	.17
15A5725 -0 15A5726 -8	503D107G025CG 503D227G025DG	100 220	25 25	.72	.48	.31	.23
15A5727 -6	503D477G025EK	470	25	1.40	.63	.62	4
15A5728-4	503D108G025EU	1000	25	1.85	1.23	.81	.60
15A5729-2	503D474G063HS	.47	63	.50	.33	.22	17
15A5730 -0	503D105G063HS	1.0	63	.50	.33	.22	
15A5731 -8	503D155G063HS	1.5	63	.50	.33	22	
15A5732-6 15A5733-4	503D225G063AS 503D335G063AS	1.5 2.2 3.3	63	.50	.33	.22	- 1
15A5734 -2	503D475G063BB	4.7	63	.50	.33	.24	-11
15A5735 -9	5030685G063BB	6.8	63	.59	.39	.24	11
15A5736 -7	503D106G063BB	10	63	.59	.39	.24	11
15A5737 -5	503D156G063CB	15	63	.63	.42	.26	.20
15A5738 -3	503D226G063CB	22	63	.63	.42	.26	.20
15A5739 -1 15A5740 -9	503D336G063CG 503D476G063CG	33	63	.77	.51	.34	.2:
15A5740 -9 15A5741 -7	503D686G063DG	68	63	1.04	.69	.34	.2!
15A5742 -5	503D10/G063DK	100	63	1.25	.83	.55	.4
15A5743 -3	503D157G063EK	150	63	1.53	1.02	.68	.51
15A5744 -1	503D227G063EU	220	63	2.03	1.35	.88	.61
15A5745 -8	503D337G063ET	330	63	2.39	1.59	1.06	1.883.79

#### TYPE AB MOTOR STARTING CAPACITORS

Molded phenolic cases protect against moisture, dirt and grease. Humid atmosphere has no effect. Dual blade universal terminals for quick connect or solder connections. See screw connector adaptors, end caps and clip type brackets listed below.





Operating temperatures  $-30^\circ$  C, to  $+65^\circ$  C ( $-22^\circ$  F to  $+149^\circ$  F). Each capacitor replaces any value between minimum and maximum rating shown.

All are rated 125 VAC except \* which are 250 VAC, 60 Hz.

Stock	Mfg.	Mond .g.	Size	1-9	10-24	25 Up
No.	No.	mae wf	D. X L.	Each	Each	Each
15A2413-6	AB1209	72-88	1% X 23/4"	\$2.33	\$1.70	\$1.30
15A2414-4	AB1210	88-108	1% X 23/4"	2.33	1.70	1.30
15A2415-1	AB1213	108-130	11/6 X 23/4"	2.45	1.78	1.36
15A2417-7	AB1219	130-156	11/6 X 23/4"	2.63	1.92	1.46
15A2418-5	AB1222	145-175	11/16 X 2-3/4"	2.73	2.00	1.52
15A2419-3	AB1225	161-193	1"/16 X 23/4"	2.83	2.06	1.57
15A2420-1	AB1228	189-227	1'/16 X 23/4"	3.25	2.36	1.79
15A2421-9	AB1231	216-259	11/16 X 3 3/8"	3.43	2.50	1.90
15A2422-7	AB1237	243-292	17 /16 X 33/8"	3.83	2.78	2.11
15A2423-5 15A2424-3	AB1240	270-324 324-388	17/16 X 33/8"	4.08	2.96	2.26
15A2424-3 15A2425-0	AB1242 AB1246	378-440	113/6 X 33/8" 113/6 X 33/8"	4.40	3.20	2.43
15A2426-8	AB1252	430-516	113/16 X 33/8"	6.20	4.52	3.44
15A2427-6	AB1258	540-648	113% X 43%"	7.25	5.28	4.02
15A2428-4	AB2502	*25-30	17/4 X 23/4"	3.46	2.63	2.00
15A2429-2	AB2507	*53-64	11% X 3%"	4.51	3.42	2.60

#### SPRAGUE HARDWARE FOR MOTOR STARTING CAPACITORS

	MO	UNTING BRACKE	(Requires En		TO LOCALINE
Stk. No. 15A2433-4 15A2434-2 15A2435-9	Type ABB-1 ABB-2 ABB-3	Capacitor Leng 2 3/4 " 3.3/8 " 4.3/8 "	1-9 th Each \$0.60 .70 .80	10-24 Each \$0.52 .60 .70	25 UP Each \$0.44 .50 .58
Stk. No. 15A2436-7 15A2437-5	Type ABC-2 ABC-4	PLASTIC Diameter	1-9 Each \$0.50 .60	10-24 Each \$0.46 .52	25 Up Ea. \$0.36 .44
	Comments .		MALL CONTRACTOR OF	THE RESERVE THE PARTY OF THE PA	上京 100 大小市 100 下午

SCREW ADAPTOR. Type 4-10-14. For making wire connections without solder. 2 required per 15A2439-1 1-9 Each ...... 50° 10-24 Each ..... 44° 25 Up Each ..... 36°

#### TYPE 225P FILMITE "E" CAPACITORS

Wound from Polyester film and thin gauge foil. Radial-leads facilitate insertion on Printed Circuit boards. Tolerance  $\pm$  10%. Epoxy coated for moisture protection.

			100 VOLTS DC					
Stock	Sprague		Size	1-5	6.24	25.49	50-99 10	00 Up
No.	225P-	uf	H. T. L.	Each	Each	Each	Each	Each
15A2292-4	10291WD3	.001	5/16X13/64X45/64	\$0.41	\$0.27	\$0.17	\$0.13	\$0.11
15A2296-5	22291WD3	.0022	5/16X13/64X45/64	.41	.27	.17	.13	.11
15A2298-1	33291WD3	.0033	5/16X13/64X45/64	.41	.27	.17	.13	.11
15A2300-5	47291WD3	.0047	5/16X13/64X45/64	.41	.27	.17	.13	.11
15A2302-1	68291WD3	.0068	5/16X13/64X45/64	.41	.27	.17	.13	.11
15A2303-9	82291WD3	.0082	5/16X13/64X45/64	.41	.27	.17	.13	.11
15A2304-7	10391WD3	.01	5/16X13/64X45/64	.41	.27	.17	.13	.11
15A2306-2	15391WD3	.015	5/16X13/64X45/64	.41	.27	.17	.13	.11
15A2308-8	22391WD3	.022	5/16X13/64X45/64	.41	.27	.17	.13	.11
15A2310-4	33391WD3	.033	21/64X15/64X45/64	.41	.27	.17	.13	.11
15A2312-0	47391WD3	.047	11/32X1/4X45/64	.50	.33	.19	.15	.12
15A2314-6	68391WD3	.068	3/8X9/32X45/64	.50	.33	.20	.15	.12
15A2316-1	10491WD3	.1	17/32X21/64X45/64	.50	.33	.20	.16	.13
15A2564-6	22491XD3	.22	43/64X27/64X3/4	.76	.51	.32	.25	.20
15A2576-0	33491XD3	.33	27/32X31/64X3/4	.95	.63	.39	.30	.20
15A2578-6	47491XD3	.47	27/32X19/32X3/4	1.49	.99	.61	.48	.38
15A2320-3	10591YD3	1.0	63/64X47/64X13/16	2.11	1.41	.86	.67	.54



#### TYPE 196D DIPPED TANTALEX SOLID-TANTALUM CAPACITORS

Epoxy-dipped coating economically provides good electrical and mechanical protection. High stability, very little capacitance change, even at outer limits of operating temperature range (—55C to +85C). Low dissipation factor tolerance ±20%. Sizes: Last three digits of type number indicates size: HA-1, .375" X .175" X .175", JA-1, .425" X .225" X .225", KA-1, .45" X .225" X .225". PE-4, 4" D X 65" H, TE-4, 4" D X .75" H.

- CT 001 00 0 0 0		s all one of	0 WVDC, 26 V	SURGE	
	PRICES -99 100-Up	Stock No.	Sprague 196D	uf	1-5 Ea.
.98 .65 1.13 .75 1.28 .85 3.15 2.10	.33 .26 .38 .30 .43 .34 .05 .84 .93 1.54	15A8009-6 15A8184-7 15A8010-4 15A8011-2	106X0020JA1 156X0020KA1 476X0020PE4 107X0020TE4	10 15 47 100	\$1.13 1.28 3.15 5.78
		MAN 33 2	5 WVDC. 32 V	SURGE	
6 WVDC, 8 V SI Stock Sprague No. 1960	URGE uf 1-5 Ea.	15A8012 -0 15A8013 -8 15A8014 -6 15A8016 -1	225X0025HA1 685X0025JA1 106X0025KA1 336X0025PE4	2.2 6.8 10 33	.98 1.13 1.28 3.15
15A8000-5 157X0006 PE4 15A8001-3 337X0006 TE4	150 \$3.15 330 5.78	4 3	5 WVDC, 46 V	SURGE	
10 WVDC, 13 V S 15A8002-1 226X0010JA1 15A8182-1 336X0010KA1 15A8003-9 107X0010 PE4	A STATE OF THE STA	15A8019 - 5 15A8020 - 3 15A8021 - 1 15A8022 - 9 15A8023 - 7	104X0035HA1 224X0035HA1 334X0035HA1 474X0035HA1 105X0035HA1	.10 .22 .33 .47 1.0	.98 .98 .98 .98 .98
15 WVDC, 20 V S 15A8183-9 335X0015HA1 15A8006-1 156X0015JA1 15A8006-2 256X0015KA1 15A8007-0 686X0015PE4 15A8008-8 157X0015TE4	3.3 .98 15 1.13 22 1.28 68 3.15 150 5.78	15A8026-0 15A8027-8 15A8028-6 15A8029-4 15A8030-2 15A8032-8	335X0035JA1 475X0035JA1 685X0035KA1 106X0035PE4 156X0035PE4 336X0035TE4	3.3 4:7 6.8 10 15 33	1.13 1.13 1.28 3.15 3.15 5.78



#### TYPE 198D VERTICAL MOUNTING PLASTIC - ENCASED SOLID TANTALUM CAPACITORS

Encapsulated in a tough flame retardant plastic case with excellent dielectric properties. Straight leads with .1" spacing. Flat at top of the capacitor permits quick identification of the positive terminal. Operating temperature range -55°C to +85°C without derating Tolerance  $\pm$  10%. Last letter of Sprague number indicates size: H. 25" Dia. X. 325" High K. 25" Dia. X. 475 High

High, K. 25" Dia. X,475 High.		
198D QUANTITY PRICES	20 VOLTS DC 26 VDC SURGE Stock Sprague	
1-5 6-24 25-49 50-99 100 Up Each Each Each Each Each	Stock Sprague No. 198D uf 15A8194-6 156X9020K1 15	1-5 Ea. \$1.47
\$1.53 \$1.02 \$0.77 \$0.65 \$0.52 1.71 1.14 86 72 58	25 VOLTS DC 32 VDC SURGE 15A8195-3 225X9025H1 2.2	\$1.11
1.89 1.26 .95 .80 .64 1.95 1.30 .98 .82 .66 2.13 1.42 1.07 .90 .72 2.31 1.54 1.16 .97 .78	De Code Design Cons	200 (AE)
2.31 1.54 1.16 .97 .78	35 VOLTS DC 46 VDC SURGE 15A8197-9 104X9035H1 1 15A8198-7 224X9035H1 .22	1.53 1.53
4 VOLTS DC 5.3 VDC SURGE Stock Sprague	15A8199-5 474X9035H1 .47 15A8200-1 684X9035H1 .68 15A8201-9 105X9035H1 1.	1.53 1.53 1.53
No. 1980 ut 1-5 Ea. 15A8186-2 106X9004H1 10 \$1.53	15A8202-7 225X9035K1 2.2 15A8204-3 475X9035K1 4.7	1.71
6 VOLTS DC 8VDC SURGE	15A8205-0 685X9035K1 6.8 50 VOLTS DC 65 VDC SURGE	1.89
5A8188-8 685X9006H1 6.8 1.53 5A8189-6 686X9006K1 68 1.89	15A8206-8 104X9050H1 .1 15A8207-6 154X9050H1 .15	1.95 1.95 1.95
10 VOLTS DC 13 VDC SURGE 15A8190-4 475X9010H1 4.7 1.53 15A8191-2 336X9010K1 33 1.89	15A8208-4 224X9050H1 .22 15A8209-2 334X9050H1 .33 15A8210-0 474X9050H1 .47	1.95
15 VOLTS DC 20 VDC SURGE 15A8192-0 335X9015H1 3.3 1.53	15A8211 -8 105X9050H1 1. 15A8212 -6 225X9050K1 2.2 15A8213 -4 335X9050K1 3.3	1.95 2.13 2.13
5A8193-8 226X9015K1 22 1.89 nt (816) 756-2525	15A8214-2 475X9050K1 4.7	2.31
11 (010) / 00-2020		The same of

Call B-A Sales Departmen

# CRL AND MALLORY CAPACITORS

#### CENTRALAB MONOLITHIC CERAMIC CAPACITORS



CY high capacitance, small size, epoxy coated with radial copper cal steel leads  $14^\circ$  long. General purpose types. Temperature/capacitance change +22%, -82% max. from  $+25^\circ$  C. reading over temp. range  $+10^\circ$  to  $+85^\circ$  C. Operating temp.  $-55^\circ$  C. to  $+85^\circ$  C. Tolerance  $\pm 20\%$  except \*GMV 50 WVDC.

Size Code: 15 - .15 X .15 X .10". Lead spacing .10". 20 - .20 X .20 X .125". Lead spacing .10" 30 - .30 X .30 X .15". Lead spacing .20" .40 - .40 X .40 X .15". Lead spacing .20".

			50 WVDC		OU CHANTEL S	-1.255
Stock No.	CY No.	Cap	Size Code	1-5 Each	6-99 Each	100 Up Each
15A2605-7 15A2607-3 15A2611-5 15A2612-3 15A2614-9 15A2614-9 15A2618-0 15A2619-8	15C102M 15C222M 15C103M 15C103P* 15C223M 15C473M 20C104M 20C104P*	.001 .0022 .01 .01 .022 .047	15 15 15 15 15 15 20 20 20 30 30	\$0.49 .49 .49 .36 .49 .51 .85 .60	\$0.39 .39 .39 .29 .39 .41 .68 .48 .77	\$0.19 .19 .19 .15 .15 .19 .22 .33 .24 .39 .43 .100 .69 1.29 2.86
15A2621-4 15A2623-0 15A2625-5 15A2626-3 15A2628-9 15A2630-5	20C224M 20C474M 30C105M 30C105P* 30C225M 40C475M	.47 1. 1. 2.2 4.7	20 30 30 30 30 40	1.09 2.50 1.73 3.21 7.16	2.00 1.38 2.57 5.73	.43 1.00 .69 1.29 2.86

#### CENTRALAB TEMPERATURE COMPENSATING DISCS TYPE DTZ-NPO ZERO DRIFT WITH TEMPERATURE-500 W V DC

Stock No. 15A768-5 15A769-3 15A770-1 15A771-9 15A772-7	pf 1.5 2.2 3.3 4.7 6.8	Size Dia. 320" .290" .290" .290" .290"	1-5 Each \$0.24 .24 .24 .24	6-99 Each \$0.19 .19 .19		Stock No. 15B333-8 15B334-6 15B336-1 15B337-9 15B339-5	22 33 47	Size Dia. .290" .290" .390" .485" .590"	1-5 Each \$0.24 .24 .24 .25 .31	6-99 Each \$0.19 .19 .19 .20 .25	100 Up Each \$0.09 .09 .10 .15
15A772-7	10	290"	24	19	.09	128339-0	100	.590	.31	.25	- 11

GENERAL PURPOSE CERAMIC DISCS TYPE DD

Durez Insulation with ov	erall protective coating for	maximum protec-
tion against humidity ar	d voltage breakdown., 1000	DC volts work-
ing, *600 V. Tolerance 1	0% through 1500 pf., ba	lance guaranteed
minimum value. Size .1	6" maximum thickness, 5	thru 820 pt.
.290" dia., 1000 thru 220	.385" dia., 3300 thru 680	00 .59" dia., .01
and .02 are .69" dia. an	1 .05 is .25" thick875" di	
Stock No. pf.	Stock No. pf	. Stock

Stock No.	pf.	Stock No.	pt.	STOCK NO.	pr.
15A121-7-005-9	5	15A121-7-082-8	82	15A121-7-150-3	500
15A121-7-010-9	10	15A121-7-091-9	91	15A121-7-156-0	560
15A121-7-012-5	12	15A121-7-110-7	100	15A121-7-168-5	680
15A121-7-015-8	15	15A121-7-112-3	120	15A121-7-182-6	820
15A121-7-018-2	18	15A121-7-115-6	150	15A121-7-210-5	1000
15A121-7-020-8	20	15A121-7-118-0	180	15A121-7-215-4	1500
15A121-7-022-4	22	15A121-7-120-6	200	15A121-7-220-4	2000
15A121-7-025-7	25	15A121-7-122-2	220	15A121-7-222-0	2200
15A121-7-027-3	27	15A121-7-125-5	250	15A121-7-233-7	3300
15A121-7-033-1	33 39 47	15A121-7-127-1	270	15A121-7-247-7	4700
15A121-7-039-8	39	15A121-7-130-5	300	15A121-7-250-1	5000
15A121-7-047-1	47	15A121-7-133-9	330	15A121-7-268-3	6800 10K
15A121-7-050-5	50	15A121-7-135-4	350	15A121-7-310-3	10K
15A121-7-056-2	56	15A121-7-136-2	360	15A121-7-320-2	*20K
15A121-7-068-7	68	15A121-7-139-6	390	15A121-7-350-9	*50K
15A121-7-075-2	- 75	15A121-7-147-9	470		
	Specify	Stk. No. and Capacity	from Table	Above	of the

Capacity	1-5 Each	6-99 Each	100 Up Ea.
5 to 820 pf	\$0.23	50.18	50.09
1000 to 3300 pt		.25	.12
5000 pf	20	.28	14
10K pf	AC	.37	17
20K pf		.35	.17
5UK pt	1.34	1.33	.12

	4000	1/017	HILL IV A ID	BUFFERS
DD16	1600	VULI	HI-RAP	BUFFERS

•	Stk. No.	uf.	Dia.	1-5 Each	6-99 Each	100 Up Each	Stk. No.	uf.	Dia.	1-5 Each	6-99 Each	100 Up Each
	15B954-1 15B955-8		.60"	.35	.28	\$0.14	15B957-4 15B961-6	.006	.70"	\$0.44	\$0.35	\$0.19
	15B956-6	.005	.60"	.35	.28	.14			11882	8293	0221	128830

#### DD30 -- 3000 WVDC GENERAL PURPOSE

Stock No.	pf	Size Dia.	1-5 Each	6-99 Each	100 Up Each	Stock No.	pf	Size Dia.	1-5 Each	6-99 Each	100 Up Each
15A869-1	10	.33"	\$0.31	\$0.25	\$0.13	15B386-6	500	.33"	\$0.31	\$0.25	\$0.13
15A385-8 15A875-8	50	.33"	.31	.25	.13	15A868-3	.0022 Mfd.	63"	.50	.40	.21
15A876-6	150	.33"	.31 .31 .31	.25	.13	15A873-3	.005				
15A877-4	220	.33"	.31	.25	.13		Mfd.	.8"	.75	.60	.32

#### CENTRALAB TRANSMITTING CERAMICS



For high frequency circuits. Tolerance type $850\pm10\%$ ; $858\pm20\%$ . All have $6\text{-}32$ tapped studs. Size $13/16$ ° x	15A246-2 15A247-0	Mfg. Ca No. p 850S 10 858S 50	f. Coeff. 00 N750 00 Hi K	Each \$4.3 4.7
5/8" long, 5000 volts.	15A248-8	858S 100	00 Hi K	4.7

#### LOW VOLTAGE CERAMIC DISC

Operating temperature: -55 $^\circ$  to  $+85\,^\circ$  C. Durez coated wax impregnated insulation.  $1\%^2$  # 22 tinned wire leads.



		UK10. 10 VOLT	III TRA-KA	PS_Toleranc	e + 80 -20%		
Stock	Cap.	Max.	Thick-	Lead	1-5	6-99	100 Up
No.	uf.	Dia.	ness	Spacing	Each	Each	Each
15A858-4	.05	.290"	.156"	.250"	\$0.25	\$0.20	\$0.11
15A859-2	.1	.405"	.156"	.250"	.31	.25	.13
15A860-0	.2	.590"	.156"	.375"	.40	.32	.17
15A861-8	.47	.820"	.156"	.375"	.73	.58	.31
		<b>UK16, 16 VOLT</b>		APS—Toleran	ce ± 20%		
15A2267-6	.01	.290"	.156"	.250"	.25	.20	.11
15A2268-4	.022	.290"	.156"	.250"	.25	.20	.11
15A2269-2	.033	4.290"	.156"	.250"	.25	.20	807311
15A2270-0	.05	.390"	.156"	.250"	.28	.22	.12
15A2272-6	.1	.485"	.156"	.375"	.34	.27	.15
		<b>UK20, 20 VOLT</b>		PS—Tolerance	The state of the s	CHECUSE 13	
15A2276-7	.05	.405"	.156"	.250"	.29	.23	.12
15A2277-5	1	.590"	.156"	.375"	.42	.28	.22
15A2278-3	.2	.820"	.156"	.375"	.69	.55	.29
		UK25, 25 VOI		(APS—Tolera		Miles of	1000218-B
15A2246-0	.01	.290"	.156"	.250"	.25	.20	.11
15A2247-8	.022	.290"	.156"	.250"	.25	.20	.11
15A2248-6	.033	.390"	.156"	.250"	.28	.22	.12
15A2249-4	.05	.05"	.156"	.250"	.31	.25	.13
15A2251-0	.1	.590"	.156"	.375"	.40	.32	.17
15A2253-6	.2	.920"	.156"	.375"	.73	.58	.31
15422544	01	UK50, VOL .290"	.156"	APS—Tolerar .250"		503000	1949128
15A2254-4	.01		.156"	.250"	.28	.22	.12
15A2256-9 15A2257-7	.022	.485"	.156"	.250	.38	.30	.16
15A2258-5	.033	.515	.156"	.375"	.40	.32	.18
15A2259-3	.047	.690"	.156"	.375"	41	.33	.18
15A2261-9	.05	.920"	.156"	.375"	1.00	80	.43
13MZZ01-3		DDM. 15		olerance + 60	100000000000000000000000000000000000000	.00	0.43
158773-5	.005	.390"	.156"	.250"	.40	.32	.14
15B774-3	.003	390"	.156"	.250"	.40	.32	.14
15B775-0	.02	406"	166"	.250"	.79	.63	.41
130773-0	.02	STATE OF THE PARTY OF THE PARTY.	The second secon	ERANCE ± 20	and the second second second second	Orogina.	1805202-5
15A2652-9	.005	.390"	156"	.250"	.16	.12	.06
15A2653-7	.01	.390"	.156"	.250"	.16	.13	.08
15A2654-5	.02	.590"	.156"	.375"	.31	.25	.14
15A2655-2	.025		.156"	.375"	.34	.27	.14
15A2657-8	.05	.690"	.156"	.375"	.38	.30	.16
15A2658-6	.1	718"	.156"	375"	.84	.67	.38
	199				The second second second	The same of the same	

#### MALLORY POLYSTYRENE CAPACITORS



Can replace mica, film, paper and ceramic types. Insulation resistance: greater than 100,000 megohms. Power factor: less than 0.05%. Temperature coefficient: -150 ppm/°C. Temperature range: -40° C to  $+85^{\circ}$  C. Voltage: 600 WVDC; surge 1500 VDC. Tolerance:  $\pm$  1 pF 5-18 pF;  $\pm$  5% all others.

#### SPECIFY STOCK NO. AND CAPACITY DESIRED

	SPEC	ILI SINCK	NU. AND CAT	ACITI DI	COINED		
Stock No.	Mallory No.	Cap.	Size In. Dia. x Lg.	1-5 Each	6-24 Each	25-99 Each	100 249
15A10-2-006-7 15A10-2-010-9 15A10-2-010-9 15A10-2-018-2 15A10-2-018-2 15A10-2-02-8 15A10-2-02-4 15A10-2-02-4 15A10-2-030-7 15A10-2-030-7 15A10-2-030-7 15A10-2-030-7 15A10-2-030-7 15A10-2-030-7 15A10-2-030-7 15A10-2-030-7 15A10-2-030-7 15A10-2-115-6 15A10-2-210-5 15A10-2-220-6 15A10-2-220-6 15A10-2-220-6 15A10-2-220-6 15A10-2-220-6 15A10-2-220-6 15A10-2-220-6 15A10-2-230-6	SX568 SX410 SX415 SX418 SX420 SX422 SX427 SX430 SX430 SX430 SX439 SX447 SX456 SX468 SX482 SX310 SX312 SX312 SX312 SX320 SX322 SX222 SX222 SX222 SX223	6.8 10 15 18 20 22 24 4 27 30 39 47 6 6 8 8 2 100 220 2240 270 330 390 470 5 6 8 0 8 20 1.500 2.200 2.	166 x 395 168 x 395 168 x 395 170 x 395 170 x 395 170 x 395 171 x 395 172 x 395 173 x 395 175 x 395 175 x 395 180 x 395 184 x 395 189 x 385 195 x 395 221 x 395 233 x 395 248 x 395 194 x 590 197 x 590 202 x 590 203 x	\$ 266 266 266 266 266 266 266 266 266 266	\$.16 .16 .16 .16 .16 .16 .16 .16 .16 .16	\$.14 .14 .14 .14 .14 .14 .14 .14 .14 .14	\$ 12 12 12 12 12 12 12 12 12 12 12 12 12 1

## CHMITE AND TRW RESISTO

#### TRW TYPE RC COMPOSITION RESISTORS



EIA/MIL color coded. Conforms to MIL-R-11 specs. Formerly known as GBT and SR types. RC07 ½-watt stocked in 2.7 ohms thru -22 Meg. Size ½ X ½". RC20 ½-Watt stocked in 2.7 ohms thru 22 Meg. Size ½-%x½". RC32 1-Watt stocked in 2.7 Ohms thru 22 Meg. Size ½-%x½". RC42 2-Watt stocked in 10 ohms thru 22 Meg. Size ½-%x½".

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Meg	Meg	Meg
		-					-	
2.7	16	100	620	3900	24,000	0.1	0.62	3.9
3.0	18	110	680	4300	27,000	0.11	0.68	4.3
3.3	20	120	750	4700	30,000	0.12	0.75	4.7
3.6	22	130	820	5100	33,000	0.13	0.82	5.1
3.9	24	150	910	5600	36,000	0.15	0.91	5.6
4.3	27	160	1000	6200	39,000	0.16	1.00	6.2
4.7	30	180	1100	6800	43,000	0.18	1.1	6.8
5.1	33	200	1200	7500	47,000	0.20	1.2	7.5
5.6	36	220	1300	8200	51,000	0.22	1.3	8.2
6.2	39	240	1500	9100	56,000	0.24	1.5	9.1
6.8	43	270	1600	10,000	62,000	0.27	1.6	10.0
7.5	47	300	1800	11,000	68,000	0.30	1.8	11.0
8.2	51	330	2000	12,000	75,000	0.33	2.0	12.0
9.1	56	360	2200	13,000	82,000	0.36	2.2	13.0
10	62	390	2400	15,000		0.39	2.4	15.0
					91,000		2.7	
11	68	430	2700	16,000		0.43		16.0
12	75	470	3000	18,000		0.47	3.0	18.
13	82	510	3300	20,000		0.51	3.3	20.
15	91	560	3600	22.000		0.56	3.6	22.

Values may be assorted for quantity price if multiples of 50 of each value are ordered. Specify Stk. No., Resistance, Wattage and Tolerance on order.

Stock No.	Туре	Wattage	Tolerance	1-9 Each	10-99 Each	100-499 Each	500-999 Each	1000- 2499	2500 Up Ea.
14M5002-5	RC07	1/4-Watt	5% \$0		\$0.16	\$0.08		\$0.06	\$0.055
14M5003-3	RC07	1/4-Watt	10%	.24	.12	.06	.05	.04	.029

0.055 .029 .055 .029 .08 14M5004-1 14M5005-8 14M5006-6 14M5007-4 14M5008-2 14M5009-0 1/2-Watt 1-Watt 1-Watt 2-Watt .04 .085 .05 .20 24 40 28 59 39 .05 .09 .06 .21 12 20 14 35 25 RC32 RC32 RC42 10 07 23 13

#### TRW BWH MOLDED WIRE-WOUND RESISTORS

Exceptional stability, reliability and long-term life characteristics of a wire-wound unit. Provides resistances not available in composition resistors. Rated ½-watt @ 137° C Ambient, 1-watt @ 115° C Ambient, and 2-watt @ 70° C Ambient. Size, 36 x 3/2". EIA color coded. Wide first band distinguishes from composition resistors.

BWH STANDARD STOCK VALUES All resistances shown stocked in 5% Tolerance. 10% Tolerance stocked only in resistances listed in Bold Face.											
Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms			
0.10	0.33	1.0	3.3	10	33	100	330	1000			
0.11	0.36	1.1	3.6	11	36	110	360	1100			
0.12	0.39	1.2	3.9	12	39	120	390	1200			
0.13	0.43	1.3	4.3	13	43	130	430	1300			
0.15	0.47	1.5	4.7	15	47	150	470	150			
0.16	0.51	1.6	5.1	16	51	160	510	160			
0.18	0.56	1.8	5.6	18	56	180	560	1800			
0.20	0.62	2.0	6.2	20	62	200	620	200			
0.22	0.68	2.2	6.8	22	68	220	680	2200			
0.24	0.75	2.4	7.5	24	75	240	750	240			
0.27	0.82	2.7	8.2	27	82	270	820	19 17 18			
0.30	0.91	3.0	9.1	30	91	300	910				

5% Tolerance	e - Specify Stock No. 1-9 Each	10-99	100-499	500-999
10 to 9.1 0hm	\$0.80	\$0.48 .30	\$0.29	\$0.19 .12
10 to 8.2 0hm		. 14M5041-3 an .24	d Ohms .14	.10
Quantity nurchasers of 1	Contract Con	h Value contact	R.A for quot	ation

#### TRW RESISTOR ASSORTMENTS



Sturdy metal cabinets are FREE with any assortment. Designed for stocking. Four non-spill drawers and 28 compartments. Size: 5% x 5½ x 10%". Shpg. wt. 5 lbs.

14A5018-1. .7A Assortment. 150 1/4-Watt. Range from 47 ohm thru 1 meg. ± 10%. \$21.25 Each... 

14A5017-3. .5A Asst. 125 1-Watt. Range from 47 ohm thru 4.7 meg. ±10%. \$24.27 Each...

14A5015-7. .3A Asst. 120 2-Watt. Range 4.7 ohm thru 1 meg. ±10% \$31.40



### COLOR CODE GUIDE

Here is one of the handiest Color Code Guides for Resistors ever devised. Standard EIA range is automatically and accurately indicated. 32c 14A5001-7. Each 32c



### OHMITE 8-12-20 WATT TYPE 200 "BROWN DEVILS"

Wire-wound units with wire leads for convenient mounting. Sturdy, vitreous enameled coating provides protection from humidity and mechanical damage. Tolerance  $\pm$  5%, 1 ohm and higher.  $\pm$  10% values below 1 ohm.

Table Of Stock Resistance Values and Ohmite Brown Devil Numbers

_		Children Co. Co. Co. Co. Co. Co.			Service of the last of the las	100	
Ohms	8 Watts 1"L.x5/16"D.	12 Watts 1¾"Lx5/16"D.	20 Watts 2"Lx" /16"D.	Ohms	8 Watts 1"L x <sup>5</sup> /16"D	12 Watts - 134"Lx3 16"D	20 Watts 2"Lx 46"D
.5	A STATE OF THE STA	1700A	1800A	350	1523	1727	1813
1	1500	1701	1802A	400	· Channelle	1728	metal and
2	1501	1705	1802B	500	1526	1730	1815
2 3 4	1502 1503	1706 1707	1802C 1802D	600 750	1527	1731 1733	
5	1504	1708	1803	1000	1532	1736	1821
7.5	1505	1709	1003	1200	1534	1738	1822
10	1506	1710	1804	1500	1536	1740	1824
15	1508	1712	COUNTY STATE	1750	1537	1741	1825
20	1509	1713	288	2000	1538	1742	1827
25	1510	1714	1805	2500	1540	1744	1830
30	1511	1715		3000	1541	1745	1832
35	1512	1716		4000	1543	1710	1834
40	1513	1717	1000	5000	1545	1749	1836
50 75	1514 1515	1718 1719	1806 1807	6000	1546	1750 1752	1837 1839
100	1516	1720	1808	7500	1551	1755	1841
150	1518	1722	1809	15 K	1553	1761	1843
200	1519	1723	1810	20 K	1555	1765	1844
250	1521	1725	1811	25 K	1557	1767	1845
300	1522	1726	1812	50 K		1772	1850

#### OHMITE BROWN DEVIL PRICES

8-WATT - No. 14M5012-4 1-9 Ea. \$0.92 1 to 7.5 Ohms 10 to 1000 Ohms 1200 to 5000 Ohms 6000 to 10,000 Ohms 15,000 and 20,000 25,000 Ohms .81 .86 .97

8-WATT - Specify Stock No. 14M5012-4 and Resistance Value on Orders.

12-WATT - Specify Stock No. 14M5013-2 and Resistance Value on Orders.

	and resistance value on orders.	
	12-WATT - No. 14M5013-2	
1	.5 to 7.5 Ohms \$1.20	\$1.02
3	10 to 1000 Ohms	.71
1	1200 to 5000 Ohms	.76
3	6000 to 20,000 Ohms 1.20	1.02
ì	25,000 Ohms 1.25	1.06
2	50,000 Ohms 1.36	1.16

#### 20-WATT - Specify Stock No. 14M5014-0 and Resistance Value on Orders

Value			10 Up Each
.5 to 5 Ohms			\$1.16
10 to 1000 Ohms			.83
1200 to 5000 Ohms		1.00	85
6000 to 20,000 Ohms	A Company of the Comp	1 31	1.11
25,000 Ohms		1.42	1.21
50,000 Ohms		1.64	1.39

#### OHMITE OHMS LAW CALCULATORS

Pocket size slide rule with parallel resistance scale and standard slide rule scales A, B, C, D on one side and Ohms Law Calculator with full instructions on other side.

#### SQUARE POWER WIRE-WOUND RESISTORS $\pm$ 10% TOLERANCE

Fireproof insulated resistors, may be mounted directly to chassis. Rectangular shape facilitates stacking and clamping together. Ceramic case is resistant to solvents and moisture. You may assort sizes for quantity price if a minimum of 10 of each value are ordered. B-A stocks all listed resistance values.

#### 5-WATT RESISTORS

Stock No.	Dimensions	Resistance Ohms	1-5 Each	6-99 Each	100 Up Each
14M5194-0	%"X%"X11/32"	1 to 5K 7.5K	\$0.48	\$0.29	\$0.23 .30
Stocked Resistance	Values for 5-Watt 50 150 100 175 125 250	Square Wire-Wound Resignation 330 470 350 500 400 560	stors (Ohms) 1K 1.2K 2K	2.2K 3K 3.3K	3.5K 5K 7.5K

#### 10-WATT RESISTORS

	ock lo.	Dimens	sions	Resis		1-5 Each	6-99 Each	100 Up Each
14M!	5196-5	1% X % X	11/32"		5K o 15K to 30K	\$0.63 .77 1.07	\$0.38 .46 .64	\$0.25 .33 .47
Stock	ed Resistan				e-Wound Re			MARIE .
.5	17.5	125 150	270 330	500 560	1.2K 1.75K	3K 3.3K	4.7K	20K 22K
5	25 47	175	350	750	2K	3.5K	10K	25K 30K
10 15	50 100	250	470	1K	2.2K	4K	15K	30K

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## RHEOSTATS & RESISTORS



Vitreous enameled over resistance wound on ceramic core. Easy to obtain odd resistance values, adjust voltages, etc. Supplied with one adjustable lug and two mounting brackets. Additional taps can be made with adjustable lugs shown below. Tolerance  $\pm 10\%$ 

CHART OF RESISTANCE VALUES, OHMITE NUMBERS, DIMENSIONS AND MAXIMUM AMPERE RATINGS

	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE									
Ohms Resistanc	12 Watt 1¾ "L.X Ohmite e No.	5/16"D.	25 Watt 2" L. X 9 Ohmite No.		50 Watt 4" L.X 9 Ohmite No.		100 Watt 6½ "L.X Ohmite No.	8 Oz. ¾ "D. Max. Amps	225 Watt 10 ½ "L.X Ohmite No.	
1 2 5 10 25 50 100 150 250 1000 1500 2500 10,000 10,000 10,000	1001 1002 1004 1006 1009 1010 1012 1013 1015 1019 1023 1025 1028 1033 1040	3.46 2.45 1.54 1.09 .69 .34 .28 .22 .15 .11 .089 .049 .035	0360 0360B 0362 0363 0365 0365 0368 0369 0371 0372 0375 0378 0385 0387	5.54 2.24 1.58 1.50 .71 .50 .41 .32 .22 .16 .070 .050 .036	0560A 0560B 0560 0561 0561 0563 0565 0566 0568 0572 0573 0578 0578 0581	7.07 5.3.16 2.23 1.41 1.00 .71 .58 .45 .32 .22 .18 .14 .10 .071	0956A 0956B 0956 0957 0958 0959 0960 0960B 0961 0962 0963 0964 0965	10. 7.07 4.47 3.16 2.00 1.41 1.00 -63 .45 .32 .20 .14 .10	1356A 1356B 1356 1357 1358 1359 1360 1360B 1361 1362	15. 10.60 6.72 4.74 3.00 2.12 1.50 

#### SPECIFY STOCK NUMBER AND RESISTANCE WHEN ORDERING

12-WATT DIVIDOHM, No.	14M50	19-9
Value 1	-9 Ea.	10 Up
1 to 5 ohms		\$1.69
1500 to 5000 Ohms	1.79	1.52
10,000 Ohms	1.99	1.69

25-WATT DIVIDOHM.		
Value	1-9 Ea. 10 Up	
1 to 1000 Ohms		
10,000 Ohms	2.07 1.76	
15,000 Ohms	2.19 1.86	

50-WATT DIVIDOHM. No.	14M502	
1 0hm \$:		\$2.73
2 to 1000 Ohms		2.17
1500 to 5000 Ohms	2.62	2.23
10,000 Ohms		2.24
50,000 Ohms	3.35	2.85

SIDITATE THE SHEET		
100-WATT DIVIDOHM, No.	14M502	22-3
Value Wat and Antile vining	1-9 Ea.	10 Up.
1 to 2 Ohms	\$4.68	\$3.98
5 to 50 Ohms	4.39	3.73
100 to 250 Ohms	3.56	3.03
500 to 1000 0hms	3.61	3.07
2500 to 5000 Ohms	3.66	3.11
10 000 Ohms		3.30
100,000 Ohms		4.19

225-WATT	DIVID	OHM, No.	14M5023-1
1 to 2 Ohms			\$10.10 \$8.59
5 to 10 Ohms.			9.22 7.84
25 to 50 Ohms			
100 to 250 Oh			
500 to 1000 0			
5000 Ohms			0.24 5.30

STANDAR	D ADJUSTABLE	LUGS
	R DIVIDOHMS	
	nite No. For	1-9 Ea.
14A5024-9 211		\$0.31
	1 25 & 50 Wa	att .31
14A5026-4 212		.35
14A5027-2 213	3 225 Watt	.45

#### GC ELECTRONICS 000

#### SLIDE **POTENTIOMETERS**

Modern, space-saving controls for audio equipment, measuring devices, electronic projects countless applications, includes knob, mounting screws with spacer washers, mounting template, calibrating scales, control title label and wiring diagram.



AUDIO TAPER				LINEAR TAPER				
	Stk. No.	Туре	Resistance	Each	Stk. No.	Туре	Resistance	Each
	14A1314-8	B1-700	1K	\$1.60	14A1320-5	B1-708	1K 5K	\$1.60
	14A1315-5 14A1316-3	B1-701 B1-702	1K 5K 10K 50K	1.60	14A1321-3 14A1322-1	B1-710 B1-712	10K	1.60
	14A1317-1 14A1318-9	B1-703 B1-704	50K 100K	1.60	14A1323-9 14A1324-7	B1-714 B1-716	50K 100K	1.60
	14A1319-7	B1-706	500K	1.60	14A1325-4	B1-718	500K	1.60

MALLORY "L", "T" & "L-A" PADS

Standard 15 Audio Watts (4 watts DC). L&T pads 1\( \frac{1}{2}'' \) dia.; L pad is 1\( \frac{1}{2}'' \) deep; T pad is 1\( \frac{1}{2}'' \) deep. Both have \( \frac{1}{2}'' \) long with \( \frac{3}{2}'' \) bushing. All are complete with mounting hardware, and dial plate. 15-WATT "L" PADS



Stk. No. Ty	pe Resistance	Stk. No. Type R	esistance Stk.	No. Type Re	esistance
4A1104-3 L	-4 4	14A1107-6 L-500	500 14A11		2000
4A1105-0 L 4A1106-8 L	-8 8	14A1108-4 L-1000	1000 14A11	10-0 L-4000	4000
Choice L	-8 8 -15 15 1-9	10-24	25-49	50-99	100 Up
Each	\$3.11	\$2.96	\$2.81	\$2.60	\$2.33
172000	15-WATT	"L-A" PADS WITH 1	" BUSHING, 11/2	" SHAFT	CO AMERICA
Stk. No.	Туре	Resistance	Stk. No.	Туре	Resistance
14A1118-3	L8A	8	14A1127-4	L16A	16
Choice	1-9	10-24 \$3.09	25-49 \$2.93	50-99 \$2.74	100 Up \$2.43
Each	\$3.27			32.14	92.43
		15-WATT "	T" PADS		

Stk.No.	Type Resistance	Stk.No.	Type	Resistance	Stk.No. Type	Resistance
14A1111-8 14A1112-6	T-8 8	14A1113-4 14A1126-6		50 250	14A1116-7 T-500 14A1117-5 T-600	
14A1121-7 Choice	T-15 15 1-9 \$5.05	10-24 \$4.77		25-49 \$4.50	50-99 \$4.24	100 Up \$3.83

MALLORY STEREO L-PADS WITH 1-INCH BUSHING
Two L pads in tandem for stereo level control. Bushing 3/4"-32 x 1". Shaft 1/4"
dia. x 11/2" long. With nuts, washers and deluxe "Level" dial supplied.

Stk.No.	Туре	Impedance	Stk.No.	Туре	Impedance
14A1119-1	LL8	8 Ohms	14A1120-9	LL16	16 Ohms
Choice	1-9	10-24	25-49	50-99 \$5.66	100 Up \$5.11
Each	\$6.76	\$6.40	\$6.03	\$5.66	\$5.11

#### MALLORY STEREO LEVEL CONTROL

Controls volume on stereo speakers. Rated 10 watts audio. With nuts, washers, dial and knob. Bushing  $36''-32 \times 1''$  No. 14A1152. RR50. Each..........\$2.83 10 Each......\$5.68





MODEL "E"121/2 - WATT Dia. % ". Depth "  $\rm Me$  " Shaft 1/8"; 1/4"-32 bushing Rated on metal panel. Uses No. 5151 knob and No. 5007 dial plate

Max

Amps

3.53

.91 .71 .50 .35 .16

Prices Each 1-4 5

\$6.94 6.74 6.74 6.74 6.74 6.74 6.74

5 Up

\$5.91 5.74 5.74 5.74 5.74 5.74 5.74 5.91 7.12

Stock No.

14B808-0 14B809-8 14B810-6 14B811-4 14B812-2 14B813-0

14B815-5 14B816-3 14B818-9

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Ohmite No.

0101

#### **OHMITE POWER RHEOSTATS**

Designed to produce permanently smooth, close control. Construction is all ceramic and metal with pivoted, universal action mounted metal-graphite brush. Mounting for panels up to ½", except Model "E" which mounts on ½" panel. Average shipping wt. ½ lb. Order knob and Dial Plate from listing below right. "Silicone Ceramic Coating.

#### MODEL "H" 25-WATT (continued)

Stock No.	Ohmite No.	Ohms	Max. Amps	Prices 1-4	Each 5 Up
148778-5	0156	500	.222	\$7.08	\$6.03
14B779-3	0158	1000	.155	7.29	6.21
148780-1	0160	2500	.100	7.29	6.21
14B781-9	0162	5000	.070	8.22	6.98
148823-9	4201	10000	.050	8.80	7.49
148824-7	4202	15000°	.041	9.40	7.99
148825-4	4203	20000*	.035	10.00	8.49

MODE	L "J	'50 -	WATT
------	------	-------	------

Dia. 2-5/16". Depth 1-3/8". Shaft 1/4". 3/8-32 bushing. Uses No. 5150 knob and No. 5000 dial plate.

Stock No.	Ohmite No.	Ohms	Max. Amps	Prices 1-4	Each 5 Up
14A702-5	0309	1	7.07	\$8.57	\$7.28
14A703-3	0311	4	3.53	8.57	7.28
14A1122-5	0313	8	2.50	7.63	6.49
14A711-6	0315	16	1.76	7.63	6.49
14A704-1	0317	35	1.19	7.63	6.49
14A712-4	0318	50	1.00	7.63	6.49
14A705-8	0319	80	.79	7.63	6.49
14A706-6	0321	150	575	7.63	6.49
14A707-4	0323	300	.408	7.63	6.49
14B782-7	0324	500	.316	7.63	6.49
14B784-3	0326	1000	.224	8.10	6.89
148785-0	0328	2500	.141	8.10	6.89
14B786-8	0330	5000	.100	8.57	7.28
148787-6	0332	10000	.070	8.57	7.28

#### MODEL "K" 100-WATT

Dia. 3-1/8". Depth 1-3/4". Shaft 1/4". 3/8-32 bushing. Uses No. 5150 knob and No. 5007 dial plate

Stock No.	Ohmite No.	Ohms	Max. Amps	Price:	Each 5 Up
14A960-9	0441	1	10.00	\$16.10	\$13.68
14A961-7	0444	5	4.47	14.99	12.75
14A962-5	0446	10	3.16	14.99	12.75
14A963-3	0448	25	2.00	12.57	10.68
14A964-1	0449	50	1.41	12.57	10.68
14A965-8	0451	100	1.00	12.57	10.68
14A966-6	0452	200	.707	12.57	10.68
14A967-4	0453	300	575	12.57	10.68
14A968-2	0455	500	.447	12.57	10.68
14A969-0	0457	1000	316	14.99	12.75

#### MODEL "L" 150-WATT

Dia. 4". Depth 2". Shaft 1/4". 3/8-32 bushing. Uses No. 5150

kilob alid No. 3000 diai piate.								
Stock No.	Ohmite No.	Ohms	Max. Amps	Price 1-4	es Each 5 Up			
14B788-4 14B789-2	0525 0528	1 5	12.30 5.48	\$17.85	\$15.17 13.28			
14B790-0 14B791-8	0530 0531	10	3.88	15.61 15.61	13.28			
14B792-6 14B793-4	0532 0534	25 50	2.45	14.49	12.33 12.33			
14B794-2 14B796-7	0536 0537	100	1.22	14.49	12.33			
14B797-5 14B798-3	0539 0541	250 500	.775	14.49	12.33			

#### KNORS AND DIAL PLATES

	,00 ,1110			
Stk.No.	Type	1-9 Ea.	10-49 Ea.	50 Up
12A2399-0	Type 5151 Knob	77*	65	50
12A2397-4	5150 Knob	69	59	45
14A872-6	5007 Plate	38	32	25
14A873-4	5000 Plate	38°	32°	25

#### MODEL "H" 25-WATT

Dia. 1-9/16". Depth 1-3/8". Shaft 1/4.3/8"-32 bushing. Uses

Stock	Ohmite	Ohms	Max.	Prices	Each
No.	No.		Amps	1-4	5 Up
14A700-9	0140	1	5.0	\$7.29	\$6.21
14B773-6	0145	10	1.58	7.29	6.21
14B774-4	G147	25	1.00	7.08	6.03
148775-1	0149	50	.707	7.08	6.03
148776-9	0151	100	.500	7.08	6.03
148777-7	0154	250	.316	7.08	6.03

Burstein-Applebee Co., 3199 Mercier, Kansas City, Mo. 64111

# CRL MALLORY AND TRW CONTROLSS

#### TRW-CTS TRIMMER CONTROLS



U201 Series. 1927 dia. Arrow indicator knob, slotted for front or rear screwdriver adjustment. Snap-in self supporting parallel to printed circuit board. Linear taper. 2201 Series. As above with vertical mounting.

U201 Stock No.	X201 Stock No. Ohms	U201 Stock No.	X201 Stock No.	Ohms
14A10-3-110-7 14A10-3-125-5 14A10-3-150-3 14A10-3-210-5 14A10-3-225-3 14A10-3-250-1 14A10-3-310-3	14A19-4-110-7 250 14A19-4-125-5 250 14A19-4-150-3 500 14A19-4-210-5 1K 14A19-4-225-3 2.5K 14A19-4-250-1 5K 14A19-4-310-3 10K	14A10-3-325-1 14A10-3-350-9 14A10-3-410-1 14A10-3-425-9 14A10-3-450-7 14A10-3-510-8	14A19-4-325-1 14A19-4-350-9 14A19-4-410-1 14A19-4-425-9 14A19-4-450-7 14A19-4-510-8	* 25K 50K 100K 250K 500K 1 Meg
Your Choice 1-24 Each	40° 25-49 Ea 37°	50-99 Ea	35° 100 Up Ea.	31



Packs 5-watt capacity into a 2 watt size unit; linear taper, 1½" dia. x ½" deep. Model WW has full round aluminum shaft ¼" dia. x 3" long. Model WN has fingertip knurled, slotted shaft ¼" dia. x 3" long. Linear taper. Breakdown, 900 V. AC rms to ground. WN or WW prefix indicates manufacturers number. Shpg. wt. 4 ozs.

WW Stock No.	WN Stock No.	Ohms	VW or	WW Stock No.	WN Stock No.	Ohms	WW or
14A303-2-001-8	14A1099-5-			14A303-2-130-5	14A1099-5-13		301
14A303-2-002-6				14A303-2-150-3	14A1099-5-15		501
14A303-2-005-9	14A1099-5-			14A303-2-210-5	14A1099-5-21		
14A303-2-010-9	14A1099-5-	110-9 10		14A303-2-220-4	14A1099-5-22	20-4 2000	202
14A303-2-015-8	14A1099-5-	015-8 15		14A303-2-225-3	14A1099-5-22	25-3 2500	252
14A303-2-020-8	14A1099-5-	020-8 20	200				
14A303-2-025-7	14A1099-5-	125-7 25	250	14A303-2-250-1	14A1099-5-25	50-1 5000	502
14A303-2-030-7	14A1099-5-	30-7 30	300	14A303-2-310-3	14A1099-5-31	0-3 10K	103
14A303-2-050-5	14A1099-5-	<b>150-5</b> 50	500	14A303-2-315-2	14A1099-5-31	5-2 15K	153
14A303-2-075-2	14A1099-5-	75-2 75	750	14A303-2-320-2	14A1099-5-32	20-2 20K	153
14A303-2-110-7	14A1099-5-	110-7 101	0 101	14A303-2-325-1	14A1099-5-32	25-1 25K	253
14A303-2-120-6	14A1099-5-	20-6 200	201	14A303-2-350-9	14A1099-5-35	0-9 50K	503
14A303-2-125-5	14A1099-5-	25-5 25	251	14A303-2-410-1	14A1099-5-41	0-1 100K	104

Values	1-9	10-24	25-49	50-99	100
	Ea.	Ea.	Ea.	Ea.	Up Ea.
1 thru 5000 Ohms	2.79	\$1.85	\$1.71	\$1.59	\$1.19
10,000 thru 25,000 Ohms		2.25	2.07	1.95	1.47
50,000 Ohms		2.38	2.19	2.04	1.54
100,000 Ohms		2.82	2.59	2.41	1.77

#### CENTRALAB RV4 HOT MOLDED POTENTIOMETERS



HMS RV4NAYSK Model 12. Meets all requirements of MIL-R-94 specifications. Designed for long life and noise-free operation. Totally enclosed and sealed against moisture and dirt. Tolerance 50 ohm thru 500K ± 10% above 500K ± 20% Linear taper. Rated 2.25 watts at 70° C. Size 11/4" dia., %" deep.

Stock No.	Ohms	Centralab No.	MIL RV4NAYSK	Stock No.	Ohms	Centralab No.	MIL RV4LAYSA
14A1221-5	50	HMS- 50	500A	14A1193-6	50	HML- 50	500A
14A1222-3	100	HMS- 100	101A	14A1194-4	100	HML- 100	101A
14A1224.9	250	HMS- 250	251A	14A1198-5	500	HML- 500	501A
14A1226-4	500	HMS- 500	501A	14A1200-9	1000	HML-1000	102A
14A1228-0	1000	HMS-1000	102A	14A1201-7	1500	HML-1500	152A
14A1229.8	1500	HMS-1500	152A	14A1202-5	2500	HML-2500	252A
14A1230 6	2500	HMS-2500	252A	14A1204 -1	5000	HML-5000	502A
14A1232 2	5000	HMS-5000	502A	14A1206 -6	10K	HML- 10K	
14A1234 -8	10K	HMS- 10H	( 103A	14A1208 -2	25K	HML- 25K	253A
14A1236 -3	25K	HMS- 25H	253A	14A1210 -8	50K	HML- 50K	503A
14A1238-9	50K	HMS- 50H	( 503A	14A1212 -4	100K	HML- 100K	104A
14A1240-5	100K	HMS- 100H	( 104A	14A1214 -0	250K	HML- 250K	254A
14A1242-1	250K	-HMS- 250H	( 254A	14A1215 -7	350K	HML- 350K	354A
14A1243-9	350K	HMS- 350H	354A	14A1216 -5	500K	HML- 500K	504A
14A1244-7	500K	HMS- 5001	( 504A	14A1218 -1	1 M	HML-1 M	105B
14A1246-2	1 M	HMS-1 M	105B	14A1219 -9	2.5 M	HML-2.5 M	255B
14A1247-0	2.5 M	HMS-2.5 M	255B	14A1220 -7	5 M	HML-5 M	505B
14A1248-8	5 M	HMS-5 M	505B				

1.65 1.85 1.77	30.5 mg/l	45	2 4881	2-640-9-001	WAR DI
TYPE HMS has stand	lard %" bushing	with 1/4" slotted	shaft 21/2" lon	g. Meets MIL	desig-
Your Choice 1-9 Each \$2.69	10-49 Each	\$2.20 50-99 Each	\$1.89	100 Up Each	\$1.39
TYPE HML has %" nation RV4L.	locking type bush	hing with slotted	shaft 5/8" long	g. Meets MIL	desig-
Your Choice 1-9 Each \$3.29	10-49 Each	\$2.68 Each	\$2.30	100 Up Each	\$1.53

#### TRW CONTROLS



 $^{15}\, h_6{}^{\prime\prime}$  diameter with universal 3" shaft. Add multisections or switches at right. Shpg. wt. 4 ozs.

Stk. No.	TRW Type	Ohms Res.	Taper
14C377-6	Q11-201	250	AAA
14B416-2	Q11-103	500	
14A417-0	Q11-108	1000	
14C380-0	Q11-110	2000	AAA
14B419-6	Q11-112	3K	
14B421-2	Q11-114	5K	
14B425-3	Q11-116	10K	A
14B426-1	Q13-116	10K	C
14A399-0	Q11-119	20K	A
14B432-9	Q11-120	25K	A
14B435-2	Q11-123	50K	A
14B436-0	Q13-123	50K	C
14B440-2	Q11-128	100K	A
14B441-0	Q13-128	100K	C
14B444-4	Q11-130	250K	A
14B445-1	Q13-130	250K	C
14B451 -9	Q11-133	500K	A
14B452 -7	Q13-133	500K	C
14B456-8	Q11-137	1 Meg.	A
14B457-6	Q13-137	1 Meg.	CA
14A395-8	Q11-139	2 Meg.	
148470-9 148471-7 CHOICE EACH	Q11-141 Q11-143	5 Meg. 10 Meg. 6 @ EACH	A A .\$1.94

EXPLANATION OF TRW CONTROL TAPERS: "A" Linear; "C" Logarithmic for audio.

#### **1 MULTISECTIONS**





Attach to the standard Q control to make dual or multisection controls. Use snap on switch if needed. Wt. 2 ozs.

	TRW Type	Ohms Res.	Taper	Stk. No.	TRW Type	Ohms Res.	Taper
620	Q11-201 Q11-103 Q11-108	250 500 1000	AAA	14B183-8 14B200-0 14B203-4	M11-116 M11-120 M11-128	10K 25K .1 Meg.	AAAAA
062	Q11-110 Q11-112 Q11-114	2000 3K 5K	AAA	14B206-7 14B208-3	M11-133 M11-137	.5 Meg.	A
3 1 0	Q11-116 Q13-116 Q11-119	10K 10K 20K	A C A	CHOICE EACH	\$1.69	SWITCH	\$1.40
9	Q11-120	25K	A		DOT Cuit	-	23

### No. 14A1177-9EACH \$1.50 Type WF D.P.S.T. Switch No. 14A1178-7EACH



#### MALLORY **PUSH-PULL** REPLACEMENT SWITCHES

\$1.80

KR8M dimension "A" is 3/6": KR9M dimension "A" is 1/4"

Replaces push-pull AC switch sections of single and dual controls. Rated 6 amp. 125VAC. Easy to replace.

Stk.	No.	Туре	Each	6 Each
	150-6 151-4	KR8M KR9M	\$1.87	\$1.13

#### MALLORY SUB-MINIATURE CONTROLS

Only  $\frac{1}{2}$ " diameter.  $\frac{1}{4}$ " - 32 bushing with mounting nut,  $\frac{1}{6}$ " steel shaft,  $\frac{1}{6}$ " long, SPST switch rated 3 amp 125 VAC. \*Taper 1 is audio, Taper 4 is linear. Shpg. wt. 1 oz.



Stk. No.	Туре	Ohms	Taper*	Stk. No.	Туре	Ohms	Taper*
14A933-6	MLC13L	1000	4	.14A939-3	MLC15A	.1 Meg	1
14A934-4	MLC252A	2500	- 1 though	14A940-1	MLC15L	.1 Meg	4
14A935-1	MLC53A	5000	1	14A941-9	MLC25L	.2 Meg	4 4
14A936-9	MLC53L	5000	4	144942-7	MLC254L	.25 Meg	4
14A937-7	MLC14L	10,000	4	14A1124-1	MLC55A	.5 Meg	1
14A938-5	MLC54L	50,000	4				
Your Choice		Cagn	P-12H271-0	1 M E S M E S		Theres	
1-5 \$2	.38 6-24	\$1.43	25-49	\$1.29 50-	99 \$1.19	100 Up	\$1.07
1020000		TY	PE MLC W	ITH SWITCH			
14A951-8	MLC222LS	2200	4	14A956-7	MLC55AS	.5 Meg	1 4
14A952-6	MLC252AS	2500	1 110	14A957-5	MLC55LS	.5 Meg	4
14A953-4	MLC53AS	5000	-1	14A958-3	MLC16AS	1 Meg	1
14A954-2	MLC53LS	5000	4	14A959-1	MLC16LS	1 Meg	4
14A955-9	MLC14AS	10.000	1		A TOP		
Your Choice							
1-5 \$3	.88 6-24 .	\$2.33	25-49	\$2.07 50-	99 \$1.95	100 Up	\$1.76
12A1205-0.1	Knob for ML	C Control	s. Ea	18c 100 Eac	h14c	500 Ea.	13c

TYPE MLC LESS SWITCH



MALLORY VOLUME CONTROLS

WITH
Top quality American made controls available at lower prices! Smooth action. Switch rated 3 A. @ 125 V. AC. Nylon shaft easily cut to proper length with wire cutters. Rotary type has 1/4" shaft. Push-pull has 1/4" shaft. WITH PUSH-PULL SWITCH

 
 Stk. No.
 Resistance
 Each
 10 Ea.

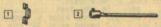
 14A1101-9 500K Ohm
 \$1.00
 \$0.89

 14A1100-1
 1 Meg
 1.00
 .89
 Stk. No. Resistance Stk. No. Each 10 Ea. 14A1103-5 500K Ohm \$1.50 \$1.29 14A1102-7 1 Meg 1.50 1.29 14A1313-0\* 1 Meg 1.75 1.49 1 Meg 1-INCH BLACK KNOBS for above. \*\*Tapped at 250K.

No.12A2026-9 With brass insert and screw for oush-bull.
1-24 Each.....28\* 25-99 Ea.....23\* 100-499 Ea....19\* 500 Up Ea.....17\*

No.12A692-0 With 4/4" molded hole and screw for rotary.
1-24 Each....31\* 25-99 Ea....26\* 100-499 Ea....22\* 500 Up Ea.....16\*

#### VOLUME CONTROL ACCESSORIES







① No.14A186-1 Mounting Bracket. 2½" centers. 5 For... ② No.14A189-5 Extension Shaft. ¼x4" with ½2" flat...... Each \$1 99 10 Ea. \$1 79

Dial Plates. Calibrated 0-10, matching rotation of volume controls and rheostat.
 No. 14A160-6 For Wire-Wound Controls.
 No. 14A162-2 For Carbon Controls
 Your Choice Each 79° 10 Each 59°

Adapter Bushing. For mtg. above controls in thick panels or enclosures. Fits any control with standard 36" bushing and extends bushing 1".
 No.14A223-2 Type AK-31. Brass Adapter. Net Each 89° 10 Each 70°

 Total Control of the Contr

#### MALLORY SINGLE GANG ROTARY SWITCHES



Compact switches having wide application for use in all electronic equipment. Rating 500 V. breakdown; max. current .2 amp 300 VDC; 5 amp @ 6 VDC; .25 amp @ 300 VDC; 5 amp @ 6 VDC; .25 amp @ 300 VDC; 6 amp @ 6 VAC, 14" round shaft. 2" long, 3%" long brass threaded bushing. All 30° index except \* which are 20°. Shpg. wt. 4 ozs. See Plates below.

Specify B-A Stock Number and Switch Number when ordering NON-SHORTING - BREAK BEFORE MAKE

Stock No.	Mfg. No.	Poles	Posi- Base tions Dia.	1-4	5-9	Prices 10-24	Each 25-49	50- 99	100 Up
19-07035-8-006-7	3215J	1	5 114"	\$1.88	\$1.58				\$1.12
19-07035-8-018-2 19-07035-8-007-5	32112J 3222J	1	12 11/4"	1.88	1.58	1.42	1.33	1.26	1.12
19-07035-8-008-3	3223J	2	2 1¼" 3 1¼" 6 1¼" 4 1¼"	1.88	1.58	1.42	1.33	1.26	1.12
19-07035-8-009-1	3226J	2	6 114"	1.88	1.58	1.42	1.33	1.26	1.12
19-07035-8-011-7 19-07035-8-013-3	3234J 3242J	4	4 11/4"	1.94	1.62	1.46	1.39	1.30	1.15
19-07035-8-014-1	3243J	4	3 11/4"	1.94	1.62	1.46	1.39	1.30	1.15
19-07035-8-019-0	32117J	1	17°1"/16"	2.87	2.39	12.15	2.04	1.91	1.72
19-07035-8-010-9 19-07035-8-012-5	3229J 3236J	2	9° 1"/16" 6° 1"/16"	2.87	2.39	2.15	2.04	1.91	1.72
19-07035-8-015-8	3263J	6	3" 1" /16"	3.02	2.52	2.27	2.15	2.03	1.82
<b>等是被引擎人的语句</b>	SHO	RTING	MAKE BEFO	RE BR	EAK				and the

19-07035-8-001-8	3115J 1	5 11/4"	1.88 1.5	1.42	1.33	1.26	1.12
19-07035-8-016-6	31112J 1	12 11/4"	1.88 1.5	1.42	1.33	1.26	1.12
19-07035-8-002-6	3123J 2	3 11/4"	1.88 1.58		1.33	1.26	1.12
19-07035-8-003-4	3126J 2	6 11/4"	1.88 1.5		1.33	1.26	1.12
19-07035-8-004-2	3143J 4	3 1/4"	1.94 1.67		1.39	1.30	1.15
19-07035-8-017-4 19-07035-8-005-9	31117J 1	2* 111 /16"	2.75 2.2	2.06	1.95	1.83	1.65
13-0/033-0-003-9	3163J 6	3 1 /18	3.02 2.52	2.21	2.15	2.03	1.82

Have adjustable stops to prevent turning to unused contacts.

#### CERAMIC SECTION ROTARY

134" diameter, non-shorting, adjustable stops, 2 gang, ½" spacing. Rated .75 amp @ 300 VAC; 10 amps @ 6 VAC/DC, Use 30° dial plates below. Shpg. wt. 8 ozs.

Specify B-A Stock Number and Switch Number when ordering

Stock No.	Mfg. No.	Gang	Poles	Posi- tions	1-4	5-9	Prices 10-24		50- 99	100 Up
19-07036-6-172-7	172C	1	1	10	\$4.17	\$3.47	\$3.13	\$2.95	\$2.78	\$2.49
19-07036-6-173-5	173C°	1000	2	5	4.17	3.47	3.13	2.95	2.78	2.49
19-07036-6-174-3	174C°	11	3	3	4.17	3.47	3.13	2.95	2.78	2.49
19-07036-6-176-8	176C	2	2	10	5.96	4.98	4.47	4.24	3.98	3.58
19-07036-6-177-6	177C°	2	4	5	5.96	4.98	4.47	4.24	3.98	3.58
19-07036-6-178-4	178C°	2	6	3	5.96	4.98	4.47	4.24	3.98	3.58
19-07036-6-180-0	180C	3	-3	10	7.59	6.35	5.69	5.38	5.05	4.55
19-07036-6-181-8	181C*	3	6	5	7.59	6.35	5.69	5.38	5.05	4.55
		*Plus	off r	neitin		200		1		1



#### SWITCH DIAL PLATES

Aluminum, figures etched on black background. 113/6" 0.D. with 1/6" hole for switches with 30° indexing except & which is for switches with 20° indexing. Shpg. wt. 2 ozs. Specify B-A Stock No. and Type When Ordering

Stock No.	Туре	Marked	Stock No.	Туре	Marked
19-07037-4-372-3	372	1 to 2	19-07037-4-382-2	382	1 to 12
19-07037-4-373-1	373	1 to 3	19-07037-4-383-0	383	Off 1 to 3
19-07037-4-374-9	374	1 to 4	19-07037-4-384-8	384	Off 1 to 4
19-07037-4-375-6	375	1 to 5	19-07037-4-385-5	385	Off 1 to 5
19-07037-4-376-4	376	1 to 6	19-07037-4-386-3	386	Off 1 to 6
19-07037-4-377-2	377	1 to 7	19-07037-4-387-1	387 389	Off 1 to 7
19-07037-4-378-0	378	1 to 8	19-07037-4-389-7	389	Off 1 to 9
19-07037-4-379-8	379	1 to 9	19-07037-4-390-5	390	Off 1 to 10
19-07037-4-380-6	380	1 to 10	19-07037-4-467-1	467*	1 to 17
19-07037-4-381-4	381	1 to 11	t world fillings	(E) Carry	
Your Choice, 1-9 Each		58	10 Up Eàch		35°



#### MINIATURE PUSH-BUTTON

Non-locking for test panels, etc. Silver contacts on alloy springs. Rated 0.4 amp at 300 VDC and 220 VAC; 4 amps, 6 VDC. Bushing 36" - 32 x 36" long. Integral phenolic knob.

Ral	With		washer.	1 181			11/11	
	manna (d	Specify B-	A Stock 1-4	Number 5-9	and Type 10-24	Number 25-49	when o	ordering
Stock No.	Туре	Action	Ea.	Ea.	Ea.	Ea.	Up Ea.	
19-07097-8-011-7	1011	SPST-NO	\$1.23	\$1.02	\$0.91	\$0.87	\$0.83	\$0.73
19-07097-8-012-5	1012	SPST-NC	1.23	1.02	.91	.87	.83	.73
19-07097-8-013-3	1013	SPDT	1.36	1.14	1.02	.96	.90	.81
19-07097-8-014-1	1014	DPST-NO	1.55	1.29	1.16	1.09	1.03	.81
19-07097-8-016-6	1016	DPDT	1.86	1.55	1 40	1 33	1 24	1 10



124









O SINGLE POLE ROTARY For lamp and appliance repairs SPST switch. Rated 3 amp —125 volt; 1 amp—250 volt. \%" dia. shank, \%\" long. Black phenolic knob, 6" wire leads. Wt. 2 ozs. 19A7023-4.574T. Each 69 10 Lots, Each 59 3 POSITION ROTARY Rated 3 amps at 125 volts. Bakelite case 1" dia. by \%\" long. Metal knob. 6" wire leads. 19A7106-7.582. Each 85 10 Lots, Each 69 4 POSITION ROTARY For 3 light floor and desk lamps. Rated 6 amps at 125 volts. Round metal case and knob. 1\%\" dia. x \\ 1\%\" behind panel. \%\" long shank. 19A7105-9.683. Each 96 10 Lots, Each 89 SINGLE POLE PUSH-BUTTON SPST. Rated 3 amp at 125 volts. Bakelite case 1" long x 5\%\" wide x \\ 1\%\" high. Shank, \%\" dia. by \\ \%\" long. 6" wire leads. Plastic \%\" dia. push button. Shp. wt. 2 ozs. 19A7024-2 575. Each 79 10 Lots, Each 69

\(\frac{1}{32}\)" dia. push button. Shp. wt. 2 ozs.

19A7024-2, 575, Each

FLUORESCENT LAMP STARTER SWITCH. Eliminates starter from circuit on sin

15 to 40 W. lamps. 1\(\frac{1}{3}\)" dia. by \(\frac{1}{3}\)" high. Shank \(\frac{3}{6}\)" dia. by \(\frac{1}{3}\)". 6" wire lea

Phenolic push button. Shpg. wt. 2 oz.

19A7025-9. 382. Each

94' 10 Lots, Each.

Question:

.78

#### **CENTRALAB MINIATURE STEATITE PA2000 SERIES ROTARY**



Small and compact. Silver plated spring brass clips and contacts; adjustable stop or continuous ruration; 30° indexing; ½" spacing between sections; ¼" round shaft, 1½" long, All are non-shorting (threak before make), except which indicates "shorting" types. Rated 2.75 amp at 15 VDC; 230 milliamps at 115 VAC. Use 30° dial plates shown in left column. Avg. shpg. wt. 6 ozs.

Specify B-A Stock No. and Switch No. When Ordering

The same and the same and the	Mfg.	and the same of	and the same of	Posi-	P	rices Ea	ch	-
Stock No.	No.PA	Gang	Pole	tions	1-24	25-49		100 Up
19-07098-6-200-6	2000°	1	1	12	\$2.89	\$2.60	\$2.31	\$1.83
19-07098-6-201-4	2001	ETS OF SER	1	12	2.89	2.60	2.31	1.83
19-07098-6-202-2	2002"	END DESIGN	2	6	3.11	2.79	2.48	1.97
19-07098-6-203-0	2003	[6] [6·07 [6] [6]	2	6	3.11	2.79	2.48	1.97
19-07098-6-204-8	2004*	2	2	12	4.44	3.98	3.55	2.80
19-07098-6-205-5	2005	2	2	12	4.44	3.98	3.55	2.80
19-07098-6-206-3	2006*	BIL BLAD	3	5	3.21	2.89	2.56	2.03
19-07098-6-207-1	2007	1	3		3.21	2.89	2.56	2.03
19-07098-6-208-9	2008*	3	3	12	6.12	5.51	4.90	3.90
19-07098-6-209-7	2009	3	3	12	6.12	5.51	4.90	3.90
19-07098-6-210-5	2010°	2	4	6	4.90	4.42	3.92	3.10
19-07098-6-211-3 19-07098-6-213-9	2011	4	4	0	4.90	4.42	3.92	3.10
19-07098-6-215-4	2015	4 120000	4	12	7.64	6.89	6.10	4.83
19-07098-6-217-0	2017	5	5 6 6	12	9.20	8.28	2.72 7.36	2.14 5.84
19-07098-6-219-6	2019	1	9		3.22	2.90	2.57	2.04
19-07098-6-221-2	2021	2	8	2 5	5.41	4.87	4.33	3.43
19-07098-6-223-8	2023	3	6	6	6.70	6.04	5.36	4.24
19-07098-6-225-3	2025	6		12	10.60	9.80	8.70	6.92
19-07098-6-227-9	2027	4	8	6	8.59	7.73	6.86	5.44
19-07098-6-229-5	2029	3	6 8 9		6.95	6.27	5.56	4.40
19-07098-6-231-1	2031	3	10	5	5.45	4.92	4.37	3.44
19-07098-6-233-7	2033	5	10	6	9.50	8.55	7.60	6.02
19-07098-6-235-2	2035	2	12	2	5.23	4.72	4.19	3.32
19-07098-6-237-8	2037	6 44	12 18	6	12.60	11.18	9.84 6.11	7.80
19-07098-6-241-0	2041	3 5002	18	2	7.65	6.88	6.11	4.84
19-07098-6-242-8	†2042	1	1	10	2.72	2.45	2.18	1.76

†2042 has 9 active contacts, all open in full CCW position and progressively picked up and shorted to common contact with CW rotation.

#### MINIATURE PHENOLIC PA1000 ROTARY

Same specifications as PA2000 above, except sections are Phenolic. Use 30° dial plates. All are non-shorting type.

Specify B-A Stock No. and Switch No. - Order Knob Listed Balow

office points and designation of	PIT LESS AND	Posi- Prices Each						
Stock No.	No.PA-	Gang	Pole	tions	1-24	25-49	50-99	100 Up
19-07099-4-101-6	1001	1	1	11	\$2.44	\$2.19	\$1.96	\$1.45
19-07099-4-103-2	1003	10	2	5	2.50	2.24	2.00	1.49
19-07099-4-105-7	1005	2	2	11	3.35	3.00	2.68	1.99
19-07099-4-107-3	1007	15 02	3	3	2.52	2.26	2.02	1.50
19-07099-4-109-9	1009	3	3	11	4.36	3.93	3.49	2.60
19-07099-4-111-5	1011	188	4	2	2.70	2.43	2.17	1.60
19-07099-4-113-1	1013	2	4	5	3.49	3.12	2.79	2.08
19-07099-4-121-4	1021	3	6	5	4.52	4.09	3.63	2.70
19-07099-4-125-5	1025	2	8	2	3.66	3.27	2.92	2.18

#### LEVER ACTION PHENOLIC SWITCHES

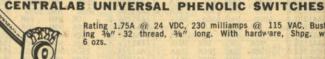


Space saving lever switches have many uses. Particularly adaptable to intercoms, PA systems, test instruments, broadcast, antenna interchange, speaker selection, etc. Two 6-32 thread mounting holes on 156" centers in switch front plate. Rating 1½ amp @ 28 VDC; 230 milliamps at 115 VAC (make and break, resistive load). 30° indexing. All non-shorting except † which is shorting. Less knobs. Average shpg. wt. 4 ozs.

Specify B-A Stock No. and Switch No. - Order Knob Listed Below

Stock No.	Mfg. No.	Poles	Posi- tion	Indexing	1-24	Prices 25-49		100 Up
19-07103-4-452-3 19-07103-4-454-9 19-07103-4-455-6 19-07103-4-467-1 19-07103-4-457-2 19-07103-4-458-0	1452† 1454 1455 1467 1457 1458	2 2 2 4 4	333322	Positive Positive Spring Return Posit. & Sp. Return Spring Return Positive	\$2.10 2.10 2.27 2.10 2.50 2.50	\$1.89 1.89 2.03 1.89 2.24 2.24	\$1.68 1.68 1.82 1.68 2.00 2.00	\$1.25 1.25 1.35 1.25 1.49 1.49

19A7378-2. P-193. Black Knob for lever Switch ............... 25° 24° 230



Rating 1.75A @ 24 VDC, 230 milliamps @ 115 VAC. Bushing %"-32 thread, %" long. With hardware, Shpg. wt.

220

Stock No.	Specify B-A: Mfg. No.	Stock N	o. and S	Switch M Short- ing	lo. Whe	n Order 1-24 Each	ing 25-49 Each		100 Up Each
19-07100-0-460-6 19-07100-0-461-4 19-07100-0-462-2 19-07100-0-464-8	1460 1461 1462 1464	1 1 2 2 2	2 3 2 2	Yes Yes Yes No	Pos. Pos. Pos. Mom.	\$1.22 1.28 1.73 2.06	\$1.09 1.15 1.55 1.85	\$0.98 1.03 1.39 1.65	\$0.73 77 1.03 1.24



#### 4 POLE, 2 POSITION SWITCHES

For long hard use in intercom, test equipment, etc. 2.75 amp at 15 VDC, 350 MA at 115 VAC. 1/4" round shaft, 17/8" long. With hardware. Wt. 4 ozs.

19A7102-6. 1451 Spring réturn. 1-24 Ea . \$3.70 25-49 Ea . . . \$3.32 50-99 Each . . . . \$2.97 100 Up Each . . . . . . \$2.21

Ask For Quotation on Bulk Packed Centralab Switches.

## TAPESWITCH &



#### CARLING TOGGLE SWITCHES



(1) AC-DC TOGGLE SWITCHES

11/4" bat handle toggle switch with 15/2" stem length. Dia 15/2" x 32 thread.

Stock	Mfg.	Action	Amps	1-5	6-24	25-49	50-99	100 Up
No.	Type		125 V.	Each	Each	Each	Each	Each
19A7000-2	110-73	SPST	633336	\$1.40	\$0.98	\$0.88	\$0.75	\$0.68
19A7001-0	112-73	SPDT		1.75	1.23	1.10	.94	.85
19A7002-8	216-73	DPST		2.40	1.68	1.51	1.28	1.16
19A7003-6	316-73	DPDT		2.65	1.86	1.67	1.42	1.28
19A7004-4	111-16-73*	SPST		1.55	1.09	.98	.83	.75

HEAVY DUTY AC TOGGLE SWITCHES 1½" bat handle. Metal covered bakelite base. Stem 1½" long, 1½" dia. x 32 thread. Solder lug terminals. \*\*Center Off. Jone side momentarily on; other side N.C. \$Both sides momentarily on. Center off. All 34 H.P.—115-230 V. A.C. Shpg. wt. 2 ozs.

@19A7005-1	2FA53-73	SPST	15	\$1.45	\$1.02	\$0.91	\$0.78	\$0.70
②19A7006-9	2FB53-73	SPDT	15	1.55	1.09	.98	.83	.75
②19A7007-7	2FC53-73	SPDT°°	15	1.55	1.09	.98	.83	.75
③19A7008-5	2GK50-73	DPST	15	2.20	1.54	1.39	1.18	1.06
③19A7009-3	2GL50-73	DPDT	15	2.65	1.86	1.67	1.42	1.28
③19A7010-1	2GM50-73	DPDT**	15	2.65	1.86	1.67	1.42	1.28
②19A7011-9	6FB53-73	SPDT¶	15	2.15	1.51	1.36	1.15	1.04
②19A7082-0	6FC53-73	SPDT§	15	2.15	1.51	1.36	1.15	1.04

**HEAVY DUTY AC-DC TOGGLE SWITCHES** 11/6" bat handle, 15/2" stem length - 32 thread. Screw terminals. Wt. 3 oz. DK284-73 rated 1 HP—250 V; EK204-73 rated 11/2 HP—250 V.

19A7014-3 19A7015-0		OPST	16		\$1.89			
13M/U13-U	EN2U4-13	DPST	20	4.60	3.22	2.90	2.46	2.22



#### PUSH-PUSH AC-DC SWITCHES

Positive action push on, push again for off. For any application where a pushbutton is preferable. Stem %" L. x 1½" dia., body 1½" L. x ½" W., depth behind panel ½". Complete with mtg. nuts. Screw

Stock	Mfg.	Amperes	1-5	6-24	25-49	50-99	100 Up
No.	Type	125 V.	Each	Each	Each	Each	Each
19A7016-8	110-SP	6	\$2.45	\$1.72	\$1.54	\$1.31	\$1.18
19Δ7017-6	160-SP	10	3.05	214	1 92	163	1 47

#### MIDGET SWITCH



Type 125RB. 3 amps at 125 volts AC. Solder terminals. Threaded stem diameter '34", stem length %". Has bat handle length %". Body '34" L. X 34" W. With hex and knurled

-1	3	nuts	. Wt.	2 07	K II	u	11	ea
1-5	E	ach					\$1	.10
.57	67	77°	25-49	Ea.				69
		EO:	100 1	In E.				E20

#### KNIFE SWITCHES

Standard knife switches, ideal for Radio, TV and elec-trical needs. Porce-lain base, Rated 25 amps at 125 volts.



No.	Туре	Size	Each	10 Ea.
19A7019-2	SPST	1 x15/8"	\$0.59	\$0.50
19A7020-0	SPDT	1 x25/8"	.79	.59
19A7021-8	DPST	11/2×13/4"	.89	.79
19A7022-6	DPDT	11/2x25/8"	.99	.89

#### SPST MOMENTARY PUSH SWITCHES

1 amp. 250 V/3 amp 120 V AC current rating. 19/32" sleeve length, 15/32-32 thread. 430 pushbutton extends 5/16"; 432 pushbutton extends 7/16". NO is normally opened, NC is normally closed. Sol-

	10:110 13		11100, 140	13 11011111	ally close	u. 501-	
der termin	al. Shpg. wt.	2 oz.	1-9	10-49	50-99	100-Up	
Stock No.	G-C No.	Circuit	Ea.	Ea.	Ea.	Ea.	
19A7374-1	35-430	NO	\$1.55	\$1.45	\$1.27	\$1.00	
19A7375-8	35-432	NC	1.70	1.60	1.40	1.10	
19A7376-6	35-437	Red Cap	.50	.44	.38	.30	
19A7377-4	35-438	Black Cap	.50	.44	.38	.30	

#### TAPESWITCH "PRESS-AT-ANY-POINT" SWITCHES FOR ALARMS, CONTROLS, SAFETY, PROTECTION, AUTOMATION



CVP-1723 SWITCHMAT Reliable thin switching unit for use under entrance mat, runner or rug. Can be used exposed. 3/32" thick, 17 X 23" with 6 ft. lead. Fully encased, weatherproof. Responds to light step, closing circuit momentarily. Wt. 5 lbs.

No. 41A4034-6 10 Net Each ..... \$22.99 Each ...... \$20.99 Each ...... \$18.34

#### 131-A CONTROFLEX RIBBON SWITCH

34" wide X 3/16" thick, light gray, 40 oz. nominal finger pressure, heatsealed with sleeve fittings and terminated with 18/2 lead wire 18" long. Normally open, momentary contactors. Shp. wt. 8 oz.
No. 19A7370-9. 1 Ft. Long. Each \$5.99 3 Ea. . . \$5.39 10 Ea. \$4.81

#### 111 CONTROFLEX FOOT SWITCH

Black footswitch, rated at 100 watts, 5 lbs. nominal foot pressure. Uses Contro-flex in molded flat pad 2" X 5 X ½" thick, complete with 18/2 ½" dia.lead wire, 6 ft. long. Sealed and moisture-proof. Momentary, normally-open con-tacts. Non-tiring, user can stand on it, jump on it. Can be taped or cemented in place. Shpg. wt. 10 oz. No. 19A7372-5. Ea. . . . . . \$7.99 3 Each . . . \$7.29 10 Each . . \$6.27

SWITCHCRAFT LEV-R SWITCHES Compact lever-action switches. Silver contacts rated at 3 amps AC, non-inductive load. Length 2½" behind panel, width %6". Require ½2" mtg. hole. †N.O. center



#### TWO POSITION TYPES

Stock Nun Spring Return	Locking Type	Mfg. No.	Action		ices Each 25-49 50-99
19A7167-9 19A7168-7 19A7169-5	19A7175-2 19A7176-0 19A7177-8	3001 3003 3004	SPST-NO SPDT DPST-NO	\$2.52 \$1.8 3.04 2.2 3.28 2.4	
hool ave	relambon J. 7.	T	HREE POSITION TYPES	STEEL STEELS	CONTRACTOR OF THE
4047470.0	4047400 0	00004	ODDE NO		

#### SWITCHCRAFT "TINY SWITCH" & "LITTEL-SWITCHES"

MOMENTARY MINIATURE PUSH-BUTTON SWITCHES "Littel" 200 Series mounts in 3/8" hole. Black button. "Tiny" 950 Series mounts in 1/4" hole. Red button.



Stock	PERSONAL PROPERTY.			Prices	Prices Each		
No.	Туре	Action	1-9	10-24	25-49	50-99	
19A7038-2	201	SPST-NO	\$1.00	\$0.75	\$0.69	\$0.63	
19A7039-0	202	SPST-NC	1.00	.75	.69		
9A7040-8	203	SPDT	1.24	.93	.85	.63	
9A7043-2	951	SPST-NO	1.00	.75	.69	.63	
9A7044-0	952	SPST-NC	1.00	.93 .75 .75	.69	.63	
9A7045-7	953	SPDT	1.24	.93	.85	.6. .6. .78	

#### "BUTTON SWITCH" SWITCHES

SMALL MOMENTARY PUSH-BUTTON SWITCHES Metal housing. Mounts in 13/42" hole. Rated 250 MA AC.



Stock			Prices Each					
No.	Туре	Action	1-9	10-24	25-49	50-99		
19A7041-6 19A7042-4	903-Red 913-Black	SPDT SPDT	\$1.52 1.52	\$1.14 1.14	\$1.05 1.05	\$0.95		

SWITCHCRAFT BOX SWITCHES
Miniature momentary push-button switch "½" sq. Depth 1½" max.
behind panel. Molded plastic body. Snap-in front panel mounting in
.615" sq. hole. "½" button stroke. Rated 250 MA, 30 watts max. AC.

Stock	Mfg.	20 1000	1 100	0.170825-4	Suna Hay	Prices Each	Pical Line
No.	No.	Button	Contacts	1-9	10-24	25-49	50-99
19A7109-1	BXR-01-1	Red	SPST-NO	\$3.04	\$2.28	\$2.09	\$1.90
19A7110-9	BXR-02-1	Black	SPST-NO	3.04	2.28	2.09	1.90
19A7334-5	BXR-03-1	Green	SPST-NO	3.04	2.28	2.09	1.90
19A7335-2	BXR-05-1	White	SPST-NO	3.04	2.28	2.09	1.90
19A7336-0	BXR-01-3	Red	SPDT	3.20	2.40	2.20	2.00
19A7337-8	BXR-02-3	Black	SPDT	3.20	2.40	2.20	2.00
19A7339-4	BXR-05-3	White	SPDT	3.20	2.40	2.20	2.00
19A7111-7	BXR-01-6	Red	DPDT	3.48	2.61	2.39	2.18
19A7340-2	BXR-02-6	Black	DPDT	3.48	2.61	2.39	2.18
19A7341-0	BXR-03-6	Green	DPDT	3.48	2.61	2.39	2.18
19A7342-8	BXR-05-6	White	DPDT	3.48	2.61	2.39	2.18

### JBT SUB-MINIATURE SWITCHES

Use where miniaturized equipment requires a switch of the smallest size, with the trouble-free performance of standard size switches. UL and CSA rated 5 amps inductive load (.75 pf) at 125 VAC. Toggle types have chrome plated bat handle 4" long, all have ¼ " diameter bushings. Depth behind bushing is .5" for SP or DP". 57" for 3P or 4P. Weighs only .19 oz. to .32 oz. "Momentary.



#### TOGGLE SWITCHES

Stock	10000000000000000000000000000000000000	MODEL A.	Panel	ODGER AN	Prices	s Each	
No.	JBT No.	Action	Space	1-9	10-29	30-99	100 Up
19A735		SPDT Center Off	.26 X .5"	\$1.95	\$1.43	\$1.30	\$1.14
19A735	2-7 JMT-123	SPDT 2 Position	.26 X .5"	1.65	1.21	1.10	.96
19A735	3-5 JMT-126	*SPDT 2 Position	.26 X .5"	1.95	1.43	1.30	1.14
19A735	4-3 JMT-221	DPDT Center Off	.45 X .5"	2.55	1.87	1.70	1.48
19A735	5-0 JMT-223	DPDT 2 Position	.45 X .5"	2.15	1.58	1.43	1.26
19A735	6-8 JMT-321	3PDT Center Off	.65 X .5"	4.25	3.12	2.84	2.48
19A735	7-6 JMT-323	3PDT 2 Position	.65 X .5"	3.85	2.82	2.57	2.24
19A735	8-4 JMT-421	4PDT Center Off	.83 X .5"	5.45	4.00	3.64	3.18
19A735	9-2 JMT-423	4PDT 2 Position	.83 X .5"	4.85	3.56	3.24	2.83

#### **PUSH-BUTTON SWITCHES**

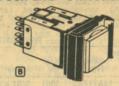
Have .375" dia. threaded molded knobs .31" long. Depth behind bushing is .795" PB123 is push to make, push again to reverse. PB126 is momentary action either NO or NC depending on how you

19A7360-0 19A7361-8		SPDT SPDT	26 X 5" 26 X 5"	\$2.05	\$1.54	\$1.37	
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# AND CONTINENTAL WIRT SWITCHI

#### SWITCHCRAFT SERIES PL "PUSH-LITE" SWITCHES



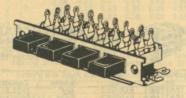


"Push-Lite" is the first completely enclosed, lighted pushbutton switch which features long-life, highly-reliable leaf-spring switching. Pushbutton color supplied is white, other colors listed at right. Molded crossbar palladium contacts rated at 2 amps, 200 watts, max., A.C., non-inductive load. Mount with clamp-type bracket, no screws, washers or nuts needed. (A) Flange mounting requires "X 8.75" panel cutout; (B) barrier mounting requires 1-3/16" X .875" panel cutout. Can be mounted in vertical or horizontal rows and in matrixes. Depth behind panel only 14 ". "Push-Lite" switch accepts standard T-134 flange base lamps (not furnished with switch) in either 6V type 328 or 28V type 327 listed on page 139 Specify one lamp for single lamp type or two lamps of twin-lamp. type when redundant or split-face lighting is required. Barriers and colored filter snap-inserts listed at right. Black housing.

	MOM	ENTARY ACT	ION-SINGLE	LAMP		
Stock	Mfg.	soffud see	1-9	10-24	25-49	50 Up
No.	No.	Action	Each	Each	Each	Each
19A7297-4 19A7298-2	PL-1032-05 PL-1062-05	SPDT	\$8.56 8.76	\$6.42	\$5.89	\$5.35
19A7299-0	PL-1122-05	4PDT	9.48	7.11	6.52	5.93
7. 22 . 7	121122	80 10	0.00		700	ovelvan P
AR SOLD FOR BE	MOM	ENTARY ACT		AMP	200 1	BONE AR
19A7303-0	PL-2032-05	SPDT	8.76	6.57	6.02	5.48
19A7304-8 19A7305-5	PL-2062-05 PL-2122-05	DPDT 4PDT	9.04	6.78 7.26	6.22	5.65
13M/303-3	FL-2122-03	4101	3.00	7.20	0.00	0.03
	PUSH-LO	CK/PUSH-REL	EASE-SINGL			
19A7309-7	PL-1037-05	SPDT	9.04	6.78	6.22	5.65
19A7310-5	PL-1067-05	DPDT	9.24	6.93	6.35	5.78
19A7311-3	PL-1127-05	4PDT	9.96	7.47	6.85	6.23
	PUSH-LO	CK/PUSH-RE	LEASE-TWIN	LAMP		
19A7315-4	PL-2037-05	SPDT	9.96	7.47	6.85	6.23
19A7316-2	PL-2067-05	DPDT	10.16	7.62	6.99	6.35
19A7317-0	PL-2127-05	4PDT	10.88	8.16	7.48	6.80

#### SERIES 65000 DW "MULTI-SWITCH"

DW (doublewipe) contacts rated at 3 amps AC, 5 amp DC, 125 volt non-inductive load. Push-buttons are on \(^{\cup}\_{\ell}\) care centers, overall height is \(^{2}\)/2\(^{\cup}\_{\ell}\). 2C assemblies (suffix No. 206) extend 1\(^{\cup}\_{\ell}\), behind panel, 4C assemblies (suffix No. 212) extend 1\(^{\cup}\_{\ell}\), "behind panel, 4C assemblies (suffix No. 212) extend 1\(^{\cup}\_{\ell}\), "Interlock function returns any button to "out" position when any other button is pushed. Lock-out prevents operation of more than one button at a time. All Series 65000 DW switches are completely assembled and tested switches are completely assembled and tested at the factory.



#### 2C ASSEMBLIES (2PDT)

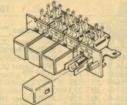
Stock	Switchcraft	No. of	7092	Price		
No.	Part No.	Stations	1-9	10-24	25-49	50-99
19A7135-6	65021K-206	2	\$2.48	\$1.86	\$1.71	\$1.55
19A7136-4	65041K-206	4	4.40	3.30	3.03	2.75
19A7137-2	65061K-206	6	6.32	4.74	4.35	3.95
19A7138-0	65081K-206	8	8.24	6.18	5.67	5.15
19A7139-8	65101K-206	10	10.20	7.65	7.01	6.38
19A7140-6	65121K-206	12	12.16	9.12	8.36	7.60
	The state of the		DI 150 /4	DDT)		1000

### 4C ASSEMBLIES (4PDT)

19A7322-0	65021K-212	2	\$2.88	\$ 2.16	\$ 1.98	\$ 1.80
19A7323-8	65041K-212	4	5.28	3.96	3.63	3.30
19A7324-6	65061K-212	6	7.68	5.76	5.28	4.80
19A7325-3	65081K-212	8	10.00	7.50	6.88	6.25
19A7326-1	65101K-212	10	12.40	9.30	8.53	7.75
19A7327-9	65121K-212	12	14.80	11.10	10.18	9.25

#### SERIES 67000 ILLUMINATED "MULTI-SWITCH"

Same quality construction and reliable switching functions as Series 65000. Has large square white push-buttons for brilliant evenly diffused lighting. Snap-off buttons allow bulb replacement from front of switch. A single 6 volt (328) or 28 volt (327) lamp, not furnished, is used for each button. See lamp listing on page 139. Overall height is 1½6". depth behind panel is 2½". Two 6/32 screws required for mounting. 4C 4PDI switch contacts on each station. 4PDT switch contacts on each station.



Stock	Switchcraft	No. of				
No.	Part No.	Stations	1-9	10-24	25-49	50-99
19A7328-7	67021K-512	2	\$3.72	\$ 2.79	\$ 2.56	\$2.33
19A7329-5	67041K-512	4	6.80	5.10	4.68	4.25
19A7330-3	67061K-512	6	9.88	7.41	6.79	6.18
19A7331-1	67081K-512	8	13.00	9.75	8.94	8.13
19A7332-9	67101K-512	10	16.04	12.03	11.03	10.03
19A7333-7	67121K-512	12	19.16	14.37	13.17	11.98

#### SWITCHCRAFT PUSHBUTTONS

Series PL-500. Colored pushbuttons are important elements of the "Push-Li All pushbuttons have a lusterless matte finish to eliminate reflective glare. Stock Mfg. 1-9 10-24 25-49 "Push-Lite" Switch. 100 Up No. PL-501 PL-503 PL-504 No. 19A7274-3 19A7275-0 19A7276-8 19A7277-6 19A7278-4 19A7279-2 19A7280-0 Red Green .20 .20 .20 .20 .20 14 14 14 14 14 13 13 13 13 13 Blue White Yellow PL-505 PL-508 PL-512 PL-513 Clear Amber

#### SWITCHCRAFT MOUNTING BARRIERS

Barriers, molded of plastic, separate "Push-Lite" switches and prevent accidental opera-tion of adjacent switches. Series PL-100 is an end barrier. One is required when switches are adjacently mounted; two are required when switches are individually mounted. Series PL-200 is a center barrier. Two are required between switches when adjacently mounted.

Stock	Mfg.	Description	1-9	10-24	25-49	50-99
No.	No.		Each	Each	Each	Each
19A7293-3 19A7295-8	PL-102 PL-202	End barrier - black Center barrier - black	12° 12°	9.	8.	7° 7°

#### SWITCHCRAFT LIGHT DIVIDER

Used in the standard pushbutton to separate the lighting from twin lamps

No.	19A7291-7	Switchcraft PL-55		Treate I		一位自然等级的
		81 10-24 Fach	25-49 Fach	6'	50 Un Each .	54

#### SWITCHCRAFT COLOR FILTER SNAP-INSERTS

Translucent filters for special color-coding in "Push-Lite" switch. Use with white or clear

pushbuttons.	SERI	ES PL-300 FU	IL DISPLAY C	OLOR FIL	TERS	
Stock	Mfg.	20 12 000 10	1-9	10-24	25-49	50-99
No.	No.	Color	Each	Each	Each	Each
19A7281-8	PL-301	Red	\$0.10	\$0.08	\$0.07	\$0.06
19A7282-6	PL-303	Green	.10		.07	.06
19A7283-4	PL-304	Blue	.10	.08	.07	.06 .06
19A7284-2	PL-305	White	10	.08	07	.06
19A7285-9	PL-308	Yellow	.10	.08	.07	.06
	SERIES	PL-400 SPLIT	FACE DISPLA	Y COLOR	FILTERS	
Use 2 filters for	each pusht	outton.				
19A7286-7	PL-401	Red	.07	.06	.05	.04
19A7287-5	PL-403	Green	.07	.06	.05	.04
19A7288-3	PL-404	Blue	.07	.06	.05	.04

#### SWITCHCRAFT "PL" INDICATORS

04

SWITCHCRAFT "PL" INDICATORS
PL Indicator lights perfectly match Push-Lite switches in appearance, but function only as a pilot light. Use the same colored push buttons, color filters, light dividers, mounting barriers and lamp adapters as listed for Push-Lite switches. Supplied with white push buttons, less lamps. Mounting dimensions same as Push-Lite switches. Combination lamp retainer uses either 1 or 2 lamps.

Stock	Mfg.		1-9	10-24	25-49	50 Up
No. 19A7343-6	No.	Color	Each \$2.24	Each \$1.68	Each \$1.54	Each \$1.40
19A7344-4	PL-9205	Grey	2.24	1.68	1.54	1.40



#### MOMENTARY PUSH-BUTTON SWITCH



#### CONTINENTAL WIRT SLIDE SWITCHES

Low cost switches for use where a small size is needed. Rated 3 AMP AC. 5 AMP DC @ 125 volts. Contacts silver plated. Size "A" .54" wide x 1.40" long with 1.12 mtg. ctr. Size "B" 1.00" wide x 1.40" long with x 1.40" long with 1.12 mtg. ctr. Size B 1.30 that 1.12 mtg. ctr. Average shpg. wt. 3 ozs. All are positive action

Stock No.	Size	Action	1-9 Each	10-99 Each	100 Up Each
19A7366-7	A	SPST	\$0.35	\$0.26	\$0.17
19A7367-5	A	SPDT	.36	.27	.18
19A7368-3	A	DPDT	.51	.38	.25
19A7369-1	В	4PDT	1.41	1.13	.75



#### **EXTRA TINY PUSH-BUTTON SWITCH**

SPST normally open, momentary contact. For all sorts of miniature AC or battery powered DC devices. Molded insulated housing and red button. Solder terminals. Really small, only ¾" dia. x 1" long overall. Mounts in ¼" hole. Top quality import at less than ½ usual cost. Wt. 2 oz.

No. 19A7210-7 10 Lots. 990 89° Net Each

# FERWAL, AMIDON, BK

#### EICO LOW-RIPPLE DC POWER SUPPLIES







#### MODEL 1064 BATTERY ELIMINATOR AND CHARGER

Delivers ripple free DC in two ranges. 0-8 volts and 0-16 volts continuously variable by front panel control adjustment of variable transformer. Ideal for servicing transistor equipment, auto radios, portables, as battery substitute or battery charger. Ranges (selected by toggle switch) 0-8 volts at 10 amp continuous, 20 amp intermittent and 0-16 volts at 6 amps continuous, 10 amp intermittent. Output voltmeter and ammeter permits constant monitoring. Fused primary, automatic reset overload relay on secondary. Cabinet size 8½ x 5¾ x 7½". Wt. 16 lbs. Use on 117 volts AC 50-60 Hz line.

35A272-4	1064	K Kit, Each		89.95
35A273-2.	1064	Factory Wired	, Each	\$109.95

#### MODEL 1020 SOLID STATE POWER AND BIAS SUPPLY

Ideal bench unit which will supply all voltage needed to operate transistor devices, variable bias supply, DC filament supply and to recharge batteries of various kinds. Output voltage continuously variable from 0-30. Current rating 150 MA from 0 to 12 volts. 200 MA from 12 to 24 and 300 MA from 24 to 30. Extremely low ripple 120 Hz. at full load is only 0.005%. Silicon rectifier. Size 5 x 4 x 5½". Housed in gray steel cabinet. Fuse protected, Wt. 5 lbs.

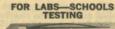
35A397-9.	1020K	Kit,	Each	***************************************	\$39.	
35A398-7.	1020	Factor	ry Wired,	Each	\$54.	95

#### MODEL 1032 SOLID STATE REGULATED POWER SUPPLY

Regulated low ripple power supply which is free of major variations with line voltage and load changes. Regulated output voltage adjustable from 0 to 30 VDC. Output current 0.500 MA. Voltage regulation is 0.2 volts change from 0 to maximum load and 105-135 volt line. Ripple is less than 2.5 mv peak-to-peak. 334" X 8" X 434". Wt. 5 lbs. 35A711-1. Model 1032 Kit. Each \$59.95

#### **EICO 1030 VARIABLE REGULATED POWER SUPPLY**

reaturing: Regulated continuously variable DC volts 0-400, continuous current at 0-200 volts 100 MA. At 200-400 volts 150 MA. Intermittent current at 0-200 volts 125 MA. Blas voltage from 0-150 volts at 2 MA. Regulation 3%. Variation 4% or .5 volt for ± 10 volt line variation. Ripple, less than 3 MV RMS. Also supplies 6.3 volts 3 amps. 6.3 volts center tapped 3 amps. 12.3 volts at 3 amps. and 6.3 volts at 6 amps. Input 120 volts 50-60 Hertz, 160 watts. Has dual range 0-200, 0-400 voltmeter and 0-200 DC milliameter. 81½" H., 12½" W., 9" D. Wt. 21 lbs. 35A589-1.Model 1030. Kit, Ea........................\$119.95





### AMIDON ASSOCIATES FERROMAGNETIC PRODUCTS **IRON POWDER TOROIDAL CORES**

Provide inductors with an excellent "Q" factor and good stability. Used for RF and tuned circuits, filter and noise circuits, tank circuits, IF coils, T and PI networks, wideband Baluns, Oscillators, etc. Highly self shielding and little affected by stray magnetic fields.

	Mfg.	Inductance Per	Size	
Stock No.	No.	100 Turns ± 5%	O.D. Inches	Each
13A5190-9	T-200 MIX-2	120 uh	2.00	\$3.25
13A5191-7	T-200 MIX-41	755 uh	2.00	
13A5192-5	T-130 MIX-2	110 uh	1.30	2.25
13A5193-3	T-80 MIX-2	55 uh	1.30 .80 .68 .68 .50 .50	3.25 2.25 .80 .80 .65 .65 .55 .55
13A5194-1	T-80 MIX-10	34 uh	.80	.80
13A5195-8	T-68 MIX-2	57 uh	.68	.65
13A5196-6	T-68 MIX-10	32 uh	.68	.65
13A5197-4	T-50 MIX-2	50 uh	.50	.55
13A5198-2	T-50 MIX-6	40 uh	.50	.55
13A5199-0	T-50 MIX-10	31 uh	.50	.55
13A5200-6	T-25 MIX-12	13 uh	.25	.40
		T 1985		

Inductance and turns Formula  $N = 100 \sqrt{L_{100}}$ 

L = desired inductance (uh) L<sub>100</sub> = Core Inductance (uh per 100 turns)

#### **ANTENNA BALUN KIT**

Makes a modern compact antenna transformer that can be wired for either 4:1 or 1:1 impedance ratio. The 1:1 balun is ideal for use between a coaxial feed line and a balanced antenna. Acts as an isolation device and removes the capacity of the coax from the antenna which extends the low SWR 13A5201-4. Each



#### **FERRITE BEADS**

For RF shielding, parasitic suppression, spike and transient clipping. Act as tiny RF chokes when slipped over a lead. Use FB 43-101 for # 18 wire. Use FB43-801 for # 12 Wire. Effective between 50 MHz and 200 MHz. FB43-101 .118 long X .138 dia. with .051 hole. FB43-801 is .297 long X .295 dia. with .084 hole.

No. 13A5202-2. FB43-101. Package of 12 \$2.00
No. 13A5203-0. FB43-801. Package of 12 \$3.00



PRECISION

MODEL 1640 MOBILE EQUIPMENT POWER SUPPLY

Regulated adjustable power supply for servicing and operating CB transceivers, auto stereo, auto radios, electronic ignitions and other 12 volt mobile equipment.

Output voltage is 11 to 15 volts, continuously variable at 0 to 3 amps continuous, 5 amp surge limited. Illuminated meter monitors either output voltage or current on expanded meter scale. Voltage scale has the EIA Standard Voltage reference level of 13.8 VDC highlighted in red. Fail-safe automatic overload protection. LED overload indicator lights and power automatically shuts down if overload occurs. When overload is cleared flip the reset switch and operation is restored.

Superb regulation and high output current. Maintains constant voltage even when peaking the RF output of a CB transceiver and the 5 amp surge limit allows 8 track channel selector solenoids to operate properly. Color coded heavy duty output binding posts allow reference of either positive or negative output to ground.

Output ripple is less than 8 mv. RMS, load regulation less than 0.8%, line regulation less than 0.8% with  $\pm$  10% line variation. For 115/230 V. 60 Hz.

Size 31 /16 X 10 X 81/2", Shpg. wt. 13 lbs.

35A3208-5. Model 1640. Each ......\$100.00



LETS YOU USE YOUR MOBILE CB AS A BASE UNIT!

CB POWER SUPPLY

Output 13.8 volts @ 3 amps. Short circuit protected. Regulated .05 volts from no load to full load. Safety engineered for no shock hazards, isolated aluminum chassis. Rugged 15 amp power transistor, heavy duty heat sink. Constant output maintains maximum CB power. No hum. Size 10 ¼ "W X 2½"H X 6½"D. Shpg.

13A8073-4. Each

......\$49.95



#### REGULATED DC **POWER SUPPLY**

 3 Amps Continuous • 13.6 Volts DC ± 1%.

Double the use of your CB mobile equipment, auto stereo tape player, or car radio. Converts 115-125 VAC to 13.6 VDC ± 1%. Regulated output voltage is free of major variations with line voltage and load charges. Regulator employs a precision integrated circuit and rugged

metal-cased power transistors for long-life and reliability. Foldback current-lim-iting protects both the rig and supply from damage due to short circuits. Ripple less than 30 mv peak-to-peak. Load regulation 1%. Line regulation 1%. On-off indicator light, wood-grained steel cabinet. Size: 3½" H X 5¼" W X 7" D.

#### FENWAL THERMISTORS

Thermistors are thermal resistors of ceramic material combined with metals to obtain a definite decrease in resistance as temperature is increased. Features close tolerance and stability with high reliability and unlimited life. An ideal temperature measuring device. Res. ratio 0° C to 50° C. Order by manufacturer's number.



Stock No.	Mfg. No.	Fig.	Ohms @ 25 C	Ratio	1-9 Each	10-Up Each
22-10450-9	GA51J1	A	100K	10 3 1	\$2.16	\$1.72
22-10455-8	GA51P2	R	100K	10 3 1	2.20	1.76
22-10460-8	GB32J2	Δ	2K	7.3.1	2.16	1.72
22-10465-7	GB32P8	B	2K	7.3.1	2.58	2.07
22-12640-3	JB25J1	C	500	7.3:1	1.05	.84
22-12650-2	JB31J1	C	1K	6.9.1	1.05	
22-12630-4	JA35J1	C	5K	9.1:1	1.05	.84
22-12730-2	KA31L1	C	1K	911	.89	.71
22-12740-1	KB22J1	C	200	6.9:1	.89	.71
22-13500-8	LB21J1	C	100	6.9:1	.89	.71
22-13700-4	NB11J1	C	10	6.9.1	.89	.84 .84 .71 .71 .71
22-13900-0	QA51J1	D	100K	911	1.31	1.05
22-14565-0-	RR4111	n	10K	911	1 26	1.01

#### THERMISTOR BASIC APPLICATION KIT

Contains 10 glass bead and rod thermistors. Resistance values from 3K to 135K ohms, Complete with applications manual and thermistor computer.

22-10430-1. G701. Per Kit. Each \$9.95

renw	ai i	nermist	or ivia	muai	01	cnarac	ter	ISU	CS	an	0	apı	catı	on	S.						
No. 1	<b>6A1</b>	153-8.	Each										 			 	 	 	 	 	
With	You	r Order	for \$	10.00	01	Large	er .						 			 	 	 	 	 	

## POWER INVERTERS, DC POWER SUPPLIES

TRIPP LITE SOLID STATE POWER INVERTERS OPERATE RADIOS, APPLIANCES, ETC FROM YOUR CIGARETTE LIGHTER



Delivers 115 watts continuously. Has 2 power switching transistors! Where cigar lighter convenience is needed, use this model. Use in boat, plane, trailer or car! Lightweight. Rated at 115 watts when wired directly to battery, 90 watts when wired to cigarette lighter. Size: 3½ X 6½ X 5½". Shpg. wt. 6 lbs.

Delivers 60 watts continuously. With cigarette lighter plug and cord. Size 3 ½ X 3½ X 2½". Shpg. wt. 3 lbs. 



#### 250 WATT INVERTER WITH FREQUENCY CONTROL

FOR OPERATING RECORDERS, PHONOGRAPHS AND OTHER FREQUENCY SENSITIVE EQUIPMENT

Model PV250FC Delivers 250 watts continuously. Frequency control 60 Hz ± 1. Hz. with 11-14 VDC input. 11 transistors. Size 3 ½ X 6 ½ X 9"

No. 13A8053-6. Shpg: wt. 15 lbs. Each ...... \$139.50

### 115 VAC INVERTERS





Model PV200. 200 W. Continuous. 115 VAC from 12 V. DC input. Has four transistors. Rugged construction. Metal parts plated to resist corrosion. Mounts under dash, etc. 3½" X 5" X 5". Fused. Shpg. wt. 8 lbs. \$69.95 No. 13A8023-9. Net Each.

Extra High Power Model PV-500HE 500 W. Continuous 115 VAC from 12 VDC input. Size 5 X 9 ½ X 9". Shpg. wt. 20 lbs. \$149.95

Model PV-500FC. With Frequency Control. For frequency sensitive equipment such as phonographs and recorders.  $\pm 1$  HZ from 11 to 14 volts, 25 to 450 watts. 15 transistors . . . no battery charger otherwise same as PV-500B. .....\$220.00 No. 13A8038-7. Each ...

Model PV-1000FC 1000 W. Continuous with frequency control. For frequency sensitive equipment such as phonographs and recorders. 27 transistors. Size  $5 \times 9 \cdot 2 \times 17''$ . Shpa. wt. 47 lbs. .....\$349.00 No. 13A8051-0. Each

Do Not use Inverters with Refrigerators, Air Conditioners, Toasters, Electric Skillets and other heavy current devices. 128

12 VOLT DC **POWER SUPPLY** RATED 4 AMP



Double the use of your auto stereo tape player, car radio or CB mobile equipment by using in your home or office. Converts 115 VAC to 12 VDC. Delivers 4 amps, 6 amp surge. No noticeable hum or voltage dip. Screw terminals, neon on-off indicator light. Automatic circuit breaker. Shpg. wt. 5 lbs. Size 3 1/4 " H. X

\$19.95 No. 13A8041-1. Each .....

5 Amp Power Supply. Handles 6 amp (a 12 VDC loads. Other features same as 13A8041-1 above, with heavy duty binding posts.

... \$27.95 No. 13A8060-1. Each . . . .

6 Amp Regulated Power Supply. Delivers 13.8 VDC ±.05 V Other features same as 13A8O41-1 above, with heavy duty binding posts

#### SENCORE UPS164 UNIVERSAL HI-FILTERED VARIABLE REGULATED POWER SUPPLY



It is 0 to 30 volt regulated and Hi-Filtered variable supply for powering any solid state circuit or circuits. Provides virtually ripple-free DC. It is a well-filtered, Hi-Current, regulated 6 and 12 volt DC supply for powering any radio, tape deck, aircraft equipment, boat equipment, etc. ... up to 20 amps. It's a 20 amp. battery charger at 6 volts and a 10 amp charger at 12 volts. It's a complete power monitor for all conditions. Two D'-Arsonvol Meters monitor, both voltage and current at all Arsonvol Meters monitor to all conditions. Iwo D-Arsonvol Meters monitor both voltage and current at all times. You can't peg the meters either because the internal circuit is regulated to stop you. It is fully protected with automatic circuit limiting. You can short any terminal with a screwdriver without internal damage. It protects the circuit too. Current limiting adjustment on Hi-Filtered Section can be set at any level to protect transister circuit being nowered. \$\frac{1}{2} \text{ In V. 10. X. 12" \text{ NSnow ut. 23 like.}}

sistor circuit being powered. Size 10 X 10 X 12" H. Shpg. wt. 23 lbs

No. 35A3124-4. Sencore UPS164. Each ...... \$290.00



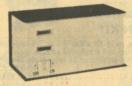
## REGULATED POWER SUPPLIES

Output voltage continuously adjustable. Meter indicates output voltage or current level. Panel switch selects meter function, circuit automatically limits overload current to prevent damage to the supply. Maintains constant output voltage regardless of varying line voltage or load resistance, .0005 rms volt max. ripple. Electronic short circuit protection. Three output terminals, DC+ DC-, Cnd. to obtain positive or negative output. Three wire cord. Operate on 105-135 VAC, 50-60 Hz. Shpg. wt. 4 lbs.

WP-703A Zero to 20 volts at current levels up to 500 MA. Size 51/4×81/4×31/4". Front panel similar to WP-700A. Shpg. Wt. 5 lbs. No. 35A3182-2.

A Zero to 40 volts at current levels up to 250MA. Size 51/4×81/4× ont panel similar to WP-700A. Shpg. Wt. 5 lbs. WP-704A 35A3053-5

DUAL BANANA PLUC & LEADS Includes alligator clip connectors. No.35A8021-7WG-413A. Net Each.....



#### STANCOR VOLTAGE CORRECTOR

Designed to compensate for all but the most Designed to compensate for the sextreme brown-out (another term for low-line voltage) conditions. A reduction of 10% in line voltage means: • Motor operated devices lose 20% efficiency but draw more

current and run hotter. • Light bulb efficiency drops 30%, fluorescent lights 15%. • TV pictures become smaller and color may be affected.

The Stancor Voltage Corrector senses when the line voltage drops to 105 volts or lower and introduces an auto-transformer winding that boosts the voltage by 12% above the line voltage. When the line voltage terruns to approx. 110 volts the 12% boost is removed. Entirely automatic and requires no adjustments. Just plug it into a convenient wall outlet and plug the appliances into

Off-The-Shelf Delivery from B-A's Large Electronic Parts Inventory

# SUPERIOR AN













Type 146





Type 116BU, 117BU, Type 126U, 136BU, 216BU, 217BU 236BU, 226U

Type 146U

Type 3PN126, 3PN1368

Type 1156D, 1256D

Type 1168, 3PN1168, 1178

#### SUPERIOR POWERSTAT VARIABLE TRANSFORMERS

For precise variable AC voltage control from zero up to or above line voltage with full rated current available over the entire range. Design is highly efficient auto-former type with single winding over toroidal core. Extremely low heating, zero waveform distortion and excellent regulation from no load to full load. Gold alloy plated commutator, virtually main-

tenance free.

OPEN CONSTRUCTION POWERSTATS											
Stock No.	Mfg. No.	Volts	put Hertz	Output Volts Amps	KVA	Dia.	ze Depth	Shpg. Wt.	Net Each		
13A941-0	10B	120	50/60	0-120 *2.25	.27	FO W	OTH	1	100		
404040.0	Mar mili	120	60	0-132 *2.25	.30	213/1	210"	2.5 Lbs.	\$16.75		
13A942-8	21	120	50/60	0-120 4.5	.54				V+		
13A943-6	116BU	120	50/60	0-140 4.5	.63	33/4"	3,5,11	6 Lbs.	25.60		
13M343-0	ITOBU	120 120	50/60	0-120 10 0-140 10	1.2	5"	Mane III	1011			
13A944-4	117BU	120	60	0-140 10 0-120 12	1.4	5"	43/8/1	12 Lbs.	33.70		
13A945-1	126U	120	50/60	0-120 15	1.8	3"	43/8"	12 Lbs.	36.20		
10/10/10	ALL PO	120	50/60	0-140 15	2.1	6"	45/1	18 Lbs.	61.70		
13A917-0	136BU	120	50/60	0-120 22	2.6		432	10 LUS.	01.70		
		120	50/60	0-140 22	3.1	67/8"	45"	26 Lbs.	89.80		
13A918-8	146U	120	50/60	0-120 30	3.6		20 888	STATES.	801		
	010011	120	50/60	0-140 30	4.2	911"	423//	38 Lbs.	144.60		
13A946-9	216BU	120	50/60	0-280 + 3.5	.42		500 to 77				
		240	50/60	0-240 3.5	.84		43/11		75		
13A919-6	217BU	240	60	0-280 3.5 0-240 5	.98	5"	43/8"	12 Lbs.	40.50		
13A920-4	226U	120	50/60	0-280**7.5	.91	3	436"	12 Lbs.	43.00		
Separate Lab	2	240	50/60	0-240 7.5	1.8						
		240	50/60	0-280 7.5	2.1	6" 4	1-5/32"	18 Lbs.	61.70		
13A921-2	236BU	120	50/60	0-280 tt 10.	1.2		ATTE STA	nissaern va			
		240	50/60	0-240 10.	2.4						
		240	50/60	0-280 10.	2.8	67%"	45 /16"	26 Lbs.	89.80		

\*Output amps rating when mounted on a metal panel. 1.75 amps without metal panel. †Max output amps with output volts up to 150V. Derate to 1.5 amps at 280V. \*Max output amps with output volts up to 150V. Derate to 3.25 amps at 280V. †Max output amps with output volts up to 150V. Derate to 4.25 amps at 280V.

#### PORTABLE PLUG-IN POWERSTATS W/2 WIRE CORD

Stock No.	Mfg. No.	Input Volts Hertz		Output Volts Amps KV		-		ze	Shpg. Wt.	Net Each
-						KVA	Dia.	Depth	Wt.	Each
13A937-8	116B	120	50/60	0-120		1.2				
		120	50/60	0-140	10	1.4	5"	55/8"	12 Lbs.	\$45.50

#### **SOLA OEM SERIES REGULATED** DC POWER SUPPLIES





The OEM line is designed for computors, data processing, process control, electronic measuring, telemetering or where ever isolation from line voltage fluctuation is required. Completely adaptable to either bench or rack use, their open type construction facilitates convection cooling and provides complete serviceability. In addition, the elimination of extras such as the cover, overvoltage protection, temperature compensation, etc. allow the same regulation and filter chareristics as much higher priced premium regulated DC supplies. Automatic current limiting gives complete protection against short circuits even if the output is shorted continuously. Output returns to normal when the short circuit is removed. Input voltage range of all types is 108-132 or 216-264 volts. Input frequency range is 50-400Hz, with load derated to 75% for 400Hz operation. DC output is completely filtered for a 10mV ripple with either positive or negative terminal grounded. Regulation is ±0.1%, line and load combined. Regovery time is less than 50 microseconds, half to full load. Operating temperature is 0°C to +55°C.

30 Watt series are 6°L X 4.94°W X 2.7°H. Shpg. wts. 3 lbs.

#### 30 WATT SERIES

	CONTRACTOR OF PARTY AND ADDRESS.		0		
Stock No.	Sola Model	Output Voltage Adjustment	Output Current	1-4 Each	5-9 Each
13-08062-7 13-08063-5 13-08064-3 13-08065-0	83-05-230 83-12-218 83-15-216 83-24-212	4.8-5.5V 11.5-12.5V 14.5-15-5V 23-25V	3A 1.8A 1.6A 1.2A	\$33.83 33.83 33.83 33.83	\$31.72 31.72 31.72 31.72
	6	O WATT SER	RIES		19.26
13-08066-8 13-08067-6 13-08068-4 13-08069-2	83-05-260-1 83-12-250-1 83-15-240-1 83-24-225-1	4.8-5.5V 11.5-12.5V 14.5-15.5V 23-25V	6A 5A 4A 2.5A	68.83 68.83 68.83	64.53 64.53 64.53 64.53
REAL TOPIC	12	O WATT SE	RIES		
13-08070-0 13-08071-8	83-05-312-1 83-24-260-1	4.8-5.5V 23-25V	12A 6A	104.42 104.42	97.89 97.89

Uncased open construction Powerstats 10B thru 236BU are panel mounting. Portable types 3PN116B thru 3PN136B are enclosed with 3 wire input cord and output receptacle; 116B enclosed with 2 wire cord and output receptacle; 146 thru 1256D are cased with exposed terminals.

Current and KVA is maximum for a constant-current load.

#### PORTABLE PLUG-IN POWERSTATS W/3 WIRE CORD

13A922-0 3PN116B		50/60	0-120	10	1.2	700	23 3	WHITE PERMIT	01000
	120	50/60	0-140	10	1.4	5"	55/8"	12 Lbs.	\$52.50
13A923-8 3PN117B		60	0-120	12	1.4	5"	55/8"	12 Lbs.	59.20
13A924-6 3PN126	120	50/60	0-120	15	1.8				
10.0	120	50/60	0-140	15	2.1	63"	53/8"	18 Lbs.	86.60
13A925-3 3PN136B		50/60	0-120	22					
GLIL MINE	120	50/60	0-140	22	3.1	73/4"	61/8"	26 Lbs.	125.90

#### CASED POWERSTATS WITH EXPOSED TERMINALS

lfg.		put	Out	put		Si	ze	Shoo.	Net
lo.	Volts	Hertz	Volts	Amps	KVA	Dia.	Depth	Shpg. Wt.	Each
16	120	50/60	0-120	30	3.6		W-35 1.3	BA89 4	reshirt.
560	120	50/60	0-140 0-280	30 28	4.2	9 "/16"	636"	38 Lbs.	\$155.80
	240 240	50/60	0-240 0-280	28	6.7	13%" 9	-15/32"	82 lbs	230.60
	16 56D	16 120 120 1560 120 240 240	16 120 50/60 120 50/60 1560 120 50/60 240 50/60 240 50/60	16 120 50/60 0-120 120 50/60 0-140 1560 120 50/60 0-280 240 50/60 0-240 240 50/60 0-280	16 120 50/60 0-120 30 120 50/60 0-140 30 1560 120 50/60 0-280 28 240 50/60 0-240 28 240 50/60 0-240 28	66 120 50/60 0-120 30 3.6 120 50/60 0-140 30 4.2 120 50/60 0-280 28 3.4 240 50/60 0-280 28 6.7 240 50/60 0-280 28 7.8	16 120 50/60 0-120 30 3.6 120 50/60 0-140 30 4.2 9 11/6" 1560 120 50/60 0-280 28 3.4 240 50/60 0-280 28 7.8 13% 9 13/6" 9	16 120 50/60 0-120 30 3.6 120 50/60 0-140 30 4.2 9"/6" 6¾" 560 120 50/60 0-280 28 3.4 240 50/60 0-240 28 6.7 240 50/60 0-280 28 7.8 13½" 9-15/32"	16 120 50/60 0-120 30 3.6

#### **SOLA CONSTANT VOLTAGE TRANSFORMERS**







#### (1) STANDARD SINUSOIDAL TYPE CVS

Harmonic-free, static-magnetic line voltage regulators having ultra-fast regulating action. Response time 1.5 cycles or less. Output voltage constant within ± 1% with input voltage variation as great as ± 15%. Less than 3% total RMS harmonic content in output. All have exposed core, end housings and screw terminals in outlet box. Parallel units of same type to increase output. Regulation effective at from 20% to 100% of full load rating.

SHIPPING WEIGHTS: 30 VA 8 lbs., 60 VA 10 lbs., 120 VA 14 lbs., 250 VA 28 lbs., 500 VA 45 lbs., 1000 VA 72 lbs., 2000 VA 140 lbs., 3000 VA 194 lbs., 5000 VA 335 lbs.

Stock No.	Mfg.	*Input Volts	Output Volts	Volt Amps	L.	Size W.	н.	1-4 Each	5-9 Each
13A913-9 13A926-1	23-13-060-2	95 to 130 95 to 130	118 118	30 60	61/8	4	518 518	\$56.92 67.67	\$53.35 63.44
13A927-9 13A928-7	23-22-125	Note 1 Note 1	118	120 250	8½ 95/8	53/8	5 1 d 7 7 7 1 d 1	86.83 118.25	81.41 110.86
13A929-5 13A930-3 13A1048		Note 1 Note 2 Note 2	118 118 & 236 118 & 236	500 1000 2000	12 78 17 7/8 19 7/8	9	6178 6178 9179	192.42 299.75 510.25	180.39 281.02 478.36
1	23-25-230-3 23-25-250	Note 2 Note 2	118 & 236 118 & 236	3000	217/8 2013	1011	932 932	709.25 1107.92	664.92 1038.67

†shipped direct from factory.

#### NORMAL HARMONIC TYPE CVN

Provide the same  $\pm 1\%$  regulation as the Sinusoidal series. Output contains average of 20% rms harmonic content. Recommended for electrical loads not affected by harmonics, such as solenoids, relays, heaters, filaments etc. 15 to 120 VA are Fig. 2, others are Fig. 1.

Shpg. wts: 15 VA 3 lbs., 30 VA 5 lbs., 60 VA 8 lbs., 120 VA 13 lbs., 250 VA 25 lbs., 500 VA 36 lbs., 1000 VA 48 lbs.

Stock No.	Mfg. No.	* Input Volts	Output Volt Volts Amp		Size W.	H. Each	5-9 Each
13A1088-9 13A1089-7 13A1090-5	20-14-015 20-14-030 20-14-060	95-130 95-130 95-130	118 15 118 30 118 60	21/16 35/16 31/8	2-11/32 2-11/32 31/8	45/16 \$35.83 45/16 41.75 413/16 48.58	\$33.59 39.14 45.55
13A1091-3 13A975-8 13A976-6 13A977-4	20-14-112 20-22-125 20-22-150 20-22-210	95-130 Note 1 Note 1	118 120 118 250 118 500	413/16 111/16 125/16	31/8 615 /16 615 /16	413 /16 75.58 67 /16 111.75 67 /16 170.67	70.86 104.77 160.00

Input Volts: Note (1) dual range, 95 to 130 and 190 to 260 volts; Note (2) three range input, 95 to 130, 175 to 235 and 190 to 260 volts.

(3) PLUG-IN ADAPTOR KITS FOR CVS-CVN ABOVE

Line cord with socket mounted on plate to fit end bell of transformer.

Fits CVS 30,	999-104	No. 13A931-1	Each	\$12.08
60 and 120 VA	999-105	No. 13A932-9	Each	\$12.08
Fits CVS	999-005	No. 13A933-7	Each	\$11.33
250 VA only	999-019	No. 13A934-5	Each	\$11.33
Fits CVS 500 VA CVN 250VA, CVN 500 VA	999-009 999-020	No. 13A935-2 No. 13A936-0		

## STANCOR TRANSFORMERS











#### FILAMENT TRANSFORMERS

Primaries for 117 V. 60 Hz AC. P6456, P6454, P6458, P6308, P6309 have tap for 117-107 V. Electrostatic shield on P6308 and P6309. Secondary is center tapped except P4026, P8389 and P6469

Stock No.	Mfg. No.	Second V.CT		Test Volts	Mtg. Fig.	Dimensions H. W. D.	Wt. Lbs.	1-9 Each	10 Up Each
13A335-5	P4026	2.5	1.5	2500	A	15/8x27/8x15/8"	7	\$4.00	\$3.60
13A29-4	P6454	2.5	10	7500	S	31/8x35/8x21/2"	2.5	7.42	6.68
13A399-1	P6467	5	3	2500	A	2x31/4x21/8"	1.4	5.17	4.65
13A281-1	P6465	6.3	6	1500	A	13/8x23/8x11/2"	.4	3.75	3.38
13A21-1	P8389	6.3	1	1500	A	15/8x21/8x11/2"	.6	3.75	3.37
13A99-7	P6134	6.3	1.2	3000	A	15/8x27/8x17/8"	.8	3.75	3.37
13A402-3	P6466	6.3	3	2500	A	2x31/4x21/8"	1.4	5.42	4.88
13A329-8	P6456	6.3	6	2000	A	23/8x23/4x23/8"	2	7.33	6.60
13A147-4	P6308	6.3	10	2500	NV	31/8x25/8x213 /18	" 3.4	12.09	10.88
13A721-6	P6309	6.3	20	2500	NV	49 /16x33/8x33/4	6.7	19.00	17.10
13A336-3	P6458	10	5	2000	NV	31 /16x21/2x21/2	3.	9.17	8.25
13A330-6	P6461	10	10	2000	C	31/8x31/4x39 /16	5.0	14.59	13.13
13A1020-2	P8384		1.0	1500	A	31/4x2x13/4"	.9	4.58	4.12
	P8130		2	1500	ATH	2x31/4x21/8"	1.4	5.17	4.65
13A331-4	P8358	12.6	3	1500	A	23/8x33/4x21/4"	1.6	6.00	5.40
13A211-8	P6469		1	1500	A	2x31/4x21/8"	1.4	5.00	4.50
13A978-2	P8180		10	1500	A	2x31/4x21/8"	1.4	5.00	4.50
13A332-2			2	1500	A	25/8x4x21/4"	2.2	7.92	7.13
13A1019-4			2.8	1500	A	25/8×4×21/4"	2.2	9.34	8.41
13A1070-7			1.0	1500	A	2x31/4x21/8"	1.3	5.00	4.50

#### POWER TRANSFORMERS .

Commercial grade transformers. Primaries 117 V. 60 Hz AC. \*No center tap on indicated winding. Prefix on manufacturers number indicates illustration.

Stock No.	Mfg. No.	H.V. V.CT	Sec. MA	5 V.	6.3 V. @	Dimensio H. W.		Wt. Lbs.	1-9 Each	10-24 Each
13A381-9	PC8402	480	55	2A	2A CT	31/8×21/2×2	34"	2.4	\$11.00	\$9.90
13A382-7	PC8403	500	70	2A	2.5A CT	31/8x21/2x3		3.2	11.67	10.50
13A979-0	PC8404	520	90	2A	3A	31/2x213/16x		4	13.00	11.70
13A384-3	PC8405	540	120	3A	3.5A	31/8x31/8x3		4.9	15.00	13.50
13A668-9	P8356	540	260	3A	8.8A	31/8x31/8x3	3/8"	6.5	23.34	21.01
13A388-4	PC8409	700	90	2A	3A CT	31/2×213 /16×		4.5	15.50	13.95
13A389-2	PC8410	720	120	3A	3.5A CT	31/8x31/8x3	3/4"	5.5	17.00	15.30
13A391-8	PC8412	800	200		5A CT	411/16×33/4×		8.2	25.01	22.51
13A 30-2	PS8415		15		.6A	115 /16x23/8x		.7	4.58	4.12
13A32-8	PA8421		50		2A	21/4x311/16)		1.5	6.67	6.00
13A1051-7		*125	15		2.6V@.3A	115 /16x23/83		7	4.33	3.90
13A1052-	D0625	125	25		2.6V@.6A	25 /16 x 213 /16		1	5.58	5.02
13A1053-3	P0626	*125	50		2.6V@1.A	21/4x311 /16)		1.5	6.67	6.00
13A84-9	PS8416	250	25		1A	25/4×213/6			5.42	4.88
13A395-9	PC8419	480	70		3A	31/8 x21/2	x27/8	"2.6	9.67	8.70

#### MULTI-VOLTAGE TRANSFORMERS

Three isolated 12 V. secondaries, one with CT, provide 6, 12, 18, 24, 30 and 36 V. output with varying current capacity by using series or parallel connections. All are S mtg. 8" leads. Excellent for building transistor power supplies.

Stock	Stancor	Amps	Dimensions	Wt.	1-9	10-24
No.	No.	Each Sec.	H. W. D.	Lbs.	Each	Each
13B669-7	P8361	0.10	1¾x2x1½"	.36	\$5.42	\$4.88
13B678-8	P8363	0.25	2¾x2½x1¾"		5.50	4.95
138679-6	P8364	0.50	23/8x27/8x21/8"	1.25	6.25	5.63



## LINE VOLTAGE CONTROL ISOLATION TRANSFORMERS

Eliminates most shock hazard because of possible grounded circuits within the equipment being tested. A necessity when testing AC-DC sets. Built-in electrostatic shields are grounded to core. All have standard line cord. P6410 has outlet receptacle, P6160

All have standard line cord. P6410 has outlet receptacle, P6160 and P6161 have voltage switch and outlet receptacle, and P6415 has 3 outlet receptacles. For 50/60 Hz.

Stock No.	Mfg.	Watts Max.	Input Volts	Output Volts	Dimensions H. W. D.	Wt. Lbs.	1-9 Each	10-24 Each
13A443-7			115	115	31/2×213 /16×31/8"	3.7	\$14.00	\$12.60
13A444-5 13A1054-			25/115/105 25/115/105		411 /16x33/4x33/4" 411 /16x33/4x51/2"	142	27.92 38.34	25.13 34.51
124047 7		350			51/2x45/8x511 /16"		46.18	41.56

#### 230 TO 115 V. STEP-DOWN AUTO-TRANSFORMERS

For operation of 115 VAC devices in areas where 230 V. 50 or 60 Hz. AC is the supply voltage. All have 115 VAC plug-in receptacle mounted on transformer. Windings are not isolated. Primaries have standard-line cord and plug.

Stock No.	Mfg.	Watts Max.	Dimensions H. W. D.	Wt.	1-9 Each	10-24 Each
13A1055-8	P8630	85	31/8x25/8x21/2"	2.5	\$11.25	\$10.13
13A1056-6	P8631	125	31/2×25/8×3"	2.5 3. 5.2	11.50	10.35
13A1057-4	P8633	300	31/8x31/8x41/8"	5.2	17.50	15.75
13A1058-2	P8635	500	49 /16x334x434"	10.3	26.01	23.41
13A1059_n	P8636	1000	4º /16x33/4x63/8"	17.	37 67	33.90

#### SMOOTHING FILTER CHOKES

Stock No.	Mfg. No.	Hys.	MA	Ohms	Fig.	Dimensions H. W. D.	Wt. Lbs.	1-9 Each	10-24 Each
13A51-8	C1515	20	15	900	A	15/ax27/ax13/a"	.7	\$3.75	\$3.37
3A1013-7		4.5	50	300	A	13/8x23/8x11/4"	.5	2.95	2.63
3A61-7	C1279	8.5	50	400	A	1%x2%x13%"	.7	3.58	3.22
3A43-5	C1003	16	50	580	A	2x31/4x15/8"	1	4.17	3.75
3A46-8	C1709	8	85	250	A	2x31/4x11/8"	1.4	4.17	3.75
3A48-4	C1001	10.5	110	225	A	25/8x4x21/8"	2.3	6.67	6.00
3A635-8	C2327	1.5	200	85	A	1%x2%x1½"	.7	3.33	3.00

#### HIGH CURRENT FILTER CHOKES

C2700 series is A mounting, TC-2 is A with crimp tabs, C2600 series is similar to NV.

Stock No.	Mfg. No.	Ind. Hys.	Amps.	Ohms Res.	Dimensions H.W.D.	Wt. Lbs.	1-9 Fach	10-24 Each
13A1067-3 13A1068-1		7 4	.135	22 1	7/16x23/8x11/4" 5/8x23/8x17/16"	.35	\$2.42	\$2.18
13A1069-9 13A1012-9	C2727	.25	1.5	.75 1	x31/4x111/16" 3/16x11/2x11/8"	1. .6 1.9	3.42 2.50 7.00	3.08 2.25 6.30
13A550-9 13A551-7 13A552-5	C2685 C2686 C2687	.035 .025	4 8	.425 2	15 /16 x 25 /8 x 25 /8 16 x 33 /8 x 25 /8 " 13 /16 x 33 /4 x 3"	3.4	10.42 13.00	9.38 11.70

#### AUTOMATION CONTROL TRANSFORMERS

Dual winding primaries are connected parallel for 115 V. in series for 230 V. 50-60 Hz. AC. Dual secondaries also may be connected series or parallel. P6375, P6376, P6377, P8616 and P8617 are J type. Others are BV mounting.

	tock No.	Mfg. No.	Secon Parellel	dary Series	Wt.	Size H.W.D.	1-9 Each	10-24 Each
	A24-5	P6375	6V.@2A.	12V.@ 1A.	1.	23/ex27/ex15/e"	\$5.42	\$4.88
	A622-0		6V.@4A.	12V.@2A. 24V.@2A.	1.5	2¾x3½x1½″ 3½x3½x2¼″	6.50 8.34	5.94 7.51 12.38
13	A624-	P6378	12V.@8A.	24V.@4A.	4.3	3º /wx213 /wx21/8" 43 /wx3º /wx33/8"	13.75 25.01	12.38
13	A627-1	P6379 -2 P8616	12V.@ 16A 24V.@ 1A.	48V.@.5A	1.5	23/4x31/8"	6.83	22.51 6.15
13	A1064	-0 P8617	24V.@ 2A.	48V.@1A.	2.5	31/8×35/8×21/4"	8.34 13.50	12.15
		-7 P8618 -5 P8619	24V @ 4A. 24V @ 8A.	48V.@ 2A. 48V.@ 4A.	4.2	3' hex2'3 hex21/8" 43 hex3' hex3/8"	20.00	18.00

#### MINIATURIZED CONTROL TRANSFORMERS

FIG. A SECONDARY 24 V. C.T.

Stock	Mfg.	Secondary	Dimensions	Wt.	1-9	10-24
No.	No.	Ampers	H. W. D.	Lbs.	Each	Each
13A996-4	P-8394	.085 DC	2 1/4 x 1 1/4"	.25	\$4.58	\$4.12
13A997-2	P-8395	.200 DC	2 3/4 X 1 3/4 X 1 3/4"	.35	4.58	4.12
13A998-0	P-8396	.400 DC	2 3/4 X 1 5/8 X 1 1/2"	.60	5.00	4.50
13A999-8	P-8397	.700 DC	3 1/4 X 2 X 1 5/8"	.85	5.33	4.80

### UNIVERSAL RECTIFIER TRANSFORMERS

Variable tap isolated primary and secondary windings provide output voltages in 12 steps within ranges shown. DC output voltages are based on selenium rectifiers and high capacity filters. All are figure BV. Dimensions and weights: RT-201. 2½x2¾x3½" H. Wt. 2.5 lbs.; RT-202. 2½½x2¾x3½" H. Wt. 2.5 lbs.; RT-202. 2½½x2¾x3½" H. Wt. 5.1 lbs.; RT-206, 3½x4x4½" H. Wt. 9.1 lbs.; RT-208: 3¾ X 5 X 4¾6" H. Wt. 12.6 lbs. RT-401. 2½½6 X 3¾6 X 3¾6 H. Wt. 4.1 lbs.

Stock No.	Stancor No.	Rect. Ckt.	AC Volts Range	DC Amps.	DC V. Out Res. Load	DC V. Out Cap. Load	1-9 Each	10-24- Each
13A734-9	RT-201	CT	11.7-29.4	2	3.3 to 11.2	3.5 to 13.8	ALC OR	00.00
13A735-6	RT-202	Bridge	11.1-28.5		7.4 to 23 3.7 to 11.1	8.7 to 30 4 to 14.7	\$10.00	\$9.00
13A/33-0		Bridge	12.0-29.8	2 8	8.9 to 24.3	10.8 to 33	13.75	12.38
13A736-4	RT-204	CT Bridge	11.7-29.2	8	4.3 to 12 8.8 to 24	4.5 to 14.5 11.4 to 32.4	19.17	17.25
3A737-2	RT-206	CT Bridge	12 -29.7	12	8.4 to 11.5 8.4 to 24	3.9 to 14.4 10 to 32	26.34	23.71
3A738-0	RT-208	CT Bridge	12.1-29.2	6 15 8	3.9 to 11.4 8.7 to 23.7	4.4 to 14.8 10.4 to 32.5	34.01	30.61
3A1061-	6 RT-401	CT	24-59	8 2	9 to 25	11.5 to 34	34.01	Since
1001-	disc.	Bridge	24-59	1 10	20.5 to 52.5	28.5 to 73.5	15.34	13.81

#### LINE TO VOICE COIL TRANSFORMERS

8101 and A7947 are type Q mtg., A8104 is type J. Wt. .4 to 1.5 lbs.

Stock No.	Mfg. No.	Primary Ohms	Sec. Ohms	Audio Watts	Size H.W.D.	1-9 Each	10-24 Each
13A16-1 13A37-7	A8101	500	6-8/3.2	5	1%X2%X1%"	\$3.17	\$2.85
13A31-1	A7947	2000/1500/	6-8/3.2	8	156X2 98X 156"	5.42	4.88
13A532-7	A8104	3000/2000/ 1500/1000/500	16/8/4	10	2%X2%X1%"	6.58	5.92













### **10 WATT LINE-TO-LINE TRANSFORMER**

Primary 500/333/200/125/50 ohms. Secondary 500/333/200/125/50 ohms. Primary and secondary 500 and 200 sections have center taps (125 and 50). Figure O. Size 2" H. x 314" W. x 116" D. Wt. 1 lb. 

#### MICROPHONE AND LINE INPUT TRANSFORMERS

TD mounting is fully shielded for low hum pickup. A4779 is for Sgl. or PP grids, A4351 is for single grid. Wt. 1 lb.

Stock No.	Mfg. No.	Pri. Ohms	Sec. Ohms	Dimensions Mtg. H.W. DInches	1-9 Each	10-24 Each
13A571-5 13A4-7	A4779 A4351	600/500CT 500/333/200	60,000CT	A 1%x238x138	\$4.58	\$4.12
1344-7	A4331	125/50	89,000	TD 2" /6x2" /6x2"	9.42	8.48

#### INTERCOM TRANSFORMER

A4744 is voice coil to grid

Stock No.	Mfg. No.	Pri.	Secondary	Mtg.	Dimensions H.W.D.	1-9 Each	10-24 Each
13A1-3	A4744	4 0hm	25K Ohms	VE	13/8x23/8x11/2"	\$4.00	\$3.60

#### INTERSTAGE TRANSFORMERS

A-53, single plate (7K to 20K) to single grid. Others single plate (7K to 15K) to PP grids. Max. DC in primary 10 MA. Average shpg. wt. 1 lb.

Stock	Mfr's.	Turns	Mtg.	Size	1-9	10-24
No.	No.	Ratio		H.W.D.	Each	Each
13A359-5	A53	1:3	AAAA	138x238x138	\$4.17	\$3.75
13A6-2	A53C	1:3		138x238x138	3.75	3.38
13A7-0	A63C	1:3		158x238x132	4.83	4.35

#### AUDIO OUTPUT TRANSFORMER

#### SINGLE PLATE TO VOICE COIL

Figure A Average wt. .5 lbs.

Stock	Mfg.		dance		Dimensions	1-9	10-24
No.	No.	Pri.	Sec.	Watts	H. W. D.	Each	Each
13A127-6	A3877	5K	4 00.5	5	13/8x23/8x13/8"	\$3.17	\$2.85
13A128-4	A3879	10K	4	5	13/8x23/8x13/8"	3.17	2.85

#### PUSH-PULL PLATES TO VOICE COIL

Style C mounting, 500/250/15/8/4 ohms. Primary impedance 5KCT. 30 watts. Size: 31/2 X 21/3 he 

#### TUBE TO LINE TRANSFORMER

Primary single 20K/10K/5K plate or push-pull 20K plates, 15 MA DC. Secondary 500/333/200/125/50 ohms. Rated 5 watts. Figure A. 2" H. x 31/4" W. x 17/6" D. Wt. 1 lb.

13A377-7 A3250. 1-9 Each ...... \$7.00 10-24 Each ...... \$6.30

#### 70.7 V. LINE TO VOICE COIL TRANSFORMERS

For matching speakers to amplifier output allowing selection of desired speaker power level. A8105 has 4/8 ohm sec.; A8080 has 8/16 ohm sec.; A8083 has 8 ohm sec.; all others 4/8/16 ohm sec. Weight varies from .4 to 1.5 lbs.

		The second secon				
Stock No.	Mfr's. No.	Power Steps In Watts	Mtg. Type	Size H.W.D.	1-9 Each	10-24 Each
13A415-5	A8103	16/8/4/2		CONTRACTO STREET	THE STREET MIT	CHIMINES IN
	,,,,,,,	1/.5	budsel	23/4×31/8×21/4"	\$7.67	\$6.90
13A414-8	A8102	8/4/2/1/.5	no Inc	2x23/ex15/6"	5.33	4.80
13A1016-0		5/4/3/2/1	A by	1 3/8 x2 3/4 x 1 1/2	4.83	4.35
13A252-2	A8105	5/2.5/1.25/	1000-1	78 12 16 17	wieve bewenn	of venezue
INTEGE E	110100	.62/.31	0	13/8×23/8×11/2	5.00	4.50
13A361-1	A8081	10/9/8/7/6	The second	2x23/8x15/8	5.67	5.10
13A362-9	A8082	15/14/13/	twatne	n differ years come (	YAN U DAY	Magliony 550
engrad sk	sond 76	12/11	1	23/8 x27/8 x13/4	7.00	6.30
13A1017-8	A8083	2/1/.5	A	1 3/8 x 23/8 x 1 3/8	7.00 3.67	6.30
13A1077-2		50/40	MAGE	10.000		
	BROIS	25/15	J	2-3/8x2-7/8x2	6.33	5.70

#### 25 V. LINE TO VOICE COIL TRANSFORMER

A8095 has 4/8 ohm sec

Stock No.		Power Steps In Watts		Size H. W. D.	Wt. Lb.	1-9 Each	10-24 Each
13A980-8	A8095	5/2.5/1.25/ .62/.31	A	13/8 x 23/8 x 11/2	.4	\$5.00	\$4.50

CONTACT B-A INDUSTRIAL DEPT. FOR QUANTITY PRICES ON ANY STANCOR TRANSFORMERS

### STANCOR MINIATURE TRANSISTOR AUDIO TRANSFORMERS





Open frame style with coded wire leads. Size, 150 milliwatt units  $\frac{2}{3}$  between mounting tabs,  $\frac{2}{3}$  high,  $\frac{1}{3}$  wide,  $\frac{5}{6}$  deep. Wt .65 ozs. 300 milliwatt units 13% between holes,  $\frac{1}{3}$  high, 15% wide, 34" deep. Wt

\*Indicates 300 MW units. All others rated 150 MW.

Stock No.	Stancor No.	Appli- cation	Turns Ratio	Imped.	Ohms Sec.	1-9 Each	10-24 Each
13A818-0	TA52°	In. Stg.	1.00:1.00	500CT	500CT	\$5.33	\$4.80
13A909-7	TA28	In. Stg.	1.65:1.00	1500	500CT	5.33	4.80
13A832-1	TA34	In. Stg.	6.97:1	10K	200CT	4.33	3.90
13A833-9 13A825-5	TA35 TA21	In. Stg. Output	2.24:1 5.53:1	10K 500CT	2KCT 4/8/16	5.00	4.50 4.88
13A911-3	TA33	Output	24.6:1.00	10KCT	4/8/16	5.17	4.65
13A912-1	TA39*	Output	2.50:1.00	100CT	4/8/16	5.42	4.88
13A836-2	TA42°	Output	5.60:1	500CT	4/8/16	5.83	5.25

#### TRANSISTOR AUDIO TRANSFORMERS

Designed especially for transistor applications. Highest quality throughout. All A mountings except

Stock No.	Type No.	Ohms Pri.	Ohms Sec.	DC MA	Power Watts	Ht.	Base Area	1-9 Each	10-24 Each
13A1071-5 13A1073-1	TA-7	100CT 100	10CT 100CT	100	.25	1¼ 15/8	21/8x11/2 21/8x15/8	\$3.33 4.17	\$3.00 3.75
13A813-1 13A819-8	TA-12 TA-56	20CT 48CT	8.3.2/	500	10.	13/8	23/8×15/8	4.00	3.60
13A1011-1	TA-59	500CT	8/16 200CT	550	10 5	23/8	21/8×13/4 21/8×13/8	5.17 4.17	4.65 3.75

#### TRANSISTOR POWER TRANSFORMERS

Multiple tapped primary and secondary to furnish 24 different voltages from 6.5 V to 42 V. Style A. TP2-100 DCMA for bridge rectification with capacitor input filtering. 1-5/8" H. X 2-7/8" W. X 1-

No. 13A632-5 1-9 Each ...... \$5.42 10-24 Each ...... \$4.88 

Power transformer for AC powered electronic flash circuits. 380 VAC at 20 DCMA in half wave circuit. 2½, "H.x2½" W.x2"D. Wt. 1.4 lbs. Figure S.
No. 13A1001-2 P.6425. 1-9 Each \$6.00 10-24 Each \$5.40
Trigger Coil for use with P-6425. ¾" H. X ¾6" dia.
No. 13A1001-2 1-9 Each \$2.67

#### TRIAD TRANSISTOR POWER SUPPLY TRANSFORMER







Use with power transistors and silicon rectifiers to produce HV DC from 12 volts DC. Typical circuit included,

TY-81 and TY-84 are highly efficient epoxy molded toroidal design. Exceed Grade 5 Class R requirements of specs. MIL-T-278 TF5RX40ZZ.

TY-68S and TY-74S are commercial open frame transformers.

Order by R. A. Stock No. and Triad Type No.

Stock	Triad	DC Output From	Dimensions	Wt.	1-9	10-24
No.	No.	FW Bridge Rectifier	H. W. D.	Lbs.	Each	Each
13A907-1-081-0	TY-81	375 V. @ 200 MA	2" Dia. 1" H.	1.5	\$16.92	\$15.23
13A907-1-084-4	TY-84	600 V. @ 200 MA	2¾" D. 1¾" H.		27.15	24.44
13A907-1-068-7	TY-68S	250 V. @ 65 MA	1¾X1¾X1-11/32°	1.07	7.53	6.78
13A907-1-074-5	TY-74S	600 V. @ 200 MA	2X4¼X3″		14.38	12.94

FOR 115 V. 60 Hz AC POWER FROM 12 V. DC SOURCE 12 V. input, 110-115-125 VAC 60 Hz. 115 watt output. 3%" H. X 3-9/32" W. X 31/6" D. Wt. 5 

#### SPRAGUE TYPE 11Z TRIGATE **PULSE TRANSFORMERS**

Balanced pulse characteristics and energy transfer between windings. Minimum saturation effect to allow operation where increased pulse widths "are required. Operating temperature range of -10C to +70C.



Stock	Mfg.	Turns	Max. L1	Max. DCR	1-24	25-49	50-99	100-249	250-499
No.	No.			(ohm)					
				1.5-1.5					
3A1022-8	11Z13	1:1:1	3.0	2-2-2	2.45	1.93	1.26	.91	.84

## POTTER AND BRUMFIELD RELAYS

#### POTTER & BRUMFIELD (PARELCO) **GENERAL PURPOSE** COMPACT RELAYS



R10-E1 SERIES INDUSTRIAL RELAYS

Case size  $1.19^{\prime\prime}$  L.,  $74^{\prime\prime}$  W. X dimension:  $95^{\prime\prime}$  2PDT,  $1.17^{\prime\prime}$  4PDT,  $1.38^{\prime\prime\prime}$  6PDT. All have 5 ampere contacts. Solder in or plug in sockets listed.

Stk. No.	P&B No. R10-E1	Volts	ol Ohms	Cont.	1-9 Each	10-49 Each	50-99 Each	100-499 Each
19A1880-3 19A1881-1 19A1882-9 19A1883-7 19A1884-5	X2-V52 X2-V185 X2-V700 X2-V2.5K X2-V15.0K	6VDC 12VDC 24VDC 48VDC 115VDC	52 185 700 2500 15,000	2PDT	\$4.10 4.10 4.10 4.10 6.40	\$3.69 3.69 3.69 3.69 5.76	\$3.28 3.28 3.28 3.28 5.12	\$2.87 2.87 2.87 2.87 4.48
19A1885-2 19A1886-0 19A1887-8 19A1889-4	X4-V185 X4-V700	6VDC 12VDC 24VDC 115VDC	52 185 700 15,000	4PDT	4.65 4.65 4.65 6.95	4.19 4.19 4.19 6.26	3.72 3.72 3.72 5.56	3.26 3.26 3.26 4.87
19A1891-0 19A1892-8	X6-V430	12VDC 24VDC	90 430	6PDT	6.10 6.10	5.49 5.49	4.88	4.27 4.27
19A1895-1 19A1896-9		115VAC	4.8K 4.8K	2PDT 4PDT	6.75 8.20	7.38	5.40 6.56	4.73 5.74

#### SOCKETS FOR ABOVE RELAYS

Stock	P&B	For	Type	1-9	10-49	50-99	100-499
No.	No.		Terminal	Each	Each	Each	Each
19A1962-9 19A1959-5 19A1963-7 19A1960-3 19A1964-5 19A1961-1	27E162 27E128 27E163 27E129 27E164 27E130	RIO-2PDT RIO-2PDT RIO-4PDT RIO-6PDT RIO-6PDT RIO-6PDT	Solder PC Pins Solder PC Pins Solder PC Pins	\$0.59 .59 .75 .75 .91 1.16	\$0.53 .53 .68 .68 .82 1.04	\$0.47 .47 .60 .60 .73 .93	\$0.41 .41 .53 .53 .64

HOLD DOWN SPRINGS FOR SOCKETS





#### KHU AND KHS

Small size — rugged APD1 enclosed relay. For exacting high speed data processing, computer and process control service. 3 amp silver contacts. Solder terminals with 3-48 stud. May be used with sockets listed below. 1-17,64\* H, 55,64\* W, 1-7,64\* D. Wt. 2½ oz. KHU has clear polycarbonate case. KHS is hermetically sealed in metal enclosure.

Stk. No.	Mfg. No.	Coil V.	1-24 Each	25-50 Each	51-99 Each	100-249 Each
19A1948-8	KHU17A11	12 AC	\$6.55	\$6.22	\$5.90	\$4.91
19A1949-6 19A1950-4	KHU17A11 KHU17A11	24 AC 120 AC	6.55 7.10	6.22	5.90 6.39	4.91 5.33
19A1951-2	KHU17D11	6 DC	5.95	5.65	5.36	4.46
		12 DC 24 DC		5.65	5.36	4.46
19A1954-6	KHU17D11	48 DC	6.20	5.89	5.58	4.46 4.65 7.88
19A1952-0 19A1953-8 19A1954-6 19A1874-6	KHU17D11 KHU17D11 KHU17D11 KHS17D11	12 DC 24 DC 48 DC 24 DC	5.95 5.95 6.20 10.50	5.65 5.65 5.89 9.98	5.36 5.36 5.58 9.45	

	SOCKETS FOR ABOVE									
19A1956-1	27E006 Socket	\$0.71	\$0.67	\$0.64	\$0.53					
19A1955-3	24A032 Retainer for 27E006 socket	.05	.05	.05	.04					
19A1957-9	27E007 Printed Ckt. Terms.	.74	.70	.67	.56					

#### SOLID STATE TIME DELAY RELAYS

Electronic timing with solid state switching combined to provide a trouble free timing device with no moving parts. Knob adjustable through delay range shown. All have internal relay with DPDT contacts rated 10 amps. - 120 VAC. Size 1.78 x 1.41. Height including knob, 3.56".

CHB - DELAY "ON OPERATE" Accuracy ±10% of nominal, reset times 100 milliseconds, repeat-

ability ±2	% octal base.	Input	Delay	1-9	10-24	25-49	50-99
Stk. No.	Mfg. No.	Voltage	Seconds	Each	Each	Each	Each
1981459-6	CHB38-30001 CHB38-30003	24 VAC 24 VAC	1- 10 1-180	\$23.35	\$22.18	\$21.02	\$18.68 18.68
19A1789 -6 19A1746 -6	CHB38-70003	120 VAC	1-180	23.35	22.18	21.02	18.68
19B1460-4	CHB38-70001	120 VAC	1- 10	23.35	22.18	21.02	18.68

Release occurs when control circuit is de-energized. Accuracy ± 10% of nominal, reset time 100 milliseconds, repeatability ± 2%. 11 pin base.

120 VAC 1- 10 28.60 120 VAC 1-180 28.40 19B1463-8 CHB38-70011 19A1747-4 CHB38-70013 Accuracy ± 5% of nominal, reset time 60 milliseconds, repeatability ± 1%. Octal

base. 19B1482-8 CDB38-70003 .1- 10 51.80 49.21 120 VAC

### CUF SOLID STATE TIME DELAY RELAYS

Adjustable thru delay range shown by using external resistor (not furnished). For inimum time two terminals, 2 and 5, must be shorted; for maximum time the listed external resistor between terminals 2 and 5 must be added. For intermediate times select a lesser value resistor, or a potentiometer. Has internal DPDT 10 amp 115 VAC contact relay. 1.53 x 1.41 x 2.50" H. Wire in circuit or use 9KU1

socket.	Mfg. No.	Input	Delay	Ext.	1-9	10-24	25-49	50-99
Stk. No. 19A1748	CUF-41 2 70010	Volts 120 VAC	Seconds 1- 10	Resistor 200K 2.4 Meg	\$17.60 19.15	\$16.72 18.19	\$15.84 17.24	\$14.08 15.32
19A1749-0		120 VAC	1-120		1-24 Each	25-50 Each	51-99 Each	100-249 Each
1041050	275	042 6-	when the C	HEAT	QO:	- 96:	914	684

#### POTTER & BRUMFIELD PR POWER RELAYS

PRD-3 PRD

Dependable, fast acting, sturdy, continuous duty relays for industrial use. Molded base, bobbin and contact carrier. 25 amp silver contacts. 2½" X 2½" X 3¾" L. AC types are 60 Hz. ST contacts are NO. UL and CSA listed. Screw terminals. Wt. 1 lb.

Stk. No.	Туре	Contacts	Coil Volt	1-24 Each	25-50 Each	51-99 Each	100-249 Each
19A1925-6	PRD3AY0	SPST	24AC	\$5.75	\$5.46	\$5.18	\$4.31
19A1926-4	PRD3AY0	SPST	120AC	5.75	5.46	5.18	4.31
19A1927-2	PRD3AY0	SPST	240AC	6.35	6.03	5.72	4.76
19A1928-0	PRD3DY0	SPST	6DC	5.75	5.46	5.18	4.31
19A1929-8	PRD3DY0	SPST	12DC	5.75	5.46	5.18 5.40	4.31 4.50
19A1930-6	PRD5AYO PRD5AYO	SPDT	24AC 120AC	6.00	5.70	5.40	4.50
19A1931-4 19A1932-2	PRD5AY0	SPDT	240AC	6.65	6.32	5.99	4.99
19A1933-0	PRD5DY0	SPDT	12DC	6.00	5.70	5.40	4.50
19A1934-8	PRD5DY0	SPDT	24DC	6.00	5.70	5.40	4.50
19A1935-5	PRD7AY0	DPST	6AC	6.75	6.41	6.08	5.06
19A1936-3	PRD7AY0	DPST	24AC	6.75	6.41	6.08	5.06
19A1937-1	PRD7AY0	DPST	120AC	6.75	6.41	6.08	5.06
19A1938-9	PRD7AY0	DPST	240AC	7.35	6.98	6.62	5.51
19A1939-7	PRD7DY0	DPST	12DC	6.80	6.46	6.12	5.10
19A1940-5	PRD7DY0	DPST	24DC	6.80	6.46	6.12	5.10 6.68
19A1942-1	PRD11AYO	DPDT	24AC 120AC	8.90 8.90	8.46 8.46	8.01 8.01	6.68
19A1943-9 19A1944-7	PRD11AYO PRD11AYO	DPDT	240AC	9.50	9.03	8.55	7.13
19A1945-4	PRD11DY0	DPDT	12DC	8.90	8.46	8.01	6.68
19A1946-2	PRD11DY0	DPDT	110DC	9.70	9.22	8.73	7.28

etal Dust Cover for PRD Relays PG # 35D013 .... \$4.75 Each ... 19A438-1. 25-50 1-24 Each . . . \$5.00 Each . . . 100-249 \$4.50 Each ..... \$3.75 PRDA11AYA TYPE

Same type PRD described above. DPDT, with auxiliary snap switch snap switch SPDT, rated 5

amps. 19A1947-0. Type PRDA11AYA. Coil volts 120 AC. 1-24 Each... \$12.55 25-50 Each.. \$11.92 51-99 Ea ... \$11.30 100-249 Ea ... \$9.41

PM 4PDT POWER TYPE

1/4" contacts rated 25 amp 120 or 240 VAC, 50/60 Hz. resistive load. UL and CSA listed. Screw terminals, 2.7" X 3.4" X 2.7"H. Wt. 1 lb.

Stk No. 19A1512 -2 19A1513 -0 19A1514 -8	Mfg. No. PM17AY PM17AY PM17AY	Coil Volts 24AC 120AC 240AC	1-24 Each \$18.60 18.60 18.70	25-50 Each \$17.67 17.67 17.77	51-99 Each \$16.74 16.74 16.83	100-249 Each \$13.95 13.95 14.03	
104.014 0							

For capacitor start, induction run motors. Operates on back EMF of start winding. Carries UL component recognition. Size 2 1/16" X 3" X 2½" high. Pure silver SPST, NC, double break contacts. For motors to 3 HP. Wt. 1 lb.

Stk. No. 19A1457 -0 19A1458 -8	Type MS4AY MS4AY	Coil Volts 120VAC 240VAC METAL DUST COVER	1-24 Each \$8.20 8.35 FOR MS REI	Each \$7.79 7.93	Fach \$7.38 7.52	Each \$6.15 6.26
19A1441-4	35D130	MEIAL DUST COVER	3.33	3.16	3.00	2.50

#### "P" CLEAR PLASTIC CASE



#### JM MERCURY WETTED CONTACT RELAYS

Long life, high speed unvarying dependability through billions of operations. Internal glass capsule contains contacts, armature, reservoir of mercury, sealed in high pressure hydrogen. A film of mercury is renewed every operation minimizing contact bounce. Upright mounting, but deviation to 30° causes only minor deviation in operating characteristics. All have octal bases.

JML contacts 500 V. max, 2 amp max, with contact protection. R-C contact tection circuit with each relay. Up to 200 operations per sec. SPDT break be make (form C) contacts. 2.64" seated height. 1.31 max. dia. Wt, 5 ozs.



JM1 contacts 500 V. max., 5 amp. max. Up to 100 operations per sec. SPDT make before break

(form D) contacts. 2.64" seated height. 1.31 max. dia. Wt. 4 ozs.

No.

Fig. 11





25-99 Ohms Fach \$17.45 21.05 21.05 10.70 \$13.02 15.70 15.70 10.70 1000

Stock

No.

## POTTER AND BRUMFIELD RELAYS



MEDIUM DUTY MR POWER RELAYS

For small motors, transmitters and general purpose use. Full floating armature. Fast action 60 Hz. AC coils 3.25 watts. DC coils 1.6 watts. ½2" silver contacts rated 8 amps., 115 V AC non-inductive. Size 23½ X 13½, X 13½, "H for single pole, 23½ X 2¾6 X 2"H for double pole, 23½ X 2¾6 X 2"H for three pole.

				1-24	25-50	51-99	100-249
Stk. No.	Type	Contacts	Coil V.	Each	Each	Each	Each
19A1405-9	MR5A	SPDT	6AC	\$5.90	\$5.61	\$5.31	\$4.43
19A1417-4	MR5A	SPDT	24AC	5.90	5.61	5.31	4.43
19A1406-7	MR5A	SPDT	120AC	5.90	5.61	5.31	4.43
19A1316-8	MR5D	SPDT	12DC	5.80	5.51	5.22	4.35
19A1318-4	MR5D	SPDT	110DC	6.70	6.37	6.03	5.03
19A1319-2	MR11A	DPDT	12AC	7.95	7.55	7.16	5.96
19A1419-0	MR11A	DPDT	24AC	7.95	7.55	7.16	5.96
19A1408-3	MR11A	DPDT	120AC	7.95	7.55	7.16	5.96
19A387-0	MR11D	DPDT	12DC	7.90	7.51	7.11	5.93
19A1440-6	MR14A	3PDT	24AC	10.40	9.88	9.36	7.80
19A1422-4	MR14A	3PDT	120AC	10.40	9.88	9.36	7.80
875		METAI	DUST C	OVER FOR			
19A1441-4	35D130			3.33	3.16	3.00	2.50



ENCLOSED PLUG-IN KRP SERIES
CHOICE OF 5 OR 10 AMP. CONTACTS

Small size long life relay for dependable use in automation control, communications switching, etc. Enclosed in clear plastic dust cover. Size 1½,2 X 1½,2 X 2" high. 10 amp contacts on KRP types ending in G, all others are 5 amps. Octal base for type P5 and P11, 11 pin for P14. Wt. 3 oz.

				1-24	25-50	51-99	100-249
Stk. No.	Type	Contacts	Coil V.	Each	Each	Each	Each
19A1354-9	KRP5A	SPDT	120AC	\$7.50	\$7.13	\$6.75	\$5.63
19A1390-3	KRP5AG	SPDT	120AC	7.80	7.41	7.02	5.85
19A1391-1	KRP11AG	DPDT	6AC	8.70	8.27	7.83	6.53
19A1357-2	KRP11A	DPDT	12AC	8.40	7.98	7.56	6.30
19B1349-9	KRP11AG	DPDT	12AC	8.70	8.27	7.83	6.53
19A1382-0	KRP11A	DPDT	24AC	8.40	7.98	7.56	6.30
19A1392-9	KRP11AG	DPDT	24AC	8.70	8.27	7.83	6.53
19A1439-8	KRP11A	DPDT	120AC	8.40	7.98	7.56	6.30
19A1393-7	KRP11AG	DPDT	120AC	8.70	8.27	7.83	6.53
19A1771-4	KRP11AG	DPDT	240AC	9.25	8.79	8.33	6.94
19A1383-8	KRP11D	DPDT	6DC	8.35	7.93	7.52	6.26
19A1394-5	KRP11DG	DPDT	6DC	8.65	8.22	7.79	6.49
19A1384-6	KRP11D	DPDT	12DC	8.35	7.93	7.52	6.26
19A1395-2	KRP11DG	DPDT	12DC	8.65	8.22	7.79	6.49
19A1385-3	KRP11D	DPDT	24DC	8.35	7.93	7.52	6.26
19A1396-0	KRP11DG	DPDT	24DC	8.65	8.22	7.79	6.49
19A1358-0	KRP11D	DPDT	110DC	9.20	8.74	8.28	6.90
19A1462-0	KRP14A	3PDT	120AC	10.45	9.93	9.41	7.84 8.10
19A1397-8	KRP14AG	3PDT	120AC	10.80	10.26	10.26	8.55
19A1788-8	KRP14AG	3PDT	240AC	10.35	10.83	9.32	7.76
19A1328-3	KRP14D	3PDT	12DC		9.83		7.76
19A1359-8	KRP14D	3PDT	24DC	10.35	10.17	9.32 9.63	8.03
19B1350-7	KRP14DG	3PDT	24DC				
19B1351-5	KRP14DG	3PDT	110DC	11.55	10.97	10.40	8.66

#### KCP SENSITIVE TYPE PLATE CIRCUIT RELAYS

Same appearance as KRP above. Operates on 125 MW for SP. 250 MW for DP. 1/6" silver contacts rated 2 amps. 1-13/32" square X 2" high. Wt. 3 oz. 8 pin base.

Stk. No.	Туре	Contacts	Ohms	1-24 Each	25-50 Each	51-99 Each	100-249 Each
19A1353-1	KCP5	SPDT	5K	\$8.40	\$7.98	\$7.56	\$6.30
19A1312-7	KCP5	SPDT	10K	8.95	8.50	8.06	6.71
19B1352-3	KCP11	DPDT	2.5K	8.80	8.36	7.92	6.60
19A1532-0	KCP11	DPDT	5K	8.95	8.50	8.06	6.71
19A1533-8	KCP11	DPDT	10K	9.55	9.07	8.60	7.16





#### **KUP 10-AMP SERIES**

COVERS a wide range of voltages and contact arrangements. Highly reliable, well designed, easy to install or replace. 187 terminals are quick connect/solder type. Enclosed in a clear plastic cover. Silver-cadmium-oxide contacts assure long contact life. Continuous operation. Size 2.25" seated height x 1.406" x 1.531". Wt. 3 oz. Socket for KUP relays listed below.

#### KUP5A15-SPDT 10-Amp.

Stk. No. 19A1586-6	Coil V. 120 V AC	Coil Ohms 2250	1-24 Each \$4.90 1A15-DPDT	25-50 Each \$4.66	51-99 Each \$4.41	100-249 Each \$3.68
19A1595-7	120 V AC	2250	5.95	5.65	5.36	4.46
19A1598-1 19A1600-5	12 V DC 110 V DC	120 10K	5.40 6.20	5.13 5.89	4.86 5.58	4.05 4.65
19A1565-0 19A1566-8	24 V AC 120 V AC	72 1700	4A15 3PDT 6.65 6.65	6.32 6.32	5.99 5.99	4.99 4.99
19A1568-4 19A1569-2 19A1570-0	6 V DC 12 V DC 24 V DC	32.1 120 472	4D15-3PDT 6.15 6.15 6.15	5.84 5.84 5.84	5.54 5.54 5.54	4.61 4.61 4.61

27E043 SOCKETS FOR KUP RELAYS. Rated 10 amperes, molded nylon, pierced solder terminals. 2.03 X 1.50" overall including mounting tabs.

19A1958-7. 1-24 Each ... 90° 25-50 Ea. .. 86° 51-99 Ea. .... 81° 100-249 Ea. 68°



High quality, all purpose relay, UL listed. Silver contacts, choice, 5 or 10 amps. Single 6-32 stud mounting with locating tab. Solder lug terminals. Size 12½," X 11½," X 11½," high, 110 V. DC Coil res. 10,000 ohms. Wt. 2 oz.

0.00		CON	TACT RAT				
				1-24	25-50	51-99	100-249
Stk. No.	Туре	Contacts	Coil V.	Each	Each	Each	Each
19A1429-9	KASAY	SPDT	6AC	\$4.50	\$4.28	\$4.05	\$3.38
19A1332-5	KA5AY	SPDT	12AC	4.50	4.28	4.05	3.38
19A1430-7	KASAY	SPDT	24AC	4.50	4.28	4.05	3.38
19A1431-5	KA5AY	SPDT	120AC	4.50	4.28	4.05	3.38
19A1432-3	KA5DY	SPDT	6DC	4.35	4.13	3.92	3.26
19A379-7	KA5DY	SPDT	12DC -	4.35	4.13	3.92	3.26
19A378-9	KA5DY	SPDT	24DC	4.35	4.13	3.92	3.26
19A1423-2	KA11AY	DPDT	6AC	5.45	5.18	4.91	4.09
19A1424-0	KA11AY	DPDT	24AC	5.45	5.18	4.91	4.09
19A1425-7	KA11AY	DPDT	120AC	5.45	5.18	4.91	4.09
19A1426-5	KA11DY	DPDT	6DC	4.75	4.51	4.28	3.56
19A1427-3	KA11DY	DPDT	12DC	4.75	4.51	4.28	3.56
19A1428-1	KA11DY	DPDT	24DC	4.75	4.51	4.28	3.56
19A1371-3	KA11DY	DPDT	110DC	5.60	5.32	5.04	4.20
19A1433-1	KA14AY	3PDT	6AC	5.90	5.61	5.31	4.43
19A1434-9	KA14AY	3PDT	24AC	5.90	5.61	5.31	4.43
19A1446-3	KA14AY	3PDT	120AC	5.90	5.61	5.31	4.43
19A380-5	KA14DY	3PDT	6DC	5.40	5.13	4.86	4.05
19A381-3	KA14DY	3PDT	12DC	5.40	5.13	4.86	4.05
19A1372-1	KA14DY	3PDT	110DC	6.20	5.89	5.58	4.65
		CONTA				5.00	
19A1447-1	KA5AG	SPDT	24AC	4.55	4.32	4.10	3.41
19A1448-9	KA5AG	SPDT	120AC	4.55	4.32	4.10	3.41
19A1503-1	KA11AG	DPDT	24AC	5.55	5.27	5.00	4.16
19A1504-9	KA11AG	DPDT	120AC	5.55	5.27	5.00	4.16
19B364-9	KA14AG	3PDT	12AC	6.10	5.80	5.49	4.58
19B386-2	KA14AG	3PDT	24AC	6.10	5.80	5.49	4.58
130300-7	IMLANG	OLDI	LAUO	0.10	5.00	5.43	4.30



#### LATCHING TYPE KB

One coil sets latch, another coil releases it. Both operate on same voltage with only momentary pulse. 5 amp contacts except No. ending in G are 10 amp. Size 1.8" X 3.2" X 2.1"H. Wt. 6 oz.

Stk. No.	Туре	Contacts	Coll V.	1-24 Each	25-50 Each	51-99 Each	100-249 Each
19A1469-5	KB17AY	4PDT	24AC	\$13.95	\$13.25	\$12.56	\$10.46
19A1470-3	KB17AY	4PDT	120AC	13.95	13.25	12.56	10.46
19A1360-6	KB17D	4PDT	12DC	13.55	12.87	12.20	10.16
19A1361-4	KB17D	4PDT	24DC	13.55	12.87	12.20	10.16
19A1443-0	KB17AG	4PDT	120AC	14.60	13.87	13.14	10.95
19A1399-4	KB17DG	4PDT	24DC	13.85	13.16	12.47	10.39



#### AP RATCHET OPERATED

For applications requiring on-off or reversing action on alternate opera-tions. Positive action on electrical impulse as short as 60 milliseconds. Each successive impulse reverses contact position. 3%" fine silver con-stacts Rated 5A. For intermittent coil operation. Size 3% X 2½ X 2% "H.

Stk. No. 19A1435-6	Type AP11A	Contacts	Coil V. 24AC	1-24 Each \$16.35	25-50 Each \$15.53	51-99 Each \$14.72	100-249 Each \$12.26
19A1436-4	AP11A	DPDT	120AC	16.35	15.53	14.72	12.26



#### PC IMPULSE TYPE

Armature driven rocker type actuator with single coil provides impulse switching for circuit reversing or on-off use. Requires only 30 MS pulse. Contacts rated at 7.5 amps. Size 2½ x 2¾ x 2¾, two hole mounting. Wt. 5 oz.

0	- 12 B E			1-24	25-50	51-99	100-249	
Stk. No.	Туре	Contacts	Coil V.	Each	Each	Each	Each	
19A1344-0	PC11A	DPDT	120AC	\$9.40	\$8.93	\$8.46	\$7.05	
19A1345-7	PC17A	4PDT	24AC	16.50	15.68	14.85	12.38	
19A1346-5	PC17A	4PDT	120AC	16.50	15 68	14.85	12 38	



### KRP-N INDICATOR TYPE

Same as regular KRP relays with indicating lamp to show current or voltage availability in power circuit. Wt. 3 oz. All have 10 amp contacts.

Stk. No. 19B1364-8	Type KRP11AN	Contacts	Coil V. 120AC	1-24 Each \$9.95	25-50 Each \$9.45	51-99 Each \$8.96	100-249 Each \$7.46
19B1379-6	KRP14AN	3PDT	120AC	12.10	11.50	10.89	9.08



#### KUP SERIES WITH SLOTTED FLANGE CASE

For direct chassis mounting. Not suitable for socket mounting, otherwise identical in mechanical and electrical specifications to the KUP described above. .187" quick-disconnect/solder terminals. .156" slot width.

Stk. No. 19A1856-3 19A1857-1	Coil V. 12 VDC 24 VDC	Coil Ohms. 120 472	1D55 DPDT 1 1-24 Each \$5.40 5.40	0 Amp. 25-50 Each \$5.13 5.13	51-99 Each \$4.86 4.86	100-249 Each \$4.05 4.05
19A1862-1	120 VAC	KUP14	A55 3PDT 10 6.65	)-Amps. 6.32	5.99	4.99



#### MS 40 MINIATURE DC SENSITIVE RELAYS

Contacts rated 2 amps. non-inductive 28 V. DC or 115 V. AC. 1PDT gold alloy cross bar contacts, solder terminals. 4-40 mounting hole. Armature common to frame.  $1\frac{1}{8} \times 1\frac{1}{8} \times 1\frac{$ 

Stock No.	Mfg. No.	Nom. Current or Voltage	Ohms Resistance	1-24 Each	25-49 Each	50-99 Each	100-249 Each
19A1701 -1	MS40-901	6 V.	250	\$2.55	\$2.30	\$2.06	\$1.79
19A1703-7	MS40-904	12 V.	1000	2.66	2.40	2.14	1.87
19A1705-2	MS40-907	4.3 MA	5000	2.66	2.40	2.14	1.87
19A1700-3	MS40-909	2.9 MA	10,000	3.36	3.04	2.72	2.37



#### MS 64 MINIATURE DC SENSITIVE RELAYS

Contacts rated 2 amps, non-inductive 28 V. DC or 115 V. AC. 1PDT gold alloy cross bar contacts. Snap on cover. Molded construction. Isolated contacts. 1% x 3/4 x 11/9".

Stock No.	Mfg. No.	Voltage or Current	Ohms Resistance	1-24 Each	25-49 Each	50-99 Each	100-249 Each
19A1822-5 19A1823-3	MS64-901 MS64-902	6 V. 12 V.	400 1600	\$2.31 2.46	\$2.08	\$1.86	\$1.62
19A1824-1	MS64-903	24 V.	6500 10.000	2.69	2.35	2.09	1.67 1.82 1.97
19A1825-8	MS64-904	3 MA (2)	BRACKET MOUN		2.34	2.21	1.01
19A1826-6	MS64-911	6 V.	400	2.46	2.14	1.91	1.67
19A1827-4 19A1828-2	MS64-912 MS64-913	12 V. 24 V.	1600 6500	2.53 2.76	2.20 2.40	1.96	1.87
19A1829-0	MS64-914	3 MA	10,000	2.99	2.60	2.32	2.02

#### MS 50 MINIATURE DC SENSITIVE RELAYS



Contacts rated 2 amps. non-inductive 28 V. DC or 115 V. AC. Gold alloy cross bar contacts. Solder terminals. Isolated contacts. Open type: 1-5/8 x 1-1/8 x 1-1/4". Plug in: 2 x 1-3/8 x 1-3/8", high impact case. Shpg. wt. 5 ozs.

TWO POLE DOUBLE THROW-OPEN TYPE

Stock No.	Mfg. No.	Nom. Voltage	Ohms Resistance		1-24 Each	25-49 Each		100-249 Each
19A1799-5	MS50-902	12V.	650	S	5.78	\$5.19	\$4.64	\$4.04
Date SAM	TWO POLE	DOUBLE	THROW - PL	JG IN TY	PE - 8	PRONG	OCTAL	The same
19A1811-8	MS50P-902	12 V.	650	S	10.00	\$8.99	\$7.99	\$7.00

#### POTTER AND BRUMFIELD



#### GA GENERAL PURPOSE RELAY

Low cost, multiple contact 5 amp all-purpose relay for many control circuit applications. Mounting single 8-32 tapped core.  $1.06 \times 1.71 \times 1.78$ " H. Wt.  $3\frac{1}{2}$  Oz.

1.24 25.50 51.99 100.249

Stk. No.	Mfg. No.	Contacts	Coil V.	Each	Each	Each	Each
19A1572-6	GA11A	DPDT	6 AC	\$6.25	\$5.94	\$5.63	\$4.69
19A1573-4	GAIIA	DPDT	12 AC	6.25	5.94	5.63	4.69
19A1574-2	GA11A	DPDT	24 AC	6.25	5.94	5.63	4.69
19A1575-9	GALIA	DPDT	120 AC	6.25	5.94	5.63	4.69
19A1580-9	GA17A	4PDT	24 AC	8.80	8.36	7.92	6.60
19A1581-7	GA17A	4PDT	120 AC	8.80	8.36	7.92	6.60



#### RS5D SENSITIVE RELAY

Low price, light weight for model controls, light dimmers, radiosonde, etc. 2 amp SPDT palladium contacts. Size 1.x 1-5/32 x 15/16", H. Wt. 1-1/2 oz.

The same			1-24	25-50	51-99	100-249
Stk. No.	Coil Ohms	Pull In	Each	Each	Each	Each
19A1491-9	335	6 V.	\$6.30	\$5.99	\$5.67	\$4.73
19A1442-2	1.35 K	12 V.	6.30	5.99	5.67	4.73
19A1494-3	5 K	3.5 MA	6.70	6.37	6.03	5.03
19A1495-0	10 K	2.5 MA	7.25	6.89	6.53	5.44

KT ANTENNA RELAYS

silver contacts rated	at 5 amps. Size	1.3" X 1.9" X 1.7"	H. Mounts with
6-32 stud.	Coil V.	1-24 25-50	51-99 100-249
Stk. No. Type		Each Each	Each Each
19A1452-1 KT11A	120 AC	\$5.80 \$5.51	\$5.22 \$4.35
19A1453-9 KT11D	6 DC	5.60 5.32	5.04 4.20
19A1454-7 KT11D	12 DC	5.60 5.32	5.04 4.20

**BU INDUSTRIAL BUZZER** 

For signalling. AC operated. Use where a lightweight buzzer is required.

Wt. 1 1/8 oz.	6-32 tapped	core mounting.	Size 1.03	X 1.37 X	1.03" H.
Stock	Volts	1-24	25-50	51-99	100-299
No.	AC	Each	Each	Each	Each
19A1506-4	6	\$2.45	\$2.33	\$2.21	\$1.84
19A1507-2	12	2.45	2.33	2.21	1.84
19A1508-0	24	2.45	2.33	2.21	1.84
19A1509-8	120	2.45	2.33	2.21	1.84
134			G	et Fast	Delivery



DEDT

#### 129 AC POWER RELAYS

Totally enclosed. Screw connections. Contact rating inductive load: 18 amp at 250 VAC. continuous 1 HP - 125 V, 2 HP - 250 V; resistive load: 18 amp continuous. Operates in any position. 2-3/8 x 1-

-	Stock No.	Mfg. No.	Coil Voltage	Contact	1-24 Each	25-49 Each	50-99 Each
120	19A1744-1 19A1745-8		24 VAC 120 VAC		\$5.61 5.93	\$4.88 5.15	\$4.39
1	15.50	55.01 85.01		SAR SAR	TOSE TO	SECOND AND AND AND AND AND AND AND AND AND A	08.9



84 AC GENERAL PURPOSE RELAYS
Totally enclosed. Screw terminals. Operates in any position.
2% x 1% x 11/2". Shop. wt. 5 ozs.
Contact Rating at 125/250 V. AC. Inductive load: 8 amp continuous, 25 amps inrush; resistive load: 16 amps continuous.

-	Stock No.	Mfg. No.	AC Coil Voltage	Action	1-24 Each	25-49 Each	50-99 Each
0	19A179-1 19A180-9	84-902 84-903	24 120	SPNO SPNO	\$3.96 4.10	\$3.57 3.70	\$3.20

Contact Rating at 125/250 V. AC. Inductive load: 8 amps continuous, 18 amps in-rush; resistive load: 8 amps continuous.

Stock No.	Mfg. No.	AC Coll Voltage	Action	1-24 Each	25-49 Each	50-99 Each	100-249 Each
19A1723-5	84-906	24	SPDT	\$4.51	\$4.07	\$3.63	\$3.19
19A1724-3	84-907	120	SPDT	4.87	4.40	3.92	3.44
19A1725-0	84-908	230/240	SPDT	5.29	4.77	4.24	3.73



143 AC POWER CONTACTORS
Two pole normally open. Screw power terminals (#10 solid wire max.) Auxiliary quick-connect terminals. Straight through wiring. Double break contacts. 3½x23½x2½". Wt. 8 ozs. Contact rating inductive load: 18 amp. continuous, 90 amp. inrush @ 277 V. AC per pole. Resistive load: 25 amp @ 277 V. AC per pole. V. AC per pole.

Stock No.	Mfg. No.	Coil Voltage	1-24 Each	25-49 Each	50-99 Each
19A1816-7	143-901	24	\$7.56	\$6.79	\$6.05
19A1817-5	143-902	120	7.56	6.79	6.05
19A1818-3	143-903	208/240	7.56	6.79	6.05

Contact rating inductive load: 25 amp. continuous, 150 amp. inrush @ 277 V. AC per pole. Resistive load: 35 amp @ 277 V. AC per pole. With cover.

Stk. No.	Mfg. No.	Coil Voltage	1-24 Each	25-49 Each	50-99 Each	100-249 Each
19A1819-1 19A1820-9	143-914 143-915	24 120	\$10.08	\$9.06	\$8.06	\$7.05



#### **75 AC POWER CONTACTORS**

Screw terminal contacts (8 solid wire max.) Hardware included. 9" leads on coil. Contact rating inductive load 2 pole rating: 18 amp. continuous, 90 inrush at 230 V. (2 HP-230 V.) Resistive load: 25 amp - 240 volt per pole. 2½22½x2½". Shpg. wt. 8 ozs.

Stock	Mfg.	Coil	1-24	25-49	50-99
No.		Voltage	Each	Each	Éach
19A1730-0 19A211-2	75-901 75-902	24 V. AC 115/120 V. AC	\$5.45 5.45	\$4.90	\$4.35



85 AC POWER CONTACTORS
Three pole normally open. Screw terminals (#8 solid wire max.) \( \frac{1}{4}\) auxiliary wiring terminals. Straight-through wiring. Contact rating inductive load: 25 amp. continuous. 150 amp. inrush @ 250 V. AC, 12.5 amp continuous, 75 amp inrush @ 600 V. AC. \( 3\\\ \frac{1}{2} \times 3\\\ \frac{1}{2} \times 2\\\ \frac{1}{2}\\ \frac{1}\\ \

Stock	Mfg.	Coil	1-24	25-49	50-99	100-249
No.	No.	Voltage	Each	Each	Each	Each
19A1813-4	85-902	24	\$12.39	\$11.12	\$9.89	\$8.65
19A1814-2		120	12.39	\$11.12	\$9.89	\$8.65
19A1815-9		208/240	12.39	11.12	9.89	8.65

# 10 AND 30 AMP AC INDUSTRIAL CONTACTORS Doublebreak contacts. Silver alloy contacts. Replaceable contacts and coil. Hi dielectric arc resistant contact block and carrier. 50/60 Hz coil, resilient mounting All types are 35/4x2/4x33/4". Shpg. wt. 5 ozs.



# Pressure type power terminals, #10 solid wire max. All contacts

Stock	Туре	Coil	1-24	25-49	50-99	100-249
No.		Voltage	Each	Each	Each	Each
19A1736-7	C10-902	110 V. AC	\$21.00	\$18.68	\$15.55	\$15.18

C30 30 AMP 4-POLE NORMALLY OPEN

riessure t	ype termina	is, #6 solid wi	re max.			The State of the S
Stk. No.	Туре	Coil Voltage	1-24 Each	25-49 Each	50-99 Each	100-249 Each
19A1740-9 19A1741-7	C30-902 C30-903	110 V. AC 220 V. AC	\$32.03 32.03	\$28.81 28.81	\$25.59	\$22.37 \$22.37



## **SOLENOIDS AND RELAYS**

#### **GUARDIAN PULL-TYPE SOLENOIDS**







"I" intermittent types can be energized up to 5 minutes. "C" continuous duty types for unlimited time, if operated within power rating. Plunger has slotted end with ½" hole for cou-





Stock	Mfg.		W-14-	AC	01		Strokes	Body Size L. X W. X H.	Wt. Ozs.	1-24 Each	25-49 Each	50-99 Each	100-249 Each
No.	No.	Duty	Volts	or DC	Ohms	Minimum	Maximum	L. A W. A II.	UZS.				
198142-9	11	1	6	DC	2	40 oz. at 1/8"	2 oz. at 3/4"	1 1/8 X 15 /16 X 13 /16"	7.5	\$4.16	\$3.95 3.95	\$3.74	\$3.12 3.12 3.12 3.12 4.65
198143-7	11	C	6	DC	4.5	25 oz. at 1/8"	1 oz. at 3/4"	1 1/8 X 15 /16 X 13 /16"	7.5	4.16	3.95	3.74	3.12
198156-9	11		120	AC	85	25 oz. at 1/8"	6 oz. at 1"	1 1/8 X 15 /16 X 13 /16"	7.5	4.16	3.95	3.74	3.12
198165-0	11	C	120	AC	200	12 oz. at 1/8"	1 oz. at 1"	1 1/8 X 15 /16 X 13 /16"	7.5	4.16	3.95	3.74	3.12
19B169-2	12	C	120	AC	150	22 oz. at 1/8"	3 oz. at 1/8"	15/8 X 11/4 X 17/16"	6	6.20	5.89	5.58	4.65
19B103-1	14	X 231	120	AC	11	65 oz. at 1/8"	37 oz. at 11/5"	2"/16 X 1"5/16 X 2"/16"	9	8.65	8.22 8.22	7.79	6.49 6.49
19B170-0	14	C	120	AC	18	110 oz. at 1/8"	52 oz. at 11/2"	27 /16 X 115 /16 X 21 /16"	9	8.65	8.22	7.79	6.49
19B186-6	18	1	120	AC	8.8	280 oz. at 1/8"	80 oz. at 1"	21/2 X 113/16 X 2-3/32"	16.5	8.21	7.80	7.39	6.16
19890-0	18	C	120	AC	19.7	145 oz. at 1/8"	40 oz. at 1"	21/2 X 113/16 X 2-3/32"	16.5	8.21	7.80	7.39	6.16
19B286-4	18	C	240	AC	78	145 oz. at 1/8"	40 oz. at 1"	21/2 X 113/16 X 2-3/32"	16.5	8.34	7.92	7.51	6.26
19A27-2	28 28	C	120	AC AC	400	20 oz. at 1/16"	2.5 oz. at 1/2"	11/8 X 1-7/32 x 13/16"	3.5	4.02	3.82	3.62	3.02
19A44-7	28	C	6	DC	7.7	24 oz. at 1/16"	1 oz. at 3/8"	11/8 X 1-7/32 X 13/16"	3.5	3.70	3.52	3.33	2.78
19A47-0	28	300	12	DC	13	35 oz. at 1/16"	2 oz. at 1/2"	11/8 X 1-7/32 X 13/16"	16.5 16.5 16.5 3.5 3.5 3.5	3.70	3.52	3.74 3.74 5.58 7.79 7.39 7.39 7.51 3.62 3.33 3.33	2.78
19A58-7	28	C	12	DC	27	24 oz. at 1/16"	1 oz. at 3/8"	11/8 X 1-7/32 X 13/16"	3.5	3.70	7.80 7.92 3.82 3.52 3.52 3.52 3.52	3.33	6.26 3.02 2.78 2.78 2.78



#### **GUARDIAN PUSH-TYPE SOLENOIDS**

Plunger pushes out when Solenoid is energized. Length of push rods equals maximum stroke length shown.

Stock No.	Mfg.	Duty	Volts	AC or DC	Ohms	Lifts and	Strokes Maximum	Body Size L. X W. X H.	Wt. Ozs.	1-24 Each	25-49 Each	50-99 Each	100-249 Each
19A5018-6 19A5020-2 19A5021-0	18P 28P 28P 28P	C	120 120 120	AC AC	19.7 220 400	145 oz. at 1/6" 28 oz. at 1/16" 16 oz. at 1/16"	40 oz. at 1/8" 4 oz. at 1/2" 2 oz. at 1/2"	2½ X 1 <sup>13</sup> / <sub>6</sub> X 2 <sup>3</sup> / <sub>6</sub> " 1½ X 1 <sup>3</sup> / <sub>6</sub> X 1 <sup>3</sup> / <sub>6</sub> " 1½ X 1 <sup>3</sup> / <sub>6</sub> X 1 <sup>3</sup> "	16.5 3.5	\$9.68 4.55 4.55	\$9.20 4.32 4.32	\$8.71 4.10 4.10	\$7.26 3.41 3.41
19A5022-8 19A5023-6	28P 28P	CC	6	DC DC	7.7	19 oz. at 1/16" 19 oz. at 1/16"	0.8 oz. at 36" 0.8 oz. at 36"	1 1/8 X 13/16 X 13/16" 1 1/8 X 13/16 X 13/16"	3.5 3.5 3.5	4.10	4.32 3.90 3.90	4.10 4.10 3.69 3.69	3.41 3.08 3.08



#### IMPULSE RATCHET RELAYS

Type 660. Contact ratings 121/2 amp, resistive load 120 volts AC. Each impulse reverses contacts. Intermittent duty coil. Relay size  $3^1/6$  X  $2^1/4$  X  $2^3/6$ °. Wt. 8 oz.

Stock			1-24	25-49	50-99
No. 19A523-0	Type 660-C-120AC	Contacts	Each \$8.64	Each S8.21	Each \$7.78
100524.9	660-2C-120AC	DPDT	0 33	886	8 40



#### INTERLOCKING AC RELAYS

TYPE IR-1200/1200. Used to maintain circuits continuously without coil power consumption. Unit is electrically pulse operated with mechanical hold and electrical release. 10 amp contacts 60 'Hz, non-inductive. Size: 1% X 1¼ X 2½". Wt. 5.5 oz.

IR-1200/1200-4C-120A, 4PDT, 120 VAC 25-49 Ea. . . \$13.26 50-99 Ea...\$12.56 100-249 Ea...\$10.47



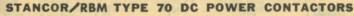
#### (1) 1210 AC PLUG-IN RELAYS

Enclosed in lexan transparent case. DPDT has octal base. 3PDT has 11 pin base. Rated 10 A. 60 Hz. 120 VAC. non-

44.51		(2) modelive	10au. 2 /16 A 178	A 178 . WIL 374	UZS.		
Stock	Coil	12 2.95.72	Contact	AST 1-24 2	25-49	50-99	100-249
No.	Volts	Mfg. No.	Combination	Each	Each	Each	Each
19A1833-	2 120 AC	1210-2C-120A	DPDT	\$7.83	\$7.44	\$7.05	\$5.87
19A1834	-0 120 AC	1210-3C-120A	3PDT	9.45	8.98	8.51	7.09
19A1835	-7 240 AC	1210-2C-240A	DPDT	8.25	7.84	7.43	6.19
O WITH	DULL T IN A	FON LAMP U.	d for indication	singuit faults	Ea-	120 VAC	anara.

tion, Rated 10 amps

19A1836-5. 120 VAC. 1210N-2C-120A. DPDT. 1-24 Ea...\$9.09 25-50 Ea...\$8.64 51-99 Ea...\$8.18 100-249 Ea... \$6.82





19A1791-2

70-914

Single pole, normally open. Continuous duty coil. Non-turning studs. Drawn steel dustproof enclosure, copper stud power and coil terminals, double break rotating disc movable contact, solenoid actuated. Contact rating DC inductive load—36 V. max.; normally open 6V. DC, 80 amp continuous, 300 amp inrush; 12 V. DC, 80 amp continuous, 300 amp inrush; 12 V. DC, 80 amp continuous, 50 amp inrush. Suggested mounting cap down. Size  $2\frac{1}{2}x3\frac{1}{2}x2\frac{1}{2}$ ". Wt. 1 lb.

Stock	Mfg.	Coil	Resistance	1-24	25-49	50-99
No.	No.	Voltage	Ohms	Each	Each	Each
19B176-7	70-901	6 V. DC	4	\$5.14	\$4.63	\$4.11
19B177-5	70-902	12 V. DC	19	5.14	4.63	4.11
19B178-3	70-903	24 V. DC	60	5.14	4.63	4.11
19A1734-2	70-904	36 V. DC	114	5.14	4.63	4.11

12 V. DC

Off-The-Shelf Delivery from B-A's Large Electronic Parts Inventory









#### **GUARDIAN STEPPERS**

For accurate sequence selecting, pulse multiplying, pulse dividing, circuit select-ing, counting and latching. Direct drive. Switching operations completed upon energization.

① MER ELECTRICAL RESET STEPPER. Capable of counting up to 21 then resetting automatically. Can be reset to zero by 10 MS or longer impulse to reset coil. Two or more may be interconnected to increase count as desired. Size  $2^3 A_6 \times 3^3 A_6 \times 3^$ 

ⓐ IR-MC 24 POINT MIDGET. Continuous rotation stepper with 24 points. For circuit selecting. Contacts  $1\frac{1}{2}$  amp. Intermittent duty coil. Size  $3^{\circ}$  /6 X  $2^{\circ}$  /6 X  $2^{\circ}$  /6 H. Wt.  $9\frac{1}{2}$  ozs. 19A471-2. MC-120 VAC. 20 steps per second 1-24 Ea... \$19.32 50-99 Ea... \$18.31 100-249 Ea... \$15.26

® ROTOMITE STEPPER—DC. 12 positions—continuous rotation. Completely metal enclosed. 3 amp contacts resistive load. Used in business machines, computer circuits, automation. Size 3" L. X 1-5/32" dia. Continuous duty. Wt. 5 ozs.

Stk. No. 19A486-0 19A487-8 19A488-6	Volts 6 DC 12 DC 24 DC	Mfg. No. 705-12P-6D 705-12P-12D 705-12P-24D	1-24 Each \$8.50 8.50 8.50	25-50 Each \$8.08 8.08 8.08	51-99 Each \$7.65 7.65 7.65	100-249 Each \$6.38 6.38	
13M400-0	24 00	703-121-240	0.30	0.00	7.00	0.30	

♠ LATCHING ON/OFF RELAY. Midget Latching relay. Provides positive on-off control for posituoning devices; remote controls, lighting circuits, etc. 10 amp contacts, snap action switching. Short duration pulse reverses switch and holds last position with coil de-energized. Size 21/4 X 1-29/64 X 1-27/32". Intermittent duty coil. Single 8/32 tapped mounting hole. Shpg. wt. 5.2 ozs. 1-24 25-50 51-1

1-24 Ea. 51-99 100.249 Stk. No. Volts Mfg. No. 19A1924-9 120 AC 840L-C-120A \$5.81 \$4.85 \$6.46 \$6.14



## GUARDIAN ALL PURPOSE ECONOMY 10 AMP RELAYS

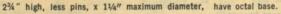
Compact, lightweight relay capable of unusually heavy power control for its size. Long life, high quality relay, available in a variety of AC and DC voltages with a selection of contact combinations. 10 amp. contacts, 115 V. AC non-inductive load. Tapped for 8-32 single screw mounting. Size, 1½ X 1-3/32 X 2-5/32". Shpg. wt. 4 ozs.

Stock No.	Coil Volts	Mfg.	R640 60 Hz AC Cont. Comb.	1-24	25-49 Each	50-99 Each	100-249 Each
19A423-3	24	640U-2C-24	DPDT	Each \$5.33	\$5.06	\$4.80	\$4.00
19A424-1	24	640U-4C-24	4PDT	7.36	6.99	6.62	5.52
19A425-8	120	640U-A-120	SPST	3.89	3.70	3.50	2.92
19A426-6	120	640U-C-120	SPDT	4.40	4.18	3.96	3.30
19A427-4	120	640U-2C-120	DPDT	5.33	5.06	4.80	4.00
19A428-2	120	640U-4C-120	4PDT	7.36	6.99	6.62	5.52
		IRO	645 DC COILS				
19B265-8	12	645U-A-12	SPST	3.89	3.70	3.50	2.92
19B266-6	12	645U-C-12	SPDT	4.40	4.18	3.96	3.30
19B267 -4	12	645U-2C-12	DPDT	5.33	5.06	4.80	4.00
19B268 -2	12	645U-4C-12	4PDT	7.36	6.99	6.62	5.52
launa El	lo et un ni	a Darte Invo	ntory				135

## RELAYS, SONALERT, SHEAR, HEAT SINKS

#### AMPERITE TIME DELAY RELAY

Thermostatic type hermetically sealed, unaffected by altitude, moisture or other atmospheric conditions. Operate on AC or DC. Contacts are SPST rated at 3 amps. Heater may be operated continuously. Heater wattage—2 W. approx. For 220 V. use a 6500 ohm 5 watt resistor in series with 115 V. heater.



NORMAL	LY OPEN	CONTACTS		NORMAL Ar	LY CLOSED CO	NTACTS
	Amperite	AC or DC	Delay	Ar	mperite AC or D	C Delay
STOCK NO.	NO.	Anira	oscoun:	STUCK INU.	MO. ADITS	Secomos
19-05008-7-106-5		6		19-05008-7-506-6		
19-05008-7-108-1		6		19-05008-7-508-2	6C30	6 30
19-05008-7-110-7	6N060	6		19-05008-7-510-8	6060	6 60 60 120
19-05008-7-112-3	6N0120	6		19-05008-7-512-4		6 120
19-05008-7-113-1	6N0180 12N03	6 6 6 12		19-05008-7-513-2	6C180	6 180
19-05008-7-202-2	12N03	12		19-05008-7-602-3		12 3 12 5 12 15 12 30
19-05008-7-203-0	12N05	12	5	19-05008-7-603-1		12 5
19-05008-7-206-3	12N015	12	15	19-05008-7-606-4	12015	12 15
19-05008-7-208-9	12N030	12		19-05008-7-608-0		12 30
19-05008-7-210-5 19-05008-7-212-1	12N060 12N0120	12		19-05008-7-610-6 19-05008-7-612-2		12 60 12 120
19-05008-7-213-9	12N0120			19-05008-7-613-0		12 180
19-05008-7-302-0	26N03			19-05008-7-702-1		26 3
19-05008-7-303-8	26N05	26		19-05008-7-703-9		26 5
19-05008-7-306-1	26N015	26	15	19-05008-7-708-8	26030	26 5 26 30
19-05008-7-308-7	26N030	26	30	19-05008-7-710-4	26060	26 60
19-05008-7-310-3	26N060	26	60	19-05008-7-712-0	26C120	26 120
19-05008-7-312-9	26N0120			19-05008-7-713-8	26C180	26 180
19-05008-7-313-7	26N0180	26	180	19-05008-7-801-1		
19-05008-7-401-0	115N02	115	2	19-05008-7-802-9	115C3	115 3
19-05008-7-402-8	115N03	115	2 3 5 8	19-05008-7-803-7		115 2 115 3 115 5 115 8 115 10 115 15
19-05008-7-403-6	115N05	115	5	19-05008-7-804-5	11508	115 8
19-05008-7-404-4	115N08	115	8	19-05008-7-805-2		115 10
19-05008-7-405-1	115N010	115	10	19-05008-7-806-0		115 15
19-05008-7-406-9	115N015	115		19-05008-7-807-8		115 20
19-05008-7-407-7	115N020	115		19-05008-7-808-6		115 30
19-05008-7-408-5	115N030	115		19-05008-7-809-4		115 45
19-05008-7-409-3	115N045	115		19-05008-7-810-2 19-05008-7-811-0		115 60 115 90
19-05008-7-410-1 19-05008-7-411-9	115N060 115N090			19-05008-7-811-0		115 90 115 120
19-05008-7-411-9	115N090	0 115		19-05008-7-813-6		115 180
19-05008-7-412-7	115N012	0 115	180	13-03000-7-013-0	1136100	110 100
13-03000-7-413-3		ARD OCTA		TIME DELAY REL	ΔΥ	
Caralle Caral Na				TIME DELAT HE		

#### MALLORY SONALERT AUDIBLE SIGNAL DEVICE



Specify Stock No. and Amperite Type Number YOUR CHOICE EACH \$3.49

Compact solid state circuitry produces a penetrating sound by purely electronic means with no mechanical contacts or adjustments and no RF Use anywhere a completely dependable audio signal is needed Standard Sonalert output is 68 db to 80 db depending on voltage SC15 is 60 db, SC6 to SC24 is 70 db. Temperature range - 20 to +150 F.

10 EACH ..... \$2.80

Uses only a few milliamperes current, no contacts to arc. Both types mount in 1-1/8" hole in panel Standard models have screw-on ring on 7/16" long threaded neck for mounting, are 1-11/16" dia., extend 1-3/8" behind panel. Screw connections. Mini Sonalert mounts entirely on front of panel with crimp lugs to secure to panel. Projects 5/8" in front of panel, 1-1/2" dia. Solder terminals. Shpg. wt. Standard 3 oz. Mini 2 oz \* UL yellow card approval.

#### STANDARD SONALERTS

Stock No.	Mallory No.	Freq.	Voltage	1-24 Each	25-49 Each
12A2443-6 12A2444-4 12A2445-1 12A2446-9 12A2448-5	*SC628 SC628A SC628H *SC628P+ *SC110	2900 2900 4500 2900 2900	6-28 V DC 6-28 V AC/DC 6-28 V DC 6-28 V DC 110 V AC/DC	\$ 6.20 9.92 7.19 11.24 9.92	\$6.12 9.75 7.09 11.06 9.75
NOTE: + give:	s pulsing sound at	2 to 5 Hz dep	ending on voltage		
12A2841 -1 12A2842 -9 12A2843 -7 12A2845 -2	SC1.5 SC6 SC12 SC24	MINI 3500 3500 3500 3500 3500	SONALERTS 1-4 VDC 4-8 VDC 8-15 VDC 20-30 VDC	5.98 5.98 5.98 5.98	5.84 5.84 5.84 5.84



136

**MODEL MS-6** BENCH TOP KEPRO **MULTI-6 SHEAR** 

Precision cutting for clad or un clad plastic up to 1/16" thick or sheet metal up to .040" thick. Will shear panels of XXXP phenolic. FR-3 paper-base epoxy. G-10 glass epoxy and mat polyesters in sizes through 12" Supplied with squaring guage, length guage and shearing blades, front and back transpar ent blade guards. 15" wide and 13" deep. Wt. 24 lbs. 37A5585-2

MS-6. Each ..... \$177.00

	ACCESSORY ATTACHMENTS FOR KEPRO MULTI-6 SHEAR	
6-0.	Pilot Hole Punch Set, PH-6, Wt, 4 lbs, Each	\$157.00
7-8.		\$ 49.00
8-6.		\$ 53.00
9-4.	Press Brake Attachment, PB-1, Wt. 3 lbs. Each	\$ 47.00
0 2	Wariable Count Dilling Assertment DA 2 W/s Albe Each	670 00

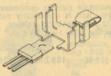
TRAN-TEC CORPORATION
HEAT SINKS FOR SEMICONDUCTORS
Optimum combinations of fin design and fin spacing—giving maximum heat transfer per ounce of dissipator weight.
All are extruded aluminum with a high emissivity black anodized finish.

All are ex	truded aluminu	m with a	a nigh er	nissivity bia	ck anodiz	ed finish.	
Aa	4			LIWATT C			
4.00	For .31 Stock		TTC	ctors. Fits	10-5, 10-9		0-12, etc. 100-499
172	No.		No.	Inches	S	Each	Each
	12C393 12A222	-5 20	12A318	1/2x1/2x5/16 5/8x5/8x5/16		\$0.49	\$0.41
	12A222	5-7 22	12A318 22A318	3/4 x 3/4 x 5 /16		.52	.43
200	12A222	6-5 23	32A318	1x1x5/16		.59	.49
-	- Aller		35555		dead		19919
		1000			3		
1		2		SECTION 1	13		
			300	THE REAL PROPERTY.	Sec. 1	-	- 10
	The state of	HATUDAL	CONVIC	TION COOLE	00	NO REAL	
Stock	TIC (1)	NATURAL	Inches	TION COOLE	1-24	25-49	50-99
No.	No.	H.	W.	D.	Each	Each	Each
12C322-4 12C328-1	*170613 170610	3	4.6	Dell's m	\$2.16	\$1.87	\$1.31
12C330-7	*171213	6	4.6	1	4.32	3.74	2.62
12C333-1 12A2227-3	171210 14A0610	3	4.6		4.57 2.80	3.94	2.81
12A2228-1	14A1110	5.5	4.5	2.5	4.32	3.46	2.61
*Plain Alumi	inum-not ano				nodized.		
12A2229-9	110610	2 FLA	4.4	M COOLERS	2.32	2.00	1.42
12A2230-7	1111110	5.5	4.4	2.1	3.51	2.69	2.01
100000 E				BOARD COOL		4.00	011
12A2231 -5 12A2232 -3		5.5	4.8	.45	1.91	1.66	1.17
			Control of the later of the lat	OT EXTRUSI	THE RESERVE OF THE PARTY OF THE	190	BARRETT .
	n as Type 17				otches.		
1-4 Each	-5. Plain Alumin \$14.69	5-9 E	eaned and	S12.05	10-24	Each	. \$11.00
No. 12A2246	-3. Black Anodiz	ed Aluminu	ım.				
	\$17.20						. 313.52

#### WORKMAN IR TRANSISTOR HEAT SINKS

3/8 inch long heat exchanger fits directly on semiconductor types shown. Packed in

Stock of	Mfg.	0.D.	For	Pri	ce per	Pkg. of 2	
No.	No.	Inch	Device	1-4	5-9	10-99 100 u	p
12A2835-3	HE104	11/16"	T0-18,24,28, 40,T0-4	.60	.54	.48 .44	
12A2836-1	HE105	3/4"	T0-5,9,11,12, 15,26,29,33,39.			\$5.05 0.05 0.05 0.05	
			42 43 45	.60	.54	.48 .44	



#### WORKMAN IR UNIVERSAL TAB TYPE HEAT SINK

For power tab plastic transistors, SCRs, Triacs. Beryllium copper clip assures good heat transfer from tab to aluminum sink.

Stock Mfg. 1-4 5-9 10-99 100

Each Each Each 12A2555-7 HE-106 \$0.82 \$0.74 \$0.65



#### WORKMAN IR UNIVERSAL TRANSISTOR CUP

For case mounted medium and high power TO-3, 6, 36, 66 types.

Stock Mfg. 1-4 5-9 10-99 100 No. No. 12A2554-0 HE-223



#### THERMOVANE **HEAT SINKS**

Manufactured of pre-painted aluminum. 060" thick. Designed for thru-board mounting. Furnished with pre-punched transistor hole patterns. Shpg. wt. ½ lb.

Stock No.	Smith No.	Fig. No.	Case Style	Each
12A2868-4	6275	1	T0-3	\$0.30
12A2869-2	6276	Jacob y Tembers, o	T0-66, MD-17	.30
12A2870-0	6277	2	TO-3	.65
12A2871-8	6279	200	T0-66. MD-17	.65



#### TRW CINCH INSULATOR WAFER

Anodized aluminum for use with TO-3 power transistors Combines high dielectric insulation with high thermal conductivity to the heat sink. 4-hole type No. 12A53-5. 2W-1 1-249 Each \$1.05 250-499 Each 70°

	FIEA	1 3			OMPOOND			
Eliminates air ga	p between	heat	sink	and	semiconductor.	Reduces	thermal	Im-
17A1308-7. GC 810 17A1309-5. TTC XIS								2.92

## J.W. MILLER COILS — RF CHOK





#### ADJUSTABLE WIDTH CONTROLS FOR TV

With mtg. clip to fit %4" or \*74" hole. Required in TV, widely used in low frequency oscillator circuits and as adjustable RF chokes.

				1 1 1
Stk. No.	Miller Type	Induct, Milli-Hy.	1-5 Each	6 Up Each
13A5187-5	6196	.054245	\$5.00	\$3.00
13A5101-6	6315	4-30	3.25	1.95
13A5103-2	6318	.3-3	2.80	1.68
13A5104-0	6319	8-60	3.90	2.34
13A5109-9	6324*	60-130 Tapped	4.00	2.40



#### TV AND RADIO INTERFERENCE FILTER

Stops line static from electric razors, can openers, mixers, knives vacuum cleaners, refrigerators and similar appliances.  $1\frac{1}{6}$ " dia 2.25" leaners, refrigerators and similar appliances. No. 13A5165-1. Miller 7811. Each .... \$5.90 6 Up Ea .. \$4.74



#### TV AND APPLIANCE FILTER

Designed for use with larger household appliances and commutator-type motors, communications-type receivers and recording equipment. Useful for elimination of TV interference in radio receivers when inserted in television receiver line cord. Handles load requirements up to 550 watts 115 VAC. Gray Hammertone case. 2½ " square x 4½" long.

No. 13A5076-0. Miller 7815. Each \$42.95 6 Up Ea. ... \$34.20



#### SUB-MINIATURE R. F. CHOKES

Ultra miniature iron core R.F. chokes designed for high reliability. The coils are ideally suited to network and filter design, delay lines, and computer applications. Impregnated with a moisture resistant lacquer. Tolerance 1.0 UH  $\pm 20\%$ , 1.1 to 15 UH  $\pm 10\%$ , over 15 UH  $\pm 5\%$ .

Stock	Miller	Industance	D.C. Resistance	Milliamp Rating	Winding Diameter	Form Length	1-5 Each	6 Up Each
No.	No.	Inductance						
13A5077-8	70F106AI	1.0 uh	.048	636	.165	1/4	\$1.65	\$0.99
13A5079-4	70F336AI	3.3 uh	.240	159	.150	1/4	1.65	.99
13A5081-0	70F476AI	4.7 uh	.457	100	.150	1/4	1.65	.99
13A5082-8	70F826AI	8.2 uh	.744	100	.150	1/4	1.65	.99
13A5083-6	70F105AI	10 uh	1.56	75	160	1/4	1.75	1.05
13A5085 -1	70F155AI	15 uh	1.92	75	.165	1/4	1.75	1.05
13A5086-9	70F225AI	22 uh	2.28	75	.165	1/4	1.75	1.05
13A5088 -5	70F335AI	33 uh	2.76	75	.170	1/4	1.75	1.05
13A5089 -3	70F475A1	47 uh	3.36	75	.175	1/4	1.75	1.05
13A5090 -1	70F124AI	120 uh	8.16	75	.165	1/4	1.75	1.05
13A5091 -9	70F204AI	200 uh	10.3	75	.170	1/4	1.75	1.05
13A5158-6	70F224A1	220 uh	11.5	75	.170	1/4	1.75	1.05
13A5092 -7	70F564AI	560 uh	19.2	75	.195	1/4	2.50	1.50
13A5093-5	70F824A1	820 uh	22.9	75	.210	1/4	1.85	1.11
13A5063-8	·70F393AI	3.9 mh	57.6	75	.275	3/8	2.05	1.23
13A5064-6	70F753AI	7.5 mh	85.2	75	.310	'3/8	2.05	1.23
13A5066-1	70F222AI	22 mh	144	75	.330	1/2	2.45	1.47





#### FREQUENCY SELECTIVE R.F. CHOKE

imum efficiency and highest impedance at 75-180 Mhz. Inductance 1.72 uh. 13A5073-7. Miller No. RFC-144. Each

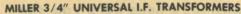
not the	THE PERSONAL PROPERTY.	
_500		
Stock	Miller	In

#### **HEAVY DUTY HASH CHOKES** High current hash filters with powdered iron core.

100 Up 1-99 Each **Dimensions** Each 1/2 X 1·1/4" 17/32 X 1·1/4" 5/16 X 1·1/4" 10 .021 68.0 3.15



#### CAPACITY RELAY COIL



Standard printed circuit (PC) or chassis type clip mounted IF's. Hex holes in cores allow top tuning for both cores. Use for input, interstage or output. 3/4" sq. X 21/4" H.-Wt. 2 ozs. 1.5 Fach

SUB-MINIA	TURE 10.7 MH	IZ TRANSISTOR TRAN	SFORMERS ize Inches	1-5 6 Un
I3A5186-7	1457	10.7MHz	4.95	2.97
13A5183-4	KHz455	450-475KHz	4.00	2.40
3A5182-6	KHz262	250-275KHz	\$4.00	\$2.40

L. W. D. 25/32X7/16X1/2 No. Description No. 13A5129-7 8851-A 13A5131-3 8853 6 db. 300 KHz Double Tuned I.F. 25/32X7/16X<sup>1/2</sup> \$4.60 \$2.76 13/32X13/32X5/8 3.90 2.34 20K-500 Single Tuned 1.F.



#### 455 KHz SOLID STATE I.F. STRIP AND TRANSFORMER

Pre-tuned strip gives 8KHz selectivity at 6 db. Gain 45 db. 

\$7.20



#### STEREO MULTIPLEX COILS

Use 1 38KHz and 2 19KHz coils for each Multiplex Stereo System. Designed for one Motorola C6095P IC listed on HEP Semiconductor pages, or with Motorola IC 1304 or 1305.

Stk. No.	Miller No.	Frequency	Can Size	1-5 Ea.	6 Up Ea. \$2.19
13A5177-6	1361	19 KHz	591 X .591 X .748"	\$3.65	
13A5178-4	1362	38 KHz	.591 X .591 X .748"	3.60	2.16

#### J. W. MILLER MINIATURE **ADJUSTABLE COILS**





Extremely compact iron core units 1/2" dia. Tune 540-1600 KHz with any condenser having maximum capacity between 250 and 450 ptd. Oscillator coils track with IF amplifier between 100 and 550 KHz. Type **70-OSC** has primary and tapped secondary. Clip mtg. in 5/16" hole.

Stk. No.	Miller No.	Description	Size	1-5 Ea.	6 Up Ea.
(1) 13A5013-3 13A5014-1	70-A 70-0SC	Antenna Oscillator	1/2" Dia. X 11/2" long 1/2" Dia. X 11/8" long	\$3.50	\$2.10
(2) 13A5011-7	45-C	Tapped Osc.	5%" Dia. X 21%" H.	8.00	4.80

#### MILLER HIGH Q FERRITE ROD AM ANTENNAS





(1) Adjustable Sub-Miniature. ½ X 2½" Mounts with clips.  No. 13A5146-1. Type 2002. For transistor set. Tunes with 250-450 pfd.  1-5 Each \$3.50 6 Up Each \$3.50	\$2.10
(2) Long Loop-Rod. Highest efficiency. ¾ X 9". No. 13A5144-6. Type 2000. For transistor set. Tunes with 365 Pfd. 1-5 Each \$5.00 6 Up Each	\$3.00

OHMITE RF CHOKES







Single layer wound to operate best over freq. range indicated. Ohmite number indicates frequency in MHZ at which maximum efficiency is obtained.

Fig.	Stock No.	Ohmite No.	Ind. UH	MA	Op. Freq.	Length	1-5 Each	6 Up Each
Fig. (1)	13A5095-0	Z14	44.	600	7-35	2	\$1.49	\$0.96
(1)	13A5057-0	Z28	21.	600	20-60	1-3/4	1.29	.84
(2)	13A5058-8	Z50	7.	1000	35-110	1	1.09	.73
(3)	13A5059-6	Z144	1.8	1000	80-200	3/4	.99	.62
(3)	13A5096-8	Z235	0.84	1000	160-350	3/4	.99	.62

#### MILLEN COIL FORMS

Low loss mica base phenolic. Dia. 1" X 156" long.

No. 45004 with 4 prongs No. 13A5039-8. Each	tor standard	tube socket.	\$1.79
No. 45005 with 5 prongs No. 13A5040-6. Each			

#### MORRIS COIL-WINDER FOR ELECTRONICS

QUICKLY PAYS FOR ITSELF

Well constructed hand-powered machine for accurately winding modern style coils, chokes, etc. Fully adjustable for self-supporting, universal and honeycomb windings, solenoids, single layers, spaced pi-sections, etc. Very practical for individuals, labs and shops engaged in electronic experimenting and construction. Literally pays for itself by saving cost for factory accuracy.

No. 374334.0

No. 37A334-0. Each ...... \$19.95

 Makes all kinds of coils and chokes with factory accuracy.
 Handles size 22 to 40 wire.
 Counter shows number of turns. Burstein-Applebee Co., 3199 Mercier St., Kansas City, Mo. 64111

## SYLVANIA INDICATOR LIGHTS

#### HOUSINGS & LENS CAPS FOR ESB & PSB LAMPS







(i) Lamp Housing for ESB Indicator Lamps. Black nylon. Tinnerman clip for mtg. 1/2" mtg. hole. Combination solder/.205" quick-disconnect terminals. Order round or 1/2" mtg. hole. Combina square lens caps below.

No. 12A1719-0. Sylvania 30153. Housing Only. 

Each ... 73° 10-99 Ea. 43° 100 up Ea. 36° Polycarbonate Snap-On Lens Caps for 30152-0 and 30153-0 housings.

Specify Stock Number and Color When Ordering
(2) 45/64 Round Lens Caps
Sylvania No. Color
02-6 30160 Red 12-01721-6-002-6 30170 Red
05-9 30164 Green 12-01721-6-005-9 30174 Green
06-7 30165 Blue 12-01721-6-006-7 30175 Blue
09-1 30163 White 12-01721-6-009-1 30173 White Stock No. 12-01720-8-002-6 12-01720-8-005-9 12-01720-8-006-7 12-01720-8-009-1 Blue White Clear Amber White Clear Amber 12-01721-6-011-7 12-01721-6-012-5 CHOICE 100 Up Each ... 10-99

#### PILOT LAMP HOUSINGS & LENS FOR PSB LAMPS

Each .....







15°



No. 12A1679-6. Sylvania 30099. Housing only.

24

#### LENS CAPS FOR 30099 HOUSING ABOVE Specify Stock Number and Color When Ordering (2) JEWELED LENS CAP

Sylvania Sylvania										
Stock No.	No.	Color	Each	10-99	100 Up					
12-01680-4-002-6	30100	Red	80	47:	300					
12-01680-4-005-9	30102	Green	90	47	30					
12-01080-4-005-3	30103		80'	A7:	20:					
12-01680-4-006-7		Blue	80.	47° 47° 47° 47°	39° 39° 39° 39°					
12-01680-4-012-5	30106	Amber	80.	19994	33.					
	(3) FLU	TED LENS CAP	20.	221	10.					
12-01682-0-002-6	30120	Red	36	22°	18° 18° 18° 18°					
12-01682-0-005-9	30122	Green	36	22'	18					
12-01682-0-006-7	30124	Blue	36°	22	18					
12-01682-0:012-5	30126	Amber	36	22°	18					
12-01682-0-011-7	30125	Clear	36°	22	18'					
		PARENT LENS CAP								
12-01681-2-002-6	30110	Red	45°	27°	22°					
12-01681-2-004-2	30114	Yellow	45	27	22					
12-01681-2-006-7	30113	Blue	45	27	22°					
12-01681-2-012-5 12-01681-2-011-7	30111	Amber	45° 45° 45° 45°	27° 27° 27°	22° 22° 22° 22°					
12-01681-2-011-7	30116	Clear	45°	27	22°					
12-01681-2-005-9	30112	Green	45°	27'	22°					
And And	(4) TRANSL	UCENT LENS CAP								
12-01683-8-002-6	30130	Red	36°	22	18					
12-01683-8-005-9	30132	Green	36	22	18°					
12-01683-8-004-2	30131	Yellow	36	22	18'					
12-01683-8-009-1	30133	White	36	22	18					
15-01003-0-003-1	00100	***************************************		of the last of the						

#### CARTRIDGE LIGHT HOUSING AND LENS





① Housing for 900 Series Indicator Lamps shown at right. Black anodized aluminum to Mil. Spec. MIL-A-8625. Phenolic base insulation rated 250 V. Mounts in 3½" hole. Solder terminals. 11½4" long overall. Order Lens below.

No. 12A1716-6. Sylvania 30097-SM1). 

① Housing for Pilot Lamps number 21 thru Otherwise same as above. Order Lens below. No. 12A1710-9. Sylvania 30095-SM2 Housing for Pilot Lamps number 21 thru 81 shown at right. 13/8" long overall. vania 30095-5MZ . \$2.30 10-99 Ea. . . . . . \$1.35 100 up . . . . . . \$1.12

Polycarbonate Screw-On Cartridge Lens for SM-1 and SM-2 housings. 1/2" diameter

Shoids, single	Specify :	(2) Transpare Stock Number a	ent Lens Cap nd Color When Ordering		
Stock No. 12-01717-4-002-6 12-01717-4-005-9	No. 30142 30144	Color Red Green	Stock No. 12-01717-4-011-7 12-01717-4-012-5	No. 30141 30140	Color Clear Amber
12-01717-4-006-7 YOUR CHOICE EACH	30143	10-99 EACH	50° EACH.	of Manager	41°
138			Call Burste	ein-Appl	ebee's

#### INDICATOR SOCKETS AND COLOR CAPS FOR ESB LAMPS

① Strip Sockets for ESB Indicator Lamps. 12 sockets on 4/2'' centers. Easily cut to number desired. With 3 Tinnerman clips for mtg. Combination solder/.205" quick disconnect terminal. Black Lexan. Size 6'' long x  $\%_6''$  wide. Shpg. wt. 3 ozs.

No. 12A1678-8. Sylvania 33250. Individual Contacts. 
 Each
 \$4.87
 10-99 Ea
 \$2.95
 100 up Ea
 \$2.70

 12A4113-3
 Sylvania 31250-0. Common Ground. Each
 \$4.87
 10-99 Ea
 \$2.95
 100 up Ea
 \$2.70

Individual Sockets for ESB Indicator Lamps. Each socket with Tinnerman clip. Combination solder/.205" quick-disconnect terminal. Black color. 1/2" mtg. hole. Shpg. wt. 2 ozs.

② No. 12A1676-2. Sylvania 30151. Rectangular Nylon Socket. 

...... 22

COLOR CAPS. Fit directly on top of ESB Lamps. Plastic Profac caps for lamps rated below 1.5 watts. Stock Sylvania Stock No. 12-01675-4-005-9 12-01675-4-009-1 Color Green 12-01675-4-002-6 12-01675-4-004-2 YOUR CHOICE 10-99 100 up

#### PSB PILOT LAMPS - SLIDE BASE

Engineered to give a minimum of 5000 hours life. 1.075" L. x .25" dia. Stk. No. Lamp No. Volts Amps Each \$0.77 Each \$0.64 12A1684-6 6PSB 12A1685-3 12PSB 12A1686-1 24PSB 12A1687-9 28PSB 12A1688-7 48PSB 64 64 64 .073

12A1689-5 60PSB 12A1690-3 120PSB	60 .05 120 .025	1.53	.83	.69
ESB Engineered to give 12A1698-6 6ESB	6 .04			dia62

.64

INDICATOR CARTRIDGE LAMPS - SERIES 900 Fits SM-1 cartridge lamp housing. 1.142" long less pins, .328" dia. Stk. No. Lamp No. Volts Amps Stk. No. Lamp No. 12A1711-7 909 12A1712-5 918 .04 .04 .04 .04 1.08 1.08 1.08 .90

PILOT CARTRIDGE LAMPS Fits SM-2 cartridge lamp housing, 1,328" long less pins, .328" dia. 12A1703-4 21 6 .14 1.87 1.08 12A1704-2 31 12 .17 1.87 1.08 12A1706-7 51 28 .04 1.87 1.08 12A1706-1 81 120 .025 1.87 1.08

ES INDICATOR LAMPS WITH WIRE LEADS

.875" long, .25" dia., 7/8" wire leads. Stk. No. Lamp No. Volts 12A4115-8 6ES 6 12A4116-6 12ES 12 12A4117-4 24ES 24 12A4118-2 28ES 28 48 48 48 .99 .99 .99

MINIATURE BAYONET BASE PILOT LAMPS

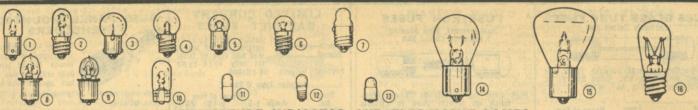
Replaces any T31/4 miniature bayonet lamp such as type 44, 47, etc. May be used in any miniature bayonet pilot light assembly. Engineered for 5000 hours minimum life. .14 .17 .073 .04 .053 .025 12A1691-1 6MB 12A1692-9 12MB 12A1693-7 24MB 12A1694-5 28MB 12A1695-2 48MB 12A1697-8 120MB 6 12 24 28 48 120

ANNUNCIATOR LAMPS Long-life with high brightness. Unique light control is made possible by self-contained reflector. 5000 hour minimum life.  $1\%_6$  long X  $\%_6$  wide at the reflector.

100 Up Stock 1-9 Ea. \$2.25 10-99 Base Candelabra Screw Candelabra Screw Volts S1.08 12 120 Miniature Bayonet Miniature Bayonet

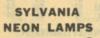
Call Burstein-Applebee's Sales Department (816) 756-2525

## TURE LAMPS AND SOCKETS



#### MINIATURE INDICATOR AND FLASHLIGHT LAMPS

Stock	Mfg.		Value of the	A Same	Prices			Stock	Mfg.	9E 93		Unit		ices Eacl		Stock	Mfg.	110.5	LEV BI	100		rices Ea	
No.	No.	Volts	Amps.	Fig. 1-9	10-99	100 U	)	No.	No.	Volts	Amps.	Fig.	1-9	10-99 1	00 Up	No.	No.	Volts	Amps.	Fig.	1-9	10-99	100 Up
12A4086-1	PR2	2.4	.5	® \$0.39	\$0.23	\$0.19		12A4057 -2		7.5	.22	(3)	\$0.27	\$0.16	\$0.13	12A4540-		6.15	.5	1	\$0.39	\$0.24	\$0.20
12A4067-1	PR3	3.57		3 .41		.20		12A4058-0		14.4	.12	9999			15	12A4481-4		5	.11	(13)	3.60	2.08	1.73
12A4068-9		2.33		8 .41 8 .41	.24	.20		12A4059-8		7.0	.41	3	30	18	15	12A4064 -8		6.2	3.91	(13)	1.11	.64	.53
12A4074-7		120		(16) .62	.36	.30		12A4060 -6		14.0	.24	(3)	.31	.18	15	12A4063 -0		12.8	2.1	10	.11	.45	.37
12A4075-4				* 1.04	.60	.50		12A4494-7		12.8	104	10	.60	.35	.29	12A4051 -		3.2	.16	(1)	1.42	.25	.21
12A4087-9		2.47		(9) .41	.24	.20 .20 .30 .50 .20 .20		1244092-9		1.2	.22	0	.29	.17	.14	12A4085-3		6.0	.2 .2 .04 .07	(1)	1.00	2.08 .64 .45 .25 .97 .27 .42	.01
12A4069-7				8 .41	.24	.20		12A4093-7		14.0	.24	10	.37	.22	.18	12A4052 -: 12A4053 -1			04	W	72	12	25
12A4066-3 12A4040-8		2.47	.3	(6) .32	.19	.10		12A4094-5		6.3	.15	00	.51	.29	.25	12A4054-9			07	8	77	45	37
12A4040-6		6.3	.13	® .41 © .32 ② .26 ② .51	.10	.13 .25 .25		12A4070-5 12A4050-7		2.25	.25	0	.30 .31 .60 .29 .37 .51 .42	.24	.15 .29 .14 .18 .25 .20 .31	12A4055 -6		6.3	15	8	.77 .42 1.68 .47 .73 .77 .36	.45 .21 .19	.81 .23 .35 .37 .18
12A4045-7		2.5	.5	G 51	30	25		12A4050-7		28	.17	(1)	.64	.3/	.31	12A4056 -4		14	.24	6	.33	.19	.16
12A4046-5		2.5 2.5 6.3	.5	0 28	.24 .366 .60 .24 .19 .15 .30 .30 .16 .16 .30 .25	13		12A4062-2		28 28 6	.04	73	.95	.17 .18 .18 .35 .17 .22 .29 .24 .37 .54 .39 .84 .54	.40		6S6 CA			CE 11	0.120		100000
12A4047-3		3.2	.35	① .28 ① .43 ② .27 ① .28 ② .51	.25	.13 .21 .13 .13 .25 .21		12A4081-2		14	.08	(1)	1.46	.33	.33	6 watts, cle					0-120	v. Dulu	
12A4042-4		6.3	.25	② .27	.16	.13		12A4096-0		28	04	*	95	54	46	No. 12A407							62
12A4049-9		6.3	.35 .25 .15	① .28	.16	.13		12A4044-0		28	.04	3	1.46 .95 1.43	83	.46 .69 1.14	10-99 Each			36° 10				
12A4043-2	48	2	.06		.30	.25		12A4082-0	336	28 14	.08	8	2.40	1.38	1.14	10-33 Each			T BASE				30
12A4048-1	49	2	.06	① .43	.25	.21		12A4083-8	337	6	.2	90000	2.28	1.32	1.10	Like above e							
12A4091-1	50	7.5	.22	® .31	.18	.15		12A4084-6	373	14	.08	(3)	2.71	1.56	1.30								
* Doi	ible C	ontact	Candela	bra Bayo	net Basi	e.t		12A4077-0	502	5.1	.15	(4)	2.74	1.58	1.10 1.30 1.32	No. 12A407 10-99 Each	3-4. 1-8	rach .	60: 10	in Ha	N'A W	******	. \$1.04
1000000	-	0.00	410	^	-	- 0	200				25 2 1		200	- 0.750		TO 03 Cacil			00 10	o op	7 77.0	******	50









NE neon lamps glow orange-red. Screw base types have built-in resistor for 125 volts, others require resistor shown in series for 125 volt operation.

Fig.	Stock No.	Lamp No.	Nom. Watts	Nom. MA	Exter	THE RESERVE OF THE PARTY OF THE	Each	10 Each
1 1	12A4133-1	NE2D(C7A)	1/12	.7	100K	SC Mid Flange	\$1.68	\$0.97
2 1	12A4073-9	NE2E(A9A)	1/12	.7	100K	Wire leads		
2 1	12A4142-2	NE2H(C2A)*	1/4	1.9	30K	Wire leads	.27	.16
3 1	12A4130 -7	NE30(J5A)	1	12	none	Med.Screw	3.54	2.03
4 1	12A4141 -4	NE45(B7A)	14	2	none	Cand. Screw	2.33	1.34
5 1	12A4136-4	NE48(B9A)	14 6	2	30K	OC. Bayonet	1.93	1.12
6	12A4071-3	NE51(B1A)	1/25	3	220K	Min. Bayonet	.66	.39
6 1	12A4072-1	NE51H(B2A)*	1/7	1.2	47K	Min. Bayonet	.66	.39
				1.2			.66	

\*High Brightness Type

#### MINIATURE LAMP SOCKETS







①12A1170-6.Bakelite Base, Double Contact Candelabra. Fits neon lamps NE32, NE48. 

① Bakelite Screw Base for miniature base lamps. No.12A4079-6. 1-9 Ea
① Bal-elite Screw Base for candelabra base lamps. No.12A4080-4.1-9 Each
① Bakelite Cleat Receptacle for standard screw base lamps.  No. 41A311-2.1-9 Each 69° 10-99 Ea



	MINIATURE SCREW										
	Stock	1-24	25-99	100 Up							
Fig	No.	Each	Each	Per C							
1	12A1142-5	\$0.60	\$0.48	\$33.00							
2	12A1144-1	.60	.48	33.00							
3	12A1145-8	.60	.48	33.00							
4	12A1146-6	.60	.48	33.00							
	CANDE	LABRA S	CREW								
2	12A1154-0	\$0.60	.48	33.00							
3	12A1155-7	.60	.48	33.00							
4	12A833-0	.60	.48	33.00							

7,5 OHM







BAL	BILLA	THE	D D	AVI	DNE
IAII	HIM	LUL	IE D	MIL	DIAC

	MINIATURE DATURET											
Fig.	Stock No.	1-24 Each	25-99 Each	100 Up Per C								
52345	12A1153-2 12A1150-8 12A1151-6 12A1147-4 12A4367-5	\$0.60 .60 .60 .60	\$0.48 .48 .48 .48 .96	\$33.00 33.00 33.00 33.00 65.00								

#### WORKMAN FUSED RESISTORS

Often needed replacement in series wired TV sets. 5 watt rating. Stk. No. Resistance Stk. No. Resistance Stk. No. Resistance 14A5028-0 4.7 Ohms 14A5030-6 5.6 Ohms 14A5034-8 22 Ohms 14A5029-8 5 Ohms 14A5032-2 7.5 Ohms

Choice Each 69° 10 Lots Each 55° No. 14A5036-3 Kit of 10 Assorted Fused Resistors in Handy Plastic Box. Contains: 6-7.5, 2-4.7, plus 1 each 5.6 and 9 ohm. \$3.99



#### SNAP-IN NEON **INDICATOR LIGHTS**

COMPLETELY ASSEMBLED WITH LONG-LIFE NEON BULBS







Popular new style panel lights give hi-fi, ham, commercial, etc. equipment a brand new modern look. Just snaps in—much simpler, much faster, better looking than older type assemblies. Contains 10,000 hour life high brightness neon lamp with built-in resistor. Has  $41/2^n$  leads. Unaffected by vibration or shock. For 105-125 V. AC. Specify color: Red, Amber or White.

Average wt. 1 oz.

(1) Small Flush Mount. Almost a dot of light. Requires only a 5/16" dia. mounting hole in thin or thick panels.
12-04124-0-002-6. Red
12-04124-0-012-5. Amber
12-04124-0-009-1. White
(2) Medium, ½" dia. Extends slightly from surface for good side visibility. Mounting hole ½" in thin or thick panel. Each ..... 79°



#### IDI RED, GREEN OR YELLOW LED'S

#### 12 V. SOLID STATE FLAT TOP LENS

Approximately 100,000 hour life. Built-in current limiting and rectification permits AC/DC use. Requires 5/16" hole (speednut supplied). 4½" leads stripped 

 12A4541-5 - Red. 2191L1-12V. Each
 \$2.49

 12A4542-3 - Green. 2191L5-12V. Each
 \$2.49

 12A4543-1 - Yellow. 2191L7-12V. Each
 \$2.49

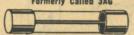
#### SOLID STATE MICROMINIATURE

For circuit application where space is limited. Voltage rating from 3 up depending on resistor used. Requires 20 mA. Lens dia. 1".

12A4544-9 - Red. 4301T1. Each \$1.49
12A4545-6 - Green. 4301T5. Each \$1.49

## **BUSS FUSES AND HOLDERS**

### BUSS GLASS TUBE FUSES Formerly Called 3AG



Quick-acting general purpose fuses for radios, amplifiers, etc. Rated 250 V. UL listed. Size 11,4" x 1/4". \*125 V.

Stock		Amps	Box	es of F	ive
No.	Type	Rating	1-5	6-19	20 Up
12A891-8 A	GC	1/100	\$4.68	\$3.75	
12A8002-4	AGC	1/32	4.05	3.25	
12A8006-5	AGC	1/16	2.10		
12A8007-3	AGC	1/8	2.10		
12A8011-5	AGC	1/4	1.20		
12A8012-3	AGC	3/10			
			1.20		
12A8013-1	AGC	3/8	1.20	.95	
12A8014-9	AGC	1/2	1.20	.95	
12A8015-6	AGC	3/4	1.20	.95	.80
12A8016-4	AGC	1	.87	.70	.60
12A8017-2	AGC	1 1/2	.87	.70	.60
12A8018-0	AGC	2	.87	.70	.60
12A8019-8	AGC	3	.87	.70	.60
12A8020-6	MTH	4	1.05	.85	.70
12A8021-4	MTH	5	1.05	.85	.70
				.85	.70
12A8022-2	MTH	6	1.05		
12A8023-0	GLH	8"	1.46	1.20	1.00
12A8024-8	GLH	10°	1.46	1.20	1.00

## ABC CERAMIC FUSES Formerly Called 3AB

Size  $^{1}\!\!/_{\!\!4}$  x  $^{1}\!\!/_{\!\!4}''$ . High interrupting capacity fuses for use on circuits delivering as high as 25,000 amps at 125 V. or 10,000 amps at 250 V. \*125 V.

12A8032-1	ABC	1	\$1.73	\$1.40	\$1.15
12A8033-9	ABC	2	1.73		1.15
12A8035-4	ABC	5	1.46	1.20	1.00
12A8036-2	ABC	8	1.46	1.20	1.00
12A8037-0	ABC	10	1.46	1.20	1.00
12A8038-8	ABC	12	1.46	1.20	1.00
12A8039-6	ABC	15	1.46	1.20	1.00
12A8040-4	ABC	20	1.46	1.20	1.00
12A8109-7	ABC	30*	2.21	1.75	1.50

#### LOW VOLTAGE FUSES 1/4" dia., with various lengths shown.

#### BUSS AGC FUSES. 32 VOLT

	Forme	rly C	alled 3	AG.	
Stock	Amps	Lgth.	Bo	xes of F	ive
No.	Rating		1-5	6-19	20 Up
12A8025-5		11/4	\$0.87	\$0.70	\$0.60
12A8026-3		11/4	.64	.50	.40
12A8027-1		11/4	.64	.50	.40
12A8028-9	10	11/4	.64	.50	.40
12A8029-7	15	11/4	.64	.50	.40
12A8111-3	20	11/4	.64	.50	.40
12A8030-5	25	11/4	.64	.50	.40
12A8031-3	30	11/4	.64	.50	.40

#### RUSS SEE FUSES 32 VOLT

2000				AOLI	
For Auto, Radi	o, Ins	trument	Protect	ion.	
12A8041-2	4	5/8	\$0.60	\$0.46	\$0.39
12A8044-6	9	1/8	.60	.46	.39
12A8045-3	14	1 /16	.60	.46	.39
12A8046-1	20	11/4	.60	.46	.39
12A8047-9	30	1 /16	.75	.60	.50

#### BUSS AGX FAST ACTING FUSES

Formerly Called 8AG

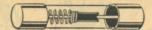


For protection of delicate equipment, meters, etc. Glass enclosed; 1 x  $\frac{1}{4}$ " dia. Provide high speed action. UL listed. Voltage rating: 1/500 to 2, 250 V; 3 and 5, 125 V.

Stock	Amps	Boxes of Five					
No.	Rating	1-5	6-19	20 Up			
12A8095-8	1/200	\$5.55	\$4.45	\$3.70			
12A8096-6	1/100	4.69	3.75	3.10			
12A8097-4	1/32	4.05	3.25	2.70			
12A8098-2	1/16	2.59	2.05	1.70			
12A8099-0	1/8	2.10	1.70	1.40			
12A8100-6	1/4	1.20	.95	.80			
12A8102-2	1/2	1.20	.95	.80			
12A8103-0	3/4	1.20	.95	.80			
12A8104-8	1	.86	.70	.60			
12A8105-5	11/2	.86	.70	.60			
12A8106-3	2	.86	.70	.60			
12A8107-1	3	.86	.70	.60			
12A8108-9	3 5	.64	.50	.40			

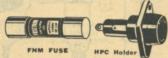
#### **FUSETRON FUSES**

Dual-Element, Slow Blowing Formerly Called 3AG



High time lag withstands heavy surges — quick on shorts. Used in circuits having high inductive or capacitive starting loads. Sizes 1/100 to 1 for 250 V, UL listed; 1 2/10 to 61/4 for 125 V, UL listed; 8 to 30 for 32 V. 11/4 x 1/4".

Stock	Buss Amps	Box	es of F	ive
No.	No. Rating	1-5	6-19	20 Up
12A8062-8	MDL 1/16	\$2.59	\$2.05	\$1.70
12A8064-4	MDL 1/8	2.59	2.05	1.70
12A8067-7	MDL 2/10	2.59	2.05	1.70
12A8068-5	MDL 1/4	2.59	2.05	1.70
12A8069-3	MDL 3/10	2.59	2.05	
12A8070-1	MDL 3/8	2.59	2.05	
12A8071-9	MDL 4/10	2.59	2.05	1.70
12A8072-7	MDL 1/2	2.59	2.05	
12A8073-5	MDL 6/10	2.59	2.05	
12A8075-0	MDL 3/4	2.59	2.05	
12A8077-6	MDL 1	2.59	2.05	1.70
12A8079-2	MDL 1-1/4	2.48	1.95	1.65
12A8080-0	MDL 1-1/2	2.48	1.95	
12A8081-8 12A8082-6	MDL 1-6/10 MDL 2		1.95	
12A8083-4	MDL 2-1/2	2.48	1.95	1.65
12A8084-2	MDX 3	2.10	1.70	1.40
12A8085-9	MDX 3-2/10		1.70	
12A8086-7	MDX 4	2.10	1.70	1.40
12A8087-5	MDX 5	2.10	1.70	1.40
12A8088-3	MDX 6-1/4	2.36	1.90	1.55
12A8005-7	MDX 7	2.36	1.90	1.55
12A8089-1	MDL 8	2.10	1.70	1.40
12A8090-9	MDL 10	2.10	1.70	1.40
12A8091-7	MDL 15	2.10	1.70	1.40
12A8092-5	MDL 20	2.10	1.70	1.40
12A8093-3	MDL 25	2.10	1.70	1.40
12A8094-1	MDL 30	2.10	1.70	1.40
			1 - 1 - 1	THE RESERVE OF THE PERSON NAMED IN



### FNM FUSETRON FUSES Dual-Element. Slow Blowing Fibre Tube,

Long time lag prevents needless blows from starting currents or surges—yet quick on shorts. Rated 250 V, UL listed; \*125 V.

Stock No.	Amps Rating		10, Per	
12A8200-4		Each \$8.50	3-9	10 Up
12A8201-2		8.50	\$6.50	
12A8202-0		8.50	6.50	
12A8206-1	5	8.50	6.50	
12A8207 -9		8.50	6.50	
12A8208-7		8.50	6.50	5.40
12A8209-5		8.50	6.50	5.40
12A8210-3	15*	8.50	6.50	5.40

### HPC PANEL MOUNTED FUSEHOLDER Molded phenolic. Screw knob. For 13 x 11/2" fuse.

-		-			7	_	_	7																
1	2	A	82	1	1		1	1	ŀ	5	i	E	ach		-		Ü		9	3	\$	1	.8	4
6	-9	15	E	a							S	1	.10								K			



#### INSULATED TWIN CLIPS

For AGC replacement of TV pigtail fuses without soldering. Snaps on to blown pigtail fuse in TV set. Buss 3434. 12A628-4. Each ..... 46° 28°

1	787	00	20-1	B	USS	FUS	E
B	1000	W4 3004 55	The long	9	PUL	FUS	
For	1/4"	dia.	fuses.	Elim	inates	danger	of

reaking fuses or damaging fuse clips. 12A8112-1 FP1. Each \$1.54 10 @ Each \$1.29

#### FOREIGN CAR FUSES



For Volkswagen, Mercedes and others using the German type fuses. Buss Glass Tube Fuses reduce danger of spraying hot metal when fuse opens on heavy short-circuit. Fits German type fuse blocks. Size 1/4×3/4".

Stock		Amp		ox of Fiv	e
No.		Rating	1-15	6-19	
12A8131-1	GBC	8	64°	50°	41
12A8133-7	GBC	16	64°	50°	41°
1248134.5	GRC	25	64	50:	A1c

#### LIMITED CURRENT RAYONET FUSES

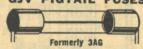


Design safeguards against use of wrong size and type of fuse. Fit only lock-type UL listed.

Regular Type C 250 V.

Stock	mark N	Boxes of Five						
No.	Amps	1-5	6-19	20 Un				
12A8152-7	3/10	\$1.61	\$1.30	\$1.05				
12A8154-3	1/2	1.61	1.30	1.05				
12A8156-8	1	.98	.80	.65				
12A8157-6	11/4	.98	.80	.65				
12A8158-4	2	.98	.80	.65				
12A8159-2	21/2	.98	.80	.65				
12A8160-0	3	.98	.80	.65				
12A8161-8	31/2	1.05	.85	.70				

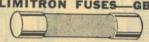
### GJV PIGTAIL FUSES



250 volts. Size 11/4 x 1/4" with leads. UL

listed.				
Stock	Amps	Bo	exes of Fi	ve
No.	Rating	1-5	6-19	20 Up
12A8113-9	1/8	\$3.19	\$2.55	\$2.15
12A8052-9	1/4	2.10	1.70	1.40
12A8054-5	1/2	2.10	1.70	1.40
12A8055-2	100	1.61	1.30	1.05
12A8056-0	2	1.61	1.30	1.05
12A8057-8	3	1.61	1.30	1.05
12A8058-6	5	1.73	1.40	1.15

#### LIMITRON FUSES-GBB



Protection for solid state devices, diodes or rectifiers. Extremely fast opening on overload and fault currents. Will hold peak voltage below rating of the diode. Ceramic tube size 1/4 x 11/4". 130 volts through 10 amp, 65 volt 12 through 30 amp.

Bo	oxes of Fi	ve
1-5	6-19	20 Up
\$7.28	\$5.80	\$4.85
7.28	5.80	4.85
7.28	5.80	4.85
7.28	5.80	4.85
7.28	5.80	4.85
7.28	5.80	4.85
	1-5 \$7.28 7.28 7.28 7.28 7.28 7.28	\$7.28 \$5.80 7.28 5.80 7.28 5.80 7.28 5.80 7.28 5.80 7.28 5.80

#### MINIATURE TYPE GMA



Used in foreign equipment. Size 5MM x 20MM. (.197 x .769"). Order by both stock number and amps.

STOCK		Bo	xes of Fi	VP
No.	Amps	1-5	6-19	20 IIn
12A8048-7	1/8	\$3.34	\$2.65	\$2.20
12A8049-5-002-6	1/4	2.59	2.05	1.75
12A8049-5-005-9	1/2	2.59	2.05	1.75
12A8049-5-007-5	7/10	2.59	2.05	1.75
12A8050-3-010-9		2.21	1.75	1.50
12A8050-3-012-5	1.2	2.21	1.75	1.50
12A8050-3-015-8	11/2	2.21	1.75	1.50
12A8050-3-020-8	2	2.21	1.75	1.50
12A8051-1-030-7	3	2.21	1.75	1.50
12A8051-1-040-6	4	2.21	1.75	1.50
	5			
12A8051-1-050-5		2.21	1.75	1.50
12A8051-1-060-4	6	2.21	1.75	1.50
12A8051-1-100-8	10	2.21	1.75	1.50

#### MALE FUSE CLIP ADAPTOR

quick connect and disconnect for adding an accessory to exist-ing circuit. Use with 1/4 fuse and standard



## FUSE MOUNTINGS

1-5 ..... 56° 6-99 .... 34° 100 Up .. 28°

Spring Clips for any length ¼" dia. fuse. 8"
12A1134-2. Buss 5682-41 1-99 Each 8"
100-499 Ea. 5" 500 Up 4"
12A8362-2. Buss 1A1119-10 for P.C. board 1-99 Ea. 13" 100-499 9" 500 up 8"

### FUSE ASSORTMENTS

\$60.18

#### BUSS PANEL MOUNTED FUSEHOLDERS



Bayonet knob. Terminals designed for severe service. Molded black body with flat side to lock against rotation. Fits panels up to 5/16"

With mtg. hdwe.

thick. UL IIS	tea.				
Stock No.	Mfg. No.	Fuse Size	1-5 P	rices Ea	ch 100 Up
12A8059-4	HKP	1/4X 11/4"	\$0.81		\$0.54
12A8195-6	HCM	9/32 or			.85
12A8060-2	НЈМ		1.28	1.02	.54



### SPACE SAVER HOLDER

SOLDER LUG TERMINALS
HLF and HMM are 1-5/8" long, extend 29/32" behind panel front. HTA types are 1-25/32" long, extend 1" behind panel front. All mount in 1/2" hole except HLF requires 5/8" mounting hole. HMM has screwdriver slot knob.

Stock	Buss		Prices Ea	ch
No.	No.	1-5		100 Up
12A8189-9	HLF	81'	65	54
12A8192-3	HMM	81	65°	54
12A8370-5	HTA	81	65	54

14" QUICK CONNECT TERMINALS 1-5 6-99100 Up Each Each Each 94' 75' 63' Stock Buss No. No. 12A8364-8 HTA-HHH

#### LAMP INDICATOR FUSEHOLDER



Panel mtg. for ¼ X 1¼" fuses. Shows light when fuse is blown. HKL clear blown. HKL clear neon indicator for 90-

250 volt circuit. HKR has amber incandescent indicator for 22-33 volt circuit. Mounts in %" hole, overall length 2 13 %6".

Stock	Buss	P	rices Ea	ch
No.	No.	1-5	6-99	100 Up
12A8128-7	HKL	\$3.59	\$2.87	
12A8129-5	HKR	5.79	4.63	3.86

#### BUSS IN-LINE HOLDERS



Consists of fuse and holder with insulated 19" wire loop. For 1/4" fuse.

*Fits all 1/4 x	11/4" fuses.	
Stock No.	Buss No.	Fuse
12A8124-6	HRF	SFE4
12A8125-3	HRH	SFE9
12A8127-9	HRJ	*SFE20

Your Choice Each 1-5 ..... 84° 6-99 ..... 67° 100 Up ... 56°

#### UNIVERSAL IN-LINE HOLDER

Fits all fuses from SFE 1/2'' through 3AG 11/4'' by selecting proper length spring supplied with each holder. HRK.

12A881-9 1-5 Each 6-99 Ea. . . . . . 6 ... 60° 100 Up Each ....



## PRINTED CIRCUIT MATERIALS

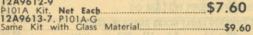
Standard Etching Kit \$101A. A complete assortment of material used for manually producing a basic printed circuit. Contains 2 copper clad unsensitized sheets 3x6x½", 1 perforated 3x6x½" copper clad unsensitized phenolic sheet, etching resist, etching solution, plastic etching tray, etc. with step-by-step instructions. So simple that anyone can successfully produce printed circuit baseds.

boards, 10-3, S101A Kit. Wt. 1¾ Lbs. Net Egch . . \$5.15 12A9611-1.

12A9611-1.

\$101A-G. Same kit with glass base material. . . . . \$6.8

Professional Etching Kit P101A. An etched circuit kit utilizing photo engraving process for fine professional quality work. A negative of layout is produced, then the sensitized sheet of copper clad phenolic board is exposed through the prepared negative after which it s developed and etched. Contains three sensitized boards (2—3x6, 1—3x3), 3 mechanical negatives of the same size, etch solution, wand developer, printing frame, trays, etc. with instructions. Wt. 2 4 lbs.
12A9612-9



NP-303A Enamel Nameplate & Panel Kit. Produces pro-NP-303A Enamel Nameplate & Panel Kit. Produces professional high contrast blue and aluminum panels. Kit supplies pressure sensitive opaque letters and numerals in three fonts which are arranged on a clear acetate sheet and used as a positive film to expose a photosensitized blue aluminum plate. In development, the opaque areas are washed away producing sharply detailed aluminum letters on a blue background. A double-face pressure sensitive sheet adheres' the panel to desired area. Produces 160 sq. in of plate.

12A9688-9. Wt. 1 lb. 1 oz. Each



#### NAMEPLATE AND PANEL SUPPLIES

Stk. No.	Kepro No.	Description	Shpg. Wt.	Each
12A9689-7	NP-EP810	Sensitive Enamel Plate 8 X 10"	6 Ozs.	\$2.30
12A10281-0	NPD-1QT	1 Quart Developer	5 Lbs.	3.75

FK-701 Photo Reversing Kit. Simple two-step process to prepare line negatives and positives from taped or ink artwork or to reverse existing negatives and positives. Needs no darkroom, 2-10x24" reversing film, chemicals, and instructions included. Shpg. wt. 1½ lbs. 12A9665-7. Each

#### MASTER PHOTO LAYOUT KIT PL-200A

Produce professional PC artwork accurately and rapidly without inking and lettering. Includes: 2-18X24" Matte Surface Mylar; 2-18X24" Mechanical Negative; 4-17X 21" Graph Paper; 1-18X24" Master Mylar Crid Sheet; 112-1/8" Term. Dots; 224-3/6" Term. Dots; 288-1/4" Term. Dots; 192-3/6" Term. Dots; 252-1/2" Term. Dots; 18 Yds. each of 3/6, 3/2, 1/6, 3/6 and 3/2" conductor strips; 1-8X10" sheet of letters; Bow Compass, Blue Drawing Pencil, Pen Holder, Pen Point, Cutting Knife Set, Center Dot Cutter, Tweezers, Bottle Opaquing Fluid, Brush and Instructions. Shog. wt. 4 lbs. 12A9687-1 12A9687-1 Complete Kit Each.



\$45.00

Photo Layout Kit PL-2A. For preparing camera-ready artwork without inking and lettering. Reduced layout time by use of pressure-sensitive tapes, dots, letters and numerals. Contents: 96-1/4" Tape Dot Terminations, 108"-1/6" Tape Conductor Strips, 216"-1/6" Tape Conductor Strips, 1 Sheet letters and numerals assorted sizes, 1—8x10" acetate sheet, 1—8x10" Mech. Neg, 2—8x10" sheets of Graph paper and instruction sheet. Wt. 1 lb. 12A9603-8. PL-2A. Each

Boards, Each. 12A9609-5.L505A-G Kit.With G10 Class Boards. \$55.85



ETCHED CIRCUIT COPPER CLAD MATERIALS

Laminated 1 ounce (.00135) copper clad materials, one or two sides, both in  $\chi_6$ " XXXP paper base phenolic,  $\chi_6$ " G-10 glass epoxy and  $\chi_6$ " polyester laminate. All copper clad materials meet standard NEMA grade tolerances.

Materials supplied unsensitized (unsen.) for screen processed parts and photosensitized (sen.) for photo processed boards. Photosensitized materials are ready for exposure with no other sensitizing required.

MATERIAL 5 PIECES PER PACKAGE ARE BULK PACKED-NOT INDIVIDUALLY SEALED IN SINGLE PACKAGES.

			X	XXP PA	PER BAS	E PHENOLIC	1 OZ. (.001	35) COPPER C	LAD					
Diagram	MATERIAL	INDIVIDUALLY	PACKA	CED	1 1000		bata / men	MATERIAL 5	PIECES	PER PAC		5-9	10-19	20-49
Stock No.	Kepro No.	Description	Size Inches	Wt. Ozs.	Net. Each	Stock No.	Kepro No.	Description	Size	Weight Pk. of 5	1-4 Pks. Each	Pks. Each	Pks. Each	Pks. Each
12A9556-8		Unsen. 1 side Unsen. 1 side	3x6 12x12	3,	\$0.87	12A9580-8		Unsen. 1 side	3X6	1 Lb.	\$2.90	\$2.65	\$2.40	\$2.15
12A9557-6 12A9560-0		Unsen. 2 side	12×12	101/2	5.08	12A9581-6 12A9584-0		Unsen. 1 side Unsen. 2 side	12X12 12X12	3 % 1hs.	20.75	18.70	16.85	15.20
12A9561-8	S1-33	Sen. 1 side	3x3	1 3/4	.77	12A9585-7		Sen. 1 side	3X3	12 Ozs.	2.45	2.25	2.05	1.85
12A9562-6 12A9563-4		Sen. 1 side Sen. 1 side	3x6 6x6	3	1.32	12A9586-5		Sen. 1 side	3X6	1 lb.	4.95	4.50	4.05	3.65
12A9564-2		Sen. 1 side	12x12	11	8.25	12A9587-3	\$1-665	Sen. 1 side	6X6	1 Lb.	9.90	8.95	8.10	7.30
12A9565-9		Sen. 2 side	3x6	3	1.86	12A9589-9	S2-365	Sen. 2 side	3X6	1 Lb.	7.35	6.65	6.00	5.40
G-10 GLASS EPOXY 1 OZ. (.00135) COPPER CLAD														
12A9569-1 12A9570-9	P1-1212G	Unsen. 1 side Unsen. 1 side	3x6 12x12	3½ 12	1.46	12A9593-1	P1-365C	Unsen. 1 side	3X6	1 lb.	5.60	5.05	4.55	4.10
12A9572-5 12A9573-3	S1-36C	Unsen. 2 side Sen. 1 side	12x12 3x6	31/8	9.25	12A9597-2		Sen. 1 side	3X6	1 Lb.	7.95	7.20	6.50	5.85
12A9574-1 12A9575-8	51-000	Sen. 1 side Sen. 1 side	6x6 12x12	103/4	3.83	12A9598-0	51-6650	Sen. 1 side	6X6	2 Lbs.	15.90	14.35	12.95	11.70
12A9576-6 12A9577-4	52-36C	Sen. 2 side Sen. 2 side	3x6 6x6	31/8	2.33	12A9600-4		Sen. 2 side	3X6	1 Lb.	9.50	8.55	7.70	6.95
12A9578-2		Sen. 2 side	12×12	111/2	15.44	12A9601-2		Sen. 2 side	6X6	2 lbs.	18.95	17.10	15.40	13.90
	040 101 / SE		Offers hi	gh impa	ct strengt	h at low cost.	R 1 OZ. COP Excellent phy	PER CLADS sical and electri	cal stabil	ity.		75	No.	961
12A9671-5		Unsen. 1 Side	3x6	31/8	\$1.10	12A9679-8	P1-365M	Unsen. 1 Side	3x6	1 Lb.	\$3.95	\$3.60	\$3.25	\$2.95
12A9672-3 12A9673-1	P1-1212M P2-36M	Unsen. 1 Side Unsen. 2 Side	12x12 3x6	12	6.81	12A9680-6	P1-12125M	Unsen. 1 Side	12×12	2 Lbs.	28.55	25.70	23.15	20.85
	\$1-36M	Sen. 1 Side	3x6	31/8	1.55	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TRANSPORT NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TRANSPORT NAMED IN COLUMN TWO IS NAMED IN COL								

#### COPPER CLAD SAMPLER

Mixed random cut unsensitized copper clad laminates consisting of XXXP, G-6, G-10, etc. materials, 1 and 2 oz. copper, 1 and 2 sides. All pieces will measure a minimum of 2" x 4" in overall size.»

Over 50% of the laminates are  $1/16^{\prime\prime}$  thick with a thickness range of  $1/32^{\prime\prime}$  thru  $1/8^{\prime\prime}$ . Shpg. wt. 10 lbs. 

Wt

4 Lbs. 70 Lbs. 18.35

4 Ozs.

8 Ozs. 8 Ozs.

Each 3.45

3.50 2.75

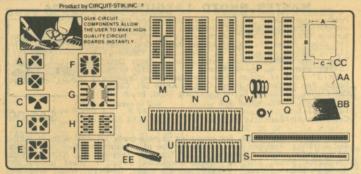
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ETCHED CIRCUIT PROCESSING CHEMICALS AND PHOTO LAYOUT SUPPLIES

Stock No.	Kepro No.	Description	Wt.	Net Each	Stock No.	Kepro No.	Description
12A9701-0	R-1PT	1 Pt. Paint Etch Resist	21/4 \$	4.10	12A10279-4	E-1QT	1 Qt. Etching Solution
12A9702-8	T-1PT	1 Pt. Paint Resist Thinner	2	3.50	12A9619-4	E-1G	1 Gal. Etching Solution
		(1) 在3.85的数据	THE RESERVE	the same little on	12A9666-5	E-5G	5 Gal. Etching Solution
12A10293-5	RMP-700A	Resist Marking Pen	4 Oz.	1.25	12A9670-7	AT-810	Pressure Sensitive Letters and
12A10280-2	PRSC-1QT	1 Qt. Photo Resist Stripper	4 Lbs.	6.10			Numerals For Artwork
12A9710-1	PRSC-1G	1 Gal. Photo Resist Stripper	10 Lbs.	14.85			Nomenclature
	SERVICE OF THE	THE RESERVE OF THE PARTY OF THE			12A9669-9	MN-1212	12x12" Mechanical Negative
12A10278-6	D-1QT	1 Qt. Developing Solution	4	5.50	12A9668-1	AS-3	Acetate Layout Film .005 Th.
12A9617-8	D-1G	1 Gal. Developing Solution	16	12.50	and the same of th		18x24" Sheet



# FOR HOBBYISTS & EXPERIMENTERS ADHESIVE BACKED COPPER PATTERNS

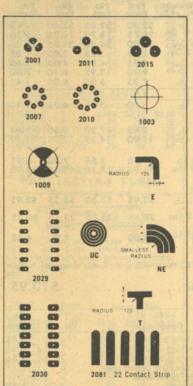


Permits rapid P.C. board assembly directly from schematics or logic flow diagrams. Now the electronics hobbyist, experimenter or technician can build professional quality P.C. boards without special tools or experience, quickly and economically, Sub-elements are pre-drilled and ready for soldering. Etched copper sub-elements are on thin substrates with pressure sensitive adhesive backing. Withstand soldering heat, offer exceptional adhesive strength, yet can be removed for circuit changes. Quik-circuit sub-elements are pre-drilled on .100" grid to match pre-punched boards, require no drilling and no terminals.

Stock No.	Mfg. Type	Fig.	Pcs. Per Pkg.	Description	Per Pkg.
12A10115-0	3001-003	A	3	TO-18 or TO-5, 3 lead	\$1.09
12A10039-2	3002-003	В	3	TO-18 or TO-5, 4 lead	1.19
12A10040-0	3021-003	C	3	T0-5, 3 lead	1.29
12A10041-8	3033-003	D	3	T0-5, 6 lead	1.39
2A10042-6	3034-003	E	3	T0-5, 8 lead	1.59
2A10043-4	3035-003	F	3	T0-5, 10 lead	1.59
2A10044-2	3062-003	G	3	Flat Pack, 14 lead	1.99
2A10045-9	3101-003	H	3	Dual-In-Line, 14 lead	1.69
2A10046-7	3102-005	B) pos	5	Dual-In-Line, 14 lead	2.59
2A10050-9	3214-002	M	2	Dual-In-Line Strip, 14 lead	2.29
2A10051-7	3216-002	N	2	Universal DIP Strip, 14 or 16 L	2.59
2A10052-5	3227-002	0	2	Universal DIP Strip, 14 or 16 L	2.29
2A10053-3	3302-002	P	2	Discrete Component Strip	1.69
2A10054-1	3312-002	0	2	Universal Strip	1.59
2A10056-6	3325-006	S	6	Distribution Strips, Single Row	2.29
2A10057-4	3326-004	T	4	Double Row, 100 sp. holes	2.29
2A10058-2	3376-002	U	2	15 Pin Edge Connector	2.99
12A10059-0	3396-002	V.ess	2	22 Pin Edge Connector	3.99

THE PURE	HE	PRESSURE SEN	ISITIVE COPPER TAPE ROLLS	THE RESERVE OF THE PERSON NAMED IN
12A10060-8	9105	W 1	.031 x 48" long	\$1.29
12A10061-6	9106	W 1	.040 x 48" long	1.29
12A10062-4	9101	W 1	.062 x 48" long	1.39
12A10063-2	9102	W 1	.100 x 48" long	1.59
12A10064-0	9103	W 1	.125 x 48" long	1.69
12A10065-7	9104	W 1	.250 x 48" long ITIVE INSULATION TAPE ROLLS	2.99
12A10066-5	9151	W 1	.100 x 10 ft. long	1.39
12A10067-3	9153	W 1	.200 x 10 ft. long	1.69
120123A.3		PRESSURE SEN	ISITIVE COPPER DONUT PADS	STORY DORES
12A10068-1	9202	Y 10	00 .25 0D x .040 ID	2.69
12A10069-9 12A10070-7	9203		00 .187 0D x .040 ID	2.69 2.69
12A10070-7	9204 9209		00 .250 0D x .040 ID 00 Assortment	
12A10071-5	3203	and the second s	OO Assortment SENSITIVE COPPER SHEETS	2.69
12A10072-3	9252	AA 2	3" x 4"	1.79
12A10073-1	9251	AA 2	5" x 6"	3.49
To all the same		PRE-PUNCHED E	POXY-GLASS BOARD MATERIAL	SALE AND DE
12A10076-4	9301	BB 1	8.5" x 17" x .062	12.95
12A10077-2 12A10078-0	9302	BB 1	4 25" x 8 5" x 062	4.95
	9303	BB 1 BB 1	4.5" x 5" x .062 2.5" x 4.5" x .062	3.49
12A10079-8	3304		PUNCHED PHENOLIC	2.19
12A10080-6	9343	BB 1	4.5" x 5" x .062	2.29
12A10081-4	9345	BB 1	4.5" x 17" x .062	4.95
12A10082-2	9346	BB 1	6" x 17" x .062	5.95
12485	P	RE-PUNCHED/PRE	E-SHAPED EPOXY-GLASS BOARDS	eging purianes
12A10083-0	9402	CC 1	"A"-4.5, "B"-6.5 "C"-22 pins "A"-4.0, "B"-4.5, "C"-15 pins	6.95
12A10084-8	9405			5.95
THE COLUMN		PLAIN/PRE-SH	APED EPOXY GLASS BOARDS	100
12A10085-5	9452	CC 1	"A"-4.5, "B"-6.5, "C"-22 pins	3.95
12A10086-3	9455	CC 1	"A"-4.0, "B"-4.5, "C"-15 pins	3.19
101100010	0.00		TORS156" SPACING	CUPRADACT
12A10091-3 12A10092-1	9501 9503	EE 1	15 Pins 22 Pins	3.95 4.95
12A10032-1	0000		ROTO-TYPE KITS	4.33
12A10093-9	9952	consession of	Mini-Kit Mounts 16 Components	5.95
12A10094-7	9953	nife ingues due 1	Midi-Kit glass epoxy board	3.33
			mounts 2 transistors, 1 DIP.	
12A10095-4	9954	THE REAL PROPERTY.	8 discrete components Maxi-Kit, 3 PC boards, mounts	7.95
12/110033-4	3334		10 transistors, 6 DIP's,	-
1000 71	0055	MIC CIEF	16 discrete components	18.95
12A10096-2	9955	distance and la	Super-Kit mounts over 60 com- ponents. Enough material for	
			many projects. In carrying case.	29.95
AND DESCRIPTION OF	100000000000000000000000000000000000000	NAME AND ADDRESS OF THE OWNER, THE		The state of the s

### PRINTED CIRCUIT ARTWORK SYMBOLS FROM CENTRON ENGINEERING, INC.



(Illustrations are not to scale)

		OTHIDOLO (DIE	1011/	
Stock No.	Mfr's Type	Description	Symb. Per Pkg.	Price
12A9819-0	2001	TO-18 2x 3 Lead	250	\$7.45
12A9826-5	2011	TO-5 2x 3 Lead	250	7.45
12A9822-4	2007	TO-5 2x 8 Lead	250	7.45
12A9825-7	2010	TO-5 2x 10 Lead	250	7.45
12A9828-1	2020	14 Lead DIP 2x	250	8.25
12A9830-7	2026	16 Lead DIP 2x	250	8.25
12A9831-5	2029	14 Lead DIP 2x	250	8.25
12A9833-1	2034	16 Lead DIP 2x	250	8.25
12A9832-3	2030	14 Lead DIP 2x	250	8.25
12A9834-9	2035	16 Lead DIP 2x	250	8.25
12A9835-6	2080	Connector Strip		
		.125 spacing 2x	30	6.60
12A9836-4	2081	Connector Strips		
		.156 Spacing, 2x	30	6.60
Above 200	00 symbols	are twice actual siz	e (2X scal	e).

PRINTED SYMBOLS (Black)

REGISTRATION TARGETS (250/Roll)

Stock No.	Mfr's Type	Line Width	Price/Roll
12A9849-7	E912	.062"	\$2.20
12A9850-5	E914	.080"	2.20
12A9851-3	E916	.093"	2.20
12A9852-1	E920	.100"	2.20
TEES	(PACKAGED	250 / ROLL)	

Stock No.	Mfr's Type	Line Width	Price/Rol
12A9857-0	T962	.062"	\$2.20
12A9858-8	T964	.080"	2.21
12A9859-6	T966	.093"	2.21
12A9860-4	T970	.100"	2.20
90° NESTED	<b>ELBOWS (PAC</b>	KAGED 250	/ ROLL)
Stock	Mfr's Line	Smallest No. R	ings Price

90° NESTED	<b>ELBOWS</b>	(PAC	KAGED 2	50 / R	OLL)
Stock No.	Mfr's Type	Line Width	Smallest N Radius i	o. Rings in Nest	Price/ Roll
12A9842-2	NE862	.062"	.062"	4	\$3.30
12A9843-0	NE864	.080"	.062"	4	2.75
12A9844-8	NE866	.093"	.062"	4	2.75
12A9845-5	NE870	.100"	.062"	3	2.75

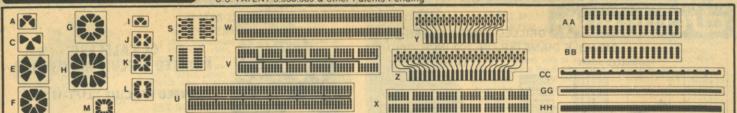
80,500 00.	DONU	IT PADS (I	BLACK)		
Stock No.	Mfr's Type	0.D.	1.0.	Per. Pkg.	Price/ Roll
12A9899-2 12A9901-6	P7100 P7140	.100"	.031".	500 500	\$3.30 2.20
12A9903-2 12A9904-0 12A9905-7	P7190 P7220 P7250	.156" .156"	.031"	500	2.20
12A9906-5 12A9907-3	P7260 P7280	.187"	.031" .040" .062"	500 500 500	2.20 2.20 2.20
12A9908-1 12A9909-9	P7290 P7300	.200"	.031"	500 500	2.20 2.20
12A9910-7 12A9912-3 12A9913-1	P7320 P7360 P7390	.200" .218" .250"	.062" .062" .031"	500 500 500	2.20 2.20 2.20
12A9914-9 12A9915-6	P7400 P7420	.250"	.040"	500 500	2.20
12A9917-2 12A9919-8 12A9921-4	P7460 P7500 P7540	.300" .312" .375"	.062"	500	2.75 2.75 2.75
12A9923-0 12A9926-3	P7600 P7720	.375 .400" .500"	.062" .062"	500 500 500	3.60 4.25
12A10277-8	P7790	.600"	.050"	500	4.90

		vaccion xo S		
CIRCI	JIT ARTWOR	RK TAPE (BL	ACK) 20 YAR	D ROLLS
Stock	Mfr's Type	Stock	Mfr's Type	Price
No.	Blk. Crepe	No.	Blk. Matte	Size Rolls (ea.)
12A9864-6	CT 100-031	12A9882-8	MT 200-031	.031" 1 \$0.85
12A9865-3	CT 100-040	12A9883-6	MT 200-040	.040" 1 .85
12A9866-1	CT 100-050	12A9884-4	MT 200-050	.050" 1 .85
12A9867-9	CT 100-062	12A9885-1	MT 200-062	.062" 1 .85
12A9868-7	CT 100-080	12A9886-9	MT 200-080	.080" 1 .85
12A9869-5	CT 100-093	12A9887-7	MT 200-093	.093" 1 .85
12A9870-3	CT 100-100	12A9888-5	MT 200-100	.100" 1 .85
12A9871-1	CT 100-125	12A9889-3	MT 200-125	125" 1 .85
12A9875-2	CT 100-200	12A9892-7	MT 200-200	200" 1 .85
1240877.0	CT 100 250	1200004 2	MT 200 250	250" 1 00



### INSTANT CIRCUIT BOARDS™ • FOR INDUSTRY

ADHESIVE BACKED COPPER PATTERNS U.S. PATENT 3,538,389 & other Patents Pending



This aerospace proven concept in circuit packaging permits rapid assembly of all prototypes and limited quantity production systems directly from engineering schematics and logic flow diagrams.

All sub-element conductors are preplated and ready for soldering. Etched

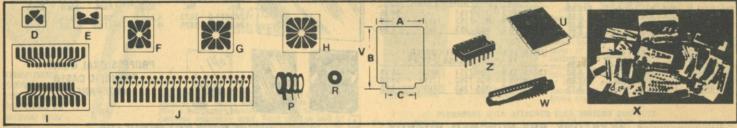
copper sub-elements are supplied on thin substrates which have a high strength pressure sensitive adhesive backing. They are designed to withstand soldering temperatures, and offer exceptionally good adhesion strength, yet can be removed when changes require a Circuit-Stik "instant" modification.

THE "1000" SERIES (MFR'S. TYPE) CIRCUIT-STIK SUB-ELEMENTS ARE PRE-DRILLED ON .100-INCH GRID TO MATCH PRE-PUNCHED BOARD MATERIAL — REQUIRES NO DRILLING AND NO TERMINALS

Stock No.	Mfr's Type	Pcs. Per Fig. Pkg.	Sub-Element Description	Price
		TO-5	& 10-18 Sub-Elements	and rational Manhardes
12A9713-5	1001-010	A 10	TO-18 or TO-5 3 Lead	\$3.00
12A9717-6	1021-010	C 10	TO-5 3 Lead	3.00
12A9721-8	1023-010	E 10	TO-5 6 Lead	4.00
12A9723-4	1024-010	F 10	TO-5 8 Lead	4.00
12A9725-9	1025-010	G 10	TO-5 10 Lead	4.00
12A9727-5	1026-010	H 10	TO-5 12 Lead	4.76
		Comp	act TO-5 Sub-Flements	
1240022.0	1021.010		Compact TO 5 or TO 19 3 lead	63.00
12A9933-9	1031-010	1 10	Compact, TO-5 or TO-18 3 Lead	
12A9934-7	1031-030	1 30	Compact, TO-5 or TO-18 3 Lead Compact, TO-5 3 Lead on 5 strips	\$3.00 8.00
12A9934-7 12A9935-4	1031-030 1033-010	I 10 I 30 J 10	Compact, TO-5 or TO-18 3 Lead Compact, TO-5 3 Lead on 5 strips Compact, TO-5, 6 Lead	8.00
12A9934-7 12A9935-4 12A9937-0	1031-030 1033-010 1034-010	I 10 I 30 J 10 K 10	Compact, T0-5 or T0-18 3 Lead Compact, T0-5 3 Lead on 5 strips Compact, T0-5, 6 Lead Compact, T0-5 8 Lead	8.00
12A9934-7 12A9935-4	1031-030 1033-010	I 10 I 30 J 10	Compact, TO-5 or TO-18 3 Lead Compact, TO-5 3 Lead on 5 strips Compact, TO-5, 6 Lead	8.00 3.50 3.50 3.50
12A9934-7 12A9935-4 12A9937-0 12A9939-6	1031-030 1033-010 1034-010 1035-010	I 10 I 30 J 10 K 10 L 10	Compact, T0-5 or T0-18 3 Lead Compact, T0-5 3 Lead on 5 strips Compact, T0-5, 6 Lead Compact, T0-5 8 Lead Compact, T0-5 10 Lead	8.00 3.50 3.50 3.50
12A9934-7 12A9935-4 12A9937-0 12A9939-6	1031-030 1033-010 1034-010 1035-010	I 10 I 30 J 10 K 10 L 10 M 10	Compact, T0-5 or T0-18 3 Lead Compact, T0-5 3 Lead on 5 strips Compact, T0-5, 6 Lead Compact, T0-5 8 Lead Compact, T0-5 10 Lead	8.00 3.50 3.50 3.50
12A9934-7 12A9935-4 12A9937-0 12A9939-6	1031-030 1033-010 1034-010 1035-010	I 10 I 30 J 10 K 10 L 10 M 10	Compact, T0-5 or T0-18 3 Lead Compact, T0-5 3 Lead on 5 strips Compact, T0-5, 6 Lead Compact, T0-5 8 Lead Compact, T0-5 10 Lead Compact, T0-5 12 Lead	8.00 3.50 3.50

Stock No.	Mfr's Type	Fig.	Pcs. Per Pkg.	Sub-Element Description	Price
THE LONG	ALL BUIL	Dua	I-In-L	ine Package Sub-Elements	AL ALLES
12A9737-4 12A9739-0 12A9741-6 12A9743-2	1202-005 1204-005 1206-005 1208-005	U V W X	5 5 5 5	6 DIP's/Strip, 14/16 Lead, pwr. and gnd. avail. 6 DIP's/Strip, 14 Lead, pwr. and gnd. pins 7/14 Universal, 30 DIP's on 5 strips 6 DIP's/Strip, 14 Lead	\$10.50 7.50 9.00 7.50
Nes-	Plug-In	Conne	ector S	Strips "Hard Gold over Nickel Plate"	® 1581
12A9755-6 12A9756-4 12A9761-4 12A9762-2	1355-005 1356-005 1365-005 1366-005	Y Y Z Z	5 5 5 5	15 Pin156" Spacing. Component Side 15 Pin156" Spacing. Circuit Side 22 Pin156" Spacing. Component Side 22 Pin156" Spacing. Circuit Side	10.50 10.50 12.50 12.50
THE TPA	N. C. EPIEDS	WHA.	Discr	ete Component Strips	-9 44
12A9745-7 12A9746-5	1302-005 1311-010	AA BB	5 10	16 Discrete, Component Strip, mounts 80 Universal Strip, mounts 80 discretes	7.50 8.00
			1	Distribution Strips	
12A9747-3 12A9957-8 12A9958-6	1321-010 1325-010 1326-010	CC GG HH	10 10 10	.100" wide Single Row .100" hole spacing Double Row .100" hole spacing	5.80 5.00 6.00

### **GP BOARDS & ELECTRONIC PACKAGING MATERIALS**



THE "2000" SERIES (MFR'S TYPE) CIRCUIT-STIK SUB ELEMENTS ARE FOR COMPACTNESS - AND ARE NOT DRILLED.

Stock No.	Mfr's Type	Per Fig. Pkg.	Sub-Element Description	Price
12A9764-8 12A9768-9 12A9774-7	2001-010 2021-010 2024-010	D 10 E 10 F 10	TO-18 3 Lead TO-5 3 Lead TO-5 8 Lead	\$2.50 2.50 3.00
12A9776-2 12A9778-8 12A9780-4	2025-010 2026-010 2101-010	G 10 H 10 I 10	TO-5 10 Lead TO-5 12 Lead DIP 14 Lead	3.00 3.50 4.50
12A9783-8	2367-005	J 5	22 Fin Connector Strip, Gold Plated, 156 Spacing.	9.50
12A9784-6	2368-005	J 5	Component Side 22 Pin Connector Strip Gold Plated	9.50
COPP	ER TAPE. (	156 Spressure Se	pacing Circuit Side	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Stock	Mfr's	Per	long are 172	100000000
			Description	Price
No. 12A9959-4 12A9960-2	7105 P 7106 P	1 031" 1 040"	W. x 9 ft L. W. x 9 ft L	2.00
No. 12A9959-4	Type Fi	ig. Pkg. 1 031" 1 040" 1 050" 1 062" 1 100"	W x 9 ft L W x 9 ft L W x 9 ft L W x 9 ft L W x 9 ft L	2.00 2.00 2.00 1.75 2.00
No. 12A9959-4 12A9960-2 12A9961-0 12A9788-7 12A9789-5 12A9790-3 12A9791-1	Type Fi 7105 P 7106 P 7107 P 7101 P 7102 P 7103 P 7104 P	ig. Pkg.  1 031" 1 040" 1 050" 1 062" 1 100" 1 125" 1 250"	W x 9 ft L W x 9 ft L	2.00 2.00 2.00 1.75 2.00 2.25 3.75
No. 12A9959-4 12A9960-2 12A9961-0 12A9788-7 12A9789-5 12A9790-3 12A9791-1	Type Fi 7105 P 7106 P 7107 P 7101 P 7102 P 7103 P 7104 P PE (Insulat	ig. Pkg.  1 .031" 1 .040" 1 .050" 1 .062" 1 .100" 1 .125" 1 .250" ive), (Press	W x 9 ft L W x 9 ft L	2.00 2.00 2.00 1.75 2.00 2.25 3.75
No. 12A9959-4 12A9960-2 12A9961-0 12A9788-7 12A9789-5 12A9790-3 12A9791-1	Type Fi 7105 P 7106 P 7107 P 7101 P 7102 P 7103 P 7104 P	ig. Pkg.  1 031" 1 040" 1 050" 1 062" 1 100" 1 125" 1 250"	W x 9 ft L W x 9 ft L	2.00 2.00 2.00 1.75 2.00 2.25 3.75
No. 12A9959-4 12A9961-0 12A9788-7 12A9788-5 12A9790-1 MYLAR TA 12A9792-9 12A9793-7	Type Fi 7105 P 7106 P 7107 P 7107 P 7101 P 7102 P 7103 P 7104 P PE (Insulat 7151 P 7152 P	ig. Pkg. 1 031" 1 040" 1 050" 1 062" 1 100" 1 125" 1 250" ive), (Press	W x 9 ft L W x 9 ft L	2.00 2.00 2.00 1.75 2.00 2.25 3.75 sive)
No. 12A9959-4 12A9961-0 12A9788-7 12A9788-5 12A9790-1 MYLAR TA 12A9792-9 12A9793-7	Type Fi 7105 P 7106 P 7107 P 7107 P 7101 P 7102 P 7103 P 7104 P PE (Insulat 7151 P 7152 P	ig. Pkg.  1 031" 1 040" 1 050" 1 062" 1 106" 1 125" 1 250" 1 150"  re Sensitiv 250 11 250 12 250 18	W x 9 ft L W x 9 ft L	2.00 2.00 2.00 1.75 2.00 2.25 3.75 sive)

Stock No.	Type	Fig.	Description	Price
12A10198-6	CS7-SL14-G	Z	14 Pin Low 100/300	\$0.37
12A10199-4	CS7-SL16-G	Z	16 Pin Low 100/300	.65
12A10200-0	CS7-SP14-G	Z	14 Pin 100/300	.38
12A10201-8	CS7-SP16-G	Z	16 Pin .100/.300	.65

Stock No.	Туре	Fig.	Description	Pric
12A9805-9	7402	٧	Pre-Punched: "A"-4.5", "B"-6.5", "C"-22 Pins	\$6.5
12A9963-6	7405	٧	Pre-Punched: "A"-4.0", "B"-4.5", "C"-15 Pins	5.5
			204.2	

Stock No.	Туре	Fig.	Description	Each
12A9808-3	7501		5 Pin, Solder Eyelet	\$3.00
12A9809-1	7502	W .156" 3	Pin, Solder Eyelet	3.75
12A9810-9 12A9811-7	7503 7504		2 Pin, Solder Eyelet 4 Pin, Solder Eyelet	4.35 5.50
12A10204-2	7513		2 Pin, Wire Wrap	5.75
12A10205-9	7514		4 Pin, Wire Wrap	6.00
12A10206-7	7516	W .100" 7	2 Pin, Wire Wrap	7.90

PROTOTYPE KIT
Contains 24 types of CIRCUIT-STIK standard materials (\$110.00
value), makes many circuit boards. Provides a convenient desk of work bench stock when individual parts are replaced on a one by
one basis.

Stock Price Description \$110.50 8951 Prototype Kit (\$110 value) 12A9812-5

(F) SOCKET STRIPS, I.C. MTG. Cont. spacing .100.



No.	Туре	tacts	Туре	Each
12A10262-0	CS7-PS11	11:	P.C.	\$0.55
12A10263-8	CS7-PS12	12 14	P.C.	.56
12A10264-6	CS7-PS14	14	P.C.	.63
12A10265-3	CS7-PS20	20	P.C.	1.35
12A10266-1	CS7-PS25	25	P.C.	.96
12A10267-9	CS7-WS11	11	W.W.	.72
12A10268-7	CS7-WS12	12	W.W.	.76
12A10269-5	CS7-WS14	14	W.W.	1.04
12A10270-3	CS7-WS20	20	W.W.	1.40
12A10271-1	CS7-WS25	25	W.W.	1.45
				100

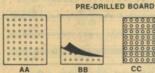
TERMINAL P	INS			A STROKE
Stock No.	Mfr's Type	Fig.	Description	Pkg. of 100
12A10272-9	7541-100	J	Flanged Pin, Round	\$3.25

## PRINTED CIRCUIT MATERIALS . . . CASES

## ircuit-stik

DRILLED BOARD MATERIAL

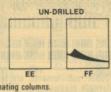
.042 HOLE DIAMETER ON .100-INCH GRID











CC - Copper clad on alternating rows. DD - Copper clad on alternating columns.

#### **BOARD SPECIFICATIONS**

Epoxy Glass FR-4 .062" thick. Type GF. Cut and peel boards, 1 oz. copper foil. FR-4 Epoxy glass substrate, adhesive MIL-P-19834A. Type 1. Copper clad boards, printed circuit laminate; .062" thick, 1 oz. copper. FR-4 Epoxy glass.

	(AA) .	DRILLED	FR-4 EPOXY-GLASS
--	--------	---------	------------------

Stock No.	Mfr's Type	Size Inches	Each
12A9801-8	000-7301	8½x17	\$10.95
12A10216-6	000-7305	4½x17	4.85
12A10217-4	000-7306	6x17	6.45
12A10218-2	000-7307	4½x6½	2.70

BOOK SERVICE	Mfr's	Size	
Stock No.	Type	Inches	Each

Stock No.	Mfr's Type	Size Inches	Each
12A10243-0	007-7301	8½x17	\$18.95
12A10244-8	007-7305	4½x17	9.75
12A10245-5	007-7306	6x17	12.90
12A10246-3	007-7307	4½x6½	5.40

### (AA) • DRILLED FR-4 EPOXY-GLASS

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	001	LII OLAD I	DIDE	
12A10221-6 001-7306 6x17 8.60	12A10219-0	001-7301	81/2x17	\$13.50
		001-7305	41/2x17	6.50
12A10222-4 001-7307 4½x6½ 3.60				
	12A10222-4	001-7307	41/2x61/2	3.60

12A10247-1 000-7353 4x6 1.50	12A9802-6	000-7351	6x12	\$3.50
	12A9803-4	000-7352	12x18	9.95
	12A10247-1	000-7353	4x6	1.50

L	E	D	F	R-4	1	EP	0	XY	-G	LA	S	S
P	E	R	C	LA	D	2	S	IDI	ES			

12A10223-2	002-7301	81/2x17	\$14.50
12A10224-0	002-7305	4½x17	7.00
12A10225-7	002-7306	6x17	9.35
12A10226-5	002-7307	41/2x61/2	3.90
(BB) • CUT	& PEEL - P	LAIN COPI	PER ON

(AA) • DRIL

(BB) •	CUT	& PEEL	POXY-	GLASS -	PER ON 1 SIDE
1241022	27-3	003-	7301	816x17	\$14.50

12410227-3	003-7301	81/2×17	\$14.50
12A10228-1	003-7305	4½x17	7.00
12A10229-9	003-7306	6x17	9.35
12A10230-7	003-7307	41/261/2	3.90
(RR) . CHT	& PEFI _ PI	AIN COPP	FR ON

(BB) •		& PEEL — F LED EPOXY		
12410	21 E	004 7201	01/4 17	616 E0

12A10231-5	004-7301	81/2×17	\$16.50
12A10232-3	004-7305	41/2x17	7.55
12A10233-1	004-7306	6x17	9.95
12A10234-9	004-7307	41/2×61/2	4.20

CC	) '				CHE	SIDE	

XGF	ID PATTERN	1 SIDE	
12A10239-8	006-7301	81/2x17	\$17.95
12A10240-6	006-7305	41/2×17	9.20
12A10241-4	006-7306	6x17	12.20
12A10242-2	006-7307	41/2x61/2	5.10

### (CC) • (DD) • DRILLED & ETCHED X-Y GRID PATTERNS 2 SIDES

Stock No.	Mfr's Type	Size Inches	Each
12A10243-0	007-7301	8½x17	\$18.95
12A10244-8	007-7305	4½x17	9.75
12A10245-5	007-7306	6x17	12.90
12A10246-3	007-7307	4½x6½	5.40

#### (EE) PLAIN FR-4 EPOXY-GLASS

12A9802-6 000-7351 6x12 \$3.50 12A9803-4 000-7352 12x18 9.95	(un-ur	meu/		_
12A10247-1 000-7353 4x6 1.50	12A9803-4	000-7352	12x18	

### (EE) PLAIN FR-4 EPOXY-GLASS

CUPF	ER CLAU 1	SIDE	
12A10248-9	001-7351	6x12	\$4.25
12A10249-7 12A10250-5	001-7352 001-7353	12x18 4x6	11.95
BED Blibs of School			The second

### (EE) PLAIN FR-4 EPOXY-GLASS

		OIDEO	
12A10252-1 0	02-7351	6x12	\$4.75
	02-7352	12x18	12.95
	02-7353	4x6	2.00

### (FF) PLAIN CUT & PEEL COPPER FR-4 EPOXY-GLASS, 1 SIDE

12A10254-7	003-7351	6x12	\$4.75
12A10255-4	003-7352	12x18	13.50
12A10256-2	003-7353	4x6	2.00

### (FF) PLAIN CUT & PEEL COPPER,

ILMIGEOU O COLLEGE	5x12 2x18 4x6	\$5.75 15.50 2.25
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#### KEYSTONE PRE-PUNCHED BOARDS

"with .062" holes spaced .187x.187 center to center.

#### HINCLAD YVVD NATHDAL DUENOLIC

		UNULA			
Stock No.	Keystone No.	Size W. L.	1-19 Each	20-99 Each	100 Up Each
12A9625-1 12A9626-9 12A9627-7	1761 1812 1735	1,38x8.50 2.44x3.38 2.84x8.50	\$0.49 .19 .59 .49	\$0.39 .16 .53	\$0.36
12A9628-5 12A9629-3	1824 1762	3.66x6.75 5.69x8.50 6.75x7.31	.49 .99 .89	.44 .86 .75	.47 .42 .79 .69 1.12
12A9630-1 12A9631-9 12A9554-3	1826 1828 1763	7.31×10.50 8.50×17.00	1.39	1.19 1.85	1.12 1.74



144

#### KEYSTONE PUSH-IN TERMINALS

WEIGIGHT I COM IN TERMINATE
Made to fit perforated boards. Sub-miniature size for .062"
holes. Beryllium copper, silver plated.
① 12A2309-9 'Flea'' Clips. Keystone 1500
100 For\$1.75 1000 For\$15.70
212A2310-7, "Imp" Terminal. Keystone 1499SP.
100 For \$1.75 1000 For \$15.70



#### **VECTOR BUS STRIP**

Prepunched narrow brass tinned strip mounts to prepunched boards with Zip Push-In ter-minals or screws. Make connections wherever required quickly.

	/	N	100			
Stock No.	Mfg. No.		Description		Pkg.	Pkg. 100
12A2640 -7	T57	16" long.	.093" holes spaced	.265"	\$2.73	\$22.56
12A2641 -5 12A2642 -3	T58 T104	17" long.	.093" holes spaced	.2"	1.68	16.77
12A2643 -1	T107	14" long.	.042" holes spaced	.1"	3.64	34.60



### GC CALECTRO PRINTED CIRCUIT MATERIALS

#### PRINTED CIRCUIT "LIFT-IT" KIT

Complete kit for making finished PC boards from any ink base circuit drawing. Apply "Lift-It" transfer emulsion and drawing is transformed into a clear, insoluble plastic film that can be used as a "positive" for making a PC board "negative". Eliminates time consuming drawing or photographing of circuits and produces an exact circuit reproduction.

Kit Contains: 2 oz. Lift-It transfer emulsion, 2 oz. PC contact film developer, 3 oz. etch resist sensitizer, ½ oz. etch resist lacquer, 2 oz. PC board stripping solution, 1 - 10 X 12" contact film, 1-plastic developing tray, and 2-aluminum developing trays. Shpg. wt. 2 lbs.

Etch Resist Sensitizer - Photo sensitizes printed circuit boards. Air dries in seconds. 3 oz. aerosol. No. 12A10286-9. GC J4-622. Each
Stripping Solution - Removes remaining etch resist, dye, and lacquer from PC board after etching process. 2 oz. bottle.  70° No. 12A10287-7. GC J4-626. Each 70°
Developing Solution - Develops a perfect pattern in approximately one minute making PC board non-sensitive to light 16 oz can.
No. 12A10288-5. GC J4-630. Each \$1.50  Printed Circuit Contact Film - Orange, Opaque contact film for making PC board negatives. One sheet - 10 X 12".
No. 12A10289-3. GC J4-829. Each \$3.60 "Lift-It" Transfer Emulsion - Transfers any ink - base circuit drawing into a clear, insoluble plastic film that can be used as a "positive" for making a PC board "negative". Safe, non-toxic. 6 oz. bottle.
No. 12A10290-1. GC J4-630. Each S3.95 Printed Circuit Contact Film Developer - For developing circuit patterns on PC contact film. 6 oz.
No. 12A10291-9. GC J4-831. Each
Experimenters Prototype Boards. Tough phenolic with .03" punched holes. Size: 63" X 336". Quad Land Pattern: four holes per land, mount four components per solder connection.  No. 12A10284-4. GC J4-609. Package of 2 Boards \$1.50
Single Land Pattern: One hole per land. No. 12A10285-1. GC J4-610. Package of 2 Boards



#### PHENOLIC UNPUNCHED PANELS

Stock	LAMINATED Keystone	XXXP NA	1-19	THICK 20-99	100-240
No.	No.	Size	Each	Each	Each
12A9621-0	1973	4.5x6.5	\$0.50	\$0.46	\$0.44
12A9623-6	1976	9 x12	1.60	1.54	1.49







PROFESSIONAL QUALITY PHENOLIC CASES AND PANELS

1 PRECISION MOLDED BLACK PHENOLIC CASES

Matching panels recess mount. Model 220 has 4 tapped 4-36 holes for panel screws.

Others have 6-32 tapped brass inserts. Davies except \* which are Keystone.

Stk. No. 5A3040-8 5A3073-9 5A3041-6 5A3042-4	Mfg. No. 220 230A 240B 260K	Dimensions Inches 4 X 2½" X 1½6" 5 X 4¼ X 1¾" 6¼ X 3¾ X 2" 6¾ X 5-9/32	S Land	1-5 Ea. \$0.90 1.49 1.99 2.61	6-49 Ea. \$0.70 1.19 1.54 2.02	50-99 Ea. \$0.63 1.05 1.39 1.81	100 Up \$0.49 .99 1.08 1.41
5A3004-4	°702	83% X 73% X 3		1-19 \$3.49		20-99 \$3.11	100-249 \$2.74
		② BLACK PI	HENOLIC	PANELS			
5A5583 -5 5A5587 -6 5A5584 -3 5A5585 -0	221 231 241 261	Fits 220 Case Fits 230 Case Fits 240B Case Fits 260K Case	Stamped Stamped Molded Molded	1.50	\$0.28 .56 1.16 1.62	\$0.25 .50 1.04	\$8.20
5A5506-6	*2039	Fits 702 Case	Stamped			.66	.63
		3 KEYSTONE	ALUMIN	IUM PAN	NELS		
5A5500 -9 5A5502 -5 5A5504 -1 5A5507 -4	2044 2046 2047 2048	Fits 220 Case Fits 240B Case Fits 260K Case Fits 702 Case			1-19 .50 .68 .84 1.26	20-99 .45 .55 .72	100-249 .39 .46 .68 .96



#### **FAHNESTOCK CLIPS**

Positive contact cline Aversage shop but 5 are per 100

0	2.01530.21	and the state of t						
Stock No.	Length	Width	Max Wire	Mtg. Hole	10 For	100 For	1000 For	
12A1089 -8 12A1090 -6	1" 34"	3/8"	# 10 # 14	#8#6	\$0.69	\$5.30 3.40	\$47.75 30.99	

# eclot KITS, PLUGBORDS AND ACCESS.



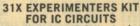
#### **VECTOR 22X TRANSISTOR EXPERIMENTER'S CHASSIS KIT**

4.8"x8.5" Vectorbord ("A" Pattern) mounted on 2" aluminum rails, plus 75 push-in and 20, springclip terminals; 3 bus strips, 6 patch cords, terminal installing tool, 2 spools hook-up wire, layout paper, asst. screws, nuts. spacers, thumb pins, washers and brackets.

20A195-4. Each

#### 25X SOLDERLESS EXPERIMENTER'S CHASSIS KIT

Big 8.5x17x3/2" pre-punched phenolic Vector-bord deck with Frame Loc expandable aluminum chassis support. 6 transistor sockets, 3 each 7 and 9 pin miniature sockets, 2 octal sockets, 204 (total) solderable and solderless terminals, 10 patchords, 2 spools hook-up wire and switch plus asst. nuts, screws, spacers, lugs,



4.5" x 17" Vectorbord (P Pattern), frame loc aluminum side rails, 3 bus strips, 100 micro klip terminals, terminal installation tool, 50 terminals, 50 inbord pins, 50 ft. #26 tinned wire, 20 ft. #32 solder thru insulation wire, mounting tape, plus asst. mounting brackets, hardware, instructions, etc.

No. 20A1271-2

\$21.32

\$21.32



31X

#### **VECTOR 32X POSITIVE PHOTO** RESIST ETCHED CIRCUIT KIT

For producing sharply detailed etched circuits with minimum delay . . . no photographs or special darkrooms are required.

Kit is built around 1 oz. copper clad laminate which has been pre-coated with photo-sensitive etch resist. Complete with one 4.5 X 6.5 X 1/h6" phenolic two sided copper clad board, one 4.5 X 2.73 X 1/h6" phenolic one sided copper clad board plus a 7 X 5 X 1/h6" glass plate and a supply of chemicals and art-

Work. No. 12A10276-0



#### VECTOR WIRING PENCIL

Low cost featherweight tool easily guides and wraps insulated wire around even the smallest I.C. lead. Wire is fed through slender hollow steel tip of self-contained replaceable spool. Twist wire on lead or post and solder through meltable insulation - no stripping. Three times faster than conventional measuring, wire-cutting and stripping methods. Complete with installed spool with approx. 200' of 36 gauge red solder-thru wire, plus threading loop and complete instructions.

37A3432-9. P173 Wiring Pencil. Forming Knife Tool with chisel end to cut off wire against board. Opposite blunt end holds wire against board to provide slack.

\$1.95

		DAC	KA	SOLDE	R-TI	HRU INSUL EE - EACH WI	ATED TH 200	WIRE ON SPO	101	
		FAU	NA	ars or	inni	EE - EAGH WIT	111 200	1-9	10-49	50-199
37A3435-2.	W36	3A.	36	Gauge	Gree	on		Package \$2.40	Package \$2.16	\$1.80
37A3436-0	W36	3B.	36	Gauge -	Red	NAME AND POST OF THE PARTY OF	1000.00	2.40	2.16	1.80
37A3A3R_6	W36	30	36	Gauge .	. Riue	ır		2.40	2.16	1.80
37A3439-4	W32	3A.	32	Gauge -	- Gree	on		Z.40	2.16	1.80
37A3441-0.	W32	3C.	32	Gauge -	- Clea	If		2.40	2.16	1.80
37A3442-8.	W32	3D.	32	Gauge	- Blue			2.40	2.16	1.80



#### **VECTOR-PAK** CARD GUIDE CAGE

51/4 " high X 9" deep X 19" wide slotted for rack mounting with six heavy extruded aluminum cross members, aluminum side walls. Accommodate cards 3" to 41/2" wide and up to 7-7/8" in length. Vari-Partially assembled for able connector mounting.

quick setup. Supplied with discrete aluminum card guides to accommodate 20 cards . Adjustable for spacing in multiples of 1/4

No. 12A9969-3. CCK13. 1		\$34.07
10 to 49 Each	Card Guides. BR20-6H. Package of 12	\$32.34



## "D.I.P." VECTOR PLUGBORDS FOR DUAL-IN-LINE IC's

Plug-in mounting boards for 14 or 16 lead dual-in-line integrated cir cuits. Boat/s are 1/16" thick epoxy paper material measuring 4½ "x6½" overall with an aluminum frame on 3 sides which fits 1/16" card guides. Boards have overall "P" pattern of .041" diameter holes on 0.1" spaced grid and an X-Y matrix pattern of .070" etched copper lines running vertically on board front and horizontally on hoard back

Pad layouts for 12 D.I.P.'s are provided on all listed types with matrix. Copper lines may be broken with listed line cutter chisel. T42-1 Mi-croklin push-in terminals shown on next page make possible speedy

3474 (Bui	D.I.P. Plugbord lit-Up Model)	1-19	20-99	100-199
Stk. No.	Mfg. No. Description	Each	Each	Each
12A9500-6	3474 4½x6½", 44 etched contacts, X-Y matrix	\$12.13	\$10.92	\$10.19
12A9502-2	3474-3 41/2x61/2", 22 etched contacts,	9.33	8.40	7.84



### Mfg. No. 3677-2

Mount I.C. sockets and components (up to 24 D.I.P. units with 14 leads or 21 with 16). Supplied with overall punched grid of .042" diameter holes spaced .1" apart, etched buses 1 side for Vcc and ground plus 3 hole pad groups and individual pad areas are tinned. FR-4, epoxy glass per MIL-P-13949, Type FL-GF. Gold plated contacts (2 sides). Mate with R644 Receptacle listed below. Width Each \$8.73

3677 SERIES D.I.P. PLUGBORDS



12

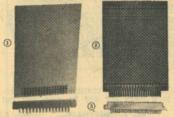
#### 3682 TYPE D.I.P. PLUGBORD

Will mount up to 54 D.I.P. PLUGBURD

Will mount up to 54 D.I.P. sockets with 14 pin or 48

units with 16 pins. Overall grid of .042" diameter holes
on .1" centers specially for Wire-Wrap\* D.I.P. socket
types and Vector T44 Miniwrap terminals listed below.
Etched buses one side for Vcc and ground are tinned.
3682-4 has ground plane on back with etched clearance
around each hole for lead isolation. FR-4, epoxy glass
per MIL-P-13949 Type FL-GF, 2 oz. copper etched gold
plated contacts (2 sides) mates with R644 Receptacle listed
below.

Stock No. 2A9971-9 2A9972-7	Mfg. No. 3682 3682-2	Contacts 44 44	Length 9.6 6.5	Width 4.5 4.5	1-19 Each \$10.97 9.81	20-99 Each \$9.88 8.82	100-199 Each \$8.76 8.23
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#### VECTOR PLUGBORDS AND RECEPTACLES

AND RECEPTACLES AND REGEPTACLES and short runs. All are furnished with over-all grid of pre-punched \( \frac{1}{16} \), dia holes located on alternate intersections of a 0.1" grid. Contacts along bottom edge of board mate with listed receptacles. Pre-drilled to accept T-28 miniklips, standard turned terminals, or \( \frac{1}{16} \) dia. eyelets. All are \( \frac{1}{16} \) to the epoxy paper per MIL-P-22324 qr "WE" types are epoxy glass per MIL-P-18177.

Stock No. 12A9526-1 12A9528-7	Vector No. 812 837	Size 41/2×61/2" 3×41/2"	Contacts 16 12	1-19 Each \$4.34 3.39	20-99 Each \$3.91 3.05	100-Up Each \$3.64 2.85
All are 6½ Stock No. 12A9531 12A9535	x4½". GN Vector No. 838A 838WE	COPPER CLI indicates ni Cont Front 22 22	ckel plated	contact PLU gold flashed 1-19 Each \$3.77 5.19		100- Up Each \$3.15 4.36

(3) ACCESSORIES FOR ABOVE PLUGBORDS	
12A9537-8. R616-1. 16 contacts. For 812. Each 12A9538-6. R612-1. 12 contacts. For 837. Each 12A9504-8. R644. 44 contacts. For 838, 3474, 3677, 3682 1-49 Each 12A9503-0. P-139. Line Cutter Chisel. Each	



#### H. H. SMITH PRINTED CIRCUIT CARD RACK

Adjusts for card widths 2 3/8 to 4 3/4", for Adjusts for card widths 2 3/8 to 4 3/4 . for card lengths 3½ to 7½ ", and for connectors with mounting centers 936" to 4.437". Card spacing is adjustable in 400" increments, minimum spacing is 400". Card capacity up to 39 cards. Adjustable locking bar holds cards securely against rear connectors. Card guides are preci-

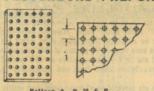
sion molded plastic, feur guides per card for location accuracy. Guides nest together in staggered holes for minimum card spacing. Card guides and connector rails adjust smoothly on nylon bushings, index marks are stamped on end plates for standard card sizes. Guides fit 1/16" thick cards. Heavy gauge clear anodized aluminum, size 19"L x 5¼ "H x 8"D. Fits standard 19 inch equipment racks. Can be stacked in multiples of 5¼ ". Complete with all hardware, card guides and instructions, shipped knocked down.

No. 12A10101-0. Smith No. 3050. 1 to 9 Each ...... \$27.95 10 to 24 Ea...... \$25.95

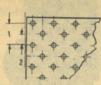
See Vector Boards and Terminals on Following Page

# **BOARDS AND COMPONENTS**

#### VECTORBORD PREPUNCHED INSULATING BOARDS







Convenient and economical method of assembling circuit components. All boards accept zip push in terminals, turned terminals and eyelets may be used. All are unclad phenolic except those marked \* which are Epoxy paper; † Epoxy glass; \*\* 2 oz. copper clad one side.

Pattern A—Dimension 1 is .265° between centers; Pattern B—Dimension 1 is .188" (²/6") between centers; Pattern B—Dimension 1 is .05" between centers; Pattern P—Dimension 1 is .1" between centers; Pattern G—Dimension 1 is .2" between centers; Dimension 2 is .1" between centers.

	ock o.	Mfg. No.	Pattern	Hole Dia.	Size Inches	1-19 Each	20-99 Each	100 Up Each
12A	9505-5	18A18	A	.093	4.8x4.8x1/4	\$0.46	\$0.42	\$0.39
12A	9507-1	64A18	A	.093	16.99x4.8x1/4	1.58	1.42	1.32
12A	9651-7	72A32	A	.093	19.11x8.51x1/4		2.53	2.36
12A	9508-9	64AA18	A	.093	16.99x4.8x3	2.81	1.83	1.70
12A	9509-7	64AA32	A	.093	16.99x8.51x3/2	3.47	3.12	2.91
12A	9514-7	85G24	G	.062	16.99x4.8x1/4	1.84	1.65	1.54
12A	9515-4	*85G24EP	G	.062	16.99x4.8x1/4	2.74	2.46	2.31
12A	9516-2	†42G24WE	G	.062	8.51x4.8x1/4	2.37	2.12	1.98
12A	9517-0	45B30	B	.062	8.51x5.69x1/4	1.04	.93	.88
12A	9518-8	†85G24WE	G	.062	16.99x4.8x1/4	4.76	4.27	4.00
12A	9519-6	90B30	B	.062	16.97x5.69x1/6	2.28	2.00	1.91

	MICRO-VECTORBORD	FOR	MOUNTING	D.I.P.'S	AND	FLAT	PACKS
--	------------------	-----	----------	----------	-----	------	-------

12A9520-4 *64P44-062EP	P	.042	6.5x4.5x1/6	\$1.95	\$1.75	\$1.64
12A9521-2 †126M76/032	M	.025	6.5x4x1/32	2.65	2.38	2.22
12A9522-0 *169P47-062EP	P	.042	17x4.8x1/6	4.60	4.14	3.85
12A9523-8**†169P59/032C1	P	.042	17x6x1/2	8.49	7.64	7.13
12A9712-7 [169P79/062	PO	.042	17x8x1/6"	8.88	7.99	7.47
12A9652-5 1169P84-062	P	.042	17x81/2x1/6	9.23	8.26	7.75
12A9525-3 +336M76/032	M	.025	17x4x1/32	6.92	6.23	5.81

#### UNPUNCHED VECTORBORD - 2 OZ COPPER CLAD ONE SIDE - EPOXY GLASS

Stock	Vector		1-19	20-99	100-199
No.	No.	Size	Each	Each	Each
12A9656-6	CU45/30WE-1	41/2×3×1/6"	\$1.16	\$1.04	\$0.98
12A9657-4	CU65/45WE-1	61/2x41/2x1/6"	1.93	1.73	1.62

#### **VECTOR "ZIP" TERMINALS AND TOOLS**



Bright tinned, serrated teeth grip several leads for good contact. T32 series provides reliable solderless contact for up to 6 leads and may be used over and

OVE	er. Nickie p	lated.				
Fig	. Stk. No.	Mfg. No.		Pkg. Quanti	ity Per Pkg.	5 Pkgs. Ea.
000	12A2210-9 12A2211-7 12A2212-5	T9-4 T9-4 T28	Fits .093 holes Fits .093 Holes Miniklip Fits .06	1000	\$ 1.74 12.43 1.90	\$10.44
000	12A2213 -3 12A2214-1 12A2215 -8	T28 T42-1	Miniklip Fits .06: Microklip Fits .0 Microklip Fits .0	2 Holes 1000 42 Holes 100	12.61	11.36
Pro	vides fast,	200	SPRING CLIP P	USH-IN TERMINALS thout soldering, b	12.90 ending or crim	11.58
93 3	12A2216 -6 12A2217 -4	T32A-1 T32A-1	Fits .062 Holes Fits .062 Holes	10 100	\$ 1.86	35,424
3	12A2218 -2 12A2219 -0		Fits .093 Holes Fits .093 Holes	10 100 P TERMINAL	1.86 13.71	3
(i)	12A2644-9 12A2645-6	T44 T44	Miniwrap fits .04 Miniwrap fits .04	2 holes 100 2 holes 1000	\$ 2.28 14.00	12.60
			Size Inches	FOR .042 HOLES	1000	5000
600	Stk. No. 12A2646-4 12A2647-2	K24C	A B .255 .375 .255 .375	Plating For Nickel-gold \$2.6 Tintillate 1.4	6 \$37.00 9 16.99	Per M \$33.29 15.31
(3)(3)(3)	12A2648-0 12A2649-8 12A2651-4	K31C	.160 .195 .160 .195 .062 .600	Nickel-gold 1.7 Tintillate 1.0 Tintillate 1.5	1 11.04 21.20	20.53 9.93 19.08
6	12A2220-8 12A2221-6	P91A For	T9-4 Terminals.	Each		1.96
0000	12A9965-1	P149A For A13 for T4	142-1 Terminals. 14 Miniwrap. Eacl			2.49
6	12A3300-9	PISSA for	N24, N31, N38 1	erminal, Each		2.03

#### TRW CINCH INSULATOR WAFER

Anodized aluminum for use with TO-3 power transistors Combines high dielectric insulation with high thermal conductivity to the heat 12A53-5. 2W-1. 1-249 Each

	1	60	1
-	10		273
6		2	(8)
7	1		1
Y	4	1	100
DD 8	M	1.	
1			90 _

#### VECTOR I.C. SOCKETS FOR DUAL-IN-LINE PACKAGES

Tabs fit "P" pattern Micro-Vectorbord or "DIP" Plugbords. Castings are glass filled nylon with phosphor bronze nickel gold plated contacts on wire wrap type, and tin plated contacts on solder tab type.

Stk. No. 12A5048-0 12A9663-2 12A5049 12A9664	Mfg. No. R714-1 R714 R716-1 R716	Contacts 14 14 16 16	Terminals P.C. Solder Wire Wrap P.C. Solder Wire Wrap	Each 59° 79° 69° 79°	Pkg. of 5 3.52 3.73	Pkg. of 10 \$5.20 5.81
12A3004	n/10	10	wire wrap	19.	3./3	******



#### TRW CINCH DIP SOCKETS

Socket leads on same centers as DIP leads. Solder in PC board or use 4-40X1/4 Fillister head screw for chassis mount. Insulation: (1) G.P. Black Phenolic; (2) Diallyl Phthalate; (3) Black Glass Nylon; (4) White Glass Nylon Lead Plating; (5) Electro-tin: (6) Gold.

#### STANDARD THROAT SOLDER TYPE .017" X .033" X .170" Tails

Of Co. Co.	THE RESERVE	Insula					
Stock No.	Type No.	No. of Conts.	& Lead Plating	1-24	25-49	50-99	100 Up
12A5159-5	14DIP	14	(1).(5)	Each	Each	Each	Each
12A5160-3	14DIP-1	14	(2).(6)	\$1.02	\$0.82	\$0.68	\$0.55
12A5161-1	16DIP	16	(1).(5)	1.13	1.09	.92	.74 .61 .81 .92
12A5162-9	16DIP-1	16	(2).(6)	1.49	1.20	1.01	.81
12A5163-7 12A5164-5	24DIP-1*	24	(1).(5)	1.70	1.40	1.01	.92
12MJ104-J	24011-1			2.05	1.65	1.40	1.14
		W	RE WRAP				
12A5201-5	14W-DIP	14	(3).(5)	\$1.01	\$0.82	\$0.69	\$0.55
12A5202-3	14W-DIP-1		(4).(5)	1.01	.82	.69	.55
12A5205-6	16W-DIP	16	(3).(5)	1.24	.99	.83	.55 .67 .67
12A5206-4	16W-DIP-1	16	(4).(5)	1.24	.99	.83	.67



#### HERMAN H. SMITH DIP IC SOCKETS

Stock	Phenolic Smith	body. Electro	plated cor	ntacts. 25-99	100
No.	No.	Conts.	Each	Each	Up
12A5157-9	6252	14	89°	79	66
12A5158-7	6253	16	89°	79	66°



#### TRW CINCH INTEGRATED CIRCUIT SOCKETS

TO-5 case IC sockets. Molded diallyl phthalate type SDG per MIL-M-14. Contacts are .00003 gold plated beryllium copper.

Stock	Type No.		1-24	25-49	50-99	100 Up
No.	No.	Cont.	Each	Each	Each	Each
2A5051-4	6 ICS	6	\$0.75	\$0.61	\$0.53	\$0.46
2A5052-2	8 ICS	8	.91	.74	63	.52
2A5025-8	10 ICS	10	1.01	.80	.63	57



Stock No. Mfg. No. 1-4 Each 5-9 Ea. 10-24 Ea. 21.23 \$1.21 \$1.13

### TRW CINCH TRANSISTOR SOCKETS

		1			4 6 5	1
RECTANG	ULAR TRAI	nsistor socker n copper, silve	TS. Low loss p	henolic with	push-on mtg. ring.	

Stk. No. 12A5001-9 12A5002-7 Type No. 2H3 2H5 1-24 Ea. 25-49 Ea. 50-99 Ea. 100 Up Ea. (2) CINCH UNIVERSAL SOCKET. For use with all transistors with 3 or 4 leads. Gold plated conper contacts. Snap-in P.C. mount.
12A5122-3
7-UTS
1.33
1.07
91
7.4
(3) CINCH ALL-MOLDED SOCKET. Fits triangular base 2 x 1" centers, or 3-contact in-line, 048 x 1.92 contact centers. Bakelite with phosphor bronze contacts.
12A5003-5
2TS-4
22
18
15
14
(4) POWER TRANSISTOR SOCKETS. Wafer type for IU-3 transistors with 7%" spacings. Size 11/8" X 1". Cadmium plated brass contacts. 12A5004-3 2TS-1 Same as above except has two mtg eyelets for easier chassis mounting.
12A5005-0
2TS-2
17
.14
.13
(5) MOLDED PHENOLIC SOCKET. Phosohor bronze contacts. Mounting ctrs. 425 .17 .14 .13 11 .11

#### **WORKMAN/IR POWER TRANSISTOR SOCKETS**



XP phenolic wafer with nylon top plate. Supplied with mounting screws and template Stock Mfg. Mfg. No. SH131 SH132 1-4 Each 25 Up Each Each 27c 27c

.11

#### WORKMAN/IR COMPONENT CARRIER

Create your own Dual-in-line I.C. 14DIP base and snap on cover are glass filled nylon, with gold over nickel plated brass pins to accept leads to size 24. Inside cap clearance .440" hor., .5" vertical. Pins fit DIP sockets or perforated board with hole spacing of .1" x .1".

12A2556-5 Mtg. No. SH149. \$1.20

1-4 Each \$1.08



# IDIO CONNECTORS AND TERM



Interchangeable with Canon XLR-3, XLR-4 and Amphenol 91-850 series. Professional style audio connectors made for rugged service. Connectors are polarized with exclusive grounding lug on all units. Shells are made of die-cast zinc, satin nickel finish. Inserts are of high-impact plastic. Wall plates are brushed stainless steel and fit standard electrical outlet boxes.

				CORD PLUGS	3		Prices	Each		
Fig.	Stk. No.	Mfg. No.	Contacts	Description	Each	2-9	10-24	25-49	50-99	
1	12B348-9	A3F	3	Female	\$3.10	\$2.48	\$1.86	\$1.71	\$1.55	
1	12A6042-2	A4F	4	Female	3.85	3.08	2.31	2.12	1.93	
1	12A6219-6	A5F	5 3 4 5	Female	6.35	5.08	3.81	3.49	3.18	
2 2 2	12B349-7	A3M	3	Male	2.65	2.12	1.59	1.46	1.33	
2	* 12A6043-0	A4M	4	Male	2.85	2.28	1.71	1.57	1.43	
2	12A6220-4	A5M	5	Male	5.10	4.08	3.06	2.81	2.55	
			PANEL A	AND WALL F	RECEPT	ACLES				
3	12B350-5	B3M	3	Male	3.80	3.04	2.28	2.09	1.90	
3	12A6044-8	B4M	4	Male	3.95	3.16	2.37	2.17	1.98	
3,	12A6221-2	B5M	4 5 3 4 5 3 4	Male	6.50	5.20	3.90	3.58	3.25	
4	12B351-3	C3M	3	Male	2.05	1.64	1.23	1.13	1.03	
4	12A6045-5	C4M	4	Male	2.20	1.76	1.32 2.85	1.21 2.61	1.10	
4	12A6222-0	C5M	5	Male	4.75	3.80	2.85	2.61	2.38	
5	12A6002-6	C3F	3	Female	4.10	3.28	2.46	2.26	2.05	
5	12A6046-3	C4F		Female	4.25	3.40	2.55	2.34	2.13	
6	12A6003-4	G3MS	3	Male	6.60	5.28	3.96	3.63	3.30	
3334445556678	12A6048-9	G4MS	4	Male	7.00	5.60	4.20	3.85	3.50	
/	12A6098-4	H3MS	3 1000	Dual Mal		7.40 5.52	5.55	5.09	4.63	
8	12A6004-2	J3FS	3	Female	6.90	5.52	4.14	3.80	3.45	

#### SWITCHCRAFT AUDIO CONNECTOR ADAPTORS



Adapts male or female three conductor Switchcraft (above) or Cannon plugs to standard 1/4" phone plugs and jacks or mike connectors.

						111000		
Fig.	Stk. No.	Mfg. No.	Description	Each	2-9	10-24	25-49	50-99
(1)	12A6092-7	389	Double Female A3F	\$6.35	\$5.08	\$3.81	\$3.49	\$3.18
(2)	12A6093-5	390	Double Male A3M	5.35	4.28	3.21	2.94	2.63
(3)	12A6094-3		Female A3F to 1/4" Jack	5.90	4.72	3.54	3.25	2.95
(4)	12A6095-0	384A	Male A3M to ¼" Jack	5.45	4.36	3.27	3.00	2.73
(5)	12A6096-8	386A	Female A3F to 1/4" Plug	5.80	4.64	3.48	3.19	2.90
(6)	12A6097-6	387A	Male A3M to ¼" Plug	5.10	4.08	3.06	2.81	2.55
(7)	12A6105-7	335A	Male Mike to A3F	4.30	3.44	2.58	2.37	2.15
(8)	12A6106-5	339A	Female Mike to A3M	4.30	3.44	2.58	2.37	2.15

#### Q-G MICROPHONE CORD PLUG WITH SWITCH



Replaces Cannon XLR-3, Amphenol 91-850 or Switchcraft mike connectors, pro-viding DPDT switching by sub-miniature

Sli	de switch.	Price	s Each	
Each	2-9	10-24	25-49	50-99
\$9.50	\$7.60	\$5.70	\$5.23	\$4.75



P3F, 3 contact

No. 12A6196-6

MIKE STAND CONNECTOR

Simplify mounting of most mikes to gooseneck or stem. 5% x 27 female stand threads. Prices Each 10-24 25-49 \$1.80 \$1.65 Each \$3.00 2-9 \$2.40

### SCOTCHLOK SELF-STRIPPING ELECTRICAL CONNECTORS



Eliminates wire stripping, makes mechanically secure connections. A simple pair of pliers drive a "U" contact through insulation over wire, no other tools needed. Hinged snap cover insulates connector. Polypropylene insulated case.

	460 000 5	(1) TAP CONNE	CTORS		
Stock No. 12A5217-1 12A5218-9 12A5219-7 12A5220-5	Mfg. No. 801 902 903 905	Wire Range Tap Line 14-18 to 14-18 14-18 to 10-12 10-12 to 10-12 18-22 to 14-18	5 For 39' 59' 59'	100 For \$5.99 8.52 8.52 5.99	1000 For \$51.25 72.42 72.42 51.25
12A5221-3 Provides connect	558 tion of 2 separa	16-22 to 16-22 (2) PIGTAIL CON ate lines	49° NECTOR	6.13	52.62
Stock No. 12A5222-1	Mfg. No. 557	Wire Range 16-22	5 For 49°	100 For \$6.13	1000 For \$52.62



#### SOLDERLESS CRIMP-ON TERMINALS

Choice of Flared vinyl insulated for easy wire insertion and to accommodate wire insulation or non-insulated type. Electrolytically pure copper. Multiple barrel serrations guarantee full contact with wire, Electro-annealed for extra life. Average wt, 8 ounces per 100.

angl	19181/4	official pobth	(1) RII	NG TONG	UE TERMIN	ALS	App. Spill	Scale 1	
Wire Size	Stud Size	Non- insulated Stock No.	20 For	100 For	1000 For	Insulated Stock No.	20 For	100 For	1000 For
22-18 22-18 22-18 22-18	4 6 8 10	12A2312-3 12A1804-0 12A2313-1 12A1805-7	\$0.89 .89 .89	\$3.09 3.09 3.09 3.09	\$21.59 21.59 21.59 21.59	12A2316-4 12A1811-5 12A2317-2 12A1812-3	\$1.69 1.69 1.69	\$5.99 5.99 5.99 5.99	\$43.99 43.99 43.99 43.99
16-14 16-14 16-14	6 8 10	12A1808-1 12A2314-9 12A1809-9	.89 .89	3.09 3.09 3.09	21.59 21.59 21.59	12A1815-6 12A2318-0 12A1816-4	1.69 1.69 1.69	5.99 5.99 5.99	43.99 43.99 43.99
12-10 12-10	8	12A2315-6 12A1810-7	1.09	4.19	29.89 29.89	12A2319-8 12A1817-2	2.04	7.74 7.74	56.86 56.86
BR	20	50	(2) SP/	ADE TON	GUE TERMI	NALS	1	TELL	1 3
22-18 22-18 22-18 16-14	4-6 8 10 6	12A1818-0 12A2320-6 12A1819-8 12A1820-6	.89 .89 .89	3.09 3.09 3.09 3.09	21.59 21.59 21.59 21.59	12A1823-0 12A2323-0 12A1824-8 12A1825-5	1.69 1.69 1.69 1.69	5.99 5.99 5.99 5.99	43.99 43.99 43.99 43.99
16-14 16-14 12-10 12-10	8 10 8 10	12A2321-4 12A1821-4 12A2322-2 12A1822-2	.89 1.09 1.09	3.09 3.09 4.19 4.19	21.59 21.59 29.89 29.89	12A2324-8 12A1826-3 12A2325-5 12A1827-1	1.69 1.69 2.04 2.04	5.99 5.99 7.74 7.74	43.99 43.99 56.86 56.86
1130	ván s		(3) FLA	NGED SP	ADE TERMI	NALS	11.00		T. E. S.
22-18 22-18 22-18	4-6 8 10	12A1828-9 12A2326-3 12A1829-7	.89 .89	3.09 3.09 3.09	21.59 21.59 21.59	12A1832-1 12A2328-9	1.69	5.99 5.99	43.99 43.99
16-14 16-14 16-14	6 8 10	12A1830-5 12A2327-1 12A1831-3	.89 .89 .89	3.09 3.09 3.09	21.59 21.59 21.59	12A1834-7 12A2329-7 12A1835-4	1.69 1.69 1.69	5.99 5.99 5.99	43.99 43.99 43.99
1900	863.	4-4-	(4	BUTT C	ONNECTOR	S	1		
22-18 16-14 12-10	100	12A1836-2 12A1837-0 12A1838-8	.99 .99 1.69	3.59 3.59 5.99	23.99 23.99 42.59	12A1839-6 12A1840-4 12A1841-2	1.89 1.89 2.49	7.19 7.19 9.59	52.89 52.89 70.99
ne ac	100	(5) MA	LE QUIC	CK DISCO	NNECTS-PL	JSH-ON TYPE		MIL THE	
18-14 18-14	.187 .250	12A1842-0 12A1843-8	.89 .89	3.09 3.09	21.59 21.59	12A1844-6 12A1845-3	1.79 1.79	5.99 5.99	43.99 43.99
2500	30 30	The second secon		2.4	The second second second	PUSH-ON TYP	E	2000	2020
26-20 22-18 18-14	.110 .250 .110	12A2514-4 12A2515-1 12A2513-6	.99	3.59 3.59 3.59	23.99 23.99 23.99	12A2516-9	2.04	7.74	56.86
18-14	.187	12A1846-1 12A1847-9	.99	3.59 3.59	23.99 23.99	12A1848-7 12A1849-5	1.79 1.79	5.99 5.99	43.99
- 10	Olak	(7) NYLO	N INSU	LATED C	LOSED-END	CONNECTOR			
20-14	學》		E 6	10	-0	12A1850-3 12A1851-1	1.29 1.99	4.99 7.29	35.59 52.00

SMITH HEAVY DUTY CRIMPER. **BOLT SLICER, WIRE CUTTER** AND WIRE STRIPPER

00



Made of heavy gauge, heat treated steel. Insulated handles. Adjustable tension screw. Crimps insulated and non-insulated terminals. Strips and cuts wire sizes 10-22 AWG. Shears bolt sizes 4-40, 6-32, 8-32, 10-24 and 10-32, Shgs. wt. 2 lbs.
37A3431-1 - Model 5050 1-5 Each \$7.00 6 Up Each \$6.30 ...... \$7.00 6 Up Each ...... \$6.30



#### SMITH CRIMP TOOL AND TERMINAL KITS

Non-insulated terminal kit. Contains 200 popular assorted types, 18 styles. Packed in plastic box. Shpg. wt. 3 lbs. 37A3030-1 Type 4981. Each ..... \$11.95

Insulated Terminal Kit. 180 popular assorted types. 18 styles, vinyl insulated. 

#### TAP-OFF TERMINAL

Pierces through insulation of 10 to 18 stranded wire for solid electrical contact. Installs with pliers or crimp tool. Plug in terminal supplied to fit tap-off terminal. Simplest way to connect trailer lights to your auto, or use anywhere to make a connection to existing wiring Completely insulated. Shpg. wt. 6 pcs.—1 oz.

12A1852-9. Package of 6 for \$1.39
16 Packages For \$13.19



# PLUGS AND JACKS

#### "LITTEL PLUG" PHONE PLUGS



Fits standard  $\frac{1}{4}$ " phone jack, except Nos. S-250, S-260 and S-280 which have a .206" dia. sleeve for .210 jacks. No's. C-240, C-245 and C-270 have cable clamp. Shielded handles are nickel plated brass; others are molded plastic;  $\frac{1}{2}$ " long,  $\frac{1}{2}$ " dia. \*Screw terminals, others solder terminals. Shpg. wt. 2 ozs.

			2 CONDU	CTOR TYP	ES	billiana	mind build	
_ 207	TARREST STATE	1 29.499	E THE OWN	China State	No. of Street, or other Persons and Person		Prices Eac	
Fig.	Stk. No.	Mfg. No.	Handle	Each	2-9	10-24	25-49	50-99
100.5	128252-3	240*	Black	\$1.25	\$1.00	\$0.75	\$0.69	\$0.63
THE E	12B341-4	C-240*	Black	1.45	1.16	.87	.80	.73
Her	12B253-1	245*	Red	1.25	1.00	.75	.69	.63
100.0	12B342-2	C-245*	Red	1.45	1.16	.87	.80	.73
188 8	12A440-4	250	Black	1.20	.96	.72	.66	.60
9.30	12B111-1	S-250	Black	1.25	1.00	.75	.69	.63
1	12A441-2	255	Red	1.20	.96	.72	.66	.60
2	12B254-9	270*	Shield	1.75	1.40	1.05	.96	.88
2 2 2 2	12B343-0 12A442-0	C-270* 280	Shield	2.00	1.60	1.20	1.10	1.00
2	12B114-5		Shield				.94	.85
4	120114-3	S-280	Shield	1.70	1.36	1.02	.94	.85
			3 CONDU	CTOR TYP	FS			
100	12B336-4	260*	Black	2.00	1.60	1.20	1.10	1.00
1	12B337-2	S-260*	Black	2.70	2.16	1.62	1.49	1.35
1000	12A447-9	267	Black	1.75	1.40	1.05	.96	.88
1.0	12C169-9	269	Red	1.75	1.40	1.05	.96	.88
2 2	12B338-0	290*	Shield	2.30	1.84	1.38	1.27	1.15
2	12A448-7	297	Shield	2.20	1.76	1.32	1.21	1.10

#### SWITCHCRAFT "FLAT PLUGS"

1/4" phone plugs except S-230 is .206" dia. featuring flat, space-saving handles for use where conventional plugs protrude too far. No. 220 has adaptor clips to clamp standard phone tips. Nos. 228 and 238 are shielded, others have plastic handles.

			2 CONDU	CTOR TYP	ES		-	
Fig.	Stk. No. 12B203-6	Mfg. No. 220*	Handle Black	Each \$1.75	2-9 \$1.40	10-24 \$1.05	25-49 \$0.96	50-99 \$0.88
3 4	12B236-6 12B108-7	227 228	Black Shield	1.40	1.12	.84	.77	.70 .80
			3 CONDU	CTOR TYP	PES			
3 4	12A292-9 12C209-3 12C207-7	S-230* 237 238	Black Black Shield	2.70 2.10 2.25	2.16 1.68 1.80	1.62 1.26 1.35	1.49 1.16 1.24	1.35 1.05 1.13



Rugged jacks feature cable anchor. "1/6" 0.0. 2-5/32" long; 121 and 131 are ½ X 2½". All for ¼" plugs. \*Screw terminals, all others are solder terminals.

			2 CONDU	CTOR TYP	ES							
	Prices Each											
Fig.	Stk. No.	Mfg. No.	Handle	Each	2-9	10-24	25-49	50-99				
1	12C229-1	*08	Black	\$1.80	\$1.44	\$1.08	\$0.99	\$0.90				
1	12C282-0	88	Black	1.65	1.32	.99	91	83				
2	12C277-0	120*	Shield	2,40	1.92	1.44	1.32	1 20				
3	12C283-8	121	Shield	2.50	2.00	1.50	1.38	1 25				
2 3 3	12C284-6	128	Shield	2.20	1.76	1.32	1.21	1.20 1.25 1.10				
	120204-0	120	Silieiu	2.20	1.70	/1.32	1.21	1.10				
			3 CONDU	CTOR TYP	ES							
3	12C286-1	131	Shield	3.20	2.56	1.92	1.76	1.60				
100	12C278-8	830*	Black	2.40	1.92	1.44	1.32	1.60 1.20				
1	120263-0	838	Black	2.20	1.76	1.32	1.21	1.10				
2	12C280-4	1230*	Shield	3.10	2.48	1.86	1.71	1.55				
2	120265-5	1238	Shield	2.85	2.28	1.71	1.57	1.43				
	155500.0	1200	umeiu	2.00	2.20	1.11	1.01	1.70				

#### 4 THICK PANEL JACK

Standard 14'' phone jack with extra long threaded bushing for panels up to 114'' thick. Overall length 214'' x 56'' dia. Mounts in 136'' hole. Open circuit type Solder terminals.

Stk.No. 12B201-0 12B202-8	Mfg.No. 151 1528	Dia. 14"	Conductors 2	Each \$2.30 2.50	2-9 \$1.84 2.00	10-24 \$1.38 1.50	25-48 \$1.27 1.38	50-99 \$1.15 1.25
	.020			2.00	2.00	1.00	1.00	

#### SHIELDED PHONO JACKS & PLUGS



148

3501 FP chassis jack for front panel mount in  $\frac{1}{4}$ " hole up to  $\frac{1}{6}$ " thick. 3503 extension jack has shielded removable handle  $\frac{1}{24}$ " 0.D. with cable clamp. 3502 plug has cable clamp with  $\frac{1}{2}$ " 0.D. shielded removable handle.

Fig	Stock No. 12A195-4	Mfg. No. 3502	Each \$0.70	2-9 \$0.56	10-24 \$0.42	Prices Eac 25-49 \$0.39	50-99 \$0.35
2 3	12A196-2 12A415-6	3503 3501FP	.85	.68	.51	.47	.43

### "TINI PLUG" AND "TINI JAX" MINIATURE PLUGS & JACKS



"Tiny Plug" is 3/8" dia. X 1 5/8" overall length, 9/64" dia. finger. \*Screw terminal, others solder.

Fig. 1	Stk. No. 12B420-6 12B421-4 12B422-2 12B423-0 12B425-5	Mfg. No. 740* 745* 770* 750 780	Handle Black Red Shield Black Shield	Each \$1.15 1.15 1.60 1.10 1.55	2-9 \$0.92 .92 1.28 .88 1.24	10-24 \$0.69 .69 .96 .66	Prices Each 25-49 Ea. \$0.63 .63 .88 .61 .85	50-99 \$0.58 .58 .80 .55 .78
"Tini 2 2	Jax" Mount in 3 12B426-3 12B427-1	41	els up to 1/8" Open Circuit A Closed Circ	.65	.52	.39	.36	.33
Tini-	Extension Jax" 12A6038-0 D Jax". Bifurca	125 ted beryllium c	opper spring	2.00 s. Phenoli	1.60 housing.	1.20 Threaded	1.10 bushing for c	1.00 onven-
up to	mtg. Tip spring 16" thick. Depth 12A6040-6	terminals snap behind panel 142A	in P.C. boar	ds. Mount	on %" cen	ters in ¼	" dia. hole in	panels

"MICRO" PLUG AND JACK
Ultra-miniaturized version of Tini-Plugs above. Plug is  $1\frac{1}{4}$ " long,  $\frac{1}{4}$ " 0.D. with .097" dia. finger. Jack is  $\frac{1}{2}$ " long, mounts in  $\frac{1}{4}$ " hole on panels up to  $\frac{1}{4}$ " dia. Jack is closed circuit.

			12.5			<b>Prices Eac</b>		
Fig.	Stk. No.	Mfg. No.	Description	Each	2-9	10-24	25-49	50-99
100	12A287-9	850	Plug-Black	\$1.05	\$0.84	\$0.63	\$0.58	\$0.53
2	12A288-7	TR-2A	Jack	.80	.64	.48	.44	.40
	0)	S C CO PARTS					& Bungaro	

"LITTEL-JAX" PHONE JACKS

Small economical standard jacks. Mount in single 36'' hole, panels to 36'' thick. For 16'' plugs except S-11 and S-12B are .210" dia. Wt. 1 oz. 2 CONDUCTOR JACKS

Stk. No. 12A396-8	Mfg. No.	Schematic	Each \$0.70	2-9 Each \$0.56	10-24 Each \$0.42	25-49 Each \$0.39	50-99 Each \$0.35
12A347-1 12A397-6	S-11 12A	AB	.75	.60	.45	.41	.38
		3 CO	NDUCTOR				
12A398-4	12B	C	.85	.68	.51	.47	.43
12A340-6	S-12B	STEREO 3	1.15 CONDUC	TOR JACKS	.69	.63	.58
12A6039-8	14B	E	1.65	1.32	.99	.91	.83

SWITCHCRAFT HI-D JAX Smaller, compact phone jacks, mate with standard ¼" phone plugs. Molded body protects silver-plated springs. Mounts in ¾" 0.D. hole in panels up to 5/32" thick. Wt. 1 oz. 111, N-111, N-112A and 112A are 2 conductor, 112B, N-112B and 113B are 3 conductor. Nylon bushing for insulation of sleeve from mounting panel.

Stock No.	Mfg.	Schematic	Each	2-9 Each	10-24 Each	25-49 Each	50-99 Each
12A296-0	111 +	A	\$0.65	\$0.52	\$0.39	\$0.36	\$0.33
	N-111*	A	.85	.68	.51	.47	.43
12B352-1	112A N-112A*	В	.70	.56	.42	.47 .39 .50	.35
12A2873-4 12A353-9	N-112A-	B	.85 .70 .90 .75	.72	.54	.50	.45
12A2874-2	N-1128*	č	.95	76	.51 .42 .54 .45 .57	.41	48
12A362-0	113B	Ď	1.00	.60 .76 .80	.60	.55	.45 .38 .48 .50

ELECTRICAL SCHEMATICS FOR SWITCHCRAFT JACKS D CI

MILITARY PU-0558 PLUGS AND Military Type Plugs. Meets MIL specs. No. MIL-P-642A. High quality black plastic handle, with lug terminals attached internally with brass screws. Wt. 2 ozs.

 
 Shaft
 No.
 Prices Each

 Dia.
 Cond.
 Each
 2-9
 10-24
 25-49

 ¼"
 2
 \$2.10
 \$1.68
 \$1.26
 \$1.16

 206"
 3
 4.55
 3.64
 2.73
 2.50
 Stk.No. Type 12A6063-8 440 12A449-5 480 PJ-055B PJ-068

(3) Military Type Jacks. Conform to MIL-J-641A specs. Brass nickel-plated frame, with springs of special alloy of tempered nickel silver. C-12A closed circuit, others open. Shpg. wt. 1 oz.

Stock				No.			rices Eac	h		
No.	Туре	MIL No.	I.D.	Cond.	Each	2-9	10-24	25-49	50-99	
12B345-5	C-11	JJ-034	1/4"	2	\$1.05	\$0.84	\$0.63	\$0.58	\$0.53	
12B346-3	C-12A	JJ-089	1/4"	2	1.20	.96	.72	.66	.60	
12A451-1	C-12B	JJ-033	.210"	3	1.20	.96	.72	.66	.60	
				and a			10			
					THE REAL PROPERTY.	MATTER AND A CO.	20)		100	

"POWER-PLUG" AND "POWER-JAX"







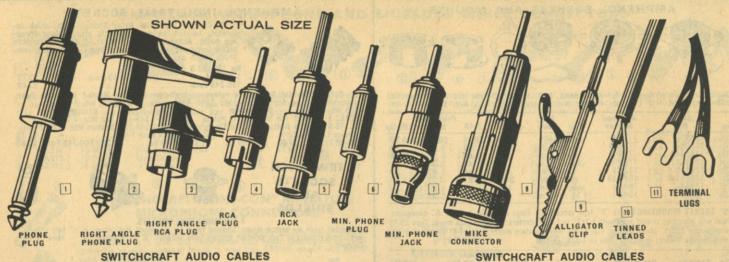
Miniature 2-Conductor Plug mates with power sockets of portable radios, tape recorders, etc. Part #760 has .218" O.D. with .100" I.D. center hole. S-760 same except .080" I.D. center hole.

Fig.	Stk.No. 12A6223-8	Mfg.No. 760	Handle Black	Each \$1.15	2-9 \$0.92	10-24 Ea. \$0.69	\$0.63	50-99 \$0.58
1	12A6225-3	S-760	Black	1.20	.96	.72	.66	.60

Power Jack for electrical equipment. 712A, 722A mate with 760 and S-760 above. 712A, 722A mount in 5/16" hole.

Fig.	Stk.No.	Mfg.No.	Each	2-9	10-24	25-49	50-99
	12A6227-9	712A	\$1.20	\$0.96	\$0.72	\$0.66	\$0.60
	12A6229-5	722A	1.20	.96	.72	.66	.60

# SWITCHCRAFT CABLES, CONNECTORS & ADAPTORS



#### SWITCHCRAFT AUDIO CABLES

High quality for hi-fi equipment, recorders, speaker extensions, etc. Connectors are molded in plastic directly to cable, with molded-in finger grip for easy removal. Chrome-gray wire. All shielded except \* which are unshielded and + which are clear vinyl.

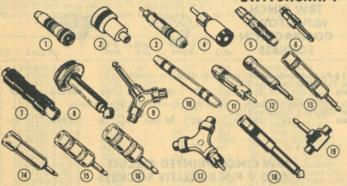
Stock No.	Switchcraft No.	Terminations End 1 End 2 Lgth.	1-9	Prices Each 10-24	25-49
12A6237-8 12A6238-6 12A6239-4	25AC25 25AF25 25AK25	4 4 1½ ft. 4 4 3 ft. 4 4 6 ft.	\$1.24 1.36 1.72	\$0.93 1.02 1.29	\$0.85 .94 1.18
12A6240-2 12A6241-0	25AN25 25AU25	4 4 10 ft. 4 4 25 ft.	2.40 4.24	1.80 3.18	1.65
12A6242-8 12A6243-6 12A6244-4	25AF82 25AK82 25AN82	4 4 10 ft. 4 4 25 ft. 4 5 3 ft. 4 5 6 ft. 4 5 10 ft. 4 5 25 ft.	1.52 2.04 2.40	1.14 1.53 1.80	1.05 1.40 1.65
12A6245-1 12A6247-7	25AU82 25AK30	4 3 6 ft.	4.24 1.72	3.18 1.29	2.92
12A6248-5 12A6249-3 12A6250-1	25AN30 25CK84 * 25AC84	4 3 10 ft. 4 10 6 ft. 4 10 1½ ft.	2.40 1.00 .88	1.80 .75 .66	1.65 .69
12A6251-9 12A6252-7	25AF84 25AK84	4 10 3 ft. 4 10 6 ft.	1.04	.78	.61 .72 .91
12A6253-5 12A6254-3 12A6255-0	25AN84 25AU84 25CK86*	4 10 10 ft. 4 10 25 ft. 4 9 6 ft.	1.88 3.88 2.08	1.41 2.91 1.56	1.29 2.67 1.43
12A6256-8 12A6257-6	25WN25*+ 25WT25*+		1.56 1.76 1.76	1.17 1.32 1.32	1.07 1.21 1.21
12A6258-4 12A6259-2 12A6260-0	25WN82*+ 25WT82*+ 25WN84*+	4 5 20 ft.	1.92 1.24	1.44	1.32
12A6261-8	25WT84*+	4 10 20 ft.	1.68	1.26	1.16

STOCK	SWILCIICIA		IIIIations			TITLES LUCII	
No.	No.	End 1	End 2	Lgth.	1-9	10-24	25-49
12A6263-4	15AK15	2	2	6 ft.	\$3.08	\$2.31	\$2.12
12A6264-2	15AK25	2	4	6 ft.	2.32	1.74	1.60
12A6265-9	15AK30	2	3	6 ft.	2.32	1.74	1.60
12A6266-7	05AK05	1	1	6 ft.	3.08	2.31	2.12
12A6267-5	05AN05	1	1	10 ft.	4.24	3.18	2.92
12A6268-3	05AU05	1	1	25 ft.	5.60	4.20	3.85
12A6269-1	05AK25	1	4	6 ft.	2.32	1.74	1.60
12A6270-9	05AN25	1	4	10 ft.	3.28	2.46	2.26
12A6271-7	05AK82	1	5	6 ft.	2.56	1.92	1.76
12A6273-3	05CT86 *	1	5 9	20 ft.	3.60	2.70	2.48
12A6274-1	30AC30			11/2 ft		.87	.80
12A6275-8	30AF30	3	3	3 ft.	1.36	1.02	.94
12A6276-6	30AK30	3 3 3 3	3 3 3 3	6 ft.	1.68	1.26	1.16
12A6277-4	30AN30	3	3	10 ft.	2.32	1.74	1.60
12A6278-2	40DK05	1	6	6 ft.	3.28	2.46	2.26
12A6279-0	40DK25	4000	6	6 ft.	2.96	2.22	2.04
12A6280-8	40DK83	6	In R.7 mos:	6 ft.	3.28	2.46	2.26
12A6281-6	30AF84	3 3	10	3 ft.	1.08	.81	.74
12A6282-4	30AK84	3	10	6 ft.	\$1.32	.99	.91
12A6283-2	25FF25	two 4's	two 4's	3 ft.	3.88	2.91	2.67
12A6284-0	25FK25	two 4's	two 4's	6 ft.	4.48	3.36	3.08
12A6285-7	25FN25	two 4's	two 4's	10 ft.	5.40	4.05	3.71
12A6286-5	25FF84	two 4's	two 10's	3 ft.	3.44	2.58	2.37
12A6287-3	25FK84	two 4's	two 10's	6 ft.	3.88	2.91	2.67
12A6288-1	25FN84	two 4's	two 10's	10 ft.	4.48	3.36	3.08
12A6289-9	40DK40	6	6	6 ft.	2.24	1.68	1.54
12A6290-7	87AU87	8	8	25 ft.	6.00	4.50	4.13
				1000000		1,00	1.10

#### SWITCHCRAFT SHIELDED ADAPTORS

12A6233-7 12A6234-5

25CN85 25CU85



Adaptors to interconnect components that do not have mating Jacks or plugs. Positive mating contacts prevent resistive line losses. Nickel plated finish.  $1\%_6"$  long,  $1\%_2"$  diameter. Wt. 5 ozs.

		D1 -/32 011		0 020.				
		Stk. No.	Туре	Input	Output	1-9	Prices Each 10-24	25-49
	1	12B225-9	332A	Phone Jack	Female Mike Conn.	\$2.00	\$1.50	\$1.38
	8	12B226-7	334A	RCA Jack Conn.	Female Mike Conn.		1.29	1.18
	3	12B227-5	336A	Phone Jack	RCA Plug Conn.	2.00	1.50	1.38
	0	12B228-3	338A	Male Mike Conn.	RCA Plug Conn.	1.32	.99	.91
	0	12A6011-7	336B	Phone Jack	RCA Jack	2.00	1.50	1.38
		128230-9	345A	RCA Jack	Phone Plug	1.52	1.14	1.05
	0000	128238-2	349A	RCA Jack	RCA Jack	1.28	.96	.88
	8	12A6022-4	44	Male Mike	Phone Plug	.64	.48	.44
	Ö	12A6052-1	330PJ	Two RCA Jacks	Phone Plug	2.40	1.80	1.65
	00	12A6053-9	361	Phone Jack	Phone Jack	2.68	2.01	1.84
				Min. Phone Jack	RCA Plug	1.80		
	00	12A6054-7	365		Min. Phone Plug	1.40	1.35	1.24
	9	12A6055-4	370	RCA Jack	Min. Phone Plug		1.05	.96
	10	12A6056-2		Phone Jack		2.04	1.53	1.40
	1		375	RCA Jack	Micro Plug	1.84	1.38	1.27
	(13)	12A6058-8	376	Min. Phone Jack	Micro Plug	1.84	1.38	1.27
	1	12A6059-6	377	Micro. Jack	Min. Phone Plug	1.84	1.38	1.27
	(H)	12A6202-2		Two RCA Jacks	RCA Plug	2.08	1.56	1.43
1	1	12A6203-0	364A	Min. Phone Jack	Phone Plug	1.80	1.35	1.24
1	19	12A6201-4	378	Min. Phone Plug 2	Min. Phone Jacks	2.40	1.80	1.65

A.	N N	0	A P	
11	1918	111	6 11 (1.	Poll
000	00 00	0000	18 2 C	100.
Stk. No. 1) 12A6291-5	Type Input 330F1 RCA plug	Output Two RCA jacks	1-9 Prices 10-2 \$2.40 \$1.8	4 25-49
② 12A6292-3 ③ 12A6293-1	330F2 RCA plug 330F3 RCA plug	One RCA plug & 1 jack Two RCA plugs	2.40 1.8 2.40 1.8	0 1.65 0 1.65
① 12A6294-9 ⑤ 12A6295-6	330T3 Min.Phone Plug 330H European 3 pir	Two RCA jacks	2.40 1.8 3.92 2.9 3.80 2.8	4 2.70
® 12A6296-4 ® 12A6297-2	330C European 5 pin 330G European 5 pin	4 RCA jacks	6.72 5.0	4 4.62
SWITCH	CRAFT MULT	IPLE PLUGS &	RECEPT	ACLES



Small plugs and receptacles. Mate with input and output jacks on many foreign built tape recorders and radios including Norelco, Sony, Uher, Telefunken, Korting, Dual, Kuba, etc. Shpg. Wt 2 oz. \*Indicates female connectors. 57GB5F mates with 3 or 5 pin 180° plugs.

	Stock	Mfg.	No.	Pin and			Prices Ea	ch
	No.	No.	Pins	Diagram	Shell	1-9	10-24	25-49
1	12A6204 -8	01QK2M	2 -	A	Gray plastic	\$0.48	\$0.36	\$0.33
(2)	12A6205 -5	02QK2F*	2	E	Gray plastic	.56	.42	1.24
1003	12A6208-9	05BL3M	3	BC	Metal	1.80	1.35	1.24
(3)	12A6209-7	05BL5M	5	C	Metal	1.96	1.47	1.35
3	1246210-5	12BL5M	5	D	Metal	1.96	1.47	1.35
1	12A6185-9	05GM3M	3	BCD	Gray plastic	1.28	.96	.88 .99 .99
1	12A6187-5	05GM5M	5	C	Gray plastic	1.44	1.08	.99
0	12A6186-7	12GM5M	5	D	Gray plastic	1.44	1.08	.99
(3)	12A6235-2	09CL4M	4	Stand House	Metal	2.85		1.71
(3)	12A6236-0	12CL5M	5	D	Metal	2.95	2.36	
6	12A6206-3	57GB5F*	3 or 5	F	Metal	.96	.72	.66
1	12A6207-1	61GA5F*	5	G	Metal	.96	.72	.66
Lai	rge Elect	ronic Pa	rts Inv	entory				149

Off-The-Shelf Delivery From B-A's Large Electronic Parts Inventory

# Amphenol & TRW SOCKETS & ACCESS.



Quality engineered sockets for every need. MIP, RS and S type are black phenolic, RSS is steatite. MIP type has molded-in steel mounting plate. Avg. shp. wt. 1 oz.

	Stock	Amphenol	nol Mtg.				Prices Each		
Fig.	No.	Number	Pins	Hole	1-5	6-49	50-99	100 Up	
(1)	12A93-1	77MIP4	4	13/16"	\$0.45	\$0.35	\$0.29	\$0.26	
(1)	12A98-0	77MIP8	8	13/16"	.49	.38	31	.28	
(1)	12A1440-3	77MIP9	9	13/16"	.52	.40	.31	.30	
(1)	12A1441-1	77MIP11	11	13/16"	53	41	.34	.28 .30 .31 .37	
(2)	12A110-3	78-RS8	8	11/4"	.53	.41	.40	.37	
(2)	12A117-8	49-RSS8	8	11/4"	2.04	1.57	1.31	1.17	
(3)	12A54-3	78-S8	8	13/16"	.48	.36	27	.25	
(2) (2) (3) (3)	12A57-6	78-S11	11	13/16"	.56	.43	.37	.25	

"S" SOCKET MOUNTINGS. Fits "S" type sockets. CP Plugs and 61M and 61F AC connectors. Steel mtg. plate has slotted holes with 1-1/2" to 1-7/8" centers. Above surface mount Type 23-1S raises socket 13/16" above surface, 1-3/4" dia. Below surface mount Type 61-61 extends 1-3/16" below surface. Mounts in 1-7/16" hole on 1-3/4" centers.

				Pri	ces Each	
Fig.	Stock No.	Description	1-5	6-49	50-99	100-Up
(1)	12A66-7	Mounting Plate	.14	.11	.09	.08
9	12A67-5	Above Surface Shell	.40	.11 .31 .20	.09 .26 .17	.08 .23 .16
0	12A70-9	Below Surface Shell	.26	.20	.17	.16
		A PARTY DE				

#### **AMPHENOL** MINIATURE CONNECTORS



Any plug in this group mates with any socket with same number of plns. 78 series mount in 5%" hole with push-on spring ring. Can be chassis mounted or wired to cable. 7-pln sockets fit 7-pin miniature tubes. Avg. shpg. wt. 5 ozs. per 20. Fig. 3 and 3 are \$%" dia., 13%" long cadmium plated brass. Fig. 3 is shielded chassis socket. Avg. shpg. wt. ½ ozs.

						s Each				
Fig.	Stk. No.	Туре	Pins	1-5	6-49	50-99	100-Up			
1	12A140-0	78-S3S	3	.26	.21 .30 .32 .35 .34 .31 .30 .34 .71	.17	.15			
Ö	12A141-8	78-\$4\$	4	.39	.30	.25	.23			
Ö	12A125-1	78-S5S	-5	41	.32	.27	.24			
Ö	12A118-6	78-S6S	6	.44	.35	.29	.25			
0	12A138-4	86-CP3S	3	.26 .39 .41 .44 .43 .40 .39	.34	.28	.25			
8	12A139-2	86-CP4S	4	.40	.31	.26	.24			
Ö	12B171-5	71-58	5	.39	.30	.25	.22			
8	12B172-3	71-6S	6	.45	.34	.29	.25			
8	12A148-3	91-MPF3L	3	.86	.71	.57	.50			
8	12A149-1	91-MPF4L	4	.93	.71	.60	.53			
Ö	12A142-6	91-MPM3L	3	.86 .93 .71 .79	.54	.46	.41			
0	12A143-4	91-MPM4L	4	.79	.63	.53	.45			
0	12B22-0	91-MPM5L	5	.79	.63	.53 .53 .57	.15 .23 .24 .25 .25 .24 .22 .25 .50 .53 .41 .45			
000000000000000000000000000000000000000	12B23-8	91-MPM6L	6	.79 .81	.54 .63 .63	.57	.51			

#### AMPHENOL STANDARD CONNECTORS





"CP" plugs made of black bakelite, for chassis mounting, fits  $13'_4$ " hole. PM and PF connectors are molded black bakelite with steel shell. Rubber grommet in hole. Avg. shpg. wt. 1 oz.

0.000	PROFESSION OF	00 to 100	2.56	Prices Each				
Fig.	Stk. No.	Туре	Pins	1-5	6-49	50-99	100-Up	
(1)	12A58-4	86-CP4	4	.52	.40	.34	.30 .33 .50	
(1)	12A63-4	86-CP8	8	.56	.44	.34 .37 .58	.33	
(2)	12A80-8	78-PF4	4	.83	.62	.58	.50	
(2)	12A82-4	78-PF6	6	.88	.68	.64	.56	
(2)	12A85-7	78-PF8	8	.78	.60	.56	.49	
121	12A86-5 12A87-3	78-PF9 78-PF11	11	.83	70	.60	.49 .53 .57	
131	12A72-5	86-PM4	4	.93	72	.67		
(3)	12A74-1	86-PM6	6	.97	.75	.67 .69 .71 .72	.61	
(3)	12A77-4	86-PM8	8	.98	.75	.71	.62	
(2) (2) (2) (2) (3) (3) (3)	12A78-2	86-PM9	9	.99	.77	.72	.59 .61 .62 .63	
(3)	12A79-0	86-PM11	11	1.00	.78	.73	.64	

#### POMONA ELECTRONICS SURFACE MOUNTED BREADBOARD SOCKET

For experimental circuit design. Insulated base prevents shorts. Connections are numbered on base for easy identification.



		STATE OF SECULAR PROPERTY.	
Octal. Type XS-8	50-99	100-249	\$1.29
No. 1245041-5 1-49 Fa	\$1.69 Each \$1.59	Each	



#### TRW CINCH AC SOCKET

#### AMPHENOL INDUSTRIAL SOCKETS



① 11-Contact Industrial Relay Socket. High, thick insulating barriers between contacts provide long creepage paths. Rated 600 volts RMS at 10 amps. reversible screw terminals with 4 threaded brass insert tie points. Shpg. wt. 8 oz.

No. 12C152-5. Amphenol 146-817	
1-49 Each \$4.52 50-99 Each	\$3.78
100-249 Each	\$3.40

@ Octal Industrial Socket © Octal Industrial Socket for relays or high-power tubes, Molded melamine base, reversible screw terminals, Rated 1250 RMS volts at 5 amp. Wt. 5 ozs.

Stk. No. Type Description | Stc. No. Type Descr

#### TRW CINCH SOCKETS AND SHIELDS







7-PIN MINIATURE SOCKETS
Unshielded types are bottom mount. Shielded types are top mount. Both mount in %" hole with % mtg. center. Letters in Type numbers indicate body material: "B" — Bakelite, "M" — Mica, "C" — Ceramic.

Fig.	Stk. No.	Туре	1-5	6-24	Prices Each 25-49	50-99	100-249
1 2	12A5007-6	7EB	\$0.28	\$0.19	\$0.18	\$0.15	\$0.14
	12A5008-4	7EM	.29	.22	.18	.16	.14
	12A5009-2	7XB1	.37	.29	.22	.19	.17
	12A5011-8	7XC	.91	.70	.60	.50	.45

(2) THE	CHILL D COD	7 DIN BAINLA	THE COCKETS
(3) TUBE	SHIELD FUR	1-PHA MINIMIA	TURE SOCKETS

al abialds with "I Slat" for locking on to base. Tube holding spring in tor

Durable steel sni	elos Mith a	-2101 101 101	cking on to	nase. Tune i	indianid shiming	in toh.	
Stk.					Prices Each		
No.	Tyne	Size	1-5	6-24	25-49	50-99	100-249
12A5026-6	Type 7S3	134" L	\$0.52	\$0.40	\$0.31	\$0.26	\$0.24
12A5046-4	754	21/4" L	.66	.51	41	.37	.29
12M3U4U-4	104	Z 74 L.	.00	.31	.41	.37	.23

9-PIN MINIATURE SOCKETS
Unshielded type are bottom mount, shielded type are top-mount. Mounts in 34" hole with 11%" mtg. center "B" — Bakelite, "M" — Mica, "C" — Ceramic.

Fig. (1) (2) (2) (2)	Stock No. 12A5012-6 12A5013-4 12A5014-2 12A5015-9	Type 9EB 9EM 9XB 9XM	1-5 \$0.29 .36 .44 .47	6-24 \$0.23 .28 .34 .36	25-49 \$0.18 .21 .29 .31	50-99 \$0.17 .20 .26 .25	100-249 \$0.15 .19 .23 .22 .33
(2)	12A5016-7	9XC	.74	.57	.46	.38	.33
		(3) TUBE	SHIELD	FOR 9-PIN MINIATURE	SOCKETS	3	

Double steel shields with "J-Slot" for locking on to hase Tube holds
No. Type Size 1-5 6-24 Type 100-249 12A5027-4 12A5047-2

#### TRW CINCH **NUVISTOR &** COMPACTRON SOCKETS





#### TRW CINCH PRINTED CIRCUIT **7 AND 9 PIN BAKELITE SOCKETS**

Stock	Cinch	1-5	6-24	25-49	50-99	100-249	
No.	No.	Each	Each	Each	Each	Each	
12A5035-7 12A5034-0	7PC-B 9PC-B	\$0.24	\$0.19	\$0.16	\$0.14	\$0.13 .14	1999

#### **NU-WAY SNAP CONNECTORS**

For Permanent or Temporary Circuits Permits quick simple connection of wires, Nickel plated brass. Terminals snop together making positive contact. Any number of snaps can be pyramided together for multiple connections (as shown at right). Shpg. wt. 2 oz.

1) Snaps— Snaps together or to studs below.
With crimp-on solder lug.

With crimp-on solder lug. 12A642-5. Ea. 29' 100 For. \$12.49 1 M For. \$99.40

§ Studs— Use with snaps above. Mounts in chossis or panel. Size 6-32 x ½" long. 12A643-3. Ea. 25' 100 For. \$8.29 1 M For. \$66.00



# PLUGS, JACKS AND CONNECTORS

#### AMPHENOL MICROPHONE AND SHIELDED CABLE CONNECTORS

















Standard single contact pressure type connectors with %-27 male or female thread as illustrated. Made of brass, chrome plated. Type 75-MCIF has a removable coupling ring (see inset) and will mate with both male and female fittings. Shpg. wt. 1 oz.

Description Univ. Male or Female Male Chassis ¼" Adapter

Prices Each 6-49 50-99100-249 51.02 \$0.85 \$0.74 .70 .60 .50 .99 .82 .71

Type 80MC2M 80MC2F 80MC2F 80PC2F 91-MC4M 91-MC4F 91-PC4F 91-CCC-3 Description
Male, Cable
Female, Cable
Female, Chassis
Male, Cable
Female, Cable
Female, Chassis
Dust Cover for S

Each 50-99 100-249 \$0.96 \$0.83 1.03 89 .82 71 1.27 1.09 1.28 1.11 .85 74 .55 .46



#### SWITCHCRAFT "MINI-CON" MINIATURE MICROPHONE CONNECTORS

About  $\frac{1}{2}$  the size of standard microphone connectors. Accepts single conductor shielded cables up to  $3/16^\circ$  0.D. Nickel plated brass bodies. Coupling ring on 5501F removable for guick change of female to male type. 5501MP mounts back side of

removable for quick change panel in 3/16" dia hole.

(1) No. 12A2857-7, 5501F. Univ. Male or Female Connector 1.9 Ea. \$1.00 10-24 Ea. 60° 25-49 Ea. (2) No. 12A2858-5. 5501MP. Panel Connector Male. 1.9 Ea. 80° 10-24 Ea. 48° 25-49 Ea.

RCA TYPE PHONO CONNECTORS

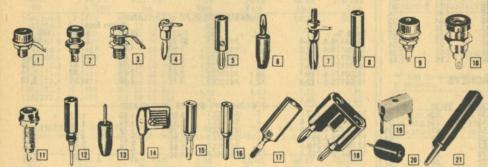
FOR MORE PHONO **PLUGS AND JACKS SEE PAGE 148** 







#### BANANA & PHONE TIP PLUGS & JACKS



MANUFACTURERS ABBREVIATIONS USED BELOW: HS for Herman H. Smith, EJ for E. F. Johnson, Shpg. wt. 2 oz. DESCRIPTIVE ABBREVIATIONS: BP for banana plug, BJ for banana jack, TP for tip plug, TJ for tip jack, and I for insulated. All jacks will mount in panels up to %" thick except HS240 (to %").

Please specify both B-A Stock number and color, Avg. shpg. wt. 12 ozs. per 100.

Fig.	Stock No.	Mfg. Type	Mtg. Hole	Overall Length	Color	Description	1-5 Each	6-99 Each	100-499 Each	500 Up Each
	12-01048-4-002-6	HS205	5/16"	21/32"	Red	BJ, Insulated Head	\$0.29	\$0.22	\$0.20	\$0.18
	12-01048-4-010-9	HS205	5/16"	21/32"	Black	BJ, Insulated Head	.29	.22	.20	.18
2 1	12-00681-3-002-6 12-00681-3-010-9	EJ108 EJ108	21/64"	15 /16"	Red Black	BJ, I, Nylon 900 Series BJ, I, Nylon 900 Series	.19	.15	.13	11
	12-01047-6	HS109	1/4"	5/8"	NP	BJ. Brass Nickel Plate	.27	.21	.19	.17
	2-01046-8	HS100	74	1-1/32"	NP	BP. Bronze NP 6/32 Screw	.47	.36	.33	.30
	2-01042-7-002-6	HS204		111/16"	Red	BP. I. Solderless Screw	.43	.33	.30	27
	2-01042-7-010-9	HS204		111/16"	Black	BP, I, Solderless Screw	.43	.33	.30	.27 .21 .21
6 1	12-00682-1-002-6	EJ108		13%"	Red	BP, I, Nylon 300 Series	.36	.28	.23	.21
	12-00682-1-010-9	EJ108		13%"	Black	BP, I, Nylon 300 Series	.36	.28	.23	.21
	12-01044-3	HS103		1-11/32"		BP, Brass NP 6/32 Thread	.42	.32	.29	.26 .27 .27
	12-00901-5-002-6	HS211		15%"	Red	BP, I, Solder or Solderless	.43	.33	.30	.27
	12-00901-5-010-9	HS211	5/16"	15/8"	Black	BP. I. Solder or Solderless	.43	.33	.30	.21
	12-01058-3-002-6 12-01058-3-010-9	HS202 HS202	5/16"	1-1/64"	Red Black	TJ, I, Phospher Bronze Cont. TJ, I, Phosphor Bronze Cont.	.34	.26	.24	.22
	2-01058-3-010-9	EJ105	1/4"	11/16"	Red	TJ. I. Nylon 800 Series	.19	.15	.13	12
	12-00694-6-010-9	EJ105	1/4"	11/16"	Black	TJ. I. Nylon 800 Series	.19	.15	.13	12
	2-01049-2-002-6	HS206	1/4"	1-11/32"	Red	TJ & BJ, I, Combination	.46	.35	.32	.12
	2-01049-2-010-9	HS206	1/4"	1-11/32"	Black	TJ & BJ, I, Combination	.46	.35	.32	.29
	2-01050-0-002-6	HS200		21/4"	Red	TP. I. Solderless	.36	.28	.25	.23
	12-01050-0-010-9	HS200		21/4"	Black	TP, I, Solderless	.36	.28	.25	.23
13 1	12-00719-1-002-6	EJ105		17/16"	Red	TP, I, Nylon 300 Series	.28	.22	.19	.16
13 1	12-00719-1-010-9	EJ105		17/16"	Black	TP. I. Nylon 300 Series	.28	.22	.19	.16
	2-01055-9-002-6	HS235		11/4"	Red	TP, I, Meter Type	.51	.39	.35	.32
	12-01055-9-010-9	HS235		11/4"	Black	TP, I, Meter Type	.51	.39	.35	.32
	12-00905-6-002-6 12-00905-6-010-9	HS295 HS295		113/16"	Red Black	BP. I. Solderless BP. I. Solderless	.61	.47	.42	.38
	12-01085-6	HS158		15/16"	NP	Std. Phone Tip. NP Brass	.05	.04	.03	.02
	2-01003-0	HS324		134"	Red .	BP. I. Solderless Stackable	.83	.64	.58	.52
	2-00997-3-010-9	HS324		134"	Black	BP. I. Solderless Stackable	.83	.64	.58	.52
	2-00996-5-002-6	HS210		134"	Red	Double BP. I. Solderless		MINE	J 17. B	12
						Stackable	1.44	1.11	1.00	.90
18 1	12-00996-5-010-9	HS210		13/4"	Black	Double BP, I, Solderless		J 4 33	10 TO 10 TO 10	Strate.
					4 1	Stackable	1.44	1.11	1.00	.90
19 1	12-06077-8-002-6	EJ105		4/10"	Red	Horizontal Jack, I, 750 Series	.14	.11	.08	.07
	12-06077-8-010-9	EJ105	050"	4/10"	Black	Horizontal Jack, I, 750 Series	.14	.11	.08	.07
20 1	12-06078-6-002-6	EJ105	.052"	5 /16"	Red	Vertical Jack, I, 850 Series	.19	.15	.13	.12
	12-06078-6-010-9 12-06079-4-002-6	EJ105 EJ105	.052"	5 /16" 3/8"	Black Red	Vertical Jack, I, 850 Series TP, I, 770 Series	.19	.15	.13	.12
	12-06079-4-010-9	EJ 105		1/8"	Black	TP. I. 770 Series	.28	.23	.19	.17

#### **AC RECEPTACLES AND PLUGS**



#### 1) SWITCHCRAFT AC RECEPTACLE

Recessed power receptacle for use on business machines, test equipment, computers and appliances. Rugged molded plastic housing. Mates with Belden cord shown below or European AC cord sets. Mounts in a rectangular 11 % X 13 %6" hole and two 16" dia. holes. Rated 6 amp 250 VAC. Ut. and CSA listed.

•	Hated o amp 250 vAo. Or and con listed.	
1	No. 12A2856-9 EAC-301 1-9 Each	\$1.45
١	10-24 Each 87° 25-49 Ea	. 80°
1	50-99 Ea 73° 100-249 Ea	. 58

### (2) BELDEN AC LINE CORD

71/2' 18/3 Black SVT. Meets CSA specifications	and	UL	listed.	Rated
10 amps. 125 VAC. Shpg. wt. 8 oz No. 41A446-6. Type 17250. Each				\$2.60
10 Fa \$2.05 100 Fa				

### **3 AMPHENOL AC RECEPTACLE**

	gh dielectric black b		rated 15 A.	110
No. 12A354	in 1º/6" hole on 1½ -7 Type 61-MIP-61F	mtg. ctrs.		80.
	63°			

#### AMPHENOL POLARIZED **AC CONNECTORS**





UL listed for home appliances and power tools. Third prong grounded Made of Type 6 Nylon, contacts and ground prong are copper alloy. Caps are cad, plated steel, mounting plate is nickel plated steel. Rated at 15 amp, 125 V. Type 160-2 receptacle mounts in 1-9/32" hole, has 1½" mtg. centers. Cable type are 1%" long with cable clamp, less prongs Aug shop, wt 2 are

less	prongs. Avg. shp	g. wt. 2 ozs.	1-5	6-49	50-99
Fig.	Stk. No.	Type	Each	Each	Each
1	12A2495-6	Type 160-2N MIP Recept.	\$1.79	\$1.41	\$1.19
1	12A2496-4	160-3N MIP Plug	2.49	1.95	1.63
2 3	12A2497-2	160-9N Plug	2.52	1.98	1.64
3	12A2498-0	160-8N Socket	2.01	1.58	1.32

# **W** CINCH CONNECTORS













#### TRW CINCH "JONES" SERIES 300 CONNECTORS

Small in size with good separation between contacts, black molded phenolic insulation rated at 730 RMS volts. 302 numbers below have  $^{2}1/2^{\prime\prime}$  dia. case, all others are rectangular. Plug prongs  $\frac{1}{2}2^{\prime\prime}$  wide x  $\frac{1}{2}4^{\prime\prime}$  thick

Specify B-A Stock No. and Type No. when ordering.

300	SERI	ES P	LUGS	&	SOCKETS
C	ABLE	TYPE	WIT	H	CLAMP

	CAB	LE TYPE	WITH (	CLAMP		
Stock No. 12-00179-8-102-4 12-00179-8-103-2 12-00179-8-104-0	Cont. 2 3 4 6 8	Type No. P302CCT P303CCT P304CCT	1-24 \$0.87 .97	Prices 25-49 \$0.69 .78 .81	50-99 \$0.58 .62 .67	100-249 \$0.48 .52 .54 .60
12-00179-8-106-5 12-00179-8-110-7 12-00179-8-110-7 12-00179-8-112-3 12-00179-8-115-6 12-00179-8-121-4	6 8 10 12 15 18 21	P306CCT P308CCT P310CCT P312CCT P315CCT P318CCT P321CCT	1.12 1.25 1.36 1.46 1.95 2.28 2.71	.92 1.00 1.08 1.18 1.56 1.82 2.19	.78 .84 .92 1.00 1.33 1.53 1.82	.66 .76 .80 1.04 1.24 1.45
12-00179-8-124-8 12-00179-8-127-1 12-00179-8-130-5 12-00179-8-133-9	24 27 30 33	P324CCT P327CCT P330CCT P333CCT	3.19 3.65 4.10 4.54	2.55 2.90 3.27 3.63	2.15 2.43 2.73 3.03	1.73 1.95 2.20 2.43
12-00179-8-202-2 12-00179-8-203-0 12-00179-8-206-3 12-00179-8-206-3 12-00179-8-218-9 12-00179-8-212-1 12-00179-8-215-4 12-00179-8-218-8	2 3 4 6 8 10 12 15 18	\$302CCT \$303CCT \$304CCT \$306CCT \$308CCT \$310CCT \$312CCT \$315CCT \$315CCT	.89 .99 1.03 1.20 1.34 1.51 1.72 2.18 2.46	.74 .79 .84 .97 1.05 1.22 1.36 1.76	.60 .63 .69 .80 .89 1.01 1.11 1.45 1.64	.50 .53 .55 .62 .74 .81 .91 1.14
12-00179-8-221-2 12-00179-8-224-6 12-00179-8-227-9 12-00179-8-230-3 12-00179-8-233-7	21 24 27 30 33	\$321CCT \$324CCT \$327CCT \$330CCT \$333CCT	2.90 3.36 3.81 4.30 4.74	2.33 2.70 3.05 3.45 3.80	1.95 2.25 2.56 2.88 3.19	1.55 1.80 2.04 2.30 2.55

#### CHASSIS TYPE WITH ANGLE BRACKETS

OII	10010	Marian III and the h				
12-00180-6-102-4 12-00180-6-103-2 12-00180-6-104-0 12-00180-6-106-5 12-00180-6-108-1 12-00180-6-110-7 12-00180-6-112-3 12-00180-6-118-0 12-00180-6-118-0 12-00180-6-124-4 12-00180-6-124-8	2 3 4 6 8 10 12 15 18 21 24	(3) F P302AB P303AB P304AB P304AB P306AB P310AB P312AB P315AB P318AB P321AB P324AB	.45 .50 .54 .66 .77 .86 .97 1.29 1.53 1.91 2.30	.34 .37 .45 .54 .60 .67 .78 1.02 1.24 1.53 1.84	.31 .33 .36 .47 .52 .58 .62 .86 1.02 1.29	.27 .29 .31 .35 .44 .48 .52 .67 .83 1.02 1.25
12-00180-6-202-2 12-00180-6-203-8 12-00180-6-204-8 12-00180-6-206-3 12-00180-6-208-9 12-00180-6-210-5 12-00180-6-215-1 12-00180-6-218-8 12-00180-6-221-2 12-00180-6-221-2 12-00180-6-221-2	2 3 4 6 8 10 12 15 18 21 24	(4) SI S302AB S303AB S304AB S306AB S308AB S312AB S312AB S312AB S318AB S321AB S324AB	.47 .52 .56 .73 .86 1.00 1.18 1.49 1.72 2.09 2.48	.36 .44 .47 .56 .68 .80 .93 1.20 1.36 1.71 1.98	.32 .34 .37 .50 .58 .67 .80 1.00 1.12 1.39	.28 .30 .32 .37 .48 .54 .62 .80 .92 1.10

#### SERIES 202 PLUGS AND SOCKETS

Polarized, nickel plated two-conductors, ideal for mike and speaker connections. Knurled nut screws on to matching unit for positive locking connection. P202CCT mates with S202CCT-THR and S202B. Specify Stock No. and Type No. when ordering.

opening orden inc. and	. Ibe					
		Type		Price	es Each	
Stock No.	Fig.	Type No.	1-24	25-49	50-99	100-249
12-00181-4-001-8	(1)	P202CCT	\$1.54	\$1.22	\$1.04	\$0.83
12-00181-4-002-6	(1)	S202CCT	1.57	1.25	1.05	.84
12-00181-4-003-4	(2)	S202CCT-THR	2.06 1.85	1.67	1.38	1.09
12-00181-4-004-2	(3)	S202B		1.51	1.25	1.01
12-00181-4-005-9	(3)	P202B (MALE)	1.96	1.60	1.36	1.08

SCREW TERMINAL STRIPS WITH SOLDER LUGS
Solder coated brass terminals, .136" dia, mtg. holes, Strips
with 1 to 6 lugs are of 1/4" phenolic; 7 to 10 terminals
mounted on 1/4" phenolic. Ends of screws captivated to prevent removal. Terminals spaced on 1/4" centers. Avg. shpg.

Stock No. 12A1510-3 12A4511-1 12A1512-9 12A1513-7 12A1514-5 12A1516-0	Type & Lugs 17-2 17-3 17-4 17-5 17-6 17-8	Fact. Part No. 321 11 02 013 321 11 03 011 321 11 04 005 321 11 05 003 321 11 06 001 321 11 08 001	Mtg. Ctrs. 15 /16" 13/4" 23 /16" 25/8" 31 /16" 315 /16" 413 /4."	1-24 \$0.19 .23 .30 .35 .43 .58	Price: 25-49 \$0.17 .19 .25 .27 .35 .48	50-99 \$0.15 .17 .21 .24 .30 .40	100-24 \$0.1 .1 .1 .2 .2 .3
12A1518-6	17-10	321 11 10 001	413/16"	.85	.64	.55	

#### CABLE TYPE WITH CLAMP-LOCKING

Stock No. 12-00183-0-102-4 12-00183-0-104-0 12-00183-0-106-5 12-00183-0-108-1	Cont. 2 4 6 8	(5) PLUGS W Type No. P302CCT-L P304CCT-L P306CCT-L P308CCT-L	1-24 \$1.07 1.24 1.36 1.44	Prices 25-49 \$0.87 .99 1.08 1.14	50-99 \$0.74 .83 .91	100-249 \$0.58 .63 .74 .79
12-00183-0-202-2 12-00183-0-204-8 12-00183-0-206-3 12-00183-0-208-9	2 4 6 8	6) SOCKETS V S302CCT-K S304CCT-K S306CCT-K S308CCT-K	1.09 1.26 1.39 1.54	.89 1.01 1.10 1.25	.77 .84 .93 1.03	.59 .66 .77 .84

#### SERIES 400 CONNECTORS



400 Series. Heavy duty polarized connectors for high power applications. Rated 1200 RMS volts at 15 amps. Cadmium plated brass. Plug prongs are ¼" wide and ¼" thick. CCT rectangular caps are black wrinkle with fibre lining. Average shpg. wt. 6 ozs. Specify B-A Stock No. and Type No. when ordering.

(1)	CABL	ETYPE	PLUG	WITH	CLAMP

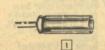
	200	Туре		Prices	Fach	
Stock No.	Cont.	No.	1-24	25-49	50-99	100-249
12-00176-4-102-4	2	P402CCT	\$1.73	\$1.38	\$1.14	\$0.92
12-00176-4-104-0	2 4 6 8	P404CCT	1.96	1.57	1.33	1.22
12-00176-4-106-5 12-00176-4-108-1	D	P406CCT P408CCT	2.49	1.98	1.67	1.35
12-00176-4-110-7	10	P410CCT	2.87	2.29	1.93	1.54
12-00176-4-112-3	10	P412CCT	3.12	2.50	2.08	1.70
All Control of	(2) CA	BLE TYPE SO	CKET WITH	H CLAMP		
12-00176-4-202-2	2 4	S402CCT	1.95	1.56	1.32	1.04
12-00176-4-204-8	4	S404CCT	2.31	1.85	1.56	1.25
12-00176-4-206-3 12-00176-4-208-9	6 8	S406CCT S408CCT	2.70 3.05	2.18	1.80	1.44
12-00176-4-210-5	10	S410CCT	3.45	2.76	2.31	1.88
12-00176-4-212-1	12	S412CCT	3.84	3.05	2.56	2.06
	(3) CHA	SSIS TYPE P	PLUG WITH	BRACKET		
12-00177-2-102-4	2	P402AB	1.04	.84	.70	.56
12-00177-2-104-0 12-00177-2-106-5	6	P404AB P406AB	1.29	1.03	.86	.67
12-00177-2-108-1	8	P408AB	1.74	1.20	1.02	.81
12-00177-2-110-7	10	P410AB	1.95	1.56	1.33	1.05
12-00177-2-112-3	12	P412AB	2.19	1.76	1.45	1.16
12-00177-2-202-2		SSIS TYPE SO S402AB				
12-00177-2-202-2	2	S404AB	1.22	1.25	1.04	.63
12-00177-2-206-3	6	\$406AB	1.91	1.53	1.30	1.03
12-00177-2-208-9	8	S408AB	2.25	1.80	1.51	1.21
12-00177-2-210-5	10	S410AB	2.58	2.07	1.74	1.38
12-00177-2-212-1	12	S412AB	2.93	2.34	1.96	1.57

#### TRW CINCH PRINTED CIRCUIT EDGE CONNECTORS

Bifurated contacts, finish is 30 micro-inches gold. For 1/16" copper clad PC board. Glass filled diallyl phthalate insulation.

Cont.	SINGLE	ROW	DOUBLE	ROW		Prices	Fach	
Pos.	Stk.No.	Cinch No.	Stk.No.	Cinch No.	1-24			100-249
6	12A5143-9	50-6A-20	12A5149-6	50-12A-30	\$1.66	\$1.45	\$1.14	\$0.93
10	12A5144-7	50-10A-20	12A5150-4	50-20A-30	2.19	1.91	1.50	1 23
10 12	12A5131-4	50-12A-20	12A5151-2	50-24A-30	2.50	2.20	1.73	1.23 1.41 1.65
15 18	12A5145-4	50-15A-20	12A5132-2	50-30A-30	2.92	2.56	2.01	1.65
18	12A5146-2	50-18A-20	12A5152-0	50-36A-30	3.38	2.97	2.33	1.90
22	12A5147-0	50-22A-20	12A5153-8	50-44A-30	3.95	3.47	2.73	2.23

#### **AUTO RADIO ANTENNA CONNECTORS**







For replacement or making extensions on auto radio antenna cables. Designed for use with nearly all radios and antennas.

1	1	2 A	1406-4	. Male	Motorola	Cable	Plug.	Each	29c	25	@	Ea 24	c
2	1	2C	170-7	Female	Motorola	Cable	Plug	Each	29c				c
					le Motorol				29c				c

# *TRW-* CINCH BARRII











#### JONES BARRIER STRIPS

PRICES BELOW ARE FOR ONE TYPE ONLY-NOT ASSORTED

① SERIES 140. Base %'' W. x %'' H. overall, %'' H. to terminal bottom. %'' centers. Uses 5-40 x %'' binder head screws. Avg. shpg. wt. 3 oz.

Stock No.	Terms & Type	Fact. Part No.	1-24 Each	25-49 Each	50-99 Each	100-249 Each
12A1526-9	2-140	353 11 02 001	\$0.32	\$0.28	\$0.23	\$0.19
12A1527-7	3-140	353 11 03 001	.36	.31	.27	
12A1528-5	4-140	353 11 04 001	.48	.36	.32	.21
12A1529-3	5-140	353 11 05 001	.57	.47	.37	.33
12A1530-1	6-140	353 11 06 001	.66	.54	.47	36
12A1474-2	7-140	353 11 07 001	.77	.60	.53	.33 .36 .42
12A1531-9	8-140	353 11 08 001	.87	.71	.58	.48 .53 .57 .60
12A1475-9	9-140	353 11 09 001	.98	.78	.62	53
12A1532-7	10-140	353 11 10 001	1.05	.86	.74	57
12A1476-7	11-140	353 11 11 001	1.13	.92	.78	60
12A1533-5	12-140	353 11 12 001	1.28	1.01	.84	66
12A1477-5	13-140	353 11 13 001	1.35	1.07	.92	75
12A1534-3	14-140	353 11 14 001	1.45	1.16	.99	.66 .75 .79 .83
12A1478-3	15-140	353 11 15 001	1.54	1.26	1.03	83
12A1535-0	16-140	353 11 16 001	1.63	1.32	1.07	.88
12A1536-8	18-140	353 11 18 001	1.83	1.47	1.25	.99
12A1537-6	20-140	353 11 20 001	2.02	1.62	1.36	1.07
12A1481-7	21-140	353 11 21 001	2.14	1.72	1.43	1.11

② SERIES 140-Y. Like above except with thru panel solder lugs.

Stock No.	Terms. & Type		Part o.	1-24 Each	25-49 Each	50-99 Each	100-249 Each
12A2264-6	2-140Y	353 18	02 001	\$0.39	\$0.32	\$0.29	\$0.23
12A2265-3	3-140Y	353 18	03 001	.50	.39	.33	.31
12A2266-1	4-140Y	353 18	04 001	.65	.54	.49	35
12A2267-9	5-140Y	353 18	05 001	.80	.63	.55	.31 .35 .45
12A2268-7	6-140Y	353 18	06 001	.99	.79	.65	.54 .57 .65
12A2269-5	7-140Y		07 001	1.07	.87	.75	57
12 A2270-3	8-140Y		08 001	1.24	.99	.83	65
12A2271-1	9-140Y		09 001	1.37	1.08	.93	76
12A2272-9	10-140Y		10 001	1.51	1.24	1.02	.82
12A2273-7	12-140Y	353 18	12 001		1.43	1.23	.98
12A2277-8	20-140Y		20 001	1.80	2.33	1.94	1.54

① SERIES 141. Base 11/8'' W. x 1/2'' H. overall,  $\%_6''$  H. to terminal bottom.  $\%_6''$  centers. Uses 6-32 x 1/4'' binder head screws. Avg. shpg. wt. 5 oz.

Stock No.	Terms & Type	Fact. Part No.	1-24 Each	25-49 Each	50-99 Each	100-249 Each
12A1550-9	2-141	354 11 02 001	\$0.35	\$0.29	\$0.25	\$0.20
12A1551-7	3-141	354 11 03 001	.48	.36	.32	.27
12A1552-5	4-141	354 11 04 001	.60	.51	.42	34
12A1553-3	5-141	354 11 05 001	.77	.58	.55	45
12A1554-1	6-141	354 11 06 001	.84	.66	.57	48
12A1453-6	7-141	354 11 07 001	1.00	.79	.66	54
12A1555-8	8-141	354 11 08 001	1.09	.88	76	59
12A1454-4	9-141	354 11 09 001	1.24	.99	.76 .83	.34 .45 .48 .54 .59
12A1556-6	10-141	354 11 10 001	1.36	1.08	.92	.87
12A1557-4	12-141	354 11 12 001	1.58	1.29	1.05	.86
12A1417-1	14-141	354 11 14 001	1.84	1.47	1.25	1.00
12A1418-9	16-141	354 11 16 001	2.08	1.68	1.40	1.10
12A1419-7	18-141	354 11 18 001	2.33	1.86	1.55	1.26
12A1420-5	20-141	354 11 20 001	2.60	2.07	1.75	1.32

② SERIES 141-Y. Like above except with thru panel solder lugs.

Stock Terms & Type		Type No.		Type No. Each		25-49 Each	50-99 Each	100-249 Each
12A2250-5	2-141Y	354 18 02 001	\$0.50	\$0.37	\$0.32	\$0.30		
12A2252-1	4-141Y	354 18 04 001	.87	.71	.58	.48		
12A2254-7	6-141Y	354 18 06 001	1.21	.98	.82	.62		
12A2256-2	8-141Y	354 18 08 001	1.57	1.28	1.05	.86		
12A2258-8	10-141Y	354 18 10 001	1.94	1.54	1.31	1.04		
12A2259-6	12-141Y	354 18 12 001	2.30	1.84	1.53	1.25		
12A2261-2	16-141Y	354 18 16 001	3.07	2.46	2.06	1.63		

① SERIES 142. Base  $1\%_6{''}$  W. x 5%'' H. overall, 3%'' H. to terminal bottom.  $\%_6{''}$  centers. Has 8-32 x  $\%_6{''}$  binder head screws. Avg. shpg. wt. 6 oz.

Stock No.	Terms & Type	Fact. Part No.	1-24 Each	25-49 Each	50-99 Each	100-249 Each
12A1566-5	2-142	355 11 02 001	\$0.42	\$0.33	\$0.29	\$0.23
12A1567-3	3-142	355 11 03 001	.56	.45	.36	
12A1568-1	4-142	355 11 04 001	.75	58	51	39
12A1569-9	5-142	355 11 05 001	.88	71	.51	50
12A1570-7	6-142	355 11 06 001	1.03	83	71	56
12A1571-5	8-142	355 11 08 001	1.35	1.07	91	.31 .39 .50 .56
12A1572-3	10-142	355 11 10 001	1.67	1.33	1.09	.88
12A1573-1	12-142	355 11 12 001	1.95	1.55	1.32	1.03
12A1423-9	14-142	355 11 14 001	2.27	1.82	1.52	1.24
12A1425-4	16-142	355 11 16 001	2.60	2.07	1.75	1.38

(3) MARKER STRIPS
Used to number terminals for identification, Mounts under terminal strips.

TYPE MS 140Y for either 140 or 140-Y barrier strips.

Stock No.	Terms & Type	201	Fact	. Pa	rt	1-24 Each	Hear	25-49 Each	50-99 Each	100-249 Each
12A2294-3	MS4-140Y	363	12	04	011	\$0.20	- Friske	\$0.16	\$0.13	\$0.12
12A2295-0	MS5-140Y	363	12	05	011	.23		17	.15	13
12A2296-8	MS6-140Y	363	12	06	011	.23		.17	15	13
12A2297-6	MS7-140Y	363	12	07	011	.23		.17	.15	13
12A2298-4	MS8-140Y	363	12	08	011	.23		17	.15	13
12A2300-8	MS10-140Y	363	12	10	011	.25		.20	.17	15
12A2301-6	MS12-140Y	363	12	12	011	.25		.20	.17	15
12A2305-7	MS20-140Y	363			011	.35		.27	.23	.19

#### TYPE MS 141Y. For either 141 or 141-Y barrier strips

12A2280-2	MS4-141Y	364	12	04 011	\$0.23	\$0.17	\$0.15	\$0.13
	MS6-141Y			06 011	23	17	.15	.13
12A2284-4	MS8-141Y	364	12 (	08 011	.25	.20	.17	.15
	MS10-141Y			10 011	.28	.23	.19	.16
	MS12-141Y			12 011	.31	.25	.21	
	MS16-141Y			16 011	.36	.30	.24	.20
12A2291-9	MS20-141Y	364	12	20 011	.39	.31	.21	.21

## ADAPTER SOLDER TERMINALS FOR BARRIER STRIPS

"Y" lugs for wiring below the chassis. Avg. shpg. wt. 3 oz. per 100. C-J Factory No. has 933 suffix

Stock	Туре	Fit	Fact. Part	1-24	25-49	50-99	100-249
No.		Strip	No.	Each	Each	Each	Each
2B1329-8 2B1330-6	Y	140 141	495 12 11 016 495 12 11 012	\$0.23	\$0.19	\$0.18	\$0.16

JONES NO. 2000 TERMINAL STRIPS
Terminal .019" brass, tin-plated—all terminals insulated from mounting insulation: phenolic, base and mounting brackets: steel, sadmium plated. Terminals spaced on phenolic, ba %" centers.

Stock	Terms &	Fact. Part	1-24	25-49	50-99	100-249
No.	Type	No.	Each	Each	Each	Each
12A1584-8 12A1586-3 12A1460-1 12A1587-1 12A1588-9 12A1589-7	4-2004 6-2006 7-2007 8-2008 10-2010 12-2012	326 20 04 001 326 20 06 001 326 20 07 001 326 20 08 001 326 20 10 001 326 20 12 001	\$0.22 .25 .25 .29 .32	\$0.21 .22 .22 .24 .25 .27	\$0.19 .20 .20 .21 .22 .25	\$0.18 ,19 ,19 ,20 ,21

#### SOLDERING LUG STRIPS









Phenolic strips handy for all types of circuit wiring. Solder coated steel lugs are spaced on 36" centers. Mtg. feet have .140" dia. holes. Types 1 and 2 have one mtg. foot and no ground lug; type 3 has two mtg. feet with no ground lug; type 5 has one mtg. foot and one ground lug; type 5 has two mtg. ft. and two ground lugs. "No. of lugs" below refers to total number of lugs on a strip, including ground lugs. Factory Part No. has 332 prefix on lug strips.

Stock No.	Fig.	Type No.	Fact. Part No.	No. o	f 1-24 Each	25-49 Each	50-99 Each	100-249 Each
12A1256-3		51F	11 02 013		\$ \$0.18	\$0.15	\$0.14	\$0.11
12A1261-3		51	11 02 001		.15	.13	.10	.08
12A1267-0	2	52	11 03 028	3 2	.17	.14	.11	.09
12A1264-7	2	53E	11 04 068	3	.16	.14	.12	.10
12A1265-4	2	54B	11 05 092	2 4	.18	.15	14	.11
12A1269-6	3	54	11 06 088	3 4	.20	.18	.16	.12
12A1262-1	4	51A	14 02 001	2	.15	.13	.10	.08
12A1268-8	4	52A	14 03 010	3	.17	.15	.12	.09
12A1275-3	4	53F	14 04 022	4	.16	.14	.12	.10
12A1282-9	4	54C	14 05 034		.18	.16	.14	.11
12A1274-6	5	53A	14 05 031		.18	.16	.14	
12A1257-1	5	54A	14 06 032	6	.21	.18	.16	.12
12A1259-7	5	56A	14 08 045	8	.22	.19	.17	.13

# Mueller CLIPS, ELECTRONIC HARDWARE

Each \$0.23 .37 .53 .66 .62 .94

1.32

1.66

100-Up

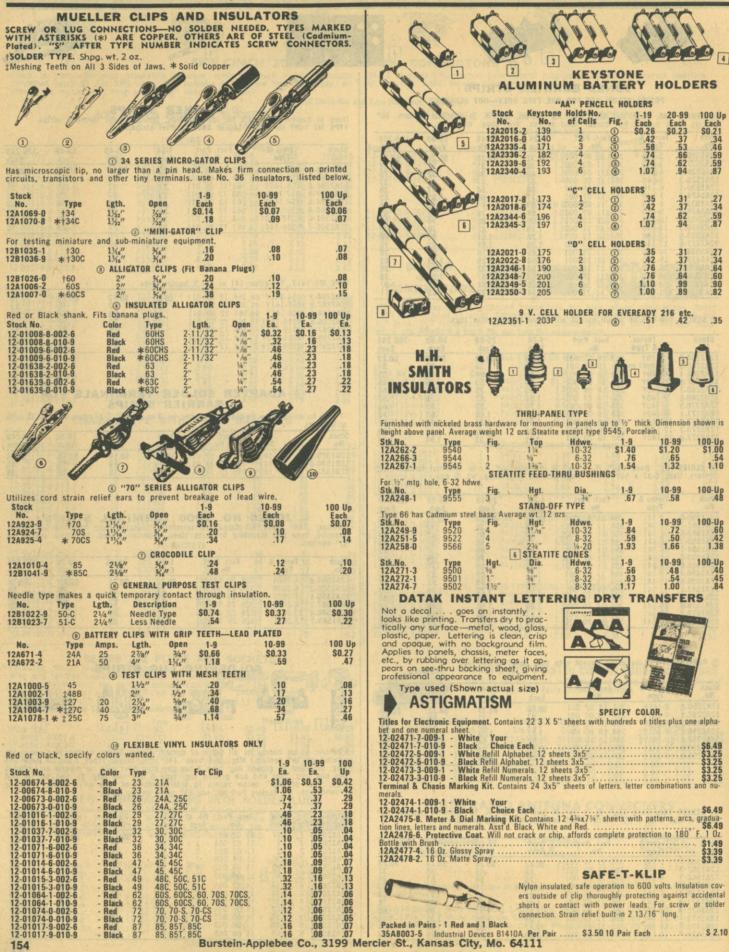
100-Up

100-Up

\$1.49 \$3.39 \$3.39

1.38

Each \$0.21 .34 .46 .59



154

# KNOBS, BELT KITS AND VARIABLE CAPACI



Solid machined aluminum with fluted sides. Fit ½" shafts, 2 Allen hex screws, Natural knobs have black pointer line. Black anodized knobs have white pointer line.

Stock	Alco	Si	ze		1-99	100-249	250-499
No.	No.	Dia.	High	Color	Each	Each	Each
12A2363-6	K500A	.500	.625	Natural	\$0.90	\$0.81	\$0.77
12A2364-4	K500B	.500	.625	Black	.90	.81	.77
12A2365-1	K700A	.750	.625	Natural	1.00	.90	.85
12A2366-9	K700B	.750	.625	Black	1.00	.90	.85
12A2367-7	K900A	.937	.625	Natural	1.15	1.03	.98
12A2368-5	K900B	.937	.625	Black	1.15	1.03	.98
12A2369-3	K1250A	1.250	.750	Natural	1.60	1.44	1.36
12A2370-1	K1250B	1.250	.750	Black	1.60	1.44	1.36

# ALCO KNURLED ALUMINUM KNOBS

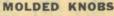




Solid machined aluminum with diamond shaped knurl on side. 2 Allen hex screws. Fit 1/4" shaft. Natural Knobs have Black pointer line, Black anodized knobs have White pointer

Stock	Alco	Size			1-99	100-249	250-499
No.	No.	Dia.	High	Color	Each	Each	Each
12A2371-9	KD500A	.500	.625	Natural	\$1.05	\$0.95	\$0.89
12A2372-7	KD500B	.500	.625	Black	1.05	.95	.89
12A2373-5	KD700A	.750	.625	Natural	1.10	.99	.94
12A2374-3	KD700B	.750	.625	Black	1.10	.99	.94
12A2375-0	KD900A	.937	.625	Natural	1.30	1.17	.89 .94 .94 1.11
12A2376-8	KD900B	.937	.625	Black	1.30	1.17	1.11
12A2377-6	KD1250A	1.250	.750	Natural	1.75	1.58	1.49
12A2378-4	KD1250B	1.250	.750	Black	1.75	1.58	1.49
12A2379-2	KR-1 Red	ucer Adapt	s 1/4"	Knob to 1/8"	Shaft. 15	.14	.13









Dress up knobs for panels and equipment. Precision molded of tough black plastic, gloss finished. All " hole and set screw. Figure 1 has spun silver inlay. Figure 3 for dual shaft concentric controls. Has white filled pointer line.

Fig.	Stock No.	Type No.	Size	1-99 Each	100-499 Each	500-999 Each	1000 Up Each
155	12A1216-7	2892	11/8"Dx5/8"H.	\$1.11	\$0.93	\$0.78	\$0.68
1	12A1217-5	2893	11/4"Dx3/4"H.	1.22	.78	.66	.57
1	12A1218-3	2894	11/2"Dx1/8"H	1.22	1.01	.85	.57
1.00	12A1229-0	2895	2"Dx15 /16"H	1,49	1.24	1.05	.91
2	12A1222-5	2391	3/4"Dx1/2"H	.58	.48	.41	.91 .36 .73
3	12A1228-2	2397	3/4"Dx11/4"	1.20	.99	.84	.73













Gloss black. Set screw knobs for 1/4" shaft. Figures 1 and 4 have brass insert. "For 1/6" shaft.



Lustrous black molded bakelite with white filled pointer line. For ¼" shaft, \*indicates brass bushing insert. All are set screw type.

Fig.	Stock No. 12A26-1	Type No. 2250	Size	1-99 Each 34°	100-499 Each 28	500-999 Each 24	1000 Up Each 20°
2	12A27-9	2252	11/2"x" /16" H.	44	37	31'	20°
3	12A919-7	2265	29/32x19/32" H.	39° 32° 31°	33°	28	24° 20° 16°
4.01.	12A920-5	2267	13 /16"x5%" H.	32°	27°	23	20°
5	12A692-0	2244	1x1/2" H.	31'	26°	22° 17°	16:
6	12A45-1	2220	11/4x5/8" H.	25	21'		15°
6.55	12A1033-6*	2223	11/4x5/8" H.	37	30°	26	15° 22° 27°
7	12A43-6	2226	2x5%" H	44	37°	31'	27'
7	12A1034-4*	2228	2x5/8" H.	63°	52°	44	38



12A2397-4 12A2398-2



Description
1½" Dia. Black—¼" Shaft.
1" Dia. Black—¼" Shaft
3¼" Dia. Black—¼" Shaft.



**BLACK CONTROL KNOBS** WITH WHITE POINTER LINE

o more m.		
1-9	10-49	50 Up
Each	Each	Each
69	59	45
54	49°	44
77:	65°	50

#### ONEIDA DRIVE BELT KITS

Produces drive belts instantly. Eliminates need for a stock of belts in many different sizes. No molds or complicated vulcanizing procedures. Returns many times its cost in immediate direct replacement of Round Rubber Drive Belt Kits. Model ORK-1. Contains 1-2 gram tube of cyanoacrylate adhesive, 1-1 fl. oz. bottle of cleaning fluid, 2 8-ft. pieces of 1/16, 3/32, 1/8 rubber belt stock, a jig for making controlled cuts and a blade for cutting. Shpg. wt. 2 lbs.

No. 12A2854-4. Each ..... \$19.95 Square Rubber Drive Belt Kits. Contains 1-2 gram tube of cyanoacrylate adhesive, 1-1 fl. oz. bottle cleaning fluid, 2 3-ft. pieces of 1/32 X 7/32, 1/16 X 3/16, 1/16 X 1/4, 2 8-ft. pieces of 3/64 X 3/64, 1/16 X 1/16 and 1 8 ft. piece of 3/32 X 3/32 flat belt stock, a jig for making controlled cuts and a blade for cutting. Shpg. wt. 2 lbs.

#### JOHNSON TYPE U CAPACITORS

Requires less than .2 square inch mounting area. Screwdriver adjust-ment. Air gap .010. Voltage rating 650 except 19.3 and higher are 500.



Cap. Pfd. 1 PANEL MTG. 3 P.C. MOUNTING Stk.No. Mfg. No. 1-5 Ea. 12A2499-8 189-563-1 \$1.48 12A2501-1 189-565-1 1.48 12A2505-2 189-569-1 1.48 6 Up Ea. Stk.No. \$1.23 12A2506-0 1.23 12A2508-6 1.23 12A2512-8 1-5 Ea. 6 Up Ea. Mfg. No. 1-5 Ea. 6 Up Ea. Max. Min. 1.4 1.7 2.4 189-503-5 \$0.89 \$0.70 189-505-5 .99 .75 189-509-5 1.09 .84

#### CERAMIC TRIMMERS AND PADDERS

With low loss ceramic base and clear mica dielectric.

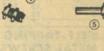




### DIAL ACCESSORIES, 4" COUPLINGS, SHAFTS



















5

High quality American made 1/4" shaft accessories. "M" items are Millen; Johnson:

g. Stk. No.	Description
12A1911-3	M10050 Dial Lock
12A1912-1	M10061 Shaft Lock
12A5-5	Brass 1/4x12" Shaft
12A7-1	Ins. 1/4x12" Shaft
12A1359-5	
12A9-7	Bearing W/3" Shaft

\$2.69 1.19 1.99 .49	Fig. Stock. No. 5 12A10-5 6 12A1360-3 7 12A1960-0 8 12A1961-8 9 12A1184-7 9 12B1185-4	Description Bearing W/6" Shaft J250 Steatite Cplg. M39005 Univ. Joint M39016 Hi Volt Cplg. Brass ¼x¼" Coupling Brass ¼x¾" Coupling	Each \$1.29 2.80 2.39 2.39 49
.99	9 12B1185-4 10 12A1196-1	Brass 4x3 Coupling Brass Extend 1% L. 4x	.59









① H. H. Smith No. 266. 1/2" dia. bakelite head, 8/32 brass threaded insert.
No. 12-00619-3-002-6 - Red Choice 100 1000
No. 12-00619-3-010-9 - Black Each
(2) H. H. Smith No. 386. 5-way connection insulated post of molded Buty-
rate. 1/2" dia. Mounts in 1/4" hole, 15 amp.
No. 12A742-3 - Black Choice 100 1000
No. 12A743-1 - Red Each
3 Millen 37001 HV. Bakelite insulated bushing extends through chassis.
Single conductor fully enclosed. 1/2" dia. mtg. hole.
No. 12-02334-7-002-6 - Red Fach S2.39

◆ 5-Way Combination Post. Smith No. 269 Dual. Molded black styrene. Mounts in two ½" holes, ¾" centers. 15 amp. rating.
No. 128744-9

No. 12B744-9

Bach S1.49 100 For S115.00 1000, Per 100 S92.00

Superior DF30 5-Way Binding Posts. Five ways to connect: (1) banana jack in top; (2) clip lead to shaft; (3) wire around shaft and clamp; (4) wire to 12 gauge clamped through center hole; (5) clamped spade lug connection, plus new solder tip on bottom—nylon plastic insulation, all brass parts COLD-plated. Rating 30 amps 1000 volts. Mounts in panels 1/4" to 1/4" thick. Has 10-32 threaded stem with 2 hex nuts. Overall length 11/4", 5/8" dia. Specify color:

No. 12-00600-3-002-6 Red
No. 12-00600-3-004-2 - Yellow
No. 12-00600-3-004-9 Green
Your Choice 20-99

Each S15.00 1000, Per 100 S92.00

S15.00 No. 12-00600-3-006-7 Blue
No. 12-00600-3-001-9 Black
No. 12-00600-3-010-9 Black
No. 12-00600-3-010-9 Black
100 Up

No. 12-00600-3-006-7 - Blue No. 12-00600-3-009-1 - White No. 12-00600-3-010-9 - Black 100 Up 60° Each Each

Off-The Shelf Delivery At Easte

# THE FINEST IN ELECTRONIC HARDWARE

#### **NUTS AND MACHINE SCREWS**











Please indicate B-A Stock Number and Quantity desired when ordering. Average wt. per 100 8 ozs.

#### (1) HEXAGON NUTS

STEEL ZINC PLATED

Rustproof—greater strength						
Stock No.	Size Inches	20 For	100 For	1000 For		
12A2049-1 12A1884-2 12A1886-7 12A1887-5 12A2051-7	4-40-1/4 6-32-5/16 8-32-5/16	\$0.83 .96 1.07 1.07 1.47	\$1.66 1.93 2.15 2.15 2.95	\$13.33 15.46 17.20 17.20 23.60		

#### ② MOUNTING NUTS

ZINC PLATED STEEL

Stock No.	Type	Thrd.	20 For	100 For	1000 For
12A1889-1	Vol. C	3/8-32	\$1.20	\$3.00	\$24.99

#### (3) BINDER HEAD

4-40 ZINC PLATED STEEL							
Stock No.	Lgth.	20 For	100 For	1000 For			
12A1859-4 12A1860-2 12A1861-0	1/4 3/8 1/2	\$0.68 .70 .73	\$1.36 1.41 1.46	\$10.93 11.33 11.73			
6-32 ZINC PLATED STEEL							
12A1862 -8 12A1863 -6 12A1864 -4 12A1865 -1 12A1866 -9	3/8 1/2 3/4	.70 .70 .70 .75 .80	1.40 1.40 1.40 1.50 1.60	11.20 11.20 11.20 12.00 12.80			
8-32 ZINC PLATED STEEL							
12A1867 -7 12A1868 -5	3/8	.62 .67	1.23	9.89 10.60			

#### (4) ROUND HEAD

2-56 ZINC PLATED STEEL

Stock	Lgth.	20	100	1000
No.		For	For	For
12A2107-7 12A2108-5	1/4 3/8	\$0.54	\$1.09	\$ 8.72 9.52

### 4-40 ZINC PLATED STEEL

12A2109-3 ¼	.68	1.36	10.93
12A2111-9 ½	.73	1.46	11.73
12A2112-7 1	.78	1.57	12.56

#### 6-32 ZINC PLATED STEEL

MOS CHICKEN				
12A1873-5	1/4	.58	1.16	9.33
12A1874-3	36	.58	1.16	9.33
12A1875-0	1/2	.58	1.16	9.33
12A1877-6	1	.73	1.46	11.73

#### 8-32 ZINC PLATED STEEL

Stock	Lgth.	20	100	1000
No.		For	For	For
12A1880 -0	1 11/2	\$0.68	\$1.36	\$10.93
12A1881 -8		.91	1.82	14.54
12A1882 -6		1.20	2.40	18.90

#### (5) OVAL HEAD

10-32 (RACK SCREWS) ZINC STEEL

Stock	Lgth.	20	100	1000
No.		For	For	For
12A2118-4	1/2	\$0.73	\$1.46	\$11.69
12A2119-2	3/4		1.72	13.72

### SELF-TAPPING **METAL SCREWS**



STEEL CADMIUM PLATED Average shpg. wt. per 100 6oz

(1) P	AN HEAD	GIMLET	POINT	3573
Stock No.	Size Inches	20 For	100 For	1000 For
12A2033-5 12A2034-3		\$0.60	\$1.20	\$ 8.84
12A2035-0 12A2036-8		.82	1.65	12.60 14.36
(2) P	AN HEAD	BLUNT	POINT	. 10



12A1870-1 12A1871-9











#### METAL AND FIBRE WASHERS

(1) FLA	T STE	EL ZIN	IC PLAT	TE WASI	HERS
Stock No.	Size	0.D. in.	Thk.	100 For	1000 For
12A1892 12A1893 12A1894 12A1895 12A1896	3 4 1 6 8 8	7/32 9/32 5/46 3/8	.018 .025 .028 .032 .036	\$0.98 .70 .70 .76 .82	\$7.87 5.59 5.59 6.09 6.56

(2) CUP	TYPE	WASHERS,	Nickel	Plated
Stock No.	Size	20 For	100 For	1000 For
1241005.6	6	\$0.36	\$0.72	\$5.71

Stock	Size	20	100	1000
No.		For	For	For
12A1905-5	6	\$0.36	\$0.72	\$5.76
12A1906-3	8	.38	.76	6.09
12A1907-1	10	.48	.96	7.62
(5)	FLAT	FIRRE WA	SHERS	

Stock No.	O.D.	Scre Size		20 For	100 For	1000 For
12A2044	-2 1/4"	6	1/32"	\$0.39	\$0.76	\$6.09
12A2045	-9 3/8"	8	1/32"	.39	.76	6.09
12A2046	-7 3/8"	10	1/32"	.39	.76	6.09
2A2047	-5 1/2"	1/4"	3/64"	.55	1.01	8.93
2A2048	-3 5/8"	3/8"	3/64"	.59	1.20	9.47

#### SHAKEPROOF WASHERS

	(3) EXT	ERNAL	FYPE	
Stock	Fits	20	100	1000
No.	Screw	For	For	For
12A1897-4	# 6	\$0.34	\$0.68	\$5.44
12A1898-2		.34	.68	5.44
12A1899-0		.37	.74	5.92
12M1033-0		EDNAL 1	100000	0.

#### .70 .74 .74 .74 1.94 12A1900-6#4 5.60 12A1901-4 # 6 12A1902-2 # 8 12A1903-0 # 10 12A1904-8 %" .37 .37 .37

#### 15.41 (6) FIBRE EXTRUDED WASHERS 100 1000 For For Screw Extr. Size O.D. 20 For 0.D. No.

# .98 .98 1.00 1.05 1.09 1.96 1.96 2.00 2.10 2.18

### MINIATURE JAPANESE HARDWARE ASSORTMENTS

Metric hardware for replacement in Japanese radios, recorders and other imports Each package contains 50 assorted screws, nuts, flat washers and lock washers. Sizes are screw diameter X length Made in Japan. Shpg. Wt. 4 ozs.

12A2487-3. 2 X 4 MM. 50 Assorted.
12A2488-1. 2.6 X 6 MM. 50 Assorted.
12A2488-9. 3 X 8 MM. 50 Assorted.
12A2488-9. 3 X 8 MM. 50 Assorted.
12A2488-9. 3 X 8 MM. 50 Assorted.

\$1.65

### Off-The-Shelf Delivery From B-A's Large Electronic Parts Inventory

#### GROMMETS, PLUGS AND BUMPERS











G-C	Fits Hole		100	1000
No.	Dia.	Each	For	For
1711A	1/4"	\$0.09	\$3.51	\$28.13
1711	3/8"	.09	3.89	31.16
1712	1/2"	10	4.73	37.76
1713	5/9"	11	5.08	\$28.13 31.16 37.76 40.65 57.14 57.50
1714	3/4"	15	7.13	57.14
1714A	7/9"	15	7.15	57.50
1715A	1"	19	9.30	74.41
1715B	11/8"	19		77.82
1715	11/4"	.20	9.92	74.41 77.82 79.42
	G-C No. 1711 1A 1711 1712 1713 1714 1714A 1715A 1715B 1715	1711 36" 1712 12" 1713 56" 1714 34" 1714A 36" 1715A 1" 1715B 116"	1711 36" .09 1712 ½" .10 1713 %" .11 1714 34" .15 1714A 36" .15 1715A 1" .19	G-C Fits Hole 100 No. Dia. Each For 1711A 14" \$0.09 \$3.51 1711 14" \$0.09 \$3.89 1712 15" 10 4.73 1713 55" 11 5.08 1714 14" 1.15 7.15 1715A 1" 1.9 9.30 1715B 116" 1.9 9.51 1715 114" .20 9.92

		delegan No	(2) SCREEN PLI	JG			
Bright zinc plate	. Screen Venti	lator plug s	snaps in 1" diam		general contract		THE REAL PROPERTY.
12A200-2. C 50-99 Each	inch 41V. 1-2	4 Each		25-49	Each		39
Table Table 10	Dark Andrew		41	A 3.3			
	ER GROMME			10 Fo	r	100 For	1000
12A1497-3	1041-2	1/4"	1/8"	\$0.39		\$1.91	\$15.33
12A1483-3	1041	5/16"	3/16".	.59		2.88	23.07
12A1484-1	1042	3/8" b	1/4"	.59 .59		2.88	23.07
12A1485-8	1043	1/2"	36"	.98		4.90	39.20
12A1486-6	1043-1	5/8"	1/2"	.98		4.90	39.20
		(4) RI	JBBER BUTTON	BUMPE	RS		
Stock	GC		Fits		10	100	1000
No.	No.	0.D.	Hole	High	For	For	For
12A1450-2	7597	1/2"	1014	1/4"	.59	3.27	26.09

	100.1		(2) KARREK	PEEL			
With recessed Stock No. 12A1447-8 12A1444-5	G-C No. 1075B	0.D. 36" 56"	Takes Screw # 4 or 6 # 6 or 8	High 1/16" 3/6"	10 For \$0.49 .65	100 For \$2.23 4.09	1000 For \$17.90 32.72

#### **GRID & PLATE CAPS**

(1)	12A1356-1.	9/16" Ins.	Millen. Ea			\$1.09	
(1)	12A2354-5.	3/8" Ins. N	Millen. Ea.			1.09 TV replace-	
121	12A2353-7.	1/4" high	voltage	plate (	cap for	TV replace-	
me	nt, with 10"	wire leads	tomage		diam'r.	minuted restaura	
East		Wile leads				59	









① CABLE CLAMPS Heavy gauge steel, nickel plated. 3/8" Fits

			6 mou	nting	hole.	
able	up to	size	shown.			
			10	100		1
No.	1	I.D.	For	For		
2813	13-3	1/4/1	20:	\$1 86	C	11

1/4" 39 1.73

1000 1000 For For 12A1315-7 \$14.84 10 For 13.87 1000 For

2 ANGLE BRACKETS <sup>2</sup>/<sub>32</sub>"x<sup>2</sup>/<sub>52</sub>"x<sup>3</sup>%" Wide. \$1.50 100 For......

**3 NYLON CABLE CLAMPS** 

Hold their shape under severest stress. Stands temp, of -60 to 300 degrees F., do not support combustion. All are 36'' wide except 9/6'' and larger are 1/2'' wide - white color.

Stock No.	1.0.	10 For	100 For	1000 For	Stock No.	I.D.	10 For	100 For	1000 For
12A1098-9	1/8"	\$0.55	\$3.75	\$29.95	12A1082-3	1/16"	\$0.80	\$ 5.35	\$42.60
12A1081-5 12A1099-7	3/16"	.59	3.95 4.35	31.60 34.60	12A1346-2 12A1083-1	9/18"	1.20	5.70 7.99	45.40 63.89
12A1255-5	5/16"	.75	4.75	38.20	12A1347-0	5/8"	1.31	8.71	69.70
12A1345-4	3/8"	.79	5.05	40.40	12A1084-9	74	1.47	9.80	78.41

4 SPADE MOUNTING BOLTS

2 Hexagonal

1) Round

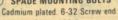
Ideal for use in raising sub panels, trans-

formers, spacing switch decks, mounting

① 1/4" O.D.—Hole for #6 Screw

NON-THREADED

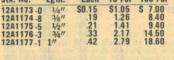
sockets and other components, etc.



12A1302-5. 10 For ...... 99° 100 For ..... \$6.92 1000 For .... \$55.34

BRASS CADMIUM PLATED MOUNTING SPACERS
THREADED FOR 6-32 SCREW
① Round 1/4" 0.D.

Stk. No.	Lgth.	Each	10 For	100 For
12A1469-2	1/4"	\$0.18	\$1.20	\$ 8.00
12A1470-0	3/8"	.22	1.43	9.50
12A1471-8	1/2"	.28	1.86	12.40
12A1472-6	3/4"	.40	2.70	18.00
12A1473-4	1"	.47	3.15	21.00
MANUFACTURE STATE	2 1/4	" Hexag	onal	PERM
12A1386-8	1/4"	.20	1.30	8.70
12A1387-6		.24	1.59	10.60
12A1388 -4		.28	1.86	12.40
12A1389 -2		.43	2.89	19.30
12A1390 -0	1"	.51	3.42	22.80



SELF

**TAPPING** 

SCREW

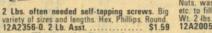
ASSORTMENT

Each 10 For 100 For

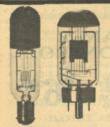


RADIO ELECTRONIC HARDWARE **ASSORTMENT** 

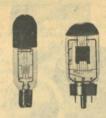
Nuts, washers, springs, clamps, eyelets, screws, etc. to fill practically any need. Over 600 pieces. Wt. 2 lbs. Wt. 2 lbs. 12A2005-3. Each ...... \$1.99



# PROJECTOR LAMPS, LAMPS & REMOTE SWITCHES



### SYLVANIA CERAMIC "BLUE TOP" **PROJECTOR** LAMPS



Exact replacement for slide and movie projectors. Listed alphabetically according to ANSI Code. Precision made for maximum life and high output. All Blue Top except \*clear and + Tungsten Halogen clear.

	ANIC	A.				
Stock	ANSI		erag		_ 3	6
No.	Code	Watts Life			Each	Each
66A6033-6		500+	50	\$19.30	\$15.83	\$14.86
66A6048-4		150	15	5.20	4.26	4.00
66A6068-2		30	25	4.15	3.40	3.20
66A6061-7		30	25	3.80	3.12	2.93
66A6000-5		300	25	8.15	6.68	6.27
66A6001-3		150	15	6.25	5.13	4.81
66A6062-5		500+			16.52	15.51
66A6049-2		75	50	5.70	4.67	4.00
66A6074.0	CBX/CBS	75	50	5.70	4.67	4.39
66A6050.0	CEM	100	100	3.99	3.27	3.07
66A6002.1	CLS/CLG	300	25	6.00	4.92	4.62
66A6003-9	CLX/CMB	300	25	6.00	4.92	4.62
66A6005-4	CTT/DAX	1000	25	14.15	11.60	10.89
66A6006-2	CWA	750	25	12.55	10.29	9.66
66A6007-0	CWD	300	25	6.95	5.70	5.35
66A6008-8	CXK	300	25	9.45	7.75	7.28
66A6009-6		300	25	6.15	5.04	4.74
66A6010-4		500	25	9.15	7.50	7.04
66A6011-2		500	25	9.70	7.95	7.47
66A6012-0		500	25	8.30	6.80	6.39
66A6013-8		500	30	10.35	8.49	7.97
66A6052-6		150	15	9.15	7.50	7.05
66A6014-6		150*	15	8.95	7.34	6.89
66A6015-3		750	25	10.10	8.28	7.78
66A6054-2		750	25	11.40	9.35	8.78
66A6055-9		500	25	9.15	7.50	7.05
66A6016-1		150	15	9.15	7.50	7.05
66A6017-9		150*	15	8.95	7.34	6.89
66A6018-7		1000	10	10.90	8.94	8.39
66A6064-1		80*	15	8.35	6.85	6.43
66A6019-5		1000	25	12.15	9.96	9.35
66A6060-9		150*	15	9.45	7.75	7.28
66A6044-3		150*	15	11.00	9.02	8.47
66A6035-1		150+	12	14.35	11.77	11.02
66A6081-5		150+	25	14.35	11.77	11.05
66A6037-7		650+	25	14.45	11.85	15.22
66A6038-5		600+	75	17.70	14.51	13.63
66A6039-3		600+	75	13.55	11.11	10.43
66A6040-1		600+	75	13.55	11.11	10.43
66A6085-6		300	35	14.40	11.52	11.08
		250+	25	14.25	11.69	10.97
66A6082-3		400+	75	13.50	11.07	10.40
66A6021-1	FAL	400+	10	10.50	11.07	10.40

#### NORELCO PROJECTOR LAMPS (ALL CLEAR)

*Have Pyrex brand envelopes.		THE PERSON	00	4	** **
66A6086-4 DAK	500	25	\$6.99	\$5.79	\$5.39
66A6087-2 CZA/CZB	500	25	7.69	6.39	5.99
66A6088-0 CZX/DAB*	500	25	8.19	6.69	6.29
66A6089-8 CAL*	300	25	6.89	5.69	5.29
66A6090-6 CTT/DAX*	1000	25	11.89	9.79	9.19
66A6091-4 CBA	500+	50	16.99	13.89	13.09
66A6092-2 DEK*	500	25	7.69	6.39	5.99

Large Quantity Users: Other projector lamps available on request. Send your Projector Lamp Bid to Burstein-Applebee for price quotation.

#### FRANZUS FOREIGN TRAVEL ADAPTORS



#### TRANSFORMS ELECTRIC POWER FROM 220/240 VAC DOWN TO 110/120 VAC

Now you can travel overseas and use your hair styler/dryer, coffee cup heater, hair curler/setter, electric razor, cassette and more.
(1) 41A4141-9. Model 18/21. For Heating Appliances to 1000 watts.
(2) 41A4142-7. Model C F-11. For Motor Appliances up to 50 watts. \$12.95 Your Choice Each

(3) Adaptor Plugs. Fits most outlets around the world. With travel case. 41A4143-5. Set of 4 - Per Set. 41A449-0. American to Continental Adapter. Each 41A450-8. American to British Adapter. Each \$2.00



1) FLUORESCENT DECK LAMPS MODEL 604C

Feather-touch control allows adjustment of arms to ANY position, smoothly, noiselessly and without effort; 36" total length of arms with "universal joints" at base, center and shade, Shade with "on-off" switch on top, is 18" long, 4½" wide, has high light output reflector. Smooth baked ename finish. UL approved. With cord, less lamps.

Easily clamped to edge of any desk or table up to 21/4" thick. Wt. 10 lbs. 41A8037-5. —Royal Gray Your Choice \$35.12 3 @ \$31.60 41A8019-3. 15-Watt Lamp. Each . .

(2) CLAMP-ON INCANDESCENT LIGHT

Has balanced parallel acting support arms. Moves with a flick of the finger and stays put! Glide arms extend 45" in any direction from base. Clamp fits edge of table or other flat surface, Shpg. wt. 7 lbs. Less bulb.

No. 41A8034-2. Model BB45C. Gray \$22.60 3 @ Each \$20.34 3 INSPECTION LAMP-MAGNIFIER MODEL BBM-9

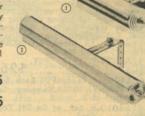
Lamp head can be rotated and tilted to any position. Arm extends up to 45" in any direction. Unbreakable all-steel base has extra stable double clamps for edge of desk or bench. Both hands free to manipulate work. Furnishes glarefree light from 22 watt circline lamp around 5" distortion free lens. Wt. 10 lbs.

No. 41 A 8039-1 - Gray \$44.80 Net Each ...... \$40.32 41A8026-8. 

#### PICTURE LAMPS

MAKES YOUR PAINTINGS COME TO LIFE! Beautiful brass plated lights to display all your prized pictures and portraits. Recommended by interior decorators. Use for maps, shelves, displays too. Adjustable brackets. Prefocused reflectors with switch. Made in U.S.A. Complete with bulb. U.L. approved. For 115 V. AC. Wt. 1

(1) 41A6002-1. 7-Inch **Brass Finished Light** (2) 41A6003-9. 141/2 -inch Brass Finished Light ...... \$8.95



#### PHOTOELECTRIC SWITCH

#### Protects Your Home At Night!

Portable, Simply place "eye" in win-dow or where outdoor light will strike cell in face of control. Automatically switches any plug-in room light you choose, turning "on" at dusk and "off" again in the morning. Discourages prowlers, prevents accidents in the dark by turning on the lights for you—automatically. Completely silent operation. Uses less power than an electric clock. Simply plug-in connection with U/L approved cord set, Handles lamp load up to 600 watts. Wt.

\$8.99 41A4007-2. Net Each...



Turns power "on or off" at a distance without additional wires. No installation needed. Just plug the receiver into an AC receptacle, and plug in radio, TV, lights or other appliances to the receiver. Plug the transmitter into another AC receptacle on the same line and operate the switch for remote control. The receptacte on the same line and operate the switch for remote control. The transmitter sends a signal on the existing AC wiring to the receiver, turning the power on or off as you wish. Transmitter and receiver each are only 5" long, 3 ¼" wide, 1¾" high and weigh only a few ounces. Receiver has indicator light and transmitter has a switch indicating on or off setting. Beautifully finished in brushed aluminum cabinets with wood grain front panels. Rated 115 VAC, 300 watts, 3 amp. non inductive load.

No. 41A4119-5.

\$35.00 Complete

# TIMERS AND DIMMERS



## NTERMATIC

#### 1500 WATT AUTOMATIC TIMER

AUTOMATICALLY CONTROLS ELECTRIC DEVICES







Turns light on automatically . . . prevents accidents in dark, discourages prowlers. May be used to control other appliances too. Set to turn on and off automatically at any time you wish. Will stay on from  $2\frac{1}{2}$  to  $21\frac{1}{2}$  hours at preset time. Automatically repeats daily, Plugs directly into AC outlet and has its own outlet for controlled device. No table mounting space required. Size:  $2\frac{3}{4}\frac{3}{$ 

No. 41A4077-5 Each ...... \$9.95

#### INTERMATIC DELUXE "TIME ALL"

Turns appliances, etc. "on" and "off" at any selected time from 1 hour to 23 hours. Automatically repeats same "on" and "off" operation daily without reset. Manual control switch allows temporary or permanent "on"-"off" independent of automatic switch if desired. Requires no installation—simply plug unit into wall socket and appliance cord into receptacle on the "Time-All." Handles up to 1875 Watts. Champagne white housing with walnut wood-grain panel. Wt. 2 lbs. No. 41A4021-3 Model E911. Net Each......\$11.95

Model E911. Net Each ..... \$11.95



#### INTERMATIC 7-DAY "SKIPPER" TIME SWITCHES

41A4010-6. Set of On-Off Trippers.



#### INTERMATIC 24 HOUR SUPERVISOR

Features Rapid Set-Up "ON & OFF" Repeats 1 to 96 operations every 24 hours for precise automatic control of electrical systems. Used extensively for process equipment, music systems, fans, heaters, pumps, etc. 96 permanently attached trippers slide in and out of dial giving extremely fast and accurate settings in 15 minute timing increments. Powered by long-life synchronous motor. Drawn steel case, hinged lid. 73/x5x3" deep. Gray hammertone. Switch is SPDT, snap action rated 20 A. 120 V. AC. Shpg wt. 4 lbs

41A4046-0. Type T-1975. Each ..... \$37.62



### INTERMATIC MODEL T-101 UTILITY TIMER

Handles every time need around home or business. Dependable, automatic on-off electric control of appliances, lights, fans, etc. Repeats timing cycle each 24 hours—up to 12 on-off operations per day spaced minimum 1 hour. Manual when desired. Comes with 1 set of adjustable on-off trippers; others easily added without removing dial. Heavy duty 40 amp switch. Gray steel cabinet with hinged door and wiring knockouts. 73/4" H, 5" W, 3" D. For 115 V. 60 Hz. AC. Wt. 3 lbs. 41A4008-0. Each .... \$19.22 41A4009-8. As above with DPST

41A4009-8. As above with DPST 41A4010-6. Per Set ..... 50°





### **FULL RANGE** DIMMER CONTROL

JUST TURN DIAL FOR DESIRED LIGHT LEVEL BETWEEN FULL BRIGHTNESS TO OFF... PUSH DIAL FOR "ON-OFF" AT PREDIALED SETTING.

Have subdued lighting for glamour, TV, during sleeping or convenience in any room. Dependable solid state diodes smoothly control flow of power to incandescent light fixtures. Permits full brightness or dim as desired. Simple to install, wired in existing switch in standard wall box. For 115 V. 60 Hz. AC. 600 W. capacity. Wt. 1½ lb. \$6.95

## LEVITON FULL RANGE DIMMER SOCKET

Solid state electronic socket replaces standard lampholder. Transforms ordinary lamps into sophisticated light-conditioning dimmer lamps. Filter minimizes interference with radio/TV. Rated 150W-120V AC incandescent only.

41A428-4. Leviton 6151.

Each

\$7.95

#### LEVITON LINE CORD SWITCHES







Add full-range variable light control to your lamps. An exciting way to Light-Condition-create a mood for any room. Eliminates expensive 3-way bulbs. Offers fast, easy assembly. U.L. recognized solid-state electronic components. Rated 200W-120VAC incandescent. 41A431-8. Leviton 6250-3. Brown. 41A436-7. Leviton 6250-31. Ivory. Each \$7.95

Low cost light control—two lighting moods from an ordinary bulb. Full-bright for reading and writing, low-bright for relaxing and TV viewing. Kwik-Wire contact pins offer fast, low cost assembly without stripping. U.L. Listed at 300W-120VAC. 41A430-0. Leviton 419. Brown. 41A435-9. Leviton 4191 Ivory. Choice Each \$1.75

Smart styling, Kwik-Wire contact pins for fast connections without stripping. U.L. Listed at 3A 125V.
41A434-2. Leviton 413I Ivory.
41A429-2. Leviton 413. Brown.

Smart styling, Kwik-Wire contact pins for fast connections without stripping. U.L. Listed at 3A 125V.

Choice
41A429-2. Leviton 413. Brown.

69°

## LEVITON BULB-LIFE SAVER SOCKET ADAPTER



Fits any medium base lampholder. Reduces light output by approx. 50%, but wattage can be restored as needed by substituting a larger bulb. Electricity consumed is reduced proportionately. Increases bulb life more than 30 times. Cuts bulbs changing 95%. Saves money where bulbs burn continuously. All brass components for corrosion resistance. Will extend lamponly 1-½" from original position. Rated 150W-120V AC Incandescent only. UL listed.
41A432-6. Leviton 6154.

\$1.75

LEVITON 3-WAY TO HIGH-LOW SOCKET ADAPTER
Screw into any 3-way lamp socket. Screw lamp bulb into the high-low adapter. You get high-low light control with standard bulbs-up to 200 watts in any 3-way lamp socket. Eliminates the need for expensive 3-way bulbs. Extends bulb life—saves electricity. Extends lamps only 1-5 from original position. Rated 200W-120V AC. Incandescent only. UL Listed. 41A433-4. Leviton 6153.



#### AC FAULT FINDER

#### CHECKS ALL THESE ELECTRICAL CIRCUIT CONDITIONS:

Open ground

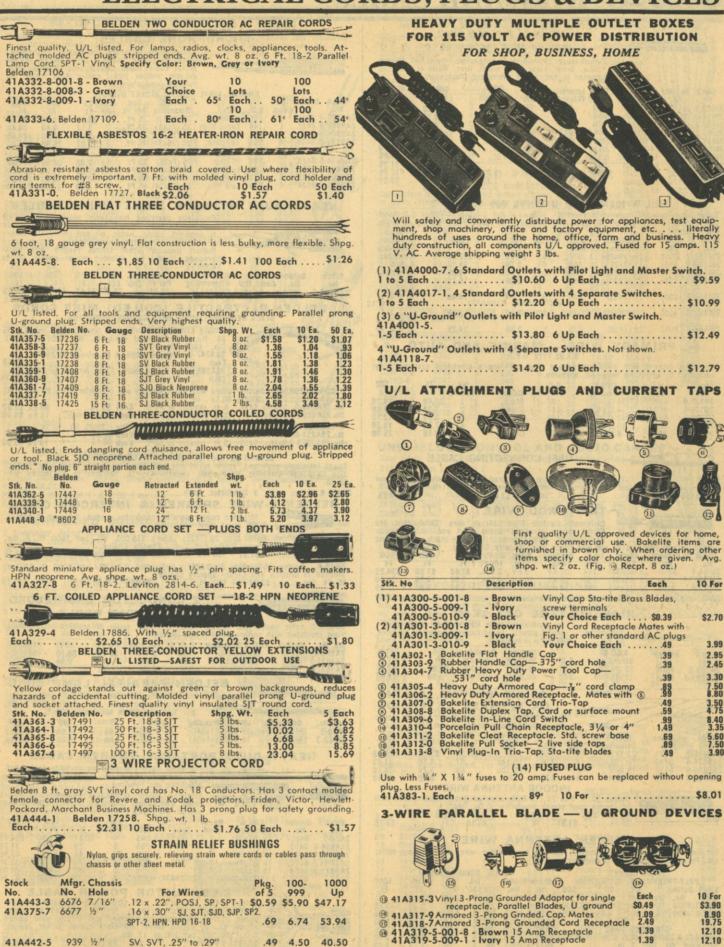
Open hot
Hot/Ground - Reversed

\$1.75

Correct
 Hot/Neutral - Reversed
 Open Neutral

Has indicator lights and a chart on both sides to describe the condition for each lighting arrangement. Just plug in - simple and easy to use. Break resistant plastic. Designed for conventional 3 wire 120 volt AC outlets.
41A451-6.

# **ELECTRICAL CORDS, PLUGS & DEVICES**



For Quotation on Larger Quantity Purchases Call B-A's Sales Department (816) 756-2525

159

#### MIL-W-76 TYPE MW VINYL HOOK-UP WIRE - 1000 V. 80° C

Tinned copper conductors. Specify color: Brown, Red. Orange, Yellow, Green, Light Blue, Violet, Gray, White or Black. 
\*Stocked in Red. Green, White and Black only.

Stock No.	Belden No.	AWG & Stranding	O.D. Inch	Insulation Thickness	Wt. 1000'	25 Ft. Length	100 Ft. Length	1000 Ft. Length	
2M13-1	8525	24 (7X32)	.058	.017	3		\$2.49	\$13.95	
2M14-9	8524	22 (7X30)	.064	.017	4	\$1.26	2.79	16.35	
2M32-1	8523	20 (10X30)	.070	.017	5	1.51	3.26	18.60	
2M07-3	8522	18 (16X30)	.080	.017	8	1.63	3.89	24.90	
2M15-6		16 (26X30)	.098	.019	12		5.40	35.85	
2M67-7		14 (41X30)	.111	.02	18		7.60	56.10	
2M68-5		12 (65X30)	.130	.02	26		11.65	81.00	
2M69-3		24 (Solid)	.054	.017	3		2.39	11.25	
2M34-7		22 (Solid)	.059	.017	4	1.21	2.39	12.75	
2M2-4	8529	20 (Solid)	.066	.017	5	1.32	2.82	16.05	
2M36-2	8528	18 (Solid)	.074	.017	7		3.69		

#### MIL-W-16878 TYPE B VINYL 600 V. 105° C

Tinned copper stranded insulation thickness .01. 1-Brown, 2-Red, 3-Orange, 4-Yellow, 5-Green, 6-Blue, 7-Violet, 8-Gray, 9-White, 10-Black, 100' stocked in all colors, 1000' stocked as shown.

Please sp	ecity color	To the same of the same				and the same and	STOCK
Stock	Belden	AWG &	O.D.	Wt. 1M	100	1000	Colors
No.	No.	Stranding	Inch	Ft.	Ft.	Ft.	Available
2M151-9	8500	16 (19X29)	.077	10	\$4.76	\$32.25	All colors
2M152-7	8501	18 (7X26)	.068	8	3.75	24.30	4, 5, 6,
2M153-5	8502	20 (7X28)	.058	5	3.50	19.05	All colors
2M154-3	8503	22 (7X30)	.050	4	2.86	15.75	3, 4, 8,
		ALTERNATION OF THE PARTY OF					9, 10
2M155-0	8504	24 (7X32)	.044	3	2.54	14.40	2, 3, 4, 5,
		AND STREET					6, 7, 8, 9, 10
2M400-0	8505	26 (7X34)	.039	2	2.54	15.45	1, 2, 3, 4,
							5, 6, 9, 10
2M492-7	8597	28 (7X36)	.035	1	2.56	14.25	2, 5, 6, 10
SACT SALES			THE PERSON NAMED IN	1 11 111			

## PRIMARY WIRE \_\_ MARINE AND AUTO S.A.E. TYPE G.P.T.

For high current with minimum voltage drop for mobile electrical systems. Vinyl insulated to withstand heat, oil, abrasion. AWG & Stranding 16 (19X29) 14 (19x27) 12 (19x25) 10 (19x23) 100 Ft. \$6.20 8.40 12.70 18.20 25.00 Stock Belden Inch .102 .117 .142 .175 .219 No. 2B127-9 2B126-1 \$2.49 3.36 5.09 7.29 10.10 Black Green Red White



#### HI-FI CONNECTING CABLE

#### TEST PROD WIRE

Extremely flexible high voltage wire. Conductors are tinned copper stranded cotton wrap and rubber insulation overall. 8899 stocked in red, black, green and

yellow, others Stock Beld	en Cond.	Brkdwn.	Nrkg. Wt. Per 25 Vitg. 100 Ft. Ft.	100 500 Ft. Ft.
No. No 2M64-4 889 2M9893-7 889	9 18 (65x36)		Vitg. 100 Ft. Ft. 5 KV 2 Lbs. \$2.4 10 KV 4 Lbs. 3.9	0 \$7.65 \$24.25
2M80-0 889	0 24 (45x40)	.066 10 KV	1 KV ½ Lb. 1.9 9 above	04.00

#### HIGH VOLTAGE CRT LEAD

=			mental projects. Tinned copper, polyethylene insulat Red vinyl jacket overall.					
Stock No. 2A261-6	Belden No. 8868	AWG & Stranding 22 (7x30) 18 (16x30)	0.D. .150 208	Working Voltage 25,000 40,000	Breakdown Voltage 50,000 110,000	25 Ft. \$2.63 3.99	100 Ft. \$6.65 11.40	

No. 2A261-6 2A9965-3	No. 8868 8866	Stranding 22 (7x30) 18 (16X30)	0.D. .150 .208	Voltage 25,000 40,000	Voltage 50,000 110,000	Ft. \$2.63 3.99	S
	~			SOUND OR SPE	SYSTE		

			- JB1047	tor timies. 0403 is couch dray, brown, run.						
Stock No.	Belden No.	AWG & Stranding	Cond.	0.D.	Wt. Per 100'	Per Ft.	100 Ft.	1000 Ft.		
2A9876-2	9151	22(7X30)	2	.108	1 Lb.	\$0.06	\$3.46	\$26.65		
2A9875-4	9152	20(10X30)	2	.125	1½ Lbs.	.07	4.10	31.35		
2A9889-5	8492	19 solid	2 9	17	1½ Lbs.	.09	5.25	38.10		
2A9890-3	8483	19 solid	3	.132	2 Lbs.	.11	6.90	47.40		

## INDOOR ANTENNA WIRE

Vinyl insulation. 2 conductor is brown with one conduc-

Belden 8014. Size 25 (13 X 36) stranded tinned copper. .010 wall of chrome vinyl plastic insulation. O.D. .044"
No. 2A1-6. 500 No. 2A1-6. 100 500 25 Ft. .... \$1.51 Ft. .... \$3.19 Ft. .... \$7.15

#### COPPER ANTENNA WIRE

Excellent for antenna requirements; as bus bar hookup wire; for winding coils, etc. Poly-Thermaleze type is non-corrosive.

COLID CORRER	SOLID	BRIGHT TINNED	
SOLID COPPER POLY-THERMALEZE INSULATION	Stock Belden	Wt. 25 100	1000
Stock Belden Wt. 100 500	No. No. Size	100' Ft. Ft.	Ft.
No. No. Size 100' Ft. Ft.	2A10 -7 8011 12	2 \$3.72 \$9.30	
2A12-3 8008 12 2 lbs \$10.45 \$38.95	2A37-0 8012 14	2 2.49 6.20	\$43.95
2A42-0 8009 14 2 lbs 6.65 23.25	2A39-6 8013 16	1 1.84 4.60	29.85
HE HOLL COLL 24 S. Almanage Way	2A41-2 8019 18	1 1.19 2.91	18.90
STRANDED BARE	2B52-9 8020 20	1 89 2.17	13.05
No. 2A43-8 Belden 8002. Size 16 (7X24)	2B53-7 8021 22	1 .75 1.82 1 .75 1.75 1 .75 1.70	9.60
Stranded. Wt. 100' 1 lb.	2B73-5 8022 24	1 .75 1.75	7.80
100 Ft. \$3.57	2B75-0 8023 26	1 .75 1.70	7.05
160	AT A THE R. M.		-The-Sh

#### MICROPHONE CABLES



Designed to withstand the flexing and normal abuse of studio, lab and home usage. Plastic jacket cables have polyethylene insulated conductors, rubber jacket cables have rubber insulated conductors.

CHROME VINYL PLASTIC JACKET OVERALL Stock Belden No. AWG & Cap. Lbs. 25 100 1000									
No. No.	Cond.	0.D.	Use	Stranding	Per Ft. 100		Ft.	Ft.	
2A9906-7 8401	1		li Imp.	25 (7x33)	25 Pf. 3	\$3.59	\$11.65		
2A9907-5 8411 2A9908-3 8422	1 2		apel Mike	25 (7x33)	37 Pf. 2	3.12	9.40	65.40	
2A9935-6 8404	4		ow Imp.	22 (16x34) 20 (26x34)	32 Pf. 4 40 Pf. 6	5.10	16.90 25.00	124.65 197.10	
	1000		STATE OF THE PARTY	BER JACKET		10.00	23.00	137.10	
2A9894-5 8410	1		li Imp.	25 (7x33)	33 Pf. 4	7.00	22.60	179.10	
2A9895-2 8412	2	.268 L	ow Imp.	20 (26x34)	68 Pf. 5	7.60	25.00	203.85	
2A9909-1 8423	3		ow Imp.	20 (26x34)	85 Pf. 6	7.60	25.00	230.25	
2A9910-9 8424	4	.295 L	ow Imp.	20 (26x34)	95 Pf. 7	8.00	27.60	259.80	

#### HEAVY DUTY HYPALON JACKET MIKE CABLES



Especially designed for studio applications. Highly resistant to heat, impact, abrasion. Extra resistance to sunlight, ozone, water, oil and chemicals, makes it suitable for outdoor applications. Brown color DuPont Hypalon jacket blends readily with backgrounds. Useful for shielded power cables up to 600V.

 Stock No.
 Belden No. Cond. O.D.
 AWG & Cap. Lbs. Per Ver Ft. 100° Ft. Ft. Ft. Ft. Ft. Ft. St. Ft. St. St. No. Stranding Per Ft. 100° Ft. Ft. Ft. Ft. Ft. St. St. No. Stranding Per Ft. 100° Ft. Ft. St. St. No. Stranding Per Ft. 100° Ft. Ft. St. St. No. Stranding Per Ft. 100° Ft. Ft. St. St. No. Stranding Per Ft. 100° Ft. St. St. No. Stranding Per Ft. 100° Ft. 100° Ft. Strandi

## BELDEN RECTRACTILE (COILED) MIKE CORDS BLACK NEOPRENE JACKET WITH RUBBER INSULATION



SINGLE CONDUCTOR with spiral tinned copper shield. Size 24. No. 8499 stranded (45 X 40). No. 8605 (19 X 36). Dia. 160". Wt. ½ lb. 29A247-4 Belden 8499, 4 ft. retracts to 7½".

Each 29A3051-7. Belden 8605, 12 ft. retracts to 21½. \$2.09 \$3.14 3 CONDUCTOR with Beldfoil shield with drain wire on one conductor. Size 23 (21 X 36) stranded Dia. .250". Wt. ½ lb.
No.29A249-0. Belden 8497 6 ft. retracts to 11½". Each \$3.14 ............. 50 Ea. \$2.62
No.29A3052-5.Belden 9417, 15 ft. retracts to 30". Each \$6.50 ................. 15 Ea. \$5.40

4 CONDUCTOR unshielded. Size 23 (21 X 36) stranded. Dia. .250". Wt. 1/2 lb. No.29A251-6. Belden 8415, 6 ft. retracts to 11½". Each \$2.86 ....... 50 Ea. \$2.57 No.29A3053-3.Belden 9415, 15 ft. retracts to 30". Each \$6.15 ...... 15 Ea. \$5.30

Spade terminals each end, strain relief one end. Vinyl insulated. Black vinyl jacket. Size 23 (21x36) stranded. Unshielded. Length—4½ ft., retracts to 10 inches. Wt. ½ lb.

2A401-8. Belden 8495. 3 Conductor. Each.

### BELDEN 2-WIRE SPEAKER & INTERCOM CABLE

Stranded copper parallel conductor, coded, 1-tinned, 1-copper. Zip apart vinyl insulation. 

.073 x .146 O.D. Wt. per 1000 ft. 11 lbs.

### 2 CONDUCTOR UNSHIELDED AUDIO CABLE

Stranded, color coded and cabled. Ideal for most audio or speaker installations. Vinyl insulated with chrome vinyl jacket overall.

Per Ft. \$0.10 .13 .16 Stk. No. Belden AWG & Stranding O.D. 2A9930-7 8205 20 (10x30) .190 Wt. 100' 2 lbs. 3 lbs. 100 Ft. 1000 Ft. 2A9931-5 2A9932-3 62.55 16 (19x29) .256 4 lbs. 10.50

#### BELDEN PARALLEL LAMP CORD

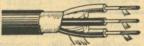
Two flexible stranded 18 (41x34) copper conductors. Brown color. U.L. listed. Wt. 3 lbs. per 100'. Maximum spool size 250 ft.

 
 Stk. No.
 Belden No.
 AWG & Stranding
 O.D.
 25'

 2A28-9
 19115Rubber
 18 SP-1(41x34)
 .110x.213
 \$2.69

 2A408-3
 19122Plastic
 18 SPT-1(41x34)
 .110x.207
 1.99
 250 100'

### HEAVY DUTY PORTABLE RUBBER CABLE



For extra hard use such as portable tools, battery chargers and heavy equipment when up to 300 volts are required.

Stranded copper conductors wrapped and color coded with rubber insulation. Black rubber jacket overall. UL listed.

Stock No.	Belden No.	AWG & Stranded	No. of Cond.	UL Type	0.D.	Lbs. 100'	Per Ft.	100 Ft.	250 Ft.
2A26-3	8452	18 (41x34)	2	"SV"	.245	4	\$0.21	\$12.90	\$24.70
2A9964-6	8453	18 (41x34)	3	"SV"	.265	5	.29	17.50	31.70
2A9966-1		14 (41x30)	3		.380	10	.45	25.00	60.55
2A27-1	8472	16 (65x34)	2	"SJ"	.325	7	.30	19.60	39.30
2A9911-7	8454	18 (41x34)	4		.265	5	.32	19.90	40.05
2A91-7	8455 2	#18(41X34)	and 3 #	20(26X34)	.280	5	.33	20.60	42.45



8-CONDUCTOR POWER CABLE

Belden 8418. Conductors are size 20(26x34) tinned copper stranded, each cotton wrapped, rubber insulated and color coded. Rayon braid over conductors and fillers, with tinned copper shield, cotton serve and black rubber jacket overall.

0.0. 386. Wt. per 100 ft. 12 lbs.
2499349 Per Ft. 85.080 250 Ft. \$14.95

Off-The-Shelf Delivery

MS ON

# BELDEN WIRE AND CABI

#### BELDFOIL 100% SHIELDED CABLES

Beldfoil shielding has superior low noise characteristics at greatly reduced cost. Shielding is continuous sheath of Mylar backed aluminum foil with ground drain wire for each shield. Superior flexibility and more continuous shielding when flexed, Chrome vinyl jacket overall. No. 8417 has 3 strands tinned copper and 4 tinned copperweld, double beldfoil shield. Others, stranded copper cond.

	SINGLI	CONDUCT	OR				
Stock Belden No. No. 2A234-3 8417	Size 25(7x33)	0.D. 100° 140 1	Per Ft. \$0.24	25 Ft. \$2.86	100 Ft. \$8.35	1000 Ft. \$61.84	
25- 100	TW	CONDUCT	ORS				A
2A9973-7 9452: 2A9941-4 8761 2A9942-2 8762 2A9943-0 8760 2A238-4 8719 2A9944-8 8720 *Color black	* 24(19x36) 22(7x30) 20(7x28) 18(16x30) 16(19x29) 14(19x27)	135 1 167 2 196 3 222 3 274 5 340 6	.16 .13 .16 .17 .21 .32	2.59 1.99 2.69 2.95 4.30 6.50	8.85 6.79 9.40 9.98 14.75 22.50	61.80 52.20 65.55 78.60 116.40 177.30	A.
CONTRACTOR OF THE PARTY OF	THRE	E CONDUCT	TORS				1
2A9945-5 8771 2A9946-3 8772 2A9947-1 8770	22(7x30) 20(7x28) 18(16x30)	.175 2 .200 3 .236 4	.15 .16 .19	2.45 3.05 3.90	8.45 10.50 13.40	65.55 82.80 105.45	4
	PAIRED CABLE-	STRANDER	CONDI	UCTORS		ER - E- ER	P

Beldfoil shield, each pair individually shielded.

Stk. Belden No. No. 2A9954-7 8723 2 2A9925-7 8777 3 2A9955-4 8725 4 2A9956-2 8778 6 Per Ft. .18 .34 .64 .68 165 270

PAIRED CABLE—SOLID CONDUCTORS

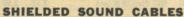
All vinyl insulated except \* which has Geosol (solderable, no stripping required) coat-

ing an	d white viny	п јаскет.							
Stk.	Belden No.	No. Pr. Size	0.D.	Wt. 100	Per Ft.	25 Ft.	100 Ft.	1000 Ft.	
2A995 2A995	67-0 * 8640 68-8 8767 69-6 8768		.090 .279 .394	1 5 9 14	\$0.09	\$1.75	\$5.49 19.90	\$42.80 154.50	0
2A998	50-4 8764 51-2 8765	9 22 Solid 11 22 Solid	440	14 14	.80 .94	10.45 14.16 17.05	34.75 47.20 56.80	322.50 458.40 544.05	
2A996	12-0 8450 T	TWO CONDUC 22 Solid	TOR MINI	ATUR	The state of the s	CABLE 2.49	8.00	49.45	6
	0-8 8451	22(7x30)	.135	2	.14	2.59	8.55	57.60	-

**DUAL CHANNEL AUDIO CABLE** 

Individual shielded conductors for language Labs. etc. Size 25 (7X33) stranded color coded vinyl insulated, with spiral wrapped tinned copper shields, chrome vinyl zip apart jacket. O.D. .106X.213.

No. 2A38-8. Belden 8416. Wt. 100' 2 lbs. 25 Ft. . . . \$3.75 100 Ft. . . . \$12.35 250 Ft. . . . \$23.95



2 Conductor, spiral shield—Size 18 (7X26), tinned copper stranded, copper spiral wrapped shield, chrome vinyl jacket. Recommended for long cable runs. .231 O.D. 2A9921-6. Belden 8790. Wt. 100" 4 lbs. Per Ft. . . . . 20° 100 Ft. . . \$13.40 1000 Ft. . . \$97

1000 Ft. .. \$97.95

Tinned copper size 22 (7X30) stranded conductors, vinyl plastic insulated and color coded chrome vinyl jacket overall. 8734 (illus,) has tinned copper shield over one conductor only. 8735 has tinned copper braid shield over entire cable. 8737 has spiral wrapped shield over entire cable.

Stock No.	Belden No.	No. Cond.	0.D.	Wt. 100'	Per Ft.	100 Ft.	1000 Ft.
2A9897-8 2A9896-0 2A86-7	8734 8735 8737	3 3 2	.194 .199 .170	3 3 2	\$0.16 .18 .13	\$10.95 11.85 8.55	\$76.20 85.50 63.30
			100000	5 5 4 4 4	DE SCHOOL	AND DESCRIPTION OF THE PERSON NAMED IN	The same of the sa

#### BROADCAST AUDIO CABLES

2 solid conductors size 22 with vinyl jacket overall. \*Indi-

Cates of all Wife.								
Stock No.	Belden No.	Color	Shield	0.D.	Wt. 100 Ft.	Per Ft.	100 Ft.	1000 Ft.
2A9891-1 2A9898-6	*8437 8739	Black	Braid Spiral Wran	200	3 lbs.	\$0.15	\$9.95	\$83.25

SMALL DIAMETER FLEXIBLE WIRES
FOR PHONO ARMS. PIGTAIL LEADS. ETC. Wt. 100 Ft. 1 Lb.
Shielded Single Conductor # 24 (16X36). 0.0. 095" brown cotton braid overall.
No. 2A103-0. Belden 84;31. 10 Ft. ...\$1,77 25 Ft. ...\$2.89 100 Ft. ...\$9.30
Shielded 3-Conductor # 32 (7X40). 0.0. 067"
No. 2A82-6. Belden 84;9. 10 Ft. ...\$2.03 25 Ft. ...\$3.63 250 Ft. ...\$22.00
Shielded 4-Conductor # 32 (7X40). 0.0. 072".
No. 2A9971-1. Belden 94;37. 10 Ft. ...\$2.56 25 Ft. ...\$4.13 100 Ft. ...\$12.45
Unshielded 2-Conductor # 32 (7X40). 0.0. 050"
No. 2A9963-8. Belden 8430. 10 Ft. ...\$1.39 25 Ft. ...\$1.95 250 Ft. ...\$9.70



#### FISH PAPER

High grade fibre sheet paraffined for in-sulation purposes. 240 square inches 



#### INSULATING CAMBRIC BREAKDOWN VOLTS

Prevents grounds and shorts on field coils,

#### MULTIPLE CONDUCTOR UNSHIELDED CABLE

All conductors are size 22, (7X30) stranded tinned copper except 6, 7, 8, and 9 conductor cables in which 2 of the conductors are size 18, (16X30) stranded tinned copper; all are color coded, vinyl plastic insulated, and cabled together with gray vinyl jacket over-

Stock No.	Belden No.	No. Cond.	0.D.	Wt. 100'	per Ft.	100 Ft.	1000 Ft.
2A9919-0	8442	2	.165	11/2	\$0.11	\$5.45	\$35.85
2A9912-5	8443	2 3	.150	2	.13	6.40	44.10
2A9913-3	8444	4	.168	2	.16	8.50	60.15
2A9914-1	8445	5	.180	3		9.90	71.85
2A9915-8	8446	6	.222	4	.18	14.35	107.25
2A9916-6	8447	7	.246	5	.29	17.10	125.10
2A9917-4	8448	8	.250	5	.32	18.05	136.20
2A9918-2	8449	9	.261	5	.34	19.10	147.15

#### UNSHIELDED PAIRED CABLE

SOLID CONDUCTORS Conductors are size, 22 solid tinned copper, color coded and cabled in pairs. Vinyl plastic insulation with chrome vinyl jacket over-all.

iii pairs. V	my plast	ic ilisuic	THE HOLL	til Cill	Jille Allihi	Jacker	Over-all.
Stock No.	Belden No.	Pairs	0.D.	Wt. 100'	per Ft.	100 Ft.	1000 Ft.
2A9899-4	8740	1	.150	2	\$0.08	\$4.92	\$30.15
2A9900-0 2A9901-8	8741 8742	2	.201	3	.12	8.25	56.55 78.90
2A9902-6	8743	6	.305	6	.27	17.95	139.20
2A9903-4 2A9927-3	8744 8753	9	.354	8	.39	25.00	208.35
2A9904-2	8745	15	.420	10	.49	28.45	268.50 359.25
2A9905-9	8746	27	.550	17	.98	67.00	621.00

STRANDED CONDUCTORS
Size 22 (7X30) more flexible and easier to pull through conduit.
Color coded and cabled in pairs.

Stock No.	Belden No.	Pairs	0.D.	Wt. 100'	Per Ft.	100 Ft.	1000 Ft.
2A9974-5	9744	2	.230	3	\$0.13	\$8.35	\$66.60
2A9975-2	9745	3	.280	4	.19	12.35	98.85
2A9976-0	9746	4	.295	5	.23	15.80	126.45
2A182-4	8747	6	.340	7	.28	21.65	169.95
2A9928-1	8748	9	.389	9	.28	28.60	260.55
2A9977-8	9747	12	.440	12	.58	42.20	358.50
2A9929-9	8749	12	.455	12	.70	46.35	438.15
2A185-7	8750	27	.595	21	1.32	99.40	828.00



### UNSHIELDED CONTROL AND AUDIO CABLES

Vinyl plastic insulated, chrome vinyl jacket. Suggested working voltage 8466 and 8467 400 V., all others 600 V.

No.	Belden No.	No. Cond.		Size	0.D.	Wt.	Per Ft.	25 Ft.	100 Ft.	1000 Ft.
2A9948-9	8466	12	18	(16X30)	.412	13	\$0.60	\$11.35	\$38.85	\$375.60
2A9978-6	8467	7	18	(16x30)	.324	8.5	.39	7.99	25.00	197.55
2A9949-7	8620	4	16	(19X29)	.375	8	.38	7.79	24.15	194.25
2A9950-5	8621	7	16	(19X29)	.455	13	.58	11.20	38.35	342.00
2A9951 -3		12	16	(19X29)	.600	21	.95	18.25	62.50	577.00
2A9952 -1		15	16	(19X29)	.650	27	1.32	25.50	87.45	829.00
2A9953-9	8627	4	14	(19X27)	.495	14	.56	10.90	37.30	339.90



#### TINNED COPPER SHIELDING

Electrostatic and interference shield for wires. Very flexible, Expands to nearly double its original diameter, reducing length about 25%. Extensively used in mobile radio installations for shielding and bonding.

Stock No.	Belden No.	I.D.	Wt. 100'	10 Ft.	50 Ft.	250 Ft.
2A134-5	8660	1/8	1 lb.	\$1.89	\$5.60	\$23.05
2B139-4	8668	11/64 3/8	2 lb.	2.56	7.10	27.15
2A135-2	8661	3/8	2 lb.	2.61	8.35	34.00
2B140-2	8669	1/2	3 lb.	4.06	17.25	69.30
28120.0	9669	257	O IL	5.00	24.05	400

#### BELDEN MAGNET WIRE

Tough dual-film insulated copper wire meets Mil W583—Beldsol film replaces all enameled magnet wire. Use Beldsol for applications where easy insulation removal is desirable. Will solder at 750° F. without stripping. IEEE thermal rating 130° C. Use Poly-Thermaleze where tougher, higher temperature wire is needed. Replaces Belden Nylclad. For motors, solenoids, transformers rated 180° C.



CARD.	POLY-THE	RMALEZI	E—1 Lb. S	pool		BELDSOL—1/2 Lb. Spool Except † are 1/4 Lb.					
Size	Stock No.	Belden No.	Ft. per Spool	Each	Size	Stock No.	Belden No.	Ft. per Spool	Each		
14	2A6000-2	8073	80	\$5.15	WE W	The state of	10 Day	CONTRACTOR OF THE PARTY OF THE	SESSION.		
16	2A6001-0	8074	126	5.35	16	2A6026-7	8048	63	\$3.10		
18	2A6002-8	8075	199	5.55	18	2A6013-5	8049	100	3 26		
20	2A6003-6	8076	315	5.60	20	2A6014-3	8050	160	3.26		
22	2A6004-4	8077	501	5.60	22	2A6015-0	8051	254	3.26 3.26 3.26		
24	2A6005-1	8078	793	5.80	24	2A6016-8	8052	404	3.33		
26	2A6006-9	8079	1260	6.05	26	2A6017-6		645	3 49		
28	2A6007.7	8080	1990	6.60	28	2A6018-4	8054	1020	3.56		
30	2A6008-5	8081	3140	7.45	30	2A6019-2	8055	1615	3.91		
32	2A6009-3	8082	4880	8.55	321	2A6020-0	8042	1257	2.59		
34	2A6010-1	8083	7860	9.65	34+	2A6027-5	8043	2030	2.72		
36	2A6011-9	8084	12400	11.50	36†	2A6028-3		3200	3.33 3.49 3.56 3.91 2.59 2.72 3.00 3.68		
38	2A6024-2	8085	19400	13.40	38†	2A6029-1		5070	3.68		
40	2A6012-7		32100	17.45	40+	2A6021-8		8050	5.05		
		39.01				The Control of the Co	1				

# COAXIAL CABLE, STRIPPER & CONNECTORS

#### BELDEN COAX CABLE



Highest quality coax cable used for commercial, amateur, military or citizens band transmitting or receiving. Eliminates "stray" fields and confines signal within cable. Vinyl jacket overall for temperatures from —40° C to +80° C, but remains flexible and is impervious to most acids, oils, alkalis and gasoline. Polyethylene insulation over center conductor provides low loss and mechanical stability. Mfg. to MIL C-17 Spec.

-			-				-	-		
Stock	Belden	Military	Imp.			Size Center		Per	100	1000
No.	No.	No.	Ohms			Conductor	C. Ft.	Ft.	Ft.	Ft.
2A9994-3	9251	RG8A/U	52	.405	29.5	7X21	11 S	0.47	\$28.20	\$219.75
2A9984-4	8237	RG8U	52	.405	29.5	7X21	11	.40	25.00	191.40
2A9985-1	8238	RG11U	75	.405	20.5	7X26	10	.36	22.95	169.65
2A9987-7	8240	RG58U	53.5	.195	28.5	#20	3	.20	8.75	63.90
2A9988-5	8259	RG58A/U	50	.195	-30.8	19X.007		21	10.05	71.10
2A9989-3	8262	RG58C/U	50	.195	30.8	19X,007		.24	11.60	84.15
2A9990 -1	8241	RG59U	73	.242	21.0	#22	4	.21	10.65	71.25
			10° TON							
2A9877-0		IRG59U	75	.242	17.3	# 20	4	.16	7.64	54.60
2A9991-9	8263	RG59B/U		.242	20.5	.023"	4	.25	12.25	89.10
2A9992-7	8254	RG62U	93	.242	13.5	#22	4	.24	11.95	84.90
2A9879-6	9269	RG62A/U	93	.242	13.5	# 22	4	.26	14.25	103.35
2A9878-8	9268	RG62A/U	93	.264	14.5	# 22	. 4	.28	17.75	128.85
2A4016 -0		*RG174/U	50	100	30.8	7X34	1	.15	7.90	49.50
2A9993-5	8218	Sub Mina		.150	20.5	7X35	2	.20	9.10	67.35
ZH3333-3	0210		ELLULAR		YETHYL			VO ID	18 6-1	148
									82	10000
2A9999-2	8214	8/U	50	.405	26.0	7x19	12	.48	25.00	230.85
2A9996-8	8213	11/U	75	.405	17.3	=14	9	.45	27.85	202.50
2A9995-0	8221	59/U	80	.242	16.3	=22	- 4	.22	13.05	74.85
100000000000000000000000000000000000000			T	FE TE	I NO.	NSULATION				
2A4021-0	83265	178B/U	50	.070	29.0		1	.37	20.10	173.25
2A4022-8		180B/U	95	.140	15.0	7X38	2	.76	45.55	409.20
				.140	13.0	dinana nas	MACTZ.		40.00	100.20
Tuoes no	contori	m to MIL-C-	/U.			Total State of				

Duofoil shield, others have copper braided shields.

BELDEN 8228 DUOFOIL 82-CHANNEL COAXIAL CABLE Signal attenuation is less than regular 59U, lighter weight and lower cost. 75 ohm impedance, 0.D. .242", 17.3 Pf/Ft. capacitance. Size 18 solidcopper conductor, black PVC jacket. Wt. 100' 24/2 lbs.

.15° 100 Ft......\$10.25 1000 Ft.....\$57.00 Per Ft.



#### PRECISION COAX CABLE STRIPPER

For the communications buff or professional installer. Strips cable in seconds with a uniform tim every time, won't nick conductor. Makes two different cuts. The first cut removes the jacket from the braid. The second removes the dielectric from the conductor. The trimmed cable is ready for assembly, with the stripped length correct for the connector. Replacement blades listed fit any tool shown. Shpg. wt. 8 ozs.

Stk. No.	Mfg. No.	Cable	Connector	Each
37A1037-8	UT-5800	RG58/U	PL-259	\$9.95
37A1038-6	UT-5900	RG59/U	F	9.95
37A1039-4	UT-5901	RG59/U	PL-259 or TV	
37A1040-2 37A1041-0 37A1042-8 CR-60	UT-6000 UT-8000	RG6/U RG8/U	Wall Plate F PL-259	9.95 9.95 11.95 \$2.98



#### AMPHENOL UHF PANEL RECEPTACLE

Panel receptacle requires only one  $5/8^\circ$  hole for mounting. Two hex nuts hold firmly to panel. Mates with 83-1SP type plug. Amphenol83-878 12A2833-8. 1 to 24 Ea. . . . . . . \$1.00 25-99 Ea.  $78\varepsilon$  100 up Ea. 64c



#### AMPHENOL UHF DOUBLE MALE CONNECTOR

Connects two 83-1R type receptacles together. Used for mounting SWR meter. coax relay or coax switch directly to transmitter output. Amphenol83-877 12A2834-6. , 1 to 24 Ea. . . . . \$1.78 25-99 Ea. \$1.39 100 up Ea \$1.14

#### "BLITZ BUG" COAX CABLE LIGHTNING ARRESTOR

Added lightning protection for receiving and transmitting equipment, ham gear, citizens band transceivers etc. using 52 ohm or 72 ohm coaxial antenna lead. Shpg. wt. 1 lb.

No 10A3001-3. Cushcraft LAC-1. Threaded for stand-

No 10A3038-5. Cushcraft LAC-2. Threaded for PL259 connectors both ends. Each.



#### COPPERWELD ANTENNA WIRE

Tensile stren stretch or si per at high

sag. Electric		copper. Minimum the same as cop- nductors.	
ize	100' Coll	RE 250' Coil	500' Coil

Stk.	Size	100	V Coll	250	Coil	500'	
No.	(AWG)	Wt.	Each	Wt.	Each	Wt.	Each
2M44-6	10	3 lbs.	\$10.60	7 lbs.	\$25.00	14 lbs.	\$49.30
2M45-3	12	2 lbs.	8.20	5 lbs.	18.80	9 lbs.	33.10
2M46-1	14	1 lb.	6.80	3 lbs.	14.60	6 lbs.	24.20
2M9888-7	18	1/2 lb.	2.50	11/2 lbs.	5.40	3 lbs.	9.50

#### SPIRAL CUT CABLE WRAP

Natural polyethylene for cabling and harness wiring. Allows taps to be pulled at any point, retains original form and may be re-used if de-

ired. Temperature range: -105° to	66	308 8 908	
tock No. O.D. Max Cable Dia. 1/2" 1/2" 2" 1/4" 2" 1/48040-5 3/6" 3" 4" 1/2" 4"	Per Ft.	100 Ft.	1000 Ft
	\$0.09	\$6.12	\$55.08
	.14	9.86	89.25
	.23	16.15	142.86
	.26	18.85	\$161.20



Most popular screw-on coaxial connector series. Used extensively for RF power transmission lines in amateur, CB and commercial services. Items with \* are female connectors mating with all plugs in the UHF series. Fig. 2 reducers are for use with Fig. 1 plug. Fig. 4 hoods provide fully shielded line connection to rear of Fig. 3 socket.

Fig.	Stock A	mphenol No.	Military No.	Description	For RG Cable	1- 24 Each	25- 99 Each	100- 499 Each
0	12A1914-7	83-1SP	PL-259	Cable Plug	8, 11	\$0.80	\$0.64	\$0.56
	12A1915-4 12A2307-3	83-776 83-750	UG-203U UG111U	Cable Plug Cable Plug	58 59, 62	3.30	2.57	2.11
8	12A1916-2	83-168	UG176U	.257" I.D. Reducer	59, 62	.25	.20	.17
2	12A1917-0	83-185	UG175U	.207" I.D. Reducer	58	.25	.20	17
3	12A1918-8	83-1R	SO-239*	Panel Receptacle		.74	.58	.47
0	12A1957-6	83-1H	UG106U UG177U	.345" I.D. Hood .155" I.D. Hood	8, 11 58	.76	.75	.47 .61 .49
9	12A1958-4 12A1959-2	83-765 83-1AP	UG646U	Right Angle	30	\$2.10	1.64	1.34
6	12A1962-6	83-1	PL-258*	Double Female Adapt		1.24	.97	.79
0	12A1963-4	83-1F	UG363*	Feed Thru		3.40	2.65	2.18
8	12A1964-2	83-1T	M358*	Tee	accheba)	3.28	2.56	2.10
0		(I)	TO TO		13	16		

TYPE "BNC" CONNECTORS Fast Bayonet style especially suited for smaller RG58 and RG59 coax cables. Fig. 16 and 17 are "between series" adapters providing greater convenience where small coax is used with equipment naving UHF or N style receptacles. (\*) Female connectors mating with all plugs in the BNC series.

ig.	Stock No.	Amphenol No.	Military No.	Description	For RG Cable	1-24 Each	25-99 Each	100 499 Each
	12A1965 -9	31-002	UG88U	Cable Plug	58	\$1.06	\$0.83	\$0.68
	12A1966 -7	31-018	UG88B/U	Cable Plug	58	1.22	.95	.71
9	12A1967-5	31-202	UG88C/U	Cable Plug	58	1.10	.86	.71
9	12A1968 -3	31-012	UG260U	Cable Plug	59, 62	1.36	1.06	1.0
9	12A1969 -1		UG260B/U	Cable Plug	59, 62	1.26	.98	.8
10	12A1970 -9	31-005	UG89U-*	Cable Receptacle	58	1.70	1.33	1.0
10	12A1971-7	31-015	UG261U*	Cable Receptacle	59, 62	1.96	1.53	1.2
II)	12A1972-5	31-003	UG290U*	Panel Receptacle		1.30	1.01	.8
n	12A1973-3	31-203	UG290A/U*	Panel Receptacle		1.10	.86	.7
12)	12A1974-1	31-102	UG657U *	Recept. 1-Hole Mtg.		1.60	1.25	1.0
13	12A1975 -8	31-001	UG291U*	Recept, Rear Clamp	58	3.04	2.37	1.9
10	12A1976 -6	31-219	UG914U*	Dbl. Female Junct.		1.64	1.28	1.0
	12A1977 -4	31-008	UG274U*	Tee		3.62	2.82	2.3
	12A1978 -2	31-830	UG201U	BNC Jack to N Plug		3.68	2.87	2.3
	12A1979 -0		UG273U	BNC Jack to UHF Plu	g	1.92	1.50	1.2
17	12A1980 -8		UG349A/U	BNC Plug to N Jack	0	3.72	2.90	2.3



#### "N" SERIES CONNECTORS

Highest quality, 50 ohm constant impedance style connectors. Generally specified for more critical applications because of lower SWR and weatherproof construction. Recommended where coax line will be supported by the connector. \*Female connectors mating with all others in the N series.

Fig.	Stock No.	Ampheno No.	Military No.	Description	For RG Cable	1-24 Each	25-99 Each	100- 499 Each
(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	2A1981-6 2A1982-4 2A1983-2 2A1984-0 2A1985-7 2A1986-5 2A1987-3	82-61 82-63 82-24 82-101 82-100 82-213 82-99	UG21B/U UG23B/U* UG58U* UG29B/U* UG57B/U UG27C/U* UG28A/U*	Male Cable Plug Female Cable Jack Panel Recept. Dbl. Recept. Junction Dbl. Plug Junction Right Angle Tee		\$2.38 2.90 1.64 3.14 3.18 4.00 5.80	\$1.86 2.26 1.28 2.45 2.48 3.12 4.52	\$1.52 1.86 1.05 2.01 2.04 2.56 3.71
(4)		_	M-41 6	M-4	3			M-45
1	),	IL	M-42	M-4	4 07		1	M-46

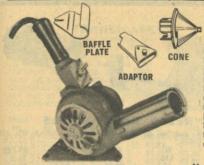
### COAX CABLE CONNECTOR ADAPTORS

For connecting PL-259, SO-239 plugs to Motorola pin plug and RCA phono plug type sockets and cable plugs. Designed for RF transmitter-receiver cables, test equipment for fast conversion without altering original connectors.

M-41. Converts Motorola type pin plug on lead to SO-239 on set. No.12A1988-1.Net Each	\$2.79
M-42. Converts phono plug on lead to SO-239 on set. No.12A1989-9.Net Each	
M-43. Converts Motorola type pin plug on lead to phòno Jack on set. No.12A1990-7.Net Each.	
M-44. Converts PL-259 on lead to phono Jack on set.	Marie Control
No. 12A1991-5.Net Each. M-45. Converts phono plug on lead to Motorola type pin Jack on set.	the in thirt
No.12A1992-3.Net Each M-46. Converts PL-259 on lead to Motorola type pin Jack on set.	Charle Were
No.12A1993-1.Net Each	\$2.79

Off-The-Shelf Delivery at Factory Prices

# HEAT GUNS, ALPHA TUBING & TAPE



#### MASTER APPLIANCE HEAT GUNS

Handiest, quickest, safest way to get instant heat without the danger of open flame. Preadjusted temperature is ideal for heat shrink tubing, precision drying, etc. 3 position switch for Hot, Cold or Off. Quiet turbo-fan cools motor and delivers air stream. Double jacketed heater housing, die cast aluminum blower housing. Knurled knob adjusts temperature within ranges shown. 8 ft. neoprene 3 wire cord and plug, with stand for bench use if desired. For 115 VAC. Shipping

Stock No. 37A9111-3 37A9112-1 37A9089-1	Model HG201 HG301 HG501	Temp. °F. 200/300 300/500 500/750		Nozzle Length 3" 3" 4"	Overall Length 10" 10"	Each \$54.95 54.95 59.95	3 Each \$49.90 49.90 54.90
37A9090-9. Each		100-HG. Nozzl	Adaptor	to adapt 3 Each .	baffle plate to	gun.	\$3.29
37A9091-7.	Model A-	145-HG. Baffle	Plate fo	tubing up	to ¾" O.D.		
37A9092-5.	Model A-	150-HG. Baffle	Plate for	tubing up	to 1¼" O.D.		100 P
37A9125-3. etc.		-206-HG. Cone					
		byrawc I ale	\$15.45	3 Each .		recolinate h	\$13.95
		200-HG. Steel				t guns and noz	

### MASTER MITE HEAT GUN

Compact, light weight 8-7/8" long in a tough, ultra high impact housing with indicator light for on-off indication. Stands vertical or at a  $45^\circ$ angle on workbench if desired. 3 position switch, Hot-cool-off, and 3 wire cord and plug. Non-adjustable, the Mite uses optional nozzles for different heat ranges. Supplied with silver nozzle rated 650°F, 475 watts, recommended for PVC. FEP. Neoprene and other most common shrink materials. Complete with deflector adaptor-baf-fle. Shpg. wt. 2 lbs.



Each						\$37.95
Heating element nozzles		The second second				007.00
Stk. No. Model No.	Color	Temp.	Watts	For	Each	3 Each
37A9121-2 20012	Blue	500°F	325	Mylar	\$5.49	\$5.00
37A9122-0 20013	Silver	650°F	475	PVC, FEP	5.49	5.00
37A9123-8 20014	Black	800°F	525	TFE, Teflon	5.49	5.00
37A9124-6 40061	Pinnoint I	Vozzle Adar	tor		3 29	2 95

## UNGAR PRINCESS HEAT GUN

Specially designed for electronics assembly. Complete with 4 baffles for all heat shrink materials. Air stream at nozzle is only ¾ diameter. Case designed for gun to stand on workbench if desired. Convenient hot-off-cold 3-way switch at trigger position. Case of Ut recognized glass filled plastic. Complete with 3-wire cord and plug. Rated 250 watts, 120 VAC. 750 to 850 nozzle air flow temperature. Shpg. wt. 3 lbs. 37A8140-2 Model 6966C \$42.00 \$42.00

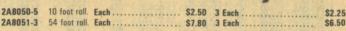




Self Locking-	-All Nylon-	-No Meta	Parts-	-Permanent	tly ties wir	e bundles,
must be cut	off for remo	val-natu	ral color.			
Stock No.	Bundle Dia.	A	В	10 For	100 For	1000 For
12A2632-4	1/8" to 3/4"	.050	.115	\$0.45	\$2.22	\$18.80
12A2633-2	1/8" to 11/5"	.050	.135	.60	3.02	24.20
12A2634-0	1/8" to 3/4" 1/8" to 1 1/2" 1/8" to 1 3/4"	.055	.190	.70	3.52	28.20
12A2635-7	1/8" to 3"	.055	.190	1.50	7.73	61.80
12A2636-5	1/9" to 4"	.055	190	1.75	8.82	70.60

## HEAT SHRINKABLE ELECTRICAL TAPE

34" wide tape, shrinks about 30% in length. Seals, waterproofs, insulates, and cannot be peeled off. Mfgr. No. TYT100.



#### ALPHA PVC-105 PLASTIC TUBING

For all electronic, electrical and aircraft applications. Conforms to MIL-1-631D. ASTM-D876 and D922 specs. High dielectric strength, non-flammable and resistant to oils and corrosion. Flexible from —20°C to +105°C. Stocked in clear only. Available on special order in Black, White, Yellow, Red, Green colors. Minimum special order amount is \$25.00. Size 1 wt. 1.2 lb. per 100°.



			THE RESIDENCE		and the same of th	Mary and the same of the same		
Stock No.	Size	I.D.	25' For	50' For	100' For	250' For	500' For	1000' For
2A8002-6	24	.022	\$1.26		\$ 3.61			\$18.03
2A8003-4	22	.027	1.31	****	3.75	****	-	18.76
2A8004-Z	20	.034	1.34	****	3.83	ine	****	19.12
2A0003-3	19	.038	1.39	****	3.97	****	stee.	19.85
248000-7	17	.042	1.49	****	4.12	****	****	20.59
2A8008-3	16	.053	1.54	****	4.41	****	****	21.32
2A8010-9	14	.066	1.73	****	4.67	****	\$13.33	22.06
2A8011-7	13	.076	1.84		4.96		14 17	*****
2A8014-1	10	.106	2.06		5.54		15.83	
2A8015-8	9	.118	2.73		7.36		21.03	
2A8016-6	9	.133	2.93		7.88		22.50	138
2A8017-4		.148	3.06	5 Person 1	8.23	33 Tale	23.53	200
2A8018-2	6 5	.166	3.27	*****	8.82	****	25.20	
2A8019-0 2A8020-8	D BE	.186	3.49	- B	9.40	***	26.87	
2A802U-8 2A8021-6	4	.208	3.70	****	9.79	\$21.75		*****
240021-0	3	.234	4.04	****	10.69	23.75	· · ·	
248022-4	1	294	4.92	****	13.03	26.25 28.95	****	*****
2A8025-7	0	.330	5.51	****	14.58	32.40	****	
2A8024-0	5/16"	312	6.64	banasi .			***	*****
2A8026-5	3/8"	312	7.76	****	17.57 20.54	39.05 45.65	****	*****
2A8027-3	1/18"	.438	8.30		20.75		the Allina	****
2A8028-1	1/2"	.500	9.40		23.50		2 3 3 3 5 3	
2A8029-9	9/16"	.562	12.40	-	31.00	-		
2A8030-7	5/8"	.625	13.56	****	33.90			

#### ALPHA HEAT SHRINK TUBING FIT-221 IRRADIATED POLYOLEFIN TUBING

Application of 225° to 255° F. heat shrinks tubing 50% in diameter, only 5% in length within 7 seconds. Use heat guns at left for fastest shrinkage. Insulates connectors, splices, terminal lugs, tool handles. Excellent resistance to oil, solvent and flame. Stocked in black color. Conforms to MIL-23053/5. 4 Ft. standard factory length. We cut to 1 Ft. length for shipping unless you specify

Specify Stock No. and Size when ordering

Stock No.	Size	Original I.D.	ID After Heating	Wall Thickness	Per Foot	Net Per 20 Ft.	100 Ft.
02-08001-8-001-8	3/64"	.046	.023	.016	\$0.29	\$ 4.28	\$17.80
02-08001-8-002-6 02-08001-8-003-4	3/32"	.063	.031	.017	.30	4.50 5.19	18.90 21.85
02-08001-8-004-2 02-08001-8-005-9	1/8"	.125	.062	.020	.37	5.54	23.20
02-08001-8-006-7	3/16"	.187	.093	.020	.45	6.76 8.48	28.30 35.70
02-08001-8-007-5 02-08001-8-008-3	36"	.375	.187	.025	.63	9.38	39.60
02-08001-8-008-3	1/2" 3/4"	.500 .750	.250 .375	.025	.71	10.68	44.65 59.85
02-08001-8-010-9	1"	1.00	.500	.035	1.33	19.93	84.10

#### FIT-105 POLYVINYLCHLORIDE TUBING

Requires higher heat (325°F) and shrinks up to 10% in length Continuous lengths allows use for longer cable jackets, etc. Black color. Conforms to MIL 1-23053/2.

Stock No.	Size	Original ID	ID After Heating	Wall Thickness	25 Ft.	100 Ft.	200 Ft.	500 Ft.
02-08042-2-001-8	3/64"	.046	.023	.020 \$		\$15.44		\$67.84
02-08042-2-002-6	/16"	.062	.031	.020	4.97	16.32		71.91
02-08042-2-003-4 02-08042-2-004-2	3/32"	.093	.046	.020	5.63	18.58	\$36.12	****
12-08042-2-005-9	1/8"	.125	.062	.025	5.94	19.90	38.80	****
2-08042-2-006-7	1/4"	250	125	.025	7.14 8.77	24.10	47.16	****
2-08042-2-007-5	3/8"	375	187	.030	9.70	30.06	59.10 65.36	****
2-08042-2-008-3	1/2"	500	250	.030	10.90	37.02	00.30	****
2-08042-2-009-1	3/4"	775	375	.035	14.48	49.86	*****	****
02-08042-2-010-9	1"	1.000	.500	.040	20.41	71.34	*****	

#### 6-INCH FIT-221 SHRINK TUBING ASSORTMENTS

Assorted colors, red, black, white, yellow, blue and clear of the same shrink tubing described above. Each length identified as to size.

Stock No.	Alpha No.	Tubing Size Range	Lengths in Package	Per Package
2A8035-6	FIT221 MS-1	364" thru 3/6"	30	\$ 6.62
2A8036-4 2A8037-2	FIT221 MS-2 FIT221 MS-3	1/4" thru 3/4" 1" thru 4"	16	13.23

No.16A1152-0 Catalog of Alpha Tubing and Accessories FREE on Request.
REQUEST QUANTITY PRICES FROM OUR INDUSTRIAL DEPARTMENT

#### SCOTCH VINYL ELECTRICAL TAPE

Scotch 33. Black vinyl plastic. Resists grease, acids, water, gasoline, etc. 7 mils thick. Dielectric strength 10,000 volts. 17A7000-4. 66 Ft. ¾ inches wide.



\$1.59

# RELAY RACKS, PANELS, CABINET

5



1 BUD DELUXE RELAY RACKS

Attractive rounded corner design with recessed panel supports for flush panel mounting. Racks of 16 gauge steel, 7/64" panel supports. Drilled and tapped for 10-32 screws, spacing for all standard 19" panels. Well ventilated, louvers side and rear. Hinged rear door with snap catches. All are 22" wide, 17-1/8" deep. Supports for mounting free-rolling casters listed below. Shipped knocked down. Hammertone Gray finish.

Stock	Bud	Hgt.	Panel	Wt. Lbs.	1-9 Each	10-14 Each	15-19 Each
No. 5A7514-8	No. CR1774	Ins. 421/4	Space 363/4"		\$100.85	\$90.75	\$80.70
5A7500-7	CR1771	47%	42"	82 92	114.05	102.65	91.25
	CR1772 CR1773	66%6	611/4"	115	142.85 164.50	128.55 148.05	131.60
BUD RC775		CASTERS FOR		LUXE REL		I also	
		. (Requires 4) . \$1.90 25-4		9	1.70 50-99	Each	\$1.50

#### 2 BUD TELEPHONE TYPE RELAY RACKS

Uprights	%4" Steel	channels, 37	deep.	chassis type	base.	Stocked III	nammer ton
Gray. Stock	Bud	Hgt.	Panel Space	Wt.	1-9 Each	10-14 Each	15-19 Each
No. 5A7509-8	No. RR1264	Ins. 703%4	661/2"		\$52.10	\$46.90	\$41.70
5A7510-6	RR1364	7553/64	713/4"	48	54.80	49.30	43.85
547511-4	RR1366	81%	77"	50	59.85	53.85	47.90

#### (3) TABLE MOUNT TELEPHONE RACKS

For desk o	r bench mt	g, of equ	ipment, pe	ermitting e	asy access	for building	or oper-
ating. Pane	supports	are reces	ssed for fl	ush panel	mounting.	Hammertone	gray.
Stock	Bud	Hgt.	Panel	Wt.	1-14	15-24	25-34
No.	No.	Ins.	Space	Lbs.	Each	Each	Each
5A7519-7	RR1248	24	21"	15	\$20.95	\$18.85	\$16.75
5A7520-5	RR1249	31	28"	18	24.70	22.25	19.75

#### (1) BUD DELUXE CABINET RACKS

Professional quality and appearance for equipment builders. All have hinged top with recessed snap lock and the five larger sizes also have hinged rear door. "No scratch" metal feet embossed on bottom. For use with standard relay rack panels. All are 22" wide, 144" deep. Stocked in Hammertone Gray, Buy panels from listings at right.

Stock No.	Bud No.	Hgt.	Panel Space	Wt. Lbs.	1-9 Each	10-14 Each	15-19 Each
5A7503-1	CR1741	10%	83/4"	28 31 32 35	\$41.85	\$37.65	\$33.50
5A7501-5	CR1740	12%	101/2"	31	49.10	44.20	39.30
5A7504-9	CR1742	141/6	121/4"	32	50.50	45.45	40.40
5A7502-3	CR1739	151%	14"	35	68.55	61.70	54.85
5A7506-4	CR1743	19%	171/2"	40	70.30	63.25	56.25
5A7507-2	CR1727	2213/16	21"	40 43	72.05	64.85	57.65
5A7512-2	CR1744	281/6	261/4"	51	77.55	69.80	62.05
5A7508-0	CR1728	33%	311/2"	58	82.40	74.15	65.90
5A7513-0	CR1745	3613/6	35"	63	86.65	78.00	69.30



#### BUD SHADOW CABINET

Front panel bevelled and recessed 1". Front and back panel as well as the bottom are removable. 18 gauge steel with 16 gauge panels. Rubber feet. Light gray

Stock	Bud	Siz	e Inche	S	Use	Wt.	1-24	25-49	50-99
No.	No.	H.	W.	D.	Chassis	Lbs.	Each	Each	Each
5A246-4	SB2143	6	151/2	9	AC409	91/2	\$12.70	\$11.45	\$10.15
5A244-9	SB2141	71/2	131/4	9	AC407	93/4	13.45	12.10	10.75
5A243-1	SB2140	8	141/4	10	AC424	111/2	16.85	15.15	13.50
EADAE G	SR2142	01/6	17	11	AC411	151/4	22.40	20.15	17.90



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### MIDGET SIZE CABINETS



① BUD SLOPING FRONT CABINETS for miniaturized equipment. Hammertone gray. Size 41/2'' deep x 41/2'' high. One-piece detachable back and sides.

			ALUMINUM		NATES ESET AN	
Stock	Bud		Wt.	1-49	50-99	100-149
No.	No.	Width	Lbs.	Each	Each	Each
5A224-1	AC1610	4"	1/2	\$4.00	\$3.60	\$3.20 3.10
5A225-8	AC1611	5"	1/2	3.90	3.50	3.10
5A226-6	AC1612	6"	3/4	4.35	3.90	3.50 3.80
5A228-2	AC1613	7"	3/4 3/4	4.75	4.30	3.80

Punched for 2" meter with easily removable knock-out ring to increase hole size for 3" meter. One-piece removable sides and bottom. Two 3%" knock-outs in top for installing insulators etc. Gray hammertone. 444x444".

IUI IIIsta	illing insulators, c	to. dray man		1-49	50-99	100-149
Stk. No.	Bud No.	Material	Wt.	Each	Each	Each
5A39-3	CM1935	Steel	1 Lb.	\$2.90	\$2.60	\$2.30
5A40-1	CMA1936	Aluminum	3/4 Lb.	3.50	3.15	2.80
LARGER	SIZE CASE. 41/4"	H. x 6" W.	x 4" D.	Aluminum,	Hammertone Gray.	4.00
EA22 C	CMA1030		3/4 Lb.	5.75	5 20	4.60

### **(5) ALUMINUM RELAY RACK PANELS**

7

All panels are 19" wide, 1/6" thick. Notched to RMA specification which fits all

standard	racks. Hammert	one Gray Tinis	SII.			
Stock	Bud	Height	Wt.	1-49	50-99	100-149
No.	No.	Inches	Lbs.	Each	Each	Each
5A5550-4	PA1101	13/4	1/4 3/4	\$2.75	\$2.50	\$2.20
5A5551-2	PA1102	31/2	3/4	3.85	3.45	3.10 4.00 5.10
5A5552-0		51/4	1	5.00	4.50	4.00
5A5553-8	PA1104	7	13/4	6.35	5.70	5.10
5A5554-6	PA1105	83/4	2	7.10	6.40	5.70
5A5555-3	PA1106	101/2	21/2	9.20	8.30	5.70 7.35 8.50
5A5556-1	PA1107	121/4	23/4	10.60	9.55	8.50
5A5557-9		14		12.10	10.90	9.70
5A5558-7		153/4	31/2	113.45	12.10	10.75
5A298-5	PA1110	171/2	4	14.80	13.30	11.85
5A299-3	PA1111	191/4	41/2	16.10	14.50	12.90

#### **S ALUMINUM SURFACE SHIELD RACK PANELS**

Bright aluminum with blemish-free Mill finish. Covered both sides with pressure sensitive white paper for layout and drilling; paper is removed when ready to

stock Star	ndard notching Bud	19" width, Height	1/8" thick.	1-24	50-99	100-149
No.	No.	Inches	Lbs.	Each S2.35	Each \$2.10	Each \$1.90
5A5559-5 5A5560-3	SFA1831 SFA1832	13/4 31/2	1/4 3/4	3.90	3.50	3.10
5A5561-1 5A5562-9	SFA1833 SFA1834	51/4	1 13/4	\$5.10 6.25	\$4.60 5.65	4.10 5.00
5A5563-7	SFA1835 SFA1836	83/4 101/2	2 21/2	7.25 9.45	6.55 8.50	5.80
5A5564-5 5A5565-2 5A5566-0	SFA1837 SFA1838	12½ 14	23/4	-10.85 12.20	9.75 11.00	7.55 8.70 9.75

#### 6 BUD PANEL CHASSIS

For vertical chassis installation on relay rack panels where space in depth is limited. Provides easy access to circuitry. Horizontal design permits easier access for testing and maintenance. All have 17" chassis length and 5\%2" depth. Notched for mounting with 19" relay rack panels, Made of 060" natural aluminum.

Stock	Bud	Height	Wt.	1-24	25-49	50-99
No.	No.	Inches	Lbs.	Each	Each	Each
5A321-5	CB1371	31/2	11/4	\$5.20	\$4.70	\$4.15
5A322-3	CB1372	51/4	11/2	5.85	5.25	4.70
5A323-1	CB1373	7	2	6.50	5.85	5.20
5A324-9	CB1374	83/4	21/4	7.95	7.15	6.35

### 1 ADJUSTABLE BUD TEM-STAT

Stock	Bud	Adjustable	ESS UP IN	Prices Each	15-19
No. 5C146-6	No. TS-15	Temp. Range 80 to 170° F.	\$8.70	10-14 \$7.85	\$6.95

#### BUD FUTURA CABINETS

Modern rectangular modular cabinets. One-piece top and sides removable for easy access to interior. 20 gauge steel with 18 gauge front panel held in place by body flanges eliminating panel mounting screws. Available with inclined (see illustration) or straight panel. Choice of light grey Hammertone body with smooth light grey panel or textured dark blue body with smooth light blue panel.

#### VERTICAL PANEL

Hammertone Gray Stock No. 5A32-8-045-5 5A37-7-045-5 5A42-7-045-5	Blue Textured Stock No. 5A32-8-092-7 5A37-7-092-7 5A42-7-092-7	Bud No. MD1960 MD1961 MD1962	Si h. 7 8 8	w. 13 14 16	S 0. 899	Wt. Lbs. 6¾ 7¾ 8½	1-14 Each \$16.20 17.55 18.10	15-24 Each \$14.60 15.80 16.30	25-34 Each \$12.95 14.05 14.50
		INCLIN	ED F	PANEL					
5A43-5-045-5	5A43-5-092-7	MD1963	7	13	8 9	7	19.10	17.20	15.30
5A44-3-045-5	5A44-3-092-7	MD1964	8	14	9	8	20.45	18.40	16.35
5A45-0-045-5	5A45-0-092-7	MD1965	8	16	9	83/	21.90	19.70	17.50

#### SLOPING FRONT CABINETS

Provided with a hinged top for easy access to tubes and other components mounted on the chassis without removing the front panel. The front panel, however, may be removed if necessary. Stocked in light gray Hammertone



Stock	Bud		ze Inch	es	Use	Wt.	1-24	25-49	50-99
No.	No.	H.	W.	D.	Chassis	Lbs.	Each	Each	Each
5B135-9	C1584	61/2	71/16	75/6		21/2	\$7.75	\$ 7.00	\$ 6.20
5B136-7	C1585	61/2	91/16	75/16		3	8.50	7.65	6.80
5B139-1	C1586	61/2	111/6	7%6		3 3½ 3½ 3¼	9.75	8.80 10.15	\$ 6.20 6.80 7.80 9.00
5A134-2	C1588	8	10%	8		31/4	11.25	10.15	9.00
5B142-5	C1892	8	131/6	81/2	AC407	51/4	13.20	11.90	10.55
5A130-0	C1894	8	141/16	8	AC409	4	11.75	10.60	9.40
5A131-8	C1896	8 9	18%	81/8	AC425	7	16.70	15.05	13.35
5R144-1	C1893	10	18%	101/2	AC415	81/2	17.20	15.50	10.55 9.40 13.35 13.75

TRANSICASES

Handsome aluminum portable instrument case. Contoured design with chrome plated fittings. .040" aluminum with flush mounted .050 aluminum panels. Slip hinge, foam lined lid protects knobs, dials, etc. Clearance lid to panel 134", Rubber feet on both back and bottom. Textured vinyl gray finish.

Size Inches



37.65 40.20 40.80 43.05

#### BUD PORTACA

		ROD	POR	TA	CAI	B				annathi .
9			tyled hou							
	A	ment. I	Body is o	ne p	piece	.05	0			
		.062.	Flexible I	reces	sed	han	1-			
ď			etachable ammerton							
		Stock							1-24	25-4
			No.				Chass.		Each	Each
	\$32.50	5A3000-2	WA1540	8	61/8	8	AC402	21/2	\$16.45	\$14.8
		5A3002-8							19.20	17.3
		5A3001-0							22.55	20.3
	36.30	5A3003-6	WA1543	11 1	111/8	18	AC416	61/2	27.90	25.1
	38.30	5A7518-9	WA1544	12	141/8	18	AC420	73/4	32.05	28.8
1		THE RESIDENCE OF	THE RESERVE OF THE PERSON NAMED IN			_				

#### RUD CONVERTA-BOXES

Consists of a welded base and two sided cover. 20 gauge steel assures rigidity and protection. Cadmium plated finish.

	Stock	Bud	Size	Inch	es	Wt.	1-24	25-49	50-99	
49	No.	No.	H.	W.	D.	Lbs.	Each	Each	Each	
ch	5A340-5	CU341	11/2	4	3	1/2	\$4.00	\$3.60	\$3.20	
.80	5A341-3		2	5	4	1	3.90	3.50	3.10	
.30	5A343-9 5A344-7	CU592	21/2	91/2	5	13/4	4.45	4.00	3.55	
.30	5A344-7	CU622	21/2	12	6	23/4	4.85	4.35	3.90	
.10	5A345-4	CU712	21/2		7	31/2	6.50	5.85	5.20	
OE.						-	0.00	MI SELECTION OF THE PARTY OF TH	0.000	

#### TILT-A-VIEW CABINET



Bud

 STOCK
 BIId
 SIZE Inches
 Wt.

 No.
 No.
 W.
 D.
 H.

 5A132-6 TC-300
 10 ¼6
 7
 6
 3¾

 5A137-5 TC-301
 11 ½2
 8¼
 6
 4½

 5A138-3 TC-302
 13
 9
 7½
 6

 5A148-2 TC-303
 16½
 9
 7½
 8

 5A149-0 TC-304
 20½
 8
 9
 10

Stock

Slanted front face and vertical rear face, may be used with or with-out detachable legs to change panel angle. Two piece 16 gauge permits easy access to interior. Top and bottom sections interlock for strength and rigidity. No fasteners show on front or rear panels. Charcoal grey vinyl texture cabinet with light sand panels.

Stock No.	Bud No.	H.	Size Inches W.	D.	Wt. Lbs.	1-14 Each	15-24 Each	25-34 Each
5A3029 -1	TV2155	41/2	15	10	81/2	\$14.60	\$13.15	\$11.70
5A3030 -9	TV2156	61/2	16	12	13	17.10	15.40	13.70
5A3031 -7	TV2157	81/2	17	14	17	24.80	22.30	19.85



### UTILITY TYPE CABINETS

Sturdy spot welded steel. Removable front and back covers for complete accessibility. Stocked in Hammertone gray for only.

Stock	Bud		Size In.		Wt. 1-49	50-99	100-149
No.	No.	H.	W.	D.	Lbs. Each	Each	Each
5A78-1	CU-883	4	4	2	3/4 \$2.50	\$2.25	\$2.00
	CU-728	4	5	3	7/8 3.00	2.70	2.40
5A7-0	CU-1098	6	6	6	21/2 5.10	4.60	4.10
5A8-8	CU-1099	9	6	5	3 5.75	5.20	4.60
5A9-6	CU-879	10	8	7	5 7.85	7.05	6.30
	CU-880	10	10	8	51/2 9.10	8.20	7.30
5A11-2	CU-881	12	11	8	6 10.10	9.10	8.10

#### BUD MINIATURE UTILITY CABINETS ALUMINUM TYPE



A highly useful housing for all types of electronic equipment. Both front and back panels are removable for easy accessibility. Aluminum alloy 5005 H-14, are available with natural or light grey hammertone (HG)

		ches	Wt.			Natural	Finish	19		Grey Han	nmertone	
H.	W.	D.	Lbs.	Bud No.	Stk. No.	1-49 Ea.	50-99 Ea.	100-199	Stk. No.	1-49 Ea.	50-99 Ea.	100-199
4	4	2	1/4	AU1083	5A3015-0	\$3.15	\$2.85	\$2.50	5A3032-5	\$3.75	\$3.40	\$3.00
4	5	3	1/4	AU1028	5A3016-8	3.35	3.00		5A3033-3	4.25	3.85	3.40
6	5	4	1/2	AU1029	5A3017-6	3.75	3.40		5A3034-1	4.50	4.05	\$3.00 3.40 3.60
6	6	6	3/4	AU1039	San San San	be man	A Historia		58266 2	5.95	5.35	4.75
9	6	5	1	AU1040	5A265-4	6.20	5.60	4.95	5A267-0	5.95 7.50	6.75	6.00



Projecting cover reduces glare from overhead lighting, protects controls. Top and side assembly slips over bottom section forming a rigid unit with excellent accessibility. Made of .040" aluminum.

#### BUD COWL-TYPE MINIBOX

	e Inc	hes	200	Wt.	Natural		1-49	50-99	100-149	Hammert	one grey	1-49	50-99	100-149
H.	W.	D.	37.7	Lbs.	Bud No.	Stk. No.	Each	Each	Each	Bud No.	Stk. No.	Each	Each	Each
3	8	5		1	SC3032	5A261-3	\$4.85	\$4.35	\$3.90	SC2132	5A257-1	\$6.75	6.10	5.40
5	5	5		1	SC3033	5A262-1	5.20	4.70	4.15	SC2133	5A258-9		6.25	5.55
6	10	7		11/4	SC3030	5A259-7	8.50	7.65	6.80	SC2130	2A255 -5	11.75	10.60	9.40
7	12	8		11/2	SC3031	5A260-5	9.20	8.30	7.35	SC2131	54256-3	12 85	11 55	10.30

This Minibox has both snap-lock and screw-type fastening. The design permits the installation of more components than is possible in other conventionally designed boxes of the same size. Two-piece construction, each piece forming three sides. The two sec-



tions are held together by the engagement of four circular projections into four matching holes. A unique mechanjections into four matching holes. A unique mechanical principle enables these projections to be easily and quickly knocked out if screw type assembly is desired. Flange assures proper shielding. Four self-tapping screws furnished. Made of .040 aluminum, except 7" and longer are .050". Available in natural finish or light gray Hammertone. Please specify when ordering.

#### **BUD ALUMINUM MINIBOXES**

	Size Inches L. W. H.	Wt. Lbs.	Natural Bud No.	Finish Stk. No.	1-49 Each	50-99 Each	100-149 Each	Hammer Bud No.	tone Grey Stk. No.	1-49 Each	50-99 Each	100-149 Each
7	23/4×21/8×15/8	1/4 1/4 1/4	CU3000A	5A3005 -1		\$1.15	\$1.00	CU2100A	5A3018-4	\$1.50	\$1.35	\$1.20
	31/4x21/8x11/8	1/4	CU3017A	5A3014-3		1.25	1.10	CU2117A	5A3025-9	1.75	1.60	1.40
	31/4×21/8×15/8	1/4	CU3001A	5A3006 -9		1.15	1.00	CU2101A	5A3019-2	1.50	1.35	1.20
	4x2x23/4	1/4	CU3015A	5A3012 -7	1.60	1.45	1.30	CU2115A	5A3023-4	1.75	1.60	1.40
	4x21/8x15/8	1/4	CU3002A	5A3007 -7	1.40	1.25	1.10	CU2102A	5A3020-0	1.60	1.45	1.30
	4x21/4x21/4	1/4	CU3003A	5A3008 -5	1.60	1.45	1.30	CU2103A	5A3021-8	1.75	1.60	1.40
	41/4x21/8x11/2	1/4	CU3016A	5A3013 -5	1.60	1.45	1.30	CU2116A	5A3024-2	1.75	1.60	1.40
	5x21/4x21/4	1/4	CU3004A	5A3009-3	1.60	1.45	1.30	CU2104A	5A3022-6	1.90	1.70	1.50
	5x4x3	1/2	CU3005A	5A3010 -1	1.75	1.60	1.40	CU2105A	5A333-0	2.40	2.15	1.90
	51/4x3x21/8	1/4	CU3006A	5A3011 -9	1.75	1.60	1.40	CU2106A	5A334-8	2.10	1.90	1.70
	6x5x4	3/4	CU3007A	5A271-2	2.40	2.15	1.90	CU2107A	5A335-5	3.00	2.70	2.40
	7x5x3	3/4	CU3008A	5A272-0	3.00	2.70	2.40	CU2108A	5A336-3	3.40	3.05	2.70
	8x6x31/2	1	CU3009A	5A273-8	3.85	3.45	3.10	CU2109A	5A337-1	4.45	4.00	3.55
	10x2x15/8	1/2	CU3013A	5A277-9	2.35	2.10	1.90	CU2113A	5A282-9	2.50	2.25	2.00
	10x6x31/2	11/4	CU3010A	5A274-6	4.20	3.80	3.35	CU2110A	5A279-5	4.85	4.35	3.90
	12x21/2x21/4	3/4	CU3014A	5A278-7	2.90	2.60	2.30				-	No. of Contract of
	12x7x4	13/8	CU3011A	5A275-3	5.75	5.20	4.60	CU2111A	5A280-3	6.60	5.95	5.30
	17x5x4	21/4	CU3012A	5A276-1	5.75	5.20	4.60					and the same



One piece aluminum. Corners reinforced and spot welded. 4 sides folded in at bottom for added strength. 18 gauge, except " which are 16 gauge, and † which are 14 gauge. Natural finish.

Stock No.	Bud No.	Size Inches	Wt. Lbs.	1-24 Each	25-49 Each	50-99 Each
5A347-0	AC1401	21/2x41/2x1	1/8	\$2.00	\$1.80	\$1.60
5A348-8	AC1402	31/2×41/2×1	1/8	2.10	1.90	1.70
5A349-6	AC1403	31/2x51/2x1	1/4	2.10	1.90	1.70
5A350-4	AC1404	4x5x2	1/4	2.50	2.25	2.00
5A351-2	AC1405	4x6x11/2	1/4	2.15	1.95	1.70
5B160-7	AC431	4x6x2	1/2	2.40	2.15	1.90
5B154-0	AC430	4x6x3	1/2	2.65	2.40	2.10
5A352-0	AC1406	4x8x2	3/8	2.90	2.60	2.30
5B164-9	AC432 *	4x17x3	11/4	4.70	4.25	3.75
5A353-8	AC1407	41/2×8×11/2	3/8	2.65	2.40	2.10
	AC402	5x7x2	1/2	2.60	2.35	2.10
5B168-0		5x7x3	3/4	2.85	2.55	2.30
	AC1408	5x9x11/2	3/4	2.65	2.40	2.10

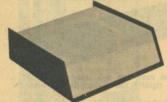
#### BUD ALUMINUM CHASSIS BASES

Stock	Bud	Size	Wt.	1-24	25-49	50-99	Table 5
No.	No.	Inches	Lbs.	Each	Each	Each	
5A314 -0	AC403	5x91/2x2	1/2		\$2.50	\$2.20	9 10 5
5A202 -7	AC421	5x91/2x3	3/4	3.35	3.00	2.70	5
5B169 -8	AC404	5x10x3	3/4	3.35	3.00	2.70	85
5A203 -5	AC422	5x13x3	3/4	3.85	3.45	3.10	- 5
5A356 -1	AC1410	5x131/2x21/2	3/4	3.60	3.25	2.90	5
5A358 -7		51/2×91/2×11/2	1/2	2.65	2.40	2.10	5
5A359 -5	AC1413	6x8x2	1/2	2.75	2.50	2.20	5
5A360 -3	AC1414*		1	4.85	4.35	3.90	5
5B170 -6	AC433*	6x17x3	11/4	5.60	5.05	4.50	5
5A204 -3	AC405	7x7x2	1/2	2.75	2.50	2.20	5
	AC406	7x9x2	1/2	2.85	2.55	2.30	5
5A315 -7	AC407	7x11x2	3/4	3.35	3.00	2.70	2000
5A206 -8	AC408	7x12x3	1	4.00	3.60	3.20	5
	AC409	7x13x2	3/4	3.40	3.05	2.70	
5A361 -1	AC1415*		1	5.35	4.80	4.30	5
5A207 -6	AC411*		11/2	5.60	5.05	4.50	5
	AC1416*		1	4.95	4.45	3.95	5
	AC423 * AC1418		13/4	5.60	5.05	4.50	5 5 5 5 5
	AC1418	8x10x2½	11/2	4.20	3.80	3.35	5
DASED L	AU141936	OX1/X/1/2	14/2	4.65	4.33	3.90	5

	The second second					the same of the sa	
	Stock	Bud	Size	Wt.	1-24	25-49	50-99
	No.	No.	Inches	Lbs.	Each	Each	Each
		AC412*		13/4	\$5.75	\$5.20	\$4.60
			81/2×15×3	11/2	5.35	4.80	4.30
		AC1421*		11/2	6.10	5.50	4.90
		AC413*	10x12x3	11/2	5.75	5.20	4.60
		AC414*	10x14x3	13/4	5.75	5.20	4.60
		AC415 *	10x17x2	11/4	5.60	5.05	4.50
		AC416 *	10x17x3	2	6.35	5.70	5.10
	5B172-2		10x17x4	31/2	9.00	8.10	7.20
		AC1422†	10x17x5	21/2	13.05	11.75	10.45
		AC1423†	10x23x3	3	9.70	8.75	7.75
	5A319-9	AC1424*	11x17x3	23/4	8.10	7.30	6.50
		AC1424*		13/4	5.85	5.25	4.70
	5A212-6		12x17x2	23/4	7.25	6.55	5.80
	5A163-1		13x17x2	21/2	8.25	7.45	6.60
	5A213-4		13x17x3	23/4	7.20	6.50	5.75
	5B173-0		13x17x4	33/4	10.45	9.40	6.90 8.35
		AC1426†	13x17x5	31/2	14.35	12.90	11.50
		AC1427†	14x17x3	3	10.20	9.20	8.15
		AC1428+	15x17x4	31/2	14.35	12.90	11.50
		AC1429†	15x17x6	33/4	19.80	17.80	15.85
1	5A377-7	AC1431+	17x17x4	4	17.10	15.40	13.70
						10.70	10.70

5A209 2 AC424 \* 8x12x3 5A317 -3 AC425 \* 8x17x2

# CABINETS AND CHEMICALS



### **BUD SLOPE ENCLOSURES**

Excellent visibility of panel mounted components. One-piece cover easily detached for quick access to the interior. Base is ½" aluminum with black texture finish; the cover is .057 aluminum with smooth white enamel finish. No fasteners are exposed on the visible surfaces. Rubber feet furnished.

Stock No. 5A3096-0 5A3097-8	Bud No. SC-12100 SC-12101	Outside Dimensions 4¼" H. X 5" W. X 5" D. 3¼" H. X 12" W. X 10" D.	Ea. \$10.60	\$9.55 19.85	Ea. \$8.50
3A3U97-0	30-12101	3/4 11. X 12 11. X 10 0.	22.50	17.05	

#### **BUD ECONOBOXES**

Die cast aluminum boxes with rounded corners and close fitting flanged lids, fastened with screws. The thickness of the aluminum gives good strength and excellent shielding properties. CU-124 and CU-234 have 4 screws for lid, oth-

ers have 6.				SKY SKY COME OF THE PROPERTY OF						
Stock No.	Bud No.	Size Inches	W.	Н.	Wt. Lbs.	1-24 Each	25-49 Each	50-99 Each		
5A3092-9 5A3069-7 5A3070-5 5A3071-3 5A3072-1	CU-123 CU-124 CU-234 CU-247 CU-347	3-5/8 4-3/8 4-11/16 7-25/64 7-25/64	1½ 2-3/8 3-11/16 4-45/64 4-45/64	1-1/16 1-7/32 2-7/32 2-7/32 3-7/32	1/2 3/4 1-1/4 1-1/2	\$2.25 2.60 4.00 6.50 7.10	\$2.05 2.35 3.60 5.85 6.40	\$1.80 2.10 3.20 5.20 5.70		



### **EQUIPMENT ENCLOSURES** SERIES J

Low profile, decorative enclosure designed for small, fine equipment. Walnut grain vinyl tops and side panels with eggshell white front panel. Molded Cycolac side panels and .062" aluminum housing.

Side panels are attached to housing, bottom and back, with screws from the inside. Aluminum top slides into grooved side panels and secured with 2 screws from the back. Dimensions below are inside. For overall dimensions add 7/16" to 14" to W. and 3/8" to D.

Stock	Model		Dimensions			103 1	10.04	OF 40
No.	No.		H. W. D.		1-3	4-11	12-24	25-49
5A3099-4	JW-4		X 3-5/8" X 5-9					\$3.35
5A3100-0	JW-5	21/8")	X 4-11/16" X 5	5-9/16"13	5.75			3.85
5A3101-8		21/8")	X 5-11/16" X 5	5-9/16"15	6.50	5.60	4.90	
					7.25	6.25	5.45	4.85
					8.25	7.10	6.20	5.50
5A2104 2	INA 10				10.50	9.00	7.90	7.00
5A3102-6 5A3103-4	JW-7 JW-8	2 1/8" )	X 6-11/16" X 5 X 734" X 5-9/1 X 9-7/8" X 5-9	5-9/16"16	8.25	7.10	6.20	5.50



#### SERIES T

Low price, all-aluminum, small enclo-sures. Constructed of two formed .062" aluminum sections. Finished in wood grain walnut vinyl housing and egg-shell white front panel.

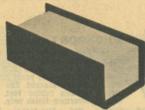
			34 T. E.		
Stock	Model	Dimensions	Wt.	1-11	12-49
No.	No.	H. W. D.	Ozs.	Each	Each
5A3105-9	TW-24	1-7/8" X 41/4" X 41/8"	6	\$2.00	\$1.85
5A3106-7	TW-26	1-7/8" X 61/4" X 41/8"	8	2.50	2.30
5A3107-5	TW-34	3" X 41/4" X 41/8"	8	2.50	2.30
5A3108-3	TW-36	3" X 6 1/4" X 4 1/8"	10	3.25	3.00



\$799 ALL ALUMINUM 2-PIECE BOX

> Best enclosure we have seen for builders' projectsvery professional appearance. Heavy extruded aluminum. Lid snaps into place, no screws showing. Has "U" channel that printed circuit board slides into. Case may be drilled or punched for transistor mounting. Thick aluminum makes excellent heat sink. Made in America oy Delta. Size 3-5/8x2-3/4x1-3/4" H. Shpg. Wt. 4 oz. 5A3043-2 ... \$2.99 / Each ..... \$2.69

#### **BUD LINEAR ENCLOSURES**



The one-piece cover can be easily removed for convenient access to interiors. No visible fasteners on panel area. Base is ½ aluminum; cover .057 aluminum. Comes in a combination of black texture and smooth white enamel. Rubber feet furnished.

Stock No. Bud No. **Outside Dimensions** 5A3094-5 RC-11100 3¼" H. X 5" W. X 10" D. 8" H. X 12" W. X 10" D. 5A3095-2 RC-11101

1-24 25-49 50-99 Ea. Ea. Ea. \$15.60 \$14.05 \$12.50 34.30 30.85 27.45

#### KRYLON PRODUCTS

(1) Krylon Clear Plastic Spray. Seals ... protects ... resists rust and corrosion. Transparent plastic protective coating adheres to practically any surface. Seals out air, water, chemicals, oil, grease and acids. Protects automotive chrome, golf clubs, fishing rods, tools, leather goods, photos, blueprints, etc. Seals TV antennas against corrosion. Fast drying. Shpg. wt. 1 lb.



\$1.59

© Krylon Electric Motor Cleaner. Just spray on . . . cleans without washing or wiping. Instantly penetrates, dissolves, cleans and removes grease, oil, dirt from motors, electrical-electronic equipment, etc. Evaporates completely — leaves no residue. Safe to use on insulation and painted surfaces.

17A1318-6. 1327 16 Oz. Spray Can

1-5 Each .... \$1.99 6-11 Each .... \$1.69 12 Up Each ... \$1.49

### MAKES RUST DISAPPEAR

- · No More
- Sandblasting! No More Wirebrushing! Consumes 47
  Times its
  Weight In
  Rust.
- · No More Scraping! • Dissolves Rust From Iron & Steel.
- · Removes Rust Stains From Concrete.



Naval jelly eliminates the time and drudgery of rust removal and does the job far more effectively than old hard chemical and mechanical methods. Easy-to-use tacky gel adheres even to ceilings. Just brush it on, let stand a few minutes or several hours depending upon the depth of the rust. Hose off with fresh water and rust is gone, the dry surface will contain a rust inhibitor, a thin clean film. This will prevent further rusting and may be painted over.

Use on TV towers, pipes, fences, tools, tanks, cranes, trucks, all machinery. Removes gun blue and is ideal for rust removal from all weapons. Coverage: Naval jelly will remove rust at the rate of 80 to 200 square feet per gallon, depending upon thickness and condition of the rust. \$1.49 ...\$3.95

8 oz. Introductory Bottle. Each..... 2 lbs. Net Each..... 17A1385-5



# GENERAL ELECTRIC SILICONE LUBRICANT

based on a new chemistry which makes it superior to any other silicone lubricant on the market. Handles tough lubricating jobs such as aluminum storm windows, siliding doors, bathtub enclosures, etc. Lubricates almost any material. Won't melt, run or "gum up" from —70° to 400°F. Highly effective rust and corrosion preventative. Paintable! Unlike most silicone sprays, it does not contaminate surfaces to be painted. 6 oz.

17A1402-8.6 Oz. Can Each \$1.99

17A1432-5. 16 Oz. Can Each \$3.19

### GENERAL ELECTRIC SILICONE SEAL



Super Glue. 100% rubber. Bonds securely to glass, ceramics, metal, wood, fabrics, masonry, painted surfaces, most plastics, and rubber. Permanent Caulk. Will not shrink, crack or dry out. Remains flexible and elastic and can stretch over 100%. Originally developed for sealing space vehicles. Guaranteed 10 years to perform as described on tube. Return tube to General Electric Co. for refund or replacement if not satisfied.

it not satisfi	ed.		A CHECK TO THE
Stock No.	3 Ounce Tubes		5 Each
17A1345-9	White Seal		\$2.44
17A1342-6	Transparent Seal		2.44
17A1344-2	Black Seal		2.44
17A1341-8	Aluminum Seal	2.56	2.44
12 ounce o	artridges for use	with st	andard
caulking gun.		100	CE30 6.03
17A1378-0	White Seal	\$4.99	\$4.50
17A1379-8	Transparent Seal	4.99	4.50

Call B-A's Sales Department (816) 756-2525

# SERVICE CHEMICALS

#### B-A's TOP QUALITY SERVICE CHEMICALS



(1)B-A Foam for Tuners. Foamy thick yellow compound clings to contacts to clean and lubricate continuously. Harmless to base metal contacts. For color, 

(2) B-A Tuner & Control Cleaner & Lubricant. Just spray tuner or control, leaves long-lasting protective coating against noise and oxidation. High quality ingredients will not harm plastic. An easy way to cure most tuner problems.

Aerosoi can.

17A1300-4. 6 0z...\$1.99

17A1301-2.16 0z...\$1.99

(3) B-A Color Cleaner & Lubricant. Non-drift tuner cleaner developed for sensitive color tuners, Cleans and lubricates. Will not detune tuner—will

17A1303-8. 6 Ox. Spray Can....

(5) B-A Anti-Static Spray. Aerosol spray eliminates static electricity in home, office, or factory. Use on computer cards, film processing, to prevent damage to FET's, on carpets, car seats, etc. Will not stain. Non-toxic, non-flammable. 





### C B CHEMICAL **PRODUCTS**

(1) CB FACE 'N' CASE CLEANER. Safely and easily removes nicotine, grime, fingerprints, dust and dirt from all CB cabinets, cables, microphones. Will not harm plastics or scratch glass face plates. Leaves no film or residue. Hand pump action, not an aerosol,

(2) CB CONTACT CLEANER. Safely removes grease, dust, grime, and dirt from internal chassis parts, contacts or quick-disconnect assemblies and microphone contacts. Safe for plastics, Leaves no residue. 

(3) CB WHIP-IT. Prevents corrosion and oxidation of antennas which can lead to high SWR and perceptive static build-up. Prevents seizing of base antenna telescopic joints. Lubricates threads on antenna mounts and all rotating and slid-ing parts. Safe for plastics.

#### SPRAY TELEVISION SERVICE CHEMICALS TECH











Rx For Tuners. A premium, non-drifting, tuner cleaner/lubricant. Cleans by solvent action leaving a dry film that will move freely across the contact surface. Non-flammable and safe for plastics.
 17A1436-6. 12 Oz. Aerosol Can \$2.69

Blue Stuff for Tuners. Cleans continuously. Thick concentrated foam clings to contacts and cannot run off. Harmless to base metal contacts. For color, B&W, Hi-gain, Nuvistors.

17A1390-5. 8 Oz. Spray Can

\$2.59

Blue Shower for Tuners. Powerful spray washes and degreases all tuners safely and quickly. Floods away dirt that causes tuner to drift. Harmless to plastics, non-toxic, can't detune. No residue.

17A1391-3. 24 Oz. Spray Can \$3.69











(1) Blue Pads. Helps maintain strip type tuners in top condition by doubling the cleaning and polishing action of Blue Stuff. Pads installed in bottom of the tuner cover where the contacts will rub against the pad while the channel selector is rotated 17A1430-9. Bag of 5 Pads ......\$1.95

(2) Minus 62 Instant Chiller. Best troubleshooting aid for use in tracking down intermittent components. Helps locate cracks in printed circuit and chills transistors during installation to prevent damage. Chiller may also be used to separate or to join tight fitting metal parts. Chills to below -62° F.

17A1431-7. 15 Oz. Can \$2.99

(4) Instant Blow Off. Economical aerosol duster removes dry microscopic dust and lint from delicate electrical, optical and mechanical devices. Non-flammable, non-toxic, and moisture free.

17A1435-8. 15 Oz. Spray Can ...... \$2.29

(5) FD Instant Contact Cleaner. Lifts out microscopic dirt leaving absolutely no residue. Non-conductive, safe for use an electronic equipment while in operation. Cleans PC boards, gyroscope parts, high vacuum parts, VTR and audio tape heads. Cleans and decontaminates negatives, transparencies and movie film. 17A1437-4. 8 Oz. Aerosol Can \$1.85 17A1438-2. 16 Oz. Aerosol Can \$2.85

### **INSTANT CYANOACRYLATE ADHESIVE**

Powerful one drop holds with up to 2 tons of tensile strength holding power. Easy to use one component—no mixing, no solvent, no shrinkage, no clamping, no mess. Just apply and it sets in seconds. Economical one drop holds a square inch of bonding surface. Up to 132 applications per tube. Power bonds rubber, plastic, metal, ceramic, glass, porcelain, wood—anything that isn't too porous. Non-toxic—used in dentistry. Resists chemicals, weather, moisture ... indefinitely. Only acetone or other specific solvents can break the bond. Clear and colorless.

17A1425-9. 3 Gram Tube Fach.

# **ELECTRONIC CHEMICALS & LUBRICANTS**



① G-C Contact Burnishing Kit. For servicing relays, switches, etc. Removes oxide and corrosion from contact points without removing precious metal. Contains 2 oz. bottle contact cleaner and burnishing tool.

\$1.21 

PRINTED CIRCUIT SERVICE AIDS

Silver Print—Contains pure silver powder as pigment. Use for making or repairing printed circuits. Ideal for applying conductive coating to non-conductive materials. Brush applicator attached to cap. ½ Troy oz. \$11.77 (Copper Print—A highly conductive, fast drying compound for repair and touch up of printed circuits. Complete with brush-cap bottle. 2 oz. 17A1349-1. CC 20-2. \$2.75 Print-Kote Solvent. Dissolves, removes silicon resin from printed circuits. 17A1372-3. GC 13-2. Each. 66°
Print-Kote Soldering Flux. Non-corrosive liquid flux for easy soldering and repairing of printed circuits. Brush applicator on cap. 83°
17A1373-1. GC-12-2. Each. 83° 

#### E.I.A. COLOR CODING KIT



## KNOB-PLASTIC REPAIR KIT SETS ROCK-HARD IN 7 MINUTES



GENERAL CEMENT "EPOX" CEMENT

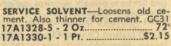




#### 1 CEMENTS

SERVICE CEMENT—For replacing and repairing speaker cones; sealing adjustments, cementing loose tube bases, etc. Fast drying.

17A1337-6 17A1339-2					
168					



LUCITE CEMENT—For lucite and other acrylic materials. CC40-2 acrylic materials. GC40-2 17A1331-9 - 2 Oz. Jar. Each........76°

Q-DOPE (COIL DOPE) — Coats and seals coil windings, etc. Low RF loss, Ideal for Hi-Freq. use, CC37-2 17A1307-9 - 2 Oz. Bottle, Ea. 85 °

PLI-O-BOND CEMENT-It bonds anything to anything—Iron, steel, plastic, glass, aluminum, etc. A truly universal cement.

17A1333-5. G-C 43-2. 2 Oz. Bottle 

ANTI-CORONA LACQUER - Has high dielectric strength to prevent corona in TV high voltage, GC 47-2. 17A1336-8 - 2 Oz. Bottle. Eq...\$1.05

2 CEMENT LAB KIT 14 different 2 oz. bottles cement. 17A1335-0. GC345. Per Kit \$11.39



LUBRICATES, PENETRATES, STOPS RUST OUTDOORS 2 YEARS OR MORE...

DRIES ELECTRICAL SYSTEMS



LPS #1—A fine, non-sticky film that: Dries out electrical equipment in seconds! Stops rust on all metals—parts in manufacture-storage-shipment. Finest lubricant for precision mechanisms. Loosens rust frozen parts—fast!
17A1305-3. LPS #1. 7 Oz. Spray Each . . . . \$1.54 12 Each . \$1.04 17A1306-1. LPS #1. 16 Oz. Spray

LPS #3—Stops rust outdoors for 2 years or more! Protects all metals against severe salt, acid, chemical corrosion conditions. Protects parts in storage 5 years or more. Lubricates and protects outdoor working equipment. 17A1371-5. LPS #3. 16 Oz. Spray

\$2.59 12 Each .

\$1.74

Each .... \$3.03 12 Each . \$2.03



#### INSTANT CONTACT CLEANER

A chemically pure cleaning agent with: Selective Cleaning Power—removes greases, oils, dirt and organic soils with no effect on the article being cleaned. Excellent Penetrating and Wetting Action—its high density and low surface tension permits maximum penetration of most minute crevices where its superior wetting action then cleans even most difficult materials. Evaporates completely, leaves no residue, non-explosive, non-flammable, non-toxic, and does not react chemically with other materials.

12 Lots ... \$2.19 Each ..... \$1.46 17A1400-2 - 7 Oz, Aerosol Can Each ..... \$3.98 Each .... \$2.75



#### INSTANT COLD GALVANIZE

Equals hot-dip galvanizing at ½ the cost! LPS Instant Cold Galvanize is not a paint! When applied to clean, dry iron or steel it generates a positive electric current that flows to the base metal. This electrochemical action fuses the zinc compound with the metal. Corrosion will attack only the outer zinc coating leaving the metal to be protected rust free. If coating is penetrated LPS Instant Cold Galvanize will sacrifice itself to protect the exposed base metal. Rust cannot spread. 16 oz. Aerosol can.

17A1399-6 12 Lots Each ...... \$3.98 Each ...... \$2.80



FRONT PANEL

1—Remove control knob. 2—Thread Gozinta on shaft bushing. 3—Connect spray can to Gozinta and spray.

17A1398-8 Each



Filled with high grade lubricating oil. Telescoping spout permits accessibility to difficult places requiring lubrication.

to difficult places requiring 1888. Releases one drop at a time. 17A1354-1 Each ..... \$1.38 17A1355-8. Oil Refill Cartridge 77°



#### WD-40

PENETRATES, LIGHTLY LUBRICATES, PREVENTS RUST AND CORROSION, STOPS SQUEAKS

WD-40 is formulated for ultra-high surface attraction to 

12 Oz. Aerosol Can ..... \$2.15 17A1429-1

Call Burstein-Applebee's Sales Department (816) 756-2525

# JET Shurite AND Simpson PANEL METERS

JBT ELAPSED TIME METERS
Indicates accumulated operating time of AC electrical and electronic equipment, Registers 1/10 hour steps. For 110-125 VAC, 60 Hz. Shpg. wt. 11/4 lbs.

() Model 31EGW-5. Rectangular modern design. Clear plastic front. 5 wide digits register to 9,999.9 hours. Resets automatically. 31/2 x 3" H, Mounts in 23/4" dia. hole.

\$27.00 35A6158-9. Each

Model 13-239. Half Bexel Adaptor for mounting meter behind panel. Black metal frame and hawe, for picture window effect. Outlines 3.83 x 2.27" dial area of 31EGW-No.35A6221-5.Each....

3 Model 31-EX. Registers to 9,999.9 hours total, then resets to zero automatically. In round 31/2" black molded case, Mounts in 23/4" hole. \$22.75 No. 35A6161-3 Each.....



Malaket of 6

WIDE-NUMERAL ELAPSED TIME METERS



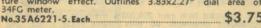
JBT FREQUENCY METERS

① Model 34FC. 9 Reeds 56-64 Hz, 100 to 130 Volts, Accuracy ± .3%. Rectangular modern design. Clear plastic front. Power Consumption .9 watts.

Mounts in 2¾" Dia. hole 3½" x 3" H.

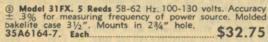
No. 35A3058.4Fach

\$40.50 No. 35A3058-4Each .... Model 13-239. Half bezel adaptor for mounting meter behind panel. Black metal frame and hardware for picture window effect. Outlines 3.83x2.27" dial area of 34FG meter.



 Model 34FX. 9 Reeds 56-64 Hz. Accuracy ± .3%. 100 to 130 volts. 140 ohms per volt. 9 watt power consumption. 3½" molded case, mounts in 2¾" hole.

 ★27.75 No.35A6163-9.Each









#### SHURITE PANEL METERS



5



MODEL 850

MODEL 750

Calibrated for non-magnetic panels. Accurate within 5%. White, metal scale, clear plastic face. DC meters polarized-vane sole noid type; AC meters double vane repulsion type, jeweled bearings. Shpg. wt. 8 0z.

Model 850, Front 2 17/32" W X 2 5/16"
H. Extends 1 7/16" behind panel, 2 5/32" hole, all 850 Series have zero screw adjust.

#### **MODEL 850 21/4" RECTANGULAR METERS**

- NAMES AND	DC MILLIAMMET	out images	DC VOLTS	DIES OF	AT 1		
Range	Stk. No.	Mfg. No.	Each	Range	Stk. No.	Mfg. No.	Each
0-1 0-3 0-5	35A6165-4 35A6166-2 35A6003-7	8336Z 8301Z 8302Z	\$5.95 4.65 4.35	0-3 0-5 0-10	35A6023-5 35A6024-3 35A6025-0	8102Z 8104Z 8107Z	\$4.40 4.40 4.50
0-10 0-25 0-50	35A6004-5 35A6006-0 35A6007-8	8303Z 8305Z 8306Z	4.25 4.25 4.40	0-15 0-25 0-50	35A6026-8 35A6027-6 35A6028-4	8108Z 8109Z 8122Z	4.50 4.60 4.60
0-100 0-150 0-300	35A6008-6 35A6009-4 35A6011-0	8307Z 8308Z 8310Z	4.40 4.40 4.50	0-150	35A6029-2	81152	4.80
0-500	35A6012-8	8312Z	4.50	0-10 0-25	AC VOLTS 35A6030-0 35A6031-8	8403Z 8412Z	5.65 5.75
0-5 0-10 0-15	DC AMPS 35A6014-4 35A6015-1 35A6016-9	8203Z 8205Z 8206Z	4.40 4.40 4.50	0-150 0-300	35A6033-4 35A6034-2	8406Z 8407Z	5.90 6.10
0-25 0-50 20-0-20	35A6017-7 35A6018-5 35A6022-7	8207Z 8208Z 8214Z	4.70 4.70 4.80	0-5 0-10 0-15	AC AMMETE 35A6036-7 35A6037-5 35A6038-3	8503Z 8504Z 8508Z	5.50 5.50 5.50
				0-30	35A6039-1	8505Z	5.65

#### MODEL 750 31/2" RECTANGULAR METERS

Range	Stock No.	Mfg. No.	Each	Range	Stock No.	Mfg. No.	Each
0-15 DC Volts 0-25 DC Volts 0-50 DC Volts 0-150 DC Volts 0-10 DC Amps 0-50 DC Amps	35A6204-1 35A6205-8 35A6206-6 35A6207-4 35A6208-2 35A6209-0	7108 7109 7122 7115 7205 7208	\$6.60 6.60 6.60 6.70 6.50 6.60	0-1 DC MA 0-150 AC Volts 0-15 AC Amps 0-50 AC Amps 0-10 AC MA	35A6210 -8 35A6212 -4 35A6213 -2 35A6214 -0 35A6215 -7	7336 7406 7508 7506 7607	\$6.35 7.00 7.35 7.55 7.05

#### SIMPSON 31/2" PANEL METERS

Modern "Wide-Vue" 3½" Meter Models 1327, 1347, 1357 with 3.14 scale length. One piece molded clear plastic wrap around cover. Black case 3½ X3½". All DC movements are self shielded core magnet movement eliminating calibration problems in metal panels or in magnetic fields. AC meters are moving vane type. Mount in 2¾" hole. A verage shpg. wt. 12 ozs.



DC MILLIAMMETER

Range	Model	Stock	Net
	No.	No.	Each
0-1	1327	35A6072-2	\$25.20
0-10	1327	35A6074-8	25.20
0-50	1327	35A6076-3	26.10
TO THE REAL PROPERTY.	DC MICR	DAMMETERS	

UA	Model	Stk. No.	Each
0-50	1327	35A6082-1	\$32.10
0-100	1327	35A6083-9	29.40
0-200	1327	35A6084-7	27.00
0-500	1327	35A6085-4	26.55
500-0-500	1327	35A6086-2	25.65

BROH K	DC AMMETERS					
Amps	Model	Stk. No.	Each			
0-1	1327	35A6087-0	\$26.10			
0-5 0-10	1327	35A6089-6 35A6090-4	26.10 26.10			
0-25	1327	35A6091-2	26.10			
0-50	1327	35A6092-0	26.10			

DC VOLTMETERS (1000 OPV; 500 V. is 2000 OPV)

Model

		160.	Euch
0-10 0-25 3-100 0-150 0-300	1327 1327 1327 1327 1327 1327	35A6094-6 35A6095-3 35A6097-9 35A6098-7 35A6099-5	\$27.00 27.00 27.00 27.00 27.00 27.00
100	AC VOLT	METERS	Service A
0-15 0-150 0-300	1357 1357 1357 AC AMI	35A6103-5 35A6105-0 35A6106-8 METERS	\$24.75 26.55 26.55
0-1 A. 0-3 A. 0-10 A. 0-25 A. 1-50 A.	1357 1357 1357 1357 1357 1357	35A6107-6 35A6108-4 35A6110-0 35A6111-8 35A6112-6	\$23.70 23.70 23.70 24.45 24.45

#### SIMPSON VOLUME LEVEL INDICATORS

31/2" VU Meters. Self shielding meter movement, reference level 1 milliwatt, 600 ohm line. Has "A" 

#### SIMPSON 41/2" PANEL METERS

4%'' Rectangular Model 59. Large, accurate, open face instruments with long easy-to-read scale. Black bakelite case 4.66" W., 4.20" H. Mount in 23%'' hole. Scale length 3.9". Calibrated  $\pm$  2%. Average shpg. wt. 1 lb.



Control of the Control	applied and	A THORNES OF A	AC VOLTM	ETERS	3			
Range V.	Model	Stk.No.	Each	Ra	ange V.	Model	Stk.No.	Each
0-150	59	35A6135-7	\$28.20	i is and	0-300	59	35A6136-5	\$28.20
BREE	NOTE OF THE PERSON NAMED IN	A GUERNING CONTRACTOR	AC AMME	ETERS		ALD THE		7.5 100
Range A.	Model	Stk.No.	Each	Ra	ange A.	Model	Stk.No.	Each
0-1 0-5	959 Mey	35A6137-3	\$25.05	07 1	0-25	59	35A6140-7	\$26.10
0-5	59	3546138-1	25.05	white	0-50	59	3546141-5	26.10

QUANTITY PRICES ON SIMPSON PANEL METERS: 10 or more deduct 10%

SHURITE BATTERY TESTERS

35A6139-9 25.05

No. 4123 FOR ALL RADIO AND HEARING AID BATTERIES 



No. 4152 TRANSISTOR BATTERY TESTER. 0 - 2 - 10 voltage scale. For the new Mercury cells and transistor batteries. Indicates battery strength with a minimum consumption of power. Shpg. wt. 8 oz. \$5.99



59

0-10

#### MIDLAND POCKET SIZE BATTERY TESTER

4 Ranges. Checks all popular flashlight, transistor radio, and hearing aid batteries. Four ranges: 1.5, 4.5, 6 and 9 volts. 2" meter scale with colored battery condition indicators. Places a minimum load of 50 Ma. for accurate readings. Compact high impact case measures 21/4" x35%" x 11/6". Includes test leads. 35A3123-6

Model 23-154 Each

MURA THERMY THERMOTESTER INSTANT TEMPERATURE READINGS

Reads out in seconds upon physical contact. Accurate, durable. Use with VTVM or multitester. Translating scale to convert meter reading to Fahrenheit or Centigrade degrees on thermotester and on carrying case which is included. 42" leads with phone tips, Temperature range —50° to 200°C or —60° F, to 400° F.

35A3064-2. Model TH-2. \$16.95 \$10.95

# Simpson TESTERS AND METERS



#### 360-2 PORTABLE DIGITAL VOM

3½ digit, non-blinking, auto-po-larity .43" LED display, 29 popu-lar ranges including 2 "low-power ohms. Zero center. Analog meter for scanning nulls and peaks. Solid state IC design, 3 readings per second nominal. Automatic over-range indication. Automatic DC polarity selection with + or indications. ohms. Zero center.

with + or · indications.

5 DC voltage ranges 200 MV,
2 V, 20 V, 200 V, 1000 V. Accuracy ± .25% of reading + 1 digit. 5 AC voltage ranges 200 MV, 2 V,
200 V, 600 V. Accuracy ± .5% of reading + 1 digit. 6 resistance ranges
200 ohm, "2K ohm, 20K ohm, 20KK ohm, 2 meg, 20 meg." are low power.
Accuracy ± .5% of reading + 1 digit. 7 DC current ranges 20 uA, 200 uA,
2 MA, 20 MA, 200 MA, 2 A, 10 A. Accuracy ± .5% of reading + 1 digit. 6
AC current ranges 200 uA, 2 MA, 20 MA, 200 MA, 2 A, 10 A. Accuracy ±
1.0% of reading + 1 digit.
8 hours operating time on fully charged batteries. Operates on 117 VAC ±
10% or 4 "C" size nickel-cadmium rechargeable cells (not supplied). With leads
and AC line cord. 7.2" X 5.4" X 3.75" D. (not including controls). Shpg. wt. 5
lbs.

35A3150-9. Model 360-2. Each	257.00
35A8074-6. 00815 Carrying Case. Each	\$23.90
21A194-6. CH1.8. Rechargeable Nickel-Cadmium Batteries	60.00
(4 required). Each	\$9.08



#### SIMPSON 313-3 SOLID STATE VOM

Operates for over 300 hours on a single set of batteries. Battery condition checked instantly. Self-shielding movement is shockproof and overload protected. All voltage range inputs are fully protected, too. Field Effect Transistor input, 7" Scale. Voltage Ranges: DC: 0-0.3, 1, 3, 10, 30, 100, 300, 1000 volts (11 meg input impedance); AC: 0-0.3, 1, 3, 10, 30, 100, 300, 1000 volts (10 meg input impedance); Current ranges: DC: 0-0.1, 1, 10, 100, 1000 milliamperes; Resistance ranges: RX1 (10 ohm center), RX10, RX100, RX1K, RX10K, RX100K, RX1M. Frequency responses: ± 0.5 db from 20 Hz to 20K Hz on 0-10, 30, 100 volt ranges. Accuracy: DC ± 2% of full scale; AC ± 3% of full scale. Re-14" W. X 6-34" H. X 4-5/8" D. Shpa, wt. 6 lbs.

Net Each 35A8024-1, 00191 RF PROBE 35A8025-8, 00192 Hi Voltage Probe



## SIMPSON 160 HANDI-VOM FULL FEATURED . . . YET PALM SIZED!

All the time saving conveniences and the sensitivity of a full-sized VOM, yet only 4-9/16 x 3-5/16 x 1¾" and weighs only 12 oz. Features self-shielding taut band movement, varistor overload protection to prevent burnout. Accuracy ± 2% FS DC, ± 3% FS AC. Ranges DC volts; 0-0.25, 1.0, 2.5, 10, 50, 250, 500, 1000 at 20,000 ohms per volt. AC volts 0-2.5, 10, 50, 250, 500, 1000 at 5000 ohms per volt. AC volts 0-2.5, 10, 50, 250, 500, 1000 at 5000 ohms per volt. DC microamps 0-50, DC MA 0-1, 10, 100, 250, 500. Resistance RX1, RX10, RX1000, RX1000, RX1000 ohm center scale. DB -20 to +50 in 4 ranges. Shpg. wt. 1 lb. With batteries, leads and instructions.

.... \$68.00 

#### AMP-CLAMP PLUG-IN ADAPTER FOR AC AMPERE MEASUREMENTS

Allows measurement to be made without breaking circuit being tested. Simply plugs into 160, 260, 261 or 270 VOM. Ranges: 0-5, 10, 25, 50, 100, 250 AC Amperes. Readout is on VOM's 0-2.5 VAC scale. May be used with any VOM having 0-2.5, or 0-3 VAC range. (When used with 0-3 VAC adapter ranges are from 0-6 to 0-300 AC amperes). Rugged construction, and easy to use. Wt. 1 lb. 35A3019-6 Model 150. \$31.00

..... \$31.00 Each Carrying Case for amp. clamp. 35A8023-3. 00548. Each \$9.70



#### 260 SERIES 6XL VOLT-OHM-MILLIAMETERS



Features 33 ranges with extra voltage, current, resistance and low-power ohms functions. Extra rugsistance and low-power ohms functions. Extra rugged - shock and drop resistant construction with custom-molded panel and case. DC volt ranges: 0-25, 1, 2.5, 10, 25, 100, 250, 500, 1000 volts. AC volt ranges: 0 - 2.5, 10, 25, 100, 250, 500, 1000 volts. DC current ranges: 0-50 microamps, 0-.5, 5, 50, 500; Milliamps 0-5 amps. 5 db ranges from -20 to +49 db. Direct dial reading of amp-clamp ranges, rugged taut band movement, varistor protected. Complete with multi-purpose test leads with combination probe and alligator clips and manual. Two batteries used - one 9 V. and one 1.5 V. "D" cell-supplied. Shpg. wt. 6 lbs.

No. 35A3190-5. Model 260-6XL.

.... \$90.00

**WORLD FAMOUS** 260, 261, 270 **VOLT-OHM-MILLIAMETERS** 

TAUT BAND MOVEMENT

RUGGED AND DEPENDABLE **MODEL 260-6** 



High sensitivity (20,000 o.p.v. DC Volts; 5000 o.p.v. AC Volts)

Varistor protects the movement from even 200,000% overloads. Self shielding and shockproof 50 microampere movement. DC volts ranges 0-25, 1, 2.5, 10, 50, 250, 500, 1000 volts; AC volts ranges 0-2.5, 10, 50, 250, 500, 1000; DC current ranges 0-50 microamps, 0-1, 10, 100, 500 M.A.; 0-10 Amps; 4 DB ranges from -20 to +50 db; Resistance readings ½ ohm to 20 meg. 5" meter. 1 mfd capacitor in series with all AC voltage ranges through 250 volts. Accuracy 2% full scale DC ranges; 3% full scale AC. With combination alligator clip and probe tip test leads, batteries and manual. 5¼x7x3½". Wt. 5 lbs.

GOOF-PROOF" PROTECTED MODEL 260-6P

All of the features of the 260-6 plus built-in circuit protection makes this VOM "goof-proof." Ideal for students, apprentices, for exploring unfamiliar equipment. Combined protection includes: reset button pops out to indicate overload, cannot reset circuits while overload is present. Protective circuit does not require massive overloads, all ranges protected except 1000 volts DC and AC, 10 amps DC. No. 35C24-9

Model 260-6P. Net Each ... HIGH ACCURACY MODEL 261-2

All of the features of the 260-6M plus special calibration circuits and components for outstanding accuracy. Accuracy 1.5% full scale most DC ranges, 3% full scale AC. Wt. 5 lbs. Model 261-2. Net Each ...... \$87.00 35B50-4.

#### MODEL 270-4 VOLT-OHM-MILLIAMETER

The Extra Quality Laboratory Instrument featuring: • Greater accuracy. • special calibration circuit for greater accuracy, overload protected • DC accuracy 1 ½ % full scale 20,000 ohms per volt. • AC accuracy 2% full scale 5000 ohms per volt.

Mirrored scale. ■ Knife-edge pointer. ■ Ranges: 8 DC volts from 250 MV to 1,000 volts. ■ 6 AC volts from 2.5 to 1000 volts. ■ Decibels -20 to +50 in 4 ranges. ■ DC current 50 ua to 10 amps in 6 ranges. ■ DC resistance from 0-2000 (12 ohms center) to 20 megohms in 3 ranges. Black molded case 5¼x7x3¾". Wt. 5½ lbs.

35A41-3. Model 270-4 Net Each ...... \$96.50

**CARRYING CASE FOR 260-270** 



Adds low-power resistance measurement capability to most VOMS. Use with Simpson 260 Series 3, 4, 5, 6 and Simpson Models 250, 255, 261, and 270. Battery operation: 2-1½ volt "N" cells (supplied). Size 8½" X ¾". Shpg. wt. 1 lb. Complete with leads and instructions.

5KV HIGH VOLTAGE PROBE
5000 volt. AC or DC safety probe for use with 260, 261, and 270 Multimeters.
35A8057-1.. 00505 AC 5KV Safety Probe.
35A8056-3. 00506 DC 5KV Safety Probe.
45.50
55.50
55.50

Burstein-Applebee, 3199 Mercier St., Kansas City, Mo. 64111

# TEST EQUIPMENT



#### TRIPLETT **MODEL 60V TYPE 2** V.O.M

This drop-proof, burnout-proof, and super-safe V-O-M will provide accurate, reliable long life and virtually maintenance-free service for use in the laboratory or in the field. Single range selector switch helps reduce incorrect settings selector switch helps reduce incorrect settings and enables you to select any of the 28 ranges without having to change test leads or other set ups. "Confidence-Test" feature is built-in for periodic reassurance checks of its meter. Rugged, drop-proof construction makes the 60 virtually indestructible from an accidental drop of up to 5 ft. DC volt ranges: 0-.3, 1, 3, 10, 30, 100, 300, 1000 (20,000 ohm per volt). AC volt ranges: 0-.1K, 10K, 10K, 1M, 10M, DC milliamps: 0-.1, 10, 100, 1000. Decibels: -20 db to + 52 db. Barteries - one 9 V. and one 1.5 V. "D" cell. Complete with one year warranty, 48" safety test leads, insulated alligator clips, batteries, spare 1 8A and 1A fuses, and manual. Size: 5 ½ X 7 ½ X 3 ½". Shpg. vt. 3 lbs.

Shpg. wt. 3 lbs. 35A3192-1. Model 60 Type 2

Each . . . . . . . .

.....\$96.00



# TRIPLETT

#### 601 TYPE 2 FET V.O.M. WITH LOW POWER OHMS

11 megohm input on all DC and 10 megohm input on AC, low power ohms feature to prevent damage to integrated circuits. In-circuit resistance measurements can be made without usual diode or transistor loading, Push-button switches select; DC volts (+) ohms; DC volts (-) ohms; AC volts and low power ohms.

53 Test Ranges Include: DC Volts: 0 - .1 - .3 - 1 - 3 - 10 - 30 - 100 - 300 -

1000.

AC Volts: 0 -.01 - .03 - .1 - .3 - 1 - 3 - 10 - 30 - 100 - 300 - 1000.

Ohms: 0-1K-10K, 100K, 1 meg, 10 meg, 100 meg, 1000 meg, 10 ohm center scale on low range. Both conventional (1.5 V) and low power.

AC-DC Current Ranges: .01 - .1 - 1 - 10 mA.

11 DB Ranges: -60 db. to +62 db in 10 db. steps.

Off and battery check. Accuracy ± 2% full scale on DC Volts and ± 3% on AC volts 5" meter. Uses 10 AA penlight cells (included). With 48" leads, clips, and instructions. Size 3-3/16 x 5 % x 6 %".

Shpg. wt. 5 lbs.

35A3011-3. 601 Type 2 Solid State VOM. Net Each \$205.00

35A8026-6. 79-270. Hi-Voltage Probe. Each \$36.20

35A8029-0. 79-264. RF Probe. Each \$13.10

35B68-6. 639-0S Black Leather Carrying Case. Each \$21.10



#### **TRIPLETT MODEL 630 TYPE 3** MULTIMETER



#### **MODEL 630-NS TYPE 2**

DC polarity reversing switch, slide switch for doubling range selection. 200,000 ohms per volt DC and 20,000 ohms per volt AC. Accuracy 1½% DC and 3% AC. Ranges: DC volts, 0.-6-3-12-60-300-1200. AC volts, 0-3-12-60-300-1200. Ohms, 0-1K-10K-10K-10M-10M-100M. DC milliamps, 0-6-60-600 at 150 mV, 0-1,2-12-120-1200 at 300 mV. DC amps 0-6 at 150 mV, 0-12 at 300 mV. Decibels -26 to +51 ("0" DB at 1 mW on 600 ohm line.) Output volts AC, 0-3-12-60-300 (10,000 0.P.V.) 0-1,5-6-30-150 (20,000 0.P.V.). Size 5½ X 3-11/32 X 7½". Shpg. wt. 5 lbs. No. 35A3175-6.

No. 35 A3 175-6. Model 630-NS Type 2. Each ...... \$134.00

35B68-6. 639-0S. Black Leather Carrying Case for all 630 and 631. Permits use of instrument in case. Has built-in stand. Each . . . . . . . . . \$21.10 35A8010-0. T79-127. Replacement Leads for all 630 series. Each \$4.70

#### WORLD'S MOST POPULAR MINIATURE MULTIMETERS



- Handsize.
- Weighs only 14 ox.
- One selector switch.
- Unbreakable plastic. Provision for clamp-on





#### 310 FET ALL SOLID STATE FET VOM

Field-effect-transistorized circuitry, 10 megohm input on all DC voltage ranges, sensitivity ten times greater than many conventional VTVM's and ohms reading to 5000 meg. Suspension movement, Accuracy  $\pm$  3% of full scale on DC, and  $\pm$  4% on AC. Battery check position. High sensitivity (300 mV fs) allows transistor bias measurements. Zero center for null measurements. Six DC volt ranges: 0-.3, 1.2, 6, 30, 120, 600 at 10 megohms. Five AC volt ranges: 0-.3, 12, 60, 300, 600 at 5,000 ohms per volt. Four resistance ranges: 0-5K, 500K, 50 Megohms, 5,000 Megohms, 50 ohms center scale. Two DC current ranges: 0-.12, 1.2 milliamperes at 300 mV.  $2^{3}$  x  $\pm$  4½ x  $\pm$  1-5/16". With  $\pm$  42" leads and batteries.

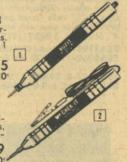
#### MODEL 310 TYPE 3 POCKET SIZE V.O.M.

Only 2¾" x 4¼" x 1-5/16". Plastic face meter fits in shirt pocket or in leather case with belt clip (listed below). Complete miniature 20,000 ohm per volt meter, 5 DC volt ranges 0 - 1200. AC — 5 ranges 0 - 1200 volts at 5 K ohms per volt. Microamperes 0 - 600. DC mils 3 ranges 0 - 600, ohms 0 to 20 K. - 200 K. Megohms 0 - 2 and 0 - 20. Accuracy 3% DC, 4% AC. Has 42" test leads. Complete with test leads and battery. Wt. 14 oz.

#### **ACCESSORIES FOR 310 FET AND 310**

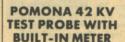
Model 10 Clamp-on Adaptor. Adapts Model 310 or 310 FET for checking AC line 

1 BUZIT TRANSISTORIZED SIGNAL TRACER No library or wires. Used for trouble-shooting AF circuits, IF circuits, RF circuits, continuity checks, speakers, etc. Excellent for transistor radios. Uses 1 "AA" cell battery. Shpg, wt. 8 ozs.



#### EICO PSI-1 SOLID-STATE SIGNAL INJECTOR PROBE

Just press the button, the PSI-1's transistor oscillator emits a strong harmonics rich 1Khz. signal to check audio, IF and RF circuits. Pocket size, powered by two AAA batteries (not included). Shipping wt. 8 oz. 35A8060-5. Eico PSI-1K Kit. Each \$6.95 35A8061-3. SIASUGI-1. Elico PSI-1 Factory Wired. Each ... \$10.95 21A326-4. Buffery for above. Each ... 30°





#### TESTS HI-VOLTAGE ON ANY COLOR OR BLACK & WHITE TV SET

Easy to operate, just ground clip to chassis, contact test probe tip to high voltage being measured and read built-in meter. No warm-up or batteries required. Length 14%".

Length 14%.

Specifications: Range: 42,000 volts DC. Sensitivity: 20,000 ohms/volt (50 ua) movement. Accuracy: ± 2% full scale. Multiplier Resistance: 720 megohm ± 2%. Material: Handle—high impact thermo plastic. Probe—high impact polystyrene. Length 14%". Shpg. wt. 8% ozs.

35A8076-1 Pomona Model 4242. Each ...... \$24.95

# SENCORE ELECTRONIC TEST EQUIPMENT



#### **DVM38 AUTORANGING** DIGITAL MULTIMETER

High accuracy measurements easier and faster than ever before. 2 terminal input, push-button operation. 4-inch LED is easy to read. 3½ digit readout with 15 megohm input minimizes circuit loading. Automatminimizes circuit loading. Automatic ranging steps down to the next range on AC and DC volts when reading is less than 1/10 of full scale, and decimal point moves automatically too. Automatic polarity. Ranges: DC volts: 0 to ± 2000V. in 5 ranges. (200 mV automatic polarity.)

2000V. In 5 ranges. (200 mV autorange only). Accuracy: 200mV scale, .1% ± 3 digits. Other ranges .1% ± digit. AC volts: 0 to 1000 volts in 5 ranges (200 mV autorange only). Accuracy: 200 mV scale, .5% ± 3 digits. Other ranges .5% ± 2 digits. DC/AC currents: 0 to 200 uA and 0 to 2000 mA in 4 ranges. DC accuracy .3% ± 2 digits, AC accuracy .1% ± 2 digits. Low power resistance 0 to 2000K ohm in 6 ranges. Accuracy .2% ± 3 digits. Max. voltage at leads 200mV. High power resistance 0 to 20 meg. in 5 ranges. Accuracy .2% ± 2 digits. Max. voltage at leads 2V. 1000 volt overload protection on all ranges except 2000 volts on DCV. Has fuse protection too. For 105-130V 50-60Hz, 7 watts. Size: 5½" X 7-7/8" X 9". Shpg. wt. 8.5 lbs.



#### **DVM 32 PORTABLE L-E-D** DIGITAL MULTIMETER

.5% DC volts accuracy makes it up to 30 times more accurate than conventional D'Arsonval meters on critical low level solid state bias measurements. 3½ digit solid state bias measurements. 3 ½ digit readout, automatic polarity, decimal, and overrange. DC volts: 0 to ± 2, 20, 200, 2000V, accuracy .5%. Input impedance 15 meg ohm. AC volts: 0 to 2, 20, 200, 1000, accuracy 1.5%. Ohms-Low power - 5 ranges: 0 to 2M. High power - 5 ranges: 0 to 20M. Accuracy 1% on all ranges. DC current: 0 to 2, 20, 200, 2000 mA, accuracy 1%. AC current: 0 to 2, 20, 200, 2000 mA, accuracy 1.5%.

Direct input probe with 200K isolation position. Diode input protected. Auto-off switch allows display turn off for long battery life when reading is 010 or less. Uses 4 "C" cells (listed below) or optional power adaptor for AC line. Dropproof cycolac case with handle. With test leads and instructions. Size: 7" X 5" X 4". Shpg. wt. 3 lbs.

35A3195-4. Model DVM32. Each \$198.00 35A8062-1. HP200. HV Probe multiplies all ranges X 100 up to 50 KV. Each \$25.00 35A8087-8. 39A90. 115/230V Adaptor/Charger. Each \$9.95 21A314-0. C cell batteries (requires 4). Each 45°



#### **DVM35 POCKET PORTABLE** DIGITAL MULTIMETER

1% DC volts accuracy backed by high 15M input impedance makes the DVM35 up to 10 input impedance makes the DVM35 up to 10 times more accurate than analog meters. 3-digit display with automatic polarity, decimal, and overrange. DC volts: 0 to ± 1000 mV, 10, 100, 1000V. accuracy 1%. Input impedance 15 meg ohms. AC volts: 0 to 1000 mV, 10, 100, 1000V. accuracy 1.5% Ohms - low power: 0 to 100, 1000, 10K. High power: 0 to 100K, 1000K, 10M. Accuracy 2% on all ranges: AC/DC current measures total average sum of AC and DC from 0 to 1000uA, 10, 100, 1000 mA, accuracy 2%. Measures 2000V using the X2 isolation button on the probe. Touch-on switch in probe gives long battery life. Diode protected input. Battery operation below) or PA202 power adaptor (listed below)

uses 6 "AA" alkaline cells (listed below) or PA202 power adaptor (listed below) for AC operation. Drop-proof cycolac case. Size: 6" X 4" X 1 ¼". Shpg. wt. 2

lbs.	****
35A3206-9. Model DVM35. Each	\$124.00
35A8098-5 PA202 115V adaptor/recharger for NiCad batteries	To work the second
Each	\$9.95
35A8062-1 HP200 HV probe multiplies all ranges X 100 up to 50	KV.
Each	\$25.00
21A5002-6. "AA" alkaline cell for DVM35 (6 required) Each	64

#### **DVM36 POCKET PORTABLE DVM**

Any Of These Testers Can Be Purchased On B-A's E-Z Pay Revolving Charge Plan



#### "LITTLE HENRY" FIELD **EFFECT MULTIMETER**

Handy size instrument has tough, grained case with slide door to protect meter. Lead compartment has snap action door to keep leads in place. Easy one-hand operation with all push-button controls. Ranges: 0-3, 30, 300, 1K and 6K DC Volts full scale plus 0-3, 30, 300, and 1K AC Volts. Ohms ranges 0-1K, 10K, 1 Meg and 1000 Meg. DC current 0-1 Amp full scale with separate current jack, 3½" meter input isolated and diode protected. Uses one 9 V. and 3 1.5V batteries. Size 6½" H. x 4½" W. x 2¾" D. Shpg. wt, 3 lbs. 35A3127-7 Model FE23 35A3127-7. Model FE23.

35A8062-1. HP200. H.V. Probe multiplies all ranges X 100 up to 50 KV. Each .... \$25.00 21A198-7.9 V. Battery (requires one) Ea \$1.29 21A313-2. AA Battery (requires 3) Each . . 35





#### SENCORE PS163 DUAL TRACE TRIGGERED SWEEP OSCILLASCOPE

Extremely stable triggered sweep with full band width-capability in both automat-Extremely stable triggered sweep with full band width-capability in both automatic and triggered modes PLUS free running capability for use as a sync sweep service scope. Complete dual trace capability with selection. Input sensitivity of 5 mv/cm direct probe, 50 mv/cm with low cap probe. Bandwidth of DC to 8 MHz  $\pm$  3 db, useable to 15 MHz. Calibrated time base speeds from .1 microsecond to .1 second in 19 positions PLUS TVV, TVH, 60 Hz and ext. positions. From panel correlation between sweep speed and frequency for ease of operation. Push-button selection of trigger sources. High input impedance of 10 megohms shunted by 11 pf using low cap probe. Fully protected field effect transistor input. Full size illuminated 10 x 10 cm grid plus illuminated vector grid at the flip of a switch. All solid state for dependable accuracy and reliability. Built-in vertical calibrator for both channels. Vertical A and B—BNC input connectors. All others binding posts. 105 to 130 VAC, 60 Hz, 60 watts. Size: 12 x 10 x 15". Shpg. wt. 30 lbs. Complete with two low cap probes. two low cap probes

P\$148A DELUXE WIDE BAND SCOPE AND VECTORSCOPE

View vector patterns as recommended by Zenith or "S" pattern as recommended by RCA. Switch on rear converts from a wide band scope to a 5-inch vector scope. Vectorscope connections and controls are located on rear. Vectorgraph screen shows degree of chroma demodulation. Vertical amplifier response 10 Hz to 6 MHz, ± 6 db. Vertical sensitivity: .017 V rms/inch. Horizontal sweep 5Hz to 500 KHz in five ranges. Stability is due to precise control over sync signals. Minimum circuit loading with input Z of 27 megs. Low C probe to view wave forms in TV horizontal and vertical circuits. Horizontal freq. response (3 db, 10 Hz to 650 KHz) guarantees linear sweep and positive sync. Inputs for horizontal sweep and external sync on front. Provisions for intensity modulation on rear. Horizontal retrace is builtin on all horizontal sweep ranges. All steel case with brushed chrome front panel.11" X 9" X 15½". Wt. 22 lbs. 105-125 V. 50-60 Hz. AC. 47 worts. panel. 11" X 9" X 151/2". Wt. 22 lbs. 105-125 V. 50-60 Hz. AC. 47 watts

35A3165-7. PS148A. 

#### **PS29 MINUTE MAN** AUTOMATIC TRIGGERED PUSHBUTTON OSCILLOSCOPE

Have every color and video servicing signal available with the push of a button... TV vertical, TV horizontal, 3.58 color, 5X expand, 60 Hz line sweep and vector mode. Automatic triggering with guaranteed solid sync (backed by TV sync separators) for rock solid waveforms - you simply push a button. Vertical input sensitivity. 01 V/cm def. accuracy 3%. Vertical amplifier frequency response: DC to 8 MHz ± 3 db; -4 db at 10 MHz useable to 15 MHz. Horizontal sweep speed: triggered 0.2 usec/CM to 0.1 sec/cm in 18 ranges with accuracy of 3% Source selection is internal external line or



# SENCORE ELECTRONIC TEST EQUIPMENT

#### **COLOR BAR GENERATORS**





CG-25 "Little Huey"

Model CG-25. Compact - its palm size makes the CG-25 an ideal service companion on every color TV call. Push-button selection of 10 color bars vertical lines, horizontal lines, crosshatch and dots. Positive digital locking insures stable patterns on every set. All digital IC chips means no timers and never any down time. Turns itself off with automatic timing if you should forget. Only generator using new CMOS IC's means long shelf life for batteries. Size 4 ½" X 2 ½"."

6" X 2 ½". 35A3147-5. 21A5035-6.

Model CG-169. 100% digital timed, it just can't bounce. Temperature controlled circuits - absolute pattern stability in any weather with Sencore's exclusive "Temp-Control". Has all five standard patterns plus single fixed dot, single fixed cross, movable dot and movable cross. A single dot and a single cross can be moved to any spot on the screen, simplifying both static and dynamic convergence. Perma-lock circuit produces solid patterns, dots and color bars. Produces TV VHF and UHF channels for complete tuner testing. RF attenuation simulates fringe conditions. Works like tuning in your TV.

Vinyl covered steel case with plate glass mirror in lid. Operates on 105-130 VAC 50 W. 10 x 9 x 4" Wt. 10 lbs.

50 W. 10 x 9 x 4". Wt. 10 lbs.

35A3148-3. Each ...... \$225.00

#### MODEL CR-168 BIG MACK CRT TESTER



Tests them all including the newest RCA 116 degree color tube and 17" Japanese trinitron. Automatic tracking—you can't make a mistake in calculations. Simply read tracking on the big meter after making emission tests. Filament set insures against high or low line voltage. Shorts test read on meter. Small plug-in sockets fit in cover. 6" D'. Arsonval meter. Black vinyl covered steel case. Size 10 x 9 x 5". Wt. 12 lbs. Oper Model CR168. Each

Model CR168. Each

\$275.00

#### **CR31A SUPER MACK CRT TESTER & RESTORER**



Completely automatic, patented CRT tests including "Good-Bad" tracking test, all on one simplified meter plus complete restoring capabilities with 3 automatic and 2 manual restoring levels so you can get the job done safe, yet effectively. Filament set is continuously variable from 0 to 14 V. for accurate testing of any CRT. 5 levels of restoration: 2 safe, low level, RC timed rejuvenated positions, 1 higher level auto-cycle that cycles the restoring currents at 10 KV focus voltage probe with 50 KV adaptor for high voltage checks lets you isolate problems to circuit first. All 18 sockets supplied, plastic with aluminum panel and divider. Size: 12" X 9" X 5". Wt. 12 lbs. For 105-130 Volts 50-60 Hz. AC.

35A3194-7. Model CR-31A Fach

35A3194-7. Model CR-31A. Each

.....\$495.00

SS137 COMPLETE SWEEP CIRCUIT ANALYZER

Everything you need to isolate ANY sweep circuit trouble in seconds. Universal horizontal and vertical oscillator signals for direct circuit injection. Dynamic in-circuit flyback checker. Direct horizontal yoke substitution for B/W and color, Vertical yoke and vertical output transformer test drive signals. Horizontal stabilization and sync test provisions. External checks with built-in VTVM: DC volts from 0 to 1000, AC volts peak-to-peak from 0 to 2800, and 2nd anode voltage measurements of 10KV and 30KV. Current scale of 300 MA. Special 3 MA range for color TV. Steel case with shock mounted high quality plate glass mirror in detachable hinged cover. 10 X 9 X 31/2". Wt. 10 lbs. \$150.00 35A3032-9. SST37. Each.....



### FS134 UHF-VHF-FM SOLID STATE



#### YF33 RINGER YOKE, FLYBACK **TESTER AND SWEEP** CIRCUIT ANALYZER

Tells you a good or bad yoke or flyback in seconds with one simple test. Sweep circuit analyzer measures horizontal output drive signals, 10KV focus voltage, and 50KV high voltage for fast, complete sweep troubleshooting. Test horizontal and verti-cal yoke windings, horizontal output transformers, plus many horizontal circuit and general application mid-frequency coils. Pushbuttons match the impedance of the coil being tested. Dynamic test counts number of cycles a coil rings before 25% damped level after 15 VP-P exciting pulse to the counts of the country of the country of the cycles are not seen to the country of the cycles. has been applied. 10 or more cycles gives "GOOD" meter reading for yokes or flybacks. Sensitivity adjustable for other coils.

Measures AC P-P voltages on 30 V and 300 V scales for horizontal output drive signal. Frequency response: 3 MHz at 3 dB. Measures 10KVDC for focus voltage, or 50KVDC for second anode measurements with probes listed below. Dropproof molded acrylic and vinyl covered steel case, sliding meter cover, lead storage compartment and adjustable tilt stand handle. For 105-130 VAC, 50/60 Hz, 10 watts. Size: 10" X 5 ½" X 3 ½". Shpg. wt. 7 lbs.

..... \$195.00 





### RC-24 FULL RANGE RESISTOR-CAPACITOR SUBSTITUTOR

24 - ½ and 1 watt resistors values from 10 ohm to 5.6 megohms. 9 - 600 volt tubular capacitors from 100pt to .5 mfd. New high value, low voltage electrolytics for solid state trouble shooting. 2 high voltage electrolytics at 10 and 100 mfd at 450 volts. Exclusive Sencore surge protector prevents arcing and healing of electrolytics. Exclusive overload indicator for protection of low voltage electrolytics. Exclusive lead storage compartment, prevents loss and tangling of leads. Attractive unbreakable acrylic case. Size: 2 X 2 X 6". Wt. 1½ lbs.

35A3145-9. . Model RC-24.

#### MODEL RC-167 RC SUBSTITUTOR

Full range of resistors, power resistors, capacitors, electrolytics, and rectifiers at your finger tips. Resistors: 24 overlapping values from 10 ohms to 5.6 megohms. 1 watt up to 10K, ½ watt over 10K. Capacitors: 10 overlapping capacitors from 100 pf to .5 mfd at 600 volts. Electrolytics: 2 mfd, 5 mfd, 10 mfd, 20 mfd, 50 mfd, 100 mfd, 200 mfd at 450 volts. 500 mfd, 1000 mfd and 2000 mfd at 75 volts. Rectifiers: Universal selenium and silicon rectifier substitutes, 1 ampere-800 PIV. Surge protector switch places resistance in series with electrolytics and then removes it when placed in circuit (automatically) so that the electrolytic cannot be healed. Mechanical Description: Black vinyl covered with aluminum paneling. Parts drawer with compartments for resistors. covered with aluminum paneling. Parts drawer with compartments for resistors, etc. 7 ½" x 11" x 5", 7 lbs.

35A3146-7. Model RC167. Each

\$99.00



#### PM157 POWER MONITOR

#### MODEL BE-156 7-IN-1 DC BIAS SUPPLY

Three separate and independent 25 volt Three separate and independent 25 volt supplies offer a carefully calibrated output and a positive and negative polarity switch; the last supply on the right has an additional position on the switch that increases the output to a negative 75 volts. 7 X 4 X 2". Wt. 2 lbs. 110 VAC.
35A3068-3. Model BE-156. \$49.50



# SENCORE AND BE PRECISION TEST INSTRUMENTS

#### TF30 SUPER CRICKET TRANSISTOR ANALYZER

Now completely analyze any transistor or FET in-orout of circuit automatically without having to know
transistor basing or lead connections, whether it's a
transistor or FET, whether it's NPN or PNP. Tells you
simply whether the transistor is good or bad. But
you aren't restricted to just good or bad tests - flip
the selection switch, push the button lock and you
are ready for measurements of Beta, Icbo, Gm, Igss
and Idss with a unique new automatic circuit that requires no zeroing or unity calibration. The audible chirp tells you that you have the correct connections. Positive lead identification chart tells you how leads are connected to transistor or FET. Size: 10 X 7 X 6 ½". Shpg. wt. 11 lbs. For 105-130 V. 50-60 Hz.



35A3169-9. TF30. Each ...... \$240.00

CRICKET

# CRICKET FET TESTER

Computer logic circuit makes transistor and FET testing Computer logic circuit makes transistor and FET testing easier and faster than tube testing. Test any transistor or FET, in or out of circuit, with the push of a button. No set-up or technical knowledge needed. Connect the test leads any way you want, if makes no difference as long as they are connected to 3 elements. The cricket chirps when you hit the right touch tone button. Meter accurately tells you good or bad for replacement without removal from circuit. Remove the transistor from the circuit and you can read leakage in microamps. Size: 8 5/8 X 5 3/8 X 3½ ". Shpg. wt. 5 lbs.

35A3152-5. Model TF26. Each . . . . \$150.00



#### TC28 HYBRIDER TUBE AND TRANSISTOR TESTER

Tests tubes, transistors, diodes, and single-gate FET's. Performs cathode emission test at full rated cathode current, grid leakage sensitivity to 100 meghoms. Individual shorts test for each pin read right on the meter with individual pin elimination switches to eliminate tied-in connections in the tube. Tests transistor gain in-or-out of circuit, good-bad reading test on bipolar transistor or FET in or out of circuit. TC28 is all solid state with computer-logic integrated circuits. Checks over 3000 tubes, both foreign and domestic. Meter is 6 X 3¾". Black vinyl clad steel case with aluminum panel and trim. For 105-130 V, 50-60 Hz. AC.

Size: 1434 X 41/2 X 12". Shpg. wt. 15 lbs.



#### (1) MU150 THE CONTINENTAL TUBE CHECKER

The Continental checks tubes accurately with full rated cathode current drawn from every tube. 100 Megohm grid leakage test to find the tough grid contamination defects that other testers miss. Stethoscopic shorts test that checks each element against all others for shorts. Life test to find intermittents and temperature sensitive failures.

Plastic coated tube chart. New setups can be made from tube manual. Laboratory accuracy; meter readings for Gm are in actual micromhos. Checks over 3000 foreign and domestic tubes.

Vinyl clad steel attache case with all-chrome front panel. 18" x 14" x 5". Shpg. wt. 18 lbs

35A3038-6: MU150. Each ...... \$395.00

### 2 TC162 SOLID STATE TUBE TESTER

Solid state circuitry with FET bridge circuit for greater reliability, stability and

Reliability — Accurately checks each tube at full rated cathode current for emission. Extra Sensitivity — Measures grid leakage with 100 megohm sensitivity. Push-Button Operation — With the push of a button you can check for emission, shorts and grid leakage. Checks latest tubes. Vinyl clad steel case with removable lid. 10 x 9 x 4". Wt. 9 lbs.

#### B & K DYNA-FLEX ADUSTABLE 3-POINT PROBES

Spring loaded needle-point tips tilt or swivel to any spacing from  $1/32^{\prime\prime}$  to  $5/8^{\prime\prime}$ . Three color coded leads.

35A8075-3. FP-5 Dyna-Flex Probe with Banana plugs. Each .....\$15.00



### **B&K 415** SOLID STATE SWEEP/MARKER ALIGNMENT GENERATOR



Markers are clearly indicated by lights on the panel and by tilting markers on the serviceman's scope. The unit is so complete—all that is needed to complete the alignment job is a scope and an alignment tool. Even the instruction book is different—showing a simplified, new easy method to align all TV receivers.

Specifications: Completely solid state (with field effect transistors), 3 Bias supplies (low impedance), 2 ADJ to ± 25 VDC, and 1 ADJ to ± 50 VDC. Xtal controlled RF output on Channel 4 and 10. Xtal controlled IF markers. Sweep width up to 12 MHz. As many Xtal markers may be used together as needed. Post injection marker (Xtal controlled).

All cables supplied. 115 VAC 50/60 Hz. (with 3 wire cord).

\$485.00



#### **B & K MODEL 1801 40 MHZ AUTORANGING** COUNTER

Now it is possible to have digital frequency counting accuracy for far less than the cost of most counters without

than the cost of most counters without sacrificing ruggedness, sensitivity, or quality, this unit has many time-saving applications - fast, precision oscillator tuning, high-speed reading for production tests, precision audio frequency analysis, and frequency monitor. Frequency range: 20 Hz - 40 MHz. Auto gate time: 10M sec or 100M sec (MHz reading) or 1 sec (KHz reading) chosen automatically. Manual gate time: 1 sec (KHz reading), 1 Hz resolution). Accuracy: ± time base accuracy, ± 1 count. Resolution: 1 Hz. Input characteristics - impedance: 1 meg/25 pt. protection: diode. Sine wave sensitivity: 30 mV RMS, 20 Hz - 40 MHz. Max input (peak AC and DC): 200 V. to 500 Hz. Display characteristics: 6 digits with overflow indicators. Size 3 ½" X 8 ½" X 10½". Shpg. wt. 7 lbs.

#### **B&K467CRT** RESTORER/ANALYZER

Restores color and B/W picture tubes like new using the most powerful restoration method known with minimal danger to the CRT. The exclusive multiplex test technique CRT. The exclusive multiplex test technique tests all three guns of color CRT's simultaneously under actual operating conditions ... even CRT's with common G1 and G2 ... with real dynamic tests. Model 467 measures true usable beam current, current that passes through the G1 aperture, you test only that part of the cathode that emits electrons during actual operation ... true dynamic testing. Provides definite yes or no answers to tube condition, after set-up you need no charts. condition, after set-up you need no charts. Automatic circuitry compensates for different size heaters and cathodes without adjustment assuring restoration without damage. Protective circuitry prevents simultaneous applica-

tion of heater voltage and rejuvenation voltage. Tests focus electrodes-lead continuity. Packaged in a resilient, round-cornered, high-impact polyethylene case. Size: 10 X 3½ X 5¾". Shpg. wt. 12 lbs.

No. 35A3172-3

\$288.00

#### **B&K MODEL 470 CRT** RESTORER/ANALYZER

The value leader in its class, Model 470 employs the same powerful restoration method as Model 467 (shown above), providing re-sults you can depend upon. Tests for emissuits you can depend upon. lests for emission, leakage, tracking (color tubes), life. Restoring functions include short removal, gun cleaning and balancing, cathode rejuvenation. Packaged in resilient, round cornered, high-impact polyethylene case with internal cord and adapter storage. 13½ X 10 X 5¾". Shipping weight 9 lbs. 35.4.3216-8

35A3216-8 Model 470. Each ...... \$179.00



#### **B&K MODEL 1077B TELEVISION ANALYST**

Service B&W and color, VHF and UHF, tube type and transistorized TV receivers. Supplies test signal for each separate stage, you watch results on T.V. set itself. No oscilloscope needed. By test pattern signal injection you can signal trace each stage from the antenna input to the last video amplifier grid. Also provides audio tone generator, sync and sweep circuit pulses, yoke and flyback tests. Supplied with standard test pattern, white dot and white line crosshatch and color bar pattern slide transparencies. Operates on 105-125 VAC. Size 9% X 18 X 12". Wt. 29 lbs. 35A302-9. Model 1077B. Each .....



\$496.00

# PRECISION TEST EQUIPMENT

#### **B & K MODEL 283 31/2 DIGIT** MULTIMETER



large size and high brightness of display makes 283 usable in places where other digital meters are unreadable. Selectable HI/LO ohms function allows in-

HI/LO ohms function allows incircuit resistance without forward biasing semiconductor junctions. Has overrange capability reads to 1.999 on scales normally reading to 1.000. Has automatic polarity indicator. DCV: 1, 10, 100, 1000. ACV same. DCMA: 1, 10, 100, 1000. ACMA same. Res. 0 to 10 meg in 6 ranges. Accuracy: DCV.5%, ACV 1%, DCMA and ohms 1%, ACMA 1.5% of reading ± 1 digit except highest ranges, up to 1% less accurate. Comes with test leads. Options: Battery Pack permits 8 hours use on one overnight recharge; Isolation/Direct Probe has switchable 100K resistor; leatherette case. For 105-125V, 50/60 Hz (may be adapted for 100V/230V). 9 x 7 x 3 ½ ". Shpg. wt. 4 lbs.

35A3160-8. Model 283. Each

35A3160-8. Mode	283. Each	
35A8095-1. BP83	Battery Pack. Each	)
	Probe, Each \$10.00 Carrying Case, Each \$15.00	



#### **B & K MODEL 280 3-DIGIT PORTABLE MULTIMETER**

The 280 is a true digital multimeter - with 22 scales that range as high as 1000 VDC or AC, 1000 MA and 10 megohms. DC voltage ranges: ± 0-1000 mV, 10 V, 100 V, 1000 V. Input impedance 10 meg. AC voltage ranges: 0-1000 mV, 10 V, 1000 V. Input impedance: 10 meg. DC and AC current ranges: 0-1000 uA, 100 mA, 100 mA, 100 mA. Nominal voltage drop: 100 to 300 mV. AC frequency response: 50-200 Hz. Resistance ranges: 0-100, 1000, 10K, 100K, 10 megohms. Readout 3 LED digits, powered by 4 "C" D x cell batteries (not supplied). Sizes: 42/5" W x x "D x cell batteries (not supplied). Size: 4 2/5" W. x 2" D. x 6 2/5" H. Shpg. wt. 3 lbs.

35A3181-4. Model 280. Each \$99.95	
21A314-0. "C" Battery, 4 required, Each	5
35A8089-4. Model BC-28 AC Adaptor/Battery Charger. Shpg. wt. 1	
Each \$8.0	
35A8090-2. Model LC-28. Carrying Case. Shpg. wt. 1 lb. Each \$6.0	0



#### B & K 1040 CB SERVICEMASTER

When used with scope and signal generator measures S/N ratio of CB receiver, audio output power and distortion, receiver sensitivity. Check AM modulation, AGC and SSB modulation. Measure SSB power output with true peak-reading RF wattmeter; base or mobile antenna SWR. RF Wattmeter: Internal load 50 watt,

meter: Internal load 50 watt; external load switch-selectable 0-10, 50, 100 watts; accuracy ±5%; metering forward or reverse, average or peak, SWR scale 1:1 to 5:1; S0239 connectors, RF input and output. Audio Wattmeter: Load impedances 4, 8 or 16 ohms; ranges 0-100 mW, 1 and 10 watts; Aux dB scale -20 to + 3 dB. Distortion Measurement: 0-30%, THD at 1KHz, ± 10%. Audio Section: Outputs include receiver audio, 1KHz tone for AM, two-tone signal for SSB. Contains frequency counter output, RF generator input, and scope output for examination of transmitter modulation envelope and receiver audio, output on any low frequency scope. For 117V, 60 envelope and receiver audio output on any low frequency scope. For 117V, 60 Hz and 13.8 VDC. 4 x 3 ½ x 11".

#### **B&K 2040 PLL CB SIGNAL GENERATOR**



DESIGNED FOR USE WITH ALL CLASS D CB TRANSCEIVERS ... AM AND SSB

Has phase-locked loop circuitry, a high accuracy crystal, and regulated power supply. Has provisions for 40 channels with  $\pm .0005\%$  accuracy. Delta fre-

±.0005% accuracy. Delta frequency adjustment allows variation of 0 to 5 KHz from channel center frequency for SSB test and band pass filter evaluation. Internal modulation at 400, 1000 and 2500 Hz. Meters for RF output and modulation %. Output attenuator provides calibrated outputs from 0.3 uV to 100mV. Can withstand RF input of 5 watts at 27 MHz for 1 minute without damage. Meter provides microvolt and dB readings. For 105 to 125 VAC. 7 1/3 x 10<sup>34</sup> x 18". Shpg. wt. 19 lbs.



# PRECISION

**DUAL TRACE** 5" TRIGGERED SWEEP SCOPES





1474

1471B: For systems development and analysis of microprocessors, minicomputers, computer terminals, video character generators, etc. Troubleshoot TV receivers, video recording systems, CB radios, etc. 8 x 10 cm viewing area features bright blue P31 phospher. 100% solid state except CRT. Vertical frequency response DC to 10 MHz. Mode automatically shifts between CHOP and ALTERNATE as you change sweep time. Has internal and external sweep, internal square wave calibration and X-Y Vectorscope capability. Sweep system is automatic or triggered. Rise time: 35 n/S. Input impedance: 1 meg. 22 pf. Sweep time: 1 uS to .5 sec/cm in 18 ranges. Sweep magnification: 5X. Horizontal response: DC to 1 MHz. Requires two PR-35 probes (not supplied). For 117/234 V, 50/60 Hz. 20 W. 77/8 x 97/8 x 16". Shpg. wt. 22 lbs.

\$495.00 

1472C. Includes all the features of the 1471B, but with vertical frequency response of DC to 15 MHz; rise time of 24 n/S; sweep time is .5 uS to .5 sec/cm in 19 ranges. Requires two PR-35 probes (not supplied, listed above). For 100-230 V, 50/60 Hz, 23 W. 7 7/8 x 9 7/8 x 14 ½". Shpg. wt. 22 lbs.

35A3187-1. Model 1472C. Each .....

1474. Same as 1472C PLUS vertical frequency response of DC to 30 MHz; rise time is 11.7 n/S; sweep time is .2 uS to .5 sec/cm in 20 ranges. Features illuminated graticule. Requires two PR-36 probes (not supplied). For 117/234 V, 50/60 Hz, 25W.  $10 \times 14 \frac{1}{2} \times 18$ ". Shpg. wt. 22 lbs.



#### **B & K 520B DYNAPEAK** TRANSISTOR TESTER

In-circuit, the 520B determines whether the device is working, whether it is a PNP or NPN type, silicon or germanium and which of the three leads is the base. Out-of-circuit tests - good/bad test: for PNP and NPN transistors, FEI's, SCR's leakage and Idss. Measures: reverse leakage from 0.1 uA to 5 mA. Audible tone for good indication. Test switch identifies base or gate lead for good transistors or FEI's: Meter scales readable from 0.1 uA to 5 mA for Ice leak-age. Applied test currents - collector: 250

age. Applied test currents - collector: 250 mA at 5% duty cycle, base 125 mA at 5% duty cycle, test repetition rate 10/sec, leakage test reverse voltage 3.5 V. Limiting in-circuit shunt values, resistance: 10 ohms; capacitance 50 uF. 105-125 VAC, 50/60 Hz. 8 x 7 x 3½. Shpg. wt. 6 lbs.

35A318 9-7. Model 520B. Each ...... \$160.00



Stable digital high current, low duty cycle pulse-testing. LO DRIVE: good/bad indication, polarity and identification of all three leads - incircuit or out-of-circuit. HI DRIVE: test devices in-circuit even with low shunt impedances and get positive good/bad indication, polarity and

identification of base lead. In-circuit shunt limits: Resistance down to 10 ohms, capacitance up to 25 uF with HI drive. Uses four "AA" cells, not supplied. Carrying case and test leads supplied. 3¼ x 6-5/8 x 1¾".

# HICKOK TEST EQUIPMENT



### ICKOK MODEL 334 DIGITAL MULTIMETER

MODEL 334

All function workhorse gives you 5 ranges of AC and DC voltage and current plus 6 ranges of All function workhorse gives you 5 ranges of AC and DC voltage and current plus 6 ranges of ohms - all with 3½ digit resolution plus automatic decimal point, automatic polarity, and automatic overrange indication. DC volts - 5 ranges: 0-199.9 mV, 1.999, 19.99, 19.99, 1200 volts, accuracy ± 0.2% of reading ± 0.1% of range (add ± 0.3% of reading for 199.9, 1200 V. ranges). Input impedance: 10 meg. AC volts - 5 ranges: 0-199.9 mV, 1.999, 19.99, 199.9, 1000 volts RMS, accuracy ± 1.5% of reading ± 0.5% of range (add 1.5% of range for 199.9 mV, 1.999 V. ranges). Input impedance: 6.5 meg/15 pF. Ohms - 6 ranges: 0-199.9 ohms, 1.999 K, 19.99 K, 19.99 Meg, 19.99 Meg. Accuracy ± 0.5% of reading ± 0.1% of range (add ± 0.5% of reading for 199.9 ohms, 1.999 K, 19.99 meg ranges). DC current - 5 ranges: 0-199.9 uA, 1.999, 19.99, 199.9, 1999 mA. Accuracy: ± 0.5% of reading ± 0.1% of range (add ± 0.5% of reading accuracy: ± 0.5% of reading ± 2% of range. For 105-125 VAC/210-250 VAC, 50-400 Hz, 3 watts. Shielded input probe with 200K isolation position included. Comes with a rugged, double-wall, polyethylene carrying case. Size: 8½" W. X 4" H. X 6" D. Shpg. wt. 5 lbs.

6" D. Shpg. wt. 5 lbs.

35A3196-2. Model 334

\$234.00



### HICKOK MODEL 270 FUNCTION GENERATOR

MODEL 270

<sup>\$</sup>189

This compact precision unit puts stable, calibrated, high quality sine, square, and triangle waveforms from 1 Hz to 500K Hz at your fingertips. Frequency range: 1 Hz to 1M Hz in 6 pushbutton-selected decade ranges. Frequency accuracy:  $\pm$  1% of F.S. up to 200K Hz. Amplitude flatness:  $\pm$  0.1 db from 20 Hz to 20K Hz;  $\pm$  0.3 db from 1 Hz to 100K Hz. Output level: 0 to 24 volts peak-to-peak (8.5 volts RMS) open circuit. Output impedance: 600 ohm  $\pm$  5%. Attenuators: total dynamic range of step and continuous attenuators is 80 db min. Step (pushbutton) attenuators provide 0 db, -20 db, and -40 db attenuation  $\pm$  0.5 db accuracy). DC offset: output DC level on all waveforms is variable from -6V to +6V(at 0 db attenuation . Rear panel inputs: AM input, FM input, Frequency Shift Keying Control, FSK resistor, FSK sync (pulse/ramp control), mixer input. For 105-125 VAC/210-250 VAC, 50-400 Hz, 5 watts. Complete with rear panel connection, instruction manual, and a ruaged, double-wall, polvethylene carrying case. panel connection, instruction manual, and a rugged, double-wall, polyethylene carrying case. Size: 8 ½ " X 4" X 6". Shpg. wt. 6 lbs.



### HICKOK **MODEL 239 POCKET COLOR BAR GENERATOR**

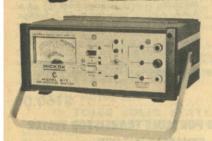
All the performance features you need in the palm of your hand! Bench instrument quality with half the size and weight. Weighs only 12 ozs. yet is engineered for industrial use and rugged reliability. Features the exclusive Hickok developed MOS LSI circuit chip providing low component count for high reliability, extremely low battery drain, rock-stable signals from -50° to +150° F, plus small package size. Two matrix slide controls select any of the nine patterns. Chroma level adjustable from 0-150% for bright, sharp patterns. RF is adjustable from channels 2-4. RF and chroma oscillators are crystal controlled. Powered by two 9 V. batteries (not included). Housed in rugged polypropylene case. Size: 5% X 3-3/8 X 1-7/8". Shpg. wt. 1 lb.

35A3170-7. Model 239. Each \$125.00 21A305-8. 9 Volt Battery for above. Requires 2. Each 89°



### HICKOK **FULLY AUTOMATIC SEMICONDUCTOR TESTER**

The easiest and fastest of all semiconductor testers to use. No reference manuals needed to find basing diagrams, no switches to operate, no buttons to push. No hands operation lets you use both hands for making lead connections or probing. Just connect the Model 215 to the device leads in any order, in or out of the circuit. Instantly and automatically shows lead configuration and gives "Good" or "Bad" indication on bright LED display. If good, it identifies the base (gate for FET's) and whether NPN or PNP. Also tests SCR's and unijunctions and will not damage transistors, diodes or circuits under test. Uses two 9 volt batteries (Not Included). With test leads. Size only: 5-3/4" X 3-3/8" X 1-7/8", weighs 12 ounces, easy to carry in your pocket. Shpg. wt. 2 lbs.



MODEL 217

# SEMICONDUCTOR ANALYZER

Provides fast, accurate, and thorough tests in or out of circuit, with "hands-off" ease of operation. Simply connect the leads of the device (or use front-panel socket) to the Model 217 in any order without regard to basing. The fully automatic circuitry does the rest. Tells you if device is "Bad" (open, shorted, leaky) or "Good", identifies polarity (NPN or PNP) and base lead (gate for FET's). Out-of-circuit test measures actual leakage and indicates Silicon or Germanium. Tests SCR's and will not damage devices or circuits under test. Has a rugged, double-wall, polyethylene carrying case and leads. Operates from 120 VAC or two 9 V. transistor batteries (not included). Size: 8½" W. X 4" H. X 6" D. Shpg. wt. 5 lbs.



MODEL 230

### HICKOK MODEL 230 SOLID STATE DYNAMIC EMISSION TUBE TESTER

Designed to meet wear and tear of everyday use! The 50 uA meter permits direct reading of heater - cathode leakage to spot hum and other isolation problems. A directly metered grid leakage test is included to find problems in the AGC, SYNC, or CHROMA sections which depend on high grid circuit impedance. Ten slide switches let you lock out any or all elements to get rid of normal shorts. Directly metered H-K leakage test, 2 UA sensitivity, impossible withneonleakage tests. Lifetime serviceability, designed with easily replaced standard sockets and components. Tests for all the new and old tubes including Nuvistors, Novars, Magnovals, and the new 10 pin tubes and 12 pin Compactrons are contained in the self-retaining and removable data book. For 105-125 V or 210-250 V, 50-400 Hz. Size: 11 ¼" X 9½ X 5¾". Shpg. wt. 7 lbs.

Burstein-Applebee Co., 3199 Mercier, Kansas City, Mo. 64111

# HICKOK CB TEST EQUIPMENT

### HICKOK MODEL 388 CB IN-LINE TESTER

The most complete output tester available. This precision unit provides digital readout of frequency, power output, standing-wave ratio, and percent of modulation all from one control with one hookup between the transceiver and antenna. Frequency: seven-digit, accurate to 10 ppm with 10 Hz resolution. Output power: three-digit, two ranges, 10 watts or 100 watts with resolution to 0.1 watt. SWR: four-digit, 1.00:1 to 20.00:1.% Modulation: three-digit, modulation readings 0% to 100% in 1% increments. Hook up one piece of test gear, only one time for the complete test procedure. Other features include the front-panel BNC connector to provide frequency measurements 1 Hz. to 80 MHz. without disconnecting the thru-line connection. AM output for scope display of modulation. Auto decimal on all functions and a large, bright 7-digit LED display. Specifications: frequency response - (in line) 10 MHz to 55 MHz. Accuracy of frequency: ± 1 count ± time base stability. Accuracy of power: 10 watts range, ± 2% of scale ± 1 count (4 watts, ± 5% of scale ± 1 count 1.00 to 10.00 watts. 100 watt range, ± 5% of scale ± 1 count 10 to 100 watts. % modulation: (sinewave only) ± 2% of scale ± 1 count (6 99%, ± 5% of scale ± 1 count 10.0% to 99.0%. Input impedance: rear panel thru-line connector, 50 ohm. Front panel frequency input, 1 megohm 25 pF. Complete with a rugged, double-wall, polyethylene carrying case. For 105-125, 210-250 VAC 50-400 Hz. Size 8½" W. X 4" H. X 6" D. Shpg. wt. 5 lbs. The most complete output tester available. This precision unit provides digital readout of frequency, power 35A3223-4. Model 388. Each ...... \$349.00



### HICKOK MODEL 38 DIGITAL CB MONITOR

A rugged, precision instrument designed for both base and mobile applications. Model 38 connects in-line between transmitter and antenna and provides digital readout of frequency, power, and SWR. The digital readout provides 6-digit frequency counting with 100 Hz resolution, 3-digit power reading in increments of .1 watt, and 4-digit SWR reading with .01 resolution. The 10 watt power range can be easily modified to a 100 watt power range for applications which may require 100 watt power monitoring. The unit is constructed in a rugged metal case which provides protection for rugged environments and shielding to avoid interference. Specifications: frequency - range 15 MHz to 35 MHz. Accuracy ± 1 count ± 10 ppm. Display 6 LED digits. Power: range 1.0 to 10.0 watts. Accuracy ± 2 digits 3.5 to 4.5 watts. Display 3 LED digits. SWR: range 1.00 to 20.00. Accuracy ± .1. Display 4 LED digits. Unit is supplied with hardware and connectors for mobile operation as well as the 115 VAC power supply built-in. For 105-125 VAC or 12 volts DC. Size: 7" W. X 2½" H. X 6" D. Shpg. wt. 3 lbs.



### HICKOK MODEL 380 **AUTORANGING FREQUENCY COUNTER**

Designed for professional results. 1 Hz to 80 MHz response and an external time base input. Ideal for CB service. Features an autoranging 7 digit display (.3" high LED's). 1 Hz resolution to 10 MHz. 10 Hz to 80 MHz. 10 ppm time base meets FCC requirements for CB service. Accuracy is ± 1 count ± time base uncertainity. Operating Modes: switch selectable AUTO (autoranging) or SPEEDREAD (fast update). Gate times: 1 second or .1 second (automatically selected) in AUTO mode, .1 second (fixed) in SPEEDREAD mode. Display update: (AUTO mode) 1.1 second blow 10 MHz, .2 second above 10 MHz and in SPEEDREAD mode. Signal input through front panel-mounted BNC connector. Input 1 megohm, 25 pF. Complete with rugged. double-wall, polyethylene carrying case. Operates from 105-125/210-250 VAC, 50-400 Hz. Size: 8½" W. X 4" H. X 6" D. Shpg. wt. 5 lbs.

.... \$269.00 \$499.00



### HICKOK MODEL 244 MOBIL/COMM POWER SUPPLY

Model 244 is a lab-quality, regulated power supply with the heavy duty capability required for transceiver service. Over-design in engineering and construction guarantees long service life. Output 11-14.5 VDC continuously variable at 3 amps continuous. Self-recovering short-circuit current limiting protection. Ripple less than 50 mV. Regulation 0.5% - no load to full load. 5-way binding posts provide versatility and speedy hook-up. Fully isolated output +, -, and chassis ground 2½" volt/ammeter with standard 13.8 V. indication marked for easy set-up. Meter accuracy: voltage ± 2%, current ± 3%. Complete with a rugged, double-wall, polyethylene carrying case. For 105-125/210-250 VAC. Size: 8½" W. X 4" H. X 6" D. Shpg.



# HICKOK MODEL 256 CB/RF GENERATOR \$199

The first RF generator designed for CB service. A separate CB band for current 23 channel service provides easy tuning on a wide scale. Counter output for easy, exact monitoring while checking CB receivers. Frequency coverage from 100KHz. to 16MHz in four bands, plus CB channels 1 thru 23 on a separate band. Adjustable internal 1KHz. modulation 0-100%, calibrated at 30% and 50%. External modulation capability. Calibrated /attenuated RF output with five step positions and continuously variable. For 105-125 VAC 50-400 Hz. Size: 8" W. X 7 ½" H. X 6" D. Shpg. wt. 7 lbs.



# TEST INSTRUMENTS, WIRED OR KITS

EICO 240 SOLID STATE FET-TVM

The low 1 volt scale allows you to read accurately to as low as 0.05 volts while giving good indications down to 0.01 volt. Direct readings may be made to 1000 volts. Single all-purpose DC/AC-ohms Uni-probe. Extremely high input impedance FET amplifier. Peak-to-peak AM measurements. AC line or battery operated.



\$79.95

#### EICO 150 SOLID STATE SIGNAL TRACER



Convenient and rapid servicing of both solid state and vacuum tube equipment. Indispensable in troubleshooting AM, FM and TV receivers as well as Hi Fi and PA audio equipment. Two shielded probes—a high frequency RF point contact crystal demodulator probe and a direct audio probe are provided. Independent RF and Audio inputs. Speaker and calibrated meter output indicators. An output transformer is provided to permit the checking of a suspected defective component by substitution. The speaker mounted on the front panel may be used as a substitute.

Specifications: Output: 400 mw; Input for rated output: RF - 1 mw; audio —63 mv; Hum: better than 60 db below 400 MV; Meter: 200 microamp movement. Power requirements: 105-132 volts AC, 50/60 Hz, 5 VA. Size: 71½" X 8½" X 5". Wt. 6 lbs. \$79.95 35A708-7. Model 150K. Kit. \$79.95 EICO 330 SOLID STATE RF SIGNAL GENERATOR Indispensable for aligning all types of TV sets.

Indispensable for aligning all types of TV sets, AM and FM radios and communication gear. Excellent source of modulated or unmodulated RF and audio signals. A low distortion 400 Hz audio signal is available at the front panel. Output level adjustable. Set frequencies easily and accurately with vernier control. Calibrated front panel modulation adjustment control. Provision for modulating RF with internal or external signal source.

Specifications: RF fundamental frequencies: 100 KHz to 54 MHz in 5 bands; Output: more than 300,000 microvolts into 50 ohm load; RF coarse attenuation: three steps; RF fine attenuation: 0 to

100%: Internal modulation: approximately 400 Hz from 0 to 100%. Power requirements: 105 to 132 v., 50/60 Hz AC. 1.7 VA. Size: 7½" H. X 8½" W. X 5" D. Wt. 5 lbs.

35A710-3. Model 330K. Kit. Each \$79.95 35A3083-2. Model 330 Factory Wired. Each \$119.95 SOLID STATE SINE/SQUARE WAVE GENERATOR

Designed as an oscillator capable of generating the frequencies required in the test of all audio and supersonic equipment. Simultaneous sine and square wave outputs. Covers 20 Hz to 2 MHz in five bands. Low distortion feed-back circuit using FET.

Specifications: Frequency range: sine wave—20 Hz to 2 MHz, square wave—20 Hz to 200 KHz; Output voltage: sine wave—20 Hz to 200 KHz; Output voltage: sine wave—20 Hz to 200 KHz; Output voltage: sine wave—0 - 7.5 volts rms into high impedance output, 0 - 6.5 volts rms into high impedance output, 0 - 6.5 volts rms into high impedance, positive direction with zero ground; Calibration Accuracy: 3% except 5/20 20 Hz to 100 Hz and 1 MHz to 2 MHz; Maximum distortion across audio range: 0.25%; Rise time at 20 KHz; less than 0.1 micro-seconds. Power requirements: 105-132 volts, 50/60 Hz AC.10 VA.

Size: 71/2" X 81/2" X 81/2". Wt. 9 lbs.

\$99.95

\$536A707-9. Model 379 K. Kit.

\$99.95

EICO MODEL 100A4 MULTIMETER



35A3030-3. Carrying Case for above Each ......\$5.95



#### **EICO 239 SOLID STATE FET-TVM**

Solid state design, battery powered.

11 Megohm DC input impedance. Reads AC rms and DC voltages in seven 10db steps from 1 to 1000 volts on large 4½" meter. Measures and reads peak-to-peak AC to 2800 volts. Checks resistance from 0.2 ohms to 1000 megohms on seven ranges. Includes exclusive timesaving Uniprobe. Wt. 5 lbs. 35A714-5.



#### **EICO MODEL 232** PEAK-TO-PEAK VTVM

41/2" meter can't burn out - built-in protective circuit. Zero center for TV-FM discriminator alignment, one zero adjustment for all functions and ranges, 1 per cent precision resistors, uniform 3 to 1 range ratio for wide range accuracy.

Peak-To-Peak AC Ranges: 0-4, 14, 42, 140, 420, 1400, 4200 volts. RMS Sine Voltage Ranges: 0-1.5, 5, 15, 50, 150, 500, 1500 volts. DC Voltage Ranges: 0-1.5, 5, 15, 50, 150, 500, 1500 volts. DC Voltage Ranges: 0-1.5, 5, 15, 50, 150, 500, 1500 volts. Prequency Response: 30 Hz to 3 MHz (up to 250 MHz with PRF probe). Ohm-meter: 0.2 ohms to 1000 megs in 7 ranges. Battery: 1.5 v. For 117 VAC. 5 watts. Input Impedance: 11 megohm. Size: 8½ x 5 x 5". Wt. 5 lbs.
35A281-5. Model 232K.
\$49.95

35A282-3. Model 232. Factory Wired and Tested ...... \$74.95



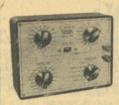
#### ACCESSORY PROBES FOR EICO

EICO MODEL 565 MULTIMETER Specifications: DC Voltage: Ranges 0-2.5, 10, 50, 250, 1000, 5000 volts. Sensitivity 20,000 ohms/volt. AC/Output Voltage: Ranges 0-2.5, 10, 50, 250, 1000, 5000 volts. Sensitivity 1000 ohms/volt. DC Current: 0-100 ua, 10 ma, 100 ma, 500 ma, 10 amp. Decibels: —12 to +55 db in 5 ranges. Resistance: Ranges: 0-2000 ohms, 0.2 megohms, 20 megohms (.2 ohms to 20 megohms). Meter: 41/2" size, 50 ua movement. Size: 63/4" x 51/4" x 3". Wt. 4 lbs.

35A203-9. Model 565K. 35A2U3-9. Model Complete Kit 35A204-7. Model 565. \$54.95 Factory Wired 37A3186-1 Test Leads for 565. Pair \$2.49



#### EICO 1140 RC NETWORK BOX



Switches permit selection of any resistance alone, any capacitance alone, or any combination of resistance and capacitance in series or parallel (1350 combinations). Open and short circuit positions are

35A583-4. Model 1140 Factory wired & Tested, Net Each........ \$37.95

#### EICO MODEL 540 APPLIANCE/AUTO TESTER



Designed expressly tor "do-it-yourself" home appliance & auto repair—easily finds defects in irons, fans, heaters, TV & radio tubes, batteries, ignition coils, etc. It is an all-in-one Multi-Range AC/DC voltmeter, ammeter, ohmmeter, wattmeter, leakage checker.

Provides "Good-Bad" readings on 6 V and 12 V automobile storage batteries, and permits checking of individual cells.

Specifications: Voltage Ranges: 0-7.5, 15, 150, 300 volts (AC/DC). Current Range: 0-15 amps. Resistance Range: 0-1000 ohms (direct reading). Leakage Test: Neon lamp circuit. Wt. 3 lbs. 6½" × 3½" × 3½". Includes leads.

35A386-2.. Model 540K. Complete Kit \$21.95 35A387-0. . Model 540. \$29.95 Factory Wired. Net.

# TEST INSTRUMENTS WIRED OR KITS

### EICO 460 WIDEBAND DIRECT-COUPLED 5" SCOPE



For color and B&W TV servicing and production line testing, excellent for audio and industrial work. Push-pull (3 stages) and direct-coupled vertical amplifier. Internal calibration voltage and frequency-compensated decade attenuator, DC or peak-to-peak AC measurements from 25 MV to 500V. Drift-free positioning centers any part of an expanded trace. 60 Hz output jack, sawtooth (sweep) output jack, intensity modulation (Z axis) input jack, and external capacitor jack for very low frequency sweeps on the front panel, Automatic sync limiter and amplifier eliminates sync voltage adjustment. Full retrace blanking. Edge-lit calibration grid.

Edge-lit calibration grid.

Specifications: Vertical Amplifier: Frequency response: DC to 4.5 MHz (useful to 10 MHz); sensitivity 5 MV; input impedance 3 M ohm/35pf. Horizontal Amplifier: Frequency response 1 Hz to 400 KHz, sensitivity 0.24 v rms/cm; input impedance 5 M ohm/35pf. Sweep Ranges: 10-100, 100-1K 1K-10K, 10K-100K Hz; plus EXT-CAP position for very low frequency sweeps with external capacitor, TV-V position (30 Hz) and TV-H position (7875 Hz). Synchronization: internal, external, or line frequency. Power Requirements: 117 VAC, approx. 95 watts. Size: 13" x 8½" x 16". Weight: 25 lbs.

Model 460K Build-It-Yourself Kit

35A336-7. Model 460 Factory Wired and Tested. Net Each...

\$199.95

#### SCOPE PROBE KITS

-CICO 35A119-7. PSDK Demodulator probe use for signal tracing. Range: 250 MHz \$5.95 35A287-2. PDK Direct tracing in low Z circuits eliminates stray pickup \$4.95 35A288-0. PLCK Low capacity for waveform tracing in wide-band circuits \$5.95



### 147

DELUXE SIGNAL TRACER Has both visual and aural signal monitors.
 RF channel gain permits tracing



#### MODEL 324 RF SIGNAL GENERATOR

SIGNAL GENERALOR

A low priced, high quality generator, with frequency range for servicing color and BGW TV. FM and AM radio. Covers 150 KHz to 435 MHz in 7 bands, to 145 MHz on fundamentals, with ± 1.5% accuracy. Has 400. Hz internal modulation; 6 to 1 vernier dial; coarse and fine RF attenuators; external modulator amplifier; Gray wrinkle finished cabinet, 8 x 10 x 434". For 117 VAC. Wt. 8 lbs. 355331.8

35A331-8 Model 324K, Kit. \$64.95 Model 324. Factory wired ready to use. 35A330-0 Net Each... \$89.95



377 SINE AND SQUARE WAVE GENERATOR

For servicing, testing and designing amplifiers, speakers, etc., used in Hi-Fi and public address systems. Uses Wien Bridge oscillator circuit. Ranges; sine wave 20-200,000 Hz, square wave 60-30,000 Hz. Accuracy ± 3% or 1 Hz, output 10 volts across 1000 ohms, context of the statement of the sta stant output over wide frequency range. For use on 117 V. AC 50-60 Hz. Gray wrinkle steel case. 7 % x II % x 7 5/8". Wt. 13 lbs.

35A586-7. Model 377 Kit \$79.95 \$99.95 Factory Wired. Net Each



## 950 R-C BRIDGE & R-C-L COMPARATOR

R-C-L COMPARATOR

A professional quality instrument for all resistance 0.5 ohms to 500 meg. and all types of condensers from 10 pt. to 5000 uf. Built-in variable DC voltage source of 0-500 volts tests condensers for leaks, power factor, polarity. All resistance-capacity ranges calibrated on panel! Precision comparator range—Bridge type circuit! Magic eye indicator tube. Size 10 x 8 x 43/4". Wt. 8 lbs.
35A142-9. Model 950K
Parts Kit. Net Model 950K
Model 950. Factory Wired.
35A144-5.
Net Each \$69.95



#### EICO 667 DYNAMIC CONDUCTANCE TUBE AND TRANSISTOR TESTER

Tests: 5 & 7-pin nuvistor, 7-pin miniature, 8-pin subminiature, octal, loctal, 9 and 10-pin miniature, novar and compactron. Tests many small transmitting and special purpose tubes and transistors. Two-step test for both npn and pnp signal transistors.

Dynamic conductance tube test is a composite indication of mutual conductance, plate conductance, and peak emission capability.

Leakage short test is direct-reading of inter-element leakage up to 20M ohm. DC leakage test voltage is always applied in correct polarity to eliminate emission effects from readings. Multi-section tubes have each section individually tested by rapid selection from 12 push button transfer switches while all sections are simultaneously drawing full rated current. Line-adjust rheostat. Gear-driven roll chart mechanism. 105-135 volts AC. Provided with pilot lamp and fuse. 12" x 15" x 4½". Weight: 22 lbs.

\$139.95 \$199.95 Factory Wired Ready to Use ... CRU ADAPTOR for testing color and B & W picture tubes with Model 667 35B389-6. CRU Adapter ..... \$24.95



#### EICO 635 DELUXE PORTABLE TUBE TESTER

Fast check all standard tubes including decals, magnovals, 7 pin nuvistors and popular picture tubes. Tests for dynamic cathode emission, grid leakage, gas and shorts. 3½" D'Arsonval meter protected against accidental overload or burnout. Long-lasting anticorrosion phosphor bronze sockets, transformer isolation power supply. Pin straighteners on front panel. With tube manual. Lugage carrying case, 4 x 12½ x 9". Wt. 4½ lbs. Fast check all standard tubes in-

35A3055-0. 635 Wired Ready to Use. .....\$99.95



#### IN-CIRCUIT CAPACITOR TESTER

Eico 955. Accurate bridge type in-circuit or out-circuit capacitor tester. Function: tests capacitors for shorts or opens and measures capacity from .1 to 50 uf. ± 10%. Has a two range RC balance dial range from .6 to 10.5, 7 to infinity. 60 Hz test voltage maximum 6.3 V. AC. Bar indicator provides sharp accurate readings. Operation 117 volt AC. Has line adjustment. Complete with leads, instructions. 8½ x 5¾ x 6". Wt. 6 lbs.

\$49.95 Model 955K Kit. Net...... Model 955 Wired. Net..... 35B324-3 35B323-5.



# TEL-OHMIKE CAPACITOR ANALYZER

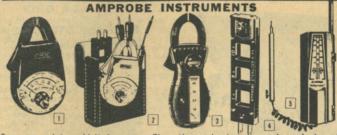
Capacitance bridge measures up 2000 of Five overlapping ranges include exclusive 1 pF to 100 pF range Extremely low AC voltage; 1.35 volts for electrolytic capacitors, 2.85 for all others. permits safe testing of all low voltage capaci-tors. Insulation resistance of papers, ceramics and micas directly read on large meter. Leakage

and micas directly read on large meter. Leakage current of electrolytics measured directly on meter. Three ranges of DC voltage (continuous) variable within each range) permits testing capacitors at exact rated voltage up to 600 volts. Power factor of electrolytics, up to 50% measured by Wien Bridge. Meter, protector of solid-state design Magic-eye tube simplifies bridge balancing. Push-buttons color-keyed for instant range selection. Modern case with silver-gray hammertone finish measures 8-7/8" high X 14-5/8" wide. 6-1/8" deep. Only 13 lbs. Operates on 115 VAC/50-60 Hz.

No. 35A3149-1. .....\$171.25 \$69.95



## AMPROBE, PRODUCTION DEVICES TESTERS



Snap around type Volt-Ammeter. Close the probe jaws around conductor of the circuit under test and read current directly on meter scale. Voltage checks are made by the use of safety type leads. It is possible to safely and accurately determine load condition of equipment without shut down.

#### 1 POPULAR PRICED AMPROBE JUNIOR

① POPULAR PRICED AMPROBE JOHNS.

Measures current and voltage, is small in size, convenient to carry and use. Size 2½x434x1". Wt. 11 oz. Accuracy ± 3%, full scale. Maximum conductor size for current measurements is ½ inch. With test leads. 35A3066-7. Model Y550. For 0-50 Amps AC, 0-150-600 Volts AC. 35A308-6. Model Y550. For 0-100 Amps AC, 0-150-600 volts AC. \$27.85

Two current ranges and two voltage ranges in one instrument. Change ranges by pressing a button.
35A3023-8. Model YT10/25.0-10/25 Amps, 0-150/300 Volts AC.
35A3024-6. Model YT25/100. 0-25/100 Amps, 0-150/300 Volts AC.
Your Chaige.

\$33.50

#### ② AMPROBE IR. TESTMASTER KIT IN LEATHER CASE

Measures 0-150/600 AC volts, 0-100 AC Amps, and resistance instantly within 3% accuracy. 25 ohm mid-scale. Ohmmeter measures resistance with plug-in battery attachment. Complete kit includes Amprobe Jr., Energizer (described below), Battery Attachment, safety Test Leads and sturdy case. Wt. ! lb.

\$44.85 35A346-6. TM-YO-500. 0-100 Amps. Net Each.

#### 3 AMPROBES MOST POPULAR MODEL RS-3

Does 3 jobs, measures amperes, volts and ohms resistance. AC amp. ranges 0-6/15/40/100/300. AC volts 0-150/300/600. Ohms scale reads 25 ohms mid-scale, 2000 ohms full scale. Most complete tester available. With sturdy carrying case and test leads for voltage and resistance measurements. 35A581-8. Wt. 12 Oz.

\$65.85 Net Each...

Replacement All-Weather Test Leads for RS-3 

 Model A45L Energizer divides Amprobe current reading by 5X and 10X for checking low current equipment. Also divides line cord so Amprobe may be used for current or voltage checks without having to split line cord. With weatherproof pouch. Wt. 3 oz.
 35A310-2. Model A45L. Each-

#### **S AMPROBE VOLTPROBE VOLTAGE TESTERS**

Indicates 115, 220, 277, 440 and 550 volts AC and 115, 220, 400, 600 and 750 volts DC. Sliding probe pushes up through body and a retractable probe with coil cord allows measurement of points over 3 feet apart. Light indicates grounded side of line or DC polarity. Frequency 25 to 800 Hz. range. 6 x 2 ¼ x ¾" with probes retracted. Wt. 5 ozs.

Indicates 24, 48, 115, 220, 277, 440, 550 VAC only. Other teatures same as VT-100 above. 35A8070-4. VT-124. Each 35A8031-6. VC Case. Each

### AMPROBE FASTEMP INDUSTRIAL THERMOMETER

Fast, measures temperature in seconds. Compact fits palm or pocket. Lightweight—weighs only 10 ozs. Accurate: within ±2° F or ±1° C. Versatile...check surface, liquid or gaseous temperatures. Unique "press-to-read" button greatly extends battery life, "locks-in" for continuous readings. Range overlap permits monitoring of changing temperature without frequent switching of ranges. Accommodates 3 probes simultaneously. Selector switch enables you to activate any one of them instantly. One universal RBT-12 probe supplied. All probes have 15 ft. lead.

Fahrenheit Model T-150. —50° F to +50° F, +40° F to +150° F.

\$49.85 35A3084-0. Each.

 35A8037-3.
 Universal Surface Probe. RBT-12. Each.
 \$9.95

 35A8036-5.
 Immersion Probe. RBT-11. Each.
 \$9.95

 35A8038-1.
 Air Probe. RBT-13. Each.
 \$9.95

 35A3092-3.
 FTC Carrying Case. Holds Fastemp and Probes. Each.
 \$11.50

 21A327-2.
 Penlight Battery (requires 4) Each.
 30°

#### AMPROBE FASTEMP TMVO MULTITESTER



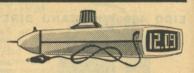
Combination tester designed for appliance repair and industrial maintenance. Will measure low resistances as found in motor windings and relay coils. Measures millivolt output of single and multiple thermocouples. Ranges: +70° F to +1200° F, +30° C to +640° C. Millivolts, 0-50 and 0-1000 mv. Resistance, 0-200 and 0-2000 ohms.

Complete with case, thermocouple (iron, type J, 2.18 ohms), lead, clip adaptor. Size 4-13/16" X 2-11/16" X 1-7/8". Power supply: 3 "AA" penlight batteries (listed above). Shpg. wt. 1 lb.

35A8081-1 Pkg. of 2, Each .....

#### DIGITAL DC VOLTMETER 31/2 DIGIT

Features automatic polarity indicator, automatic decimal point, automatic overrange indicator and built-in battery test. Featherweight, only 41/4



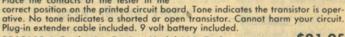
rery rest. reatherweight, only 4% ozs. Rugged, hi-impact plastic case. Carry in pocket or wear on belt with optional Case. Press-to-read switch extends battery life. 24" ground wire with alligator clips. Ranges: o to  $\pm$  19.99 VDC. 0 to  $\pm$  199.9 VDC, 0 to  $\pm$  1000 VDC. Accuracy: .25% of reading  $\pm$  1 digit. Overload protected to 1000 V. Input impedance 1 megohm. Response time .25 seconds. Operates from 9 V. transistor battery, included. Size 1 x 1½ x 6½". Shpg. Wt. 1 lb.

35A8092-8. Carrying Case with belt strap. Each .............. \$6.95

#### "IN-CIRCUIT" TRANSISTOR TESTER

Places transistor into actual operation. Operates upon contact. Clear speaker tone-no visual observations to make Tests transistors in or out of the circuit. Maximum voltage applied to the base-emitter junction by tester is 0.8 volts.

Movable Base Pin. To Operate—Set the selector switch to NPN or PNP. Place the contacts of the tester in the



#### DIGITAL LOGIC TESTER

Hi tone-indicates Hi logic "1". Lo tone-indicates Lo logic "0". No visual observa-tions to make. Compatible with DTL & TTL. Ideal for trouble shooting logic circuits, including computers, telephone systems, digital test equipment and desk calculators. TO

OPERATE—Connect power leads to +5 V.D.C. in equipment being tested. Logic "1" or "0" may be determined by placing probe on various circuit points. Reverse polarity protected. Input impedence—greater than 150K ohms. Overload Input Protection: +50 VDC. Logic voltage levels: 0-.8 VDC—Low tone. .8-2.2 VDC—None, 2.2 VDC & up—high tone. Size 7/8" D x 6" L. Wt. 2.5 oz.



Audio sine and square wave genera-Audio sine and square wave genera-tor providing six precision frequency, 100HZ, 400HZ, 1KHZ, 3KHZ, 10KHZ, 15KHZ, ± 1%. Integrated circuitry with calibrated notch filters. Output amplitude remains constant across all frequency settings. Delivers 4 volts PP sine wave or 2 volts PP square wave, into a 600 ohm load with no change in wave form. Requires two 9V batteries (included). Size 6¾" X 5¼" X 3".

35A3151-7. Production Devices Model 120 Each \$26.95



AUDIO SWEEP GENERATOR

Gives sine, square and triangle wave outputs variable 0 to 2.5 VPP from 40 Hz to 20 KHz in 2 ranges. Once set, amplitude is flat over entire frequency range ± ¼ db. Fixed square wave output is 8 VPP and rise and fall time is less than 200 NS. Less than 1.5% sine wave harmonic distortion. Manual sweep control plus 500 millisec and 25 sec automatic speeds. For 115 VAC 60 Hz. Size 6¾ X 5¼ X 3". Shpg. wt. 2

35A3173-1. Production Devices Model 140. Each \$49.95

#### AUDIO SWEEP GENERATOR FREQUENCY METER

3 instruments in one - audio oscillator, audio 3 instruments in one - audio oscillator, audio sweep generator, frequency meter. Operates as conventional oscillator or sweeps automatically as voltage controlled generator. Sweeps 1K - 20K Hz, 40 Hz to 1KHz. Frequency meter may be used independently or to monitor output of sweep generator. Sweep Generator - Sine wave output: 0 to 2.5 VPP (into 600 ohm load), DC coupled. Square wave output: fixed 8 VPP, AC coupled. Automatic linear sweeps 1 sec. and 25 sec.



Frequency Meter - Frequency ranges: 0 - 1KHz and 0 to 20 KHz. Accuracy: 2% of reading. Input: 1 VPP min, 75 VPP max. (any wave shape). Size:  $6\,\%\,''$  X  $5\,\%\,''$  X 3''. Shpg. wt. 2 lbs.

Burstein-Applebee Co., 3199 Mercier St., Kansas City, Mo. 64111

# CASTLE, ELENCO & TESTERS

CASTLE MARK V TV SUBBER

6995



Designed for servicing the entire signal circuit system of any color or black & white television receiver by signal substitution. Substitutes these signal stages: VHF tuner, each video IF stage, video detector, video amplifier, 4.5 MHz sound IF amplifier, sound limiter, sound detector and audio amplifier. Also tests UHF tuner, antenna system and AGC system.

Use either on the bench or in the home. Has plug-in transformer for 120VAC operation, and subber automatically changes over to internal battery power when transformer is disconnected. Monopole antenna allows use without external antenna in prime signal areas, terminals are provided for external antenna if required. Has monitor speaker with separate level control. Video carrier level meter may be calibrated for field strength indication. Has battery condition meter. Uses two 9 volt transistor batteries listed below. With connecting cables and instructions. Size 6½ x 6½ x 3¼", Shpg. wt. 3 lbs.

# **CASTLE MARK IV-C TV TUNER SUBBER**

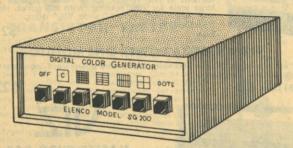
Works with any 40MHz receiver...color or black and white...solid state, tube or hy-brid. High level, low impedance output furnishes signal usable at input of final i.f. stage. Antenna input and i.f. output electrically isolated; no "hot" chassis hazards. No need to disconnect supply leads from suspected tuner being tested. Substitutes the VHF tuner and tests the UHF tuner. Tunes all 12 VHF channels. LED indicator shows when unit is ON.



Comes complete with extension cables and instructions. Plus plug-in transformer for 120 VAC line operation. Mark IV-C automatically switches to battery operation when transformer is disconnected. Uses two 9 volt batteries listed above. Size approximately 6½ X 6½ X 3¼".

Mark IV-CUV TV Tuner Subber. Receives all VHF and UHF channels.

# **Elenco DELUXE DIGITAL** COLOR BAR GENERATOR



FINEST, MOST PRECISE COLOR TV CONVERGENCE **GENERATOR EVER!** 

Both gated and full rainbow for maximum effect. Four precision crosshatch potterns - including crosshair. Four white dots patterns on a black background. All digital countdown circuits - uses 14 IC Flip-Flops and 2 IC And gates. Two crystals for exact vertical, horizontal and color frequency. Linearity of better than .1% - both vertically and horizontally. Built-in power supply - no batteries to leak or replace. Jitter free - no controls to adjust. Rugged ½" die-cast aluminum case only 4½ X 1¾ X 5-7/8". For 120 V. 60 Hz. Shpg. wt. 2 lbs.

EMC 116 SOLID STATE VOLT-OHMMETER



### **EMC DELUXE TUBE** TESTER KIT

Checks 12 pin (Compactron), Nuvistor, Novar 10 pin, octal, loctal, miniature and 9 pin tubes. Tests for shorts, as well as quality. Each section of a multi-purpose tube is checked separately. Unique switching arrangement makes the checker obsolescent proof. With instructions and tube charts. Complete kit in gray leatherette covered wood carrying case. For 117VAC, Shpg. wt. 5 lbs.



\$33.54 \$49.70

EMC 212 TRANSISTOR ANALYZER

Tests all transistors in or out of circuit. Measures DC current gain (Beta) in 3 ranges to 200. Checks leakage on 3-color scale; good, weak, poor. Tests all transistors as AC current amplifiers (oscillator check) without removing them from circuit. Can be used as a signal tracer. Measures battery voltage 0-12 volts, and current 0-80 MA, also tests diodes. Comes with instruction manual. Size 334 x 61/4 x 2". Wt. 11/2 lbs. 35B521.4 Model 212.

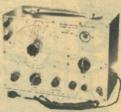
manual, Size 5-94 X 0-74 X 35B521-4. Model 212. \$19.21 S5B522-2. Model 212 Wired, Ready \$28.84

# EMC MODEL 801 COMPARATOR BRIDGE AND IN-CIRCUIT CAPACITY CHECKER Measures capacity in four ranges 10 pfd. to 5000 uf. Resistance in four ranges .5 ohm to 500

megs. Measures leakage at any voltage to 500 volts and power factor from 0 to 60%. Checks open (above 50 pf) or shorted (up to 20 uf) capacitor if not shunted by excessively low resistance. Finds intermittents as an in-circuit checker Size 10 X 7 X 5". Wt. 7 lbs.

35A159-3. Model 801 Complete Kit. Each 35A158-5. Model 801 Factory Wired. Each

..... \$37.61 \$60.56



# EMC MODEL 502 RF SIGNAL GENERATOR



Covers frequency range for all tuning and aligning requirements of AM and FM radios, in 6 bands from 115 KHz to 110 MHz, second harmonic to 220 MHz. Rf accuracy 1½%. Includes 400 Hz internal modulation controlled with off-on switch and provision for external modulation. Uses individual slug tuned coils for each band. Colpitts oscillator and a cathode follower output. Planetary drive permits fine frequency adjustment. Size 65% x 65% x 4". Complete with output lead and instructions. Quency adjustment. Size  $6\frac{5}{8} \times 6\frac{5}{8} \times 4^{\prime\prime}$ . Complete with output lead and instructions. For 105 - 130 VAC. Wt. 4 lbs.

\$30.38 \$43.76

# **EMC MODEL 102A DIODE PROTECTED MULTIMETERS**





# FORMERLY

### MODEL WM-541A DUAL TRACER



# 

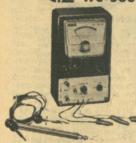


Provides fast measurement of AC leakage current in appliances, power tools, television receivers, etc. Checks if exposed metal parts are safe, and if leakage is within limits of Underwriters Laboratories (UL) and American National Standard Institute (ANSI).

Share probe point pierces dirt, grease, oxide,

Sharp probe point pierces dirt, grease, oxide, etc. Easy to use - only 1 range, no switches or dials. Red and green meter scale indicates "safe" or "unsafe" leakage. Fuse-protected against excessive current - panel lamp signals blown fuse. Shpg. Wt. ¾ lb. 35A3184-8. Model WT-540A. \$33.00

# VIZ WC-506B TRANSISTOR DIODE FET CHECKER



Fast relative gain or leakage tests of NPN or PNP bipolar transistors, power transistors, P-and N-channel single and dual-gate FET transistors and relative front-to-back ratio of diodes. All relative gain readings are indicated on a single "good-bad" color-coded scale. Devices to be tested can be inserted in the panel socket or connected to the color-coded test leads or the convenient gold-plated spring connectors on the panel. Requires two 4.5 V. batteries (not supplied). Size: 3¾" X 6¼" X 2". Shpg. wt. 1 lb.

No. 35A3054-3. Model WC-506B. \$33.00 Each .....

# VIZ WR-508B MINI CHRO-BAR SOLID-STATE COLOR-BAR GENERATOR



Provides colorbar, dot, crosshatch, and blank raster patterns. All solid-state circui-try, including IC's. Pattern signals, RF outtry, including IC's. Pattern signals, RF output frequency, and color subcarrier all
crystal-controlled. Compact size-lightweight. Interchangeable slide-out compartment for battery or AC module. Solid patterns—no flicker. Three special pattern
adjust controls on rear panel for easy reset, if required. Less battery. Size 6½" x
3" x 4". Shpg. wt. 1½ lbs.
\$89.90

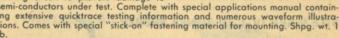
# 5 INCH TRIGGERED RECURRENT SWEEP OSCILLOSCOPE



Shpg. wt. 25 lbs. 35A3157-4. Model WO-535A. Each . 

# VIZ WC528B TRANSISTOR QUICK TRACER





35A3135-0. Each ......\$19.50



# VIZ WV-551A DUMMY LOAD RF WATTMETER

Use instead of antenna for adjusting and testing of transmitters. Broadband frequency response 3MHz to 500MHz. Easy-to-read wide angle scale. M-type UHF input connector. Taut band meter. Power range: 0.5 watt to 15 watt. V.S.W.R. less than 1.15 at 500 MHz. Accuracy ± 10% of full scale. Input impedance 50 ohms. Size: 3-15/16 X 3-15/16 X 5½. Shpg. wt. 3 lbs.

35A3232-5. WV551A. Each ..... \$60.00

# VIZ WV-120B POWER LINE MONITOR



Provides a continuous, accurate indication of AC line voltage. Expanded 2-color scale—from 100 to 140 volts for easy reading. Input 100 to 140 volts @ 25 to 400 cps. High accuracy ± 2% at center scale, ± 3% at scale ends. Moving vane meter gives accurate RMS readings. Fast meter action reveals "bounces" and fluctuations in line voltage. Large numerals, large pointer, large scale for easy reading. With AC outlet. Holes for wall mtg. 31%" High, 5" wide, 3%" deep. 35A3051-9. Shpg. wt. 2 lbs. \$29.00 \$29.00

# **VIZ WV-503A POWER LINE MONITOR**

Input voltage range 200 to 280 volts. Has 2-wire power cord; no outlet socket. Otherwise same as above.

35A3118-6. Each ......\$27.00



COLOR BAR GENERATOR SIGNALYST

IC circuity throughout. Supplies output for all test signals not only at RF (Ch.3) IC circuity throughout. Supplies output for all test signals not only at RF (Ch.3) but also at IF and video frequencies. Gives color bars, dots, crosshatch, horiz. lines, vert. lines, blank raster and exclusive superpulse — a white rectangle centered on screen. Provides pulse-type waveforms for troubleshooting. Also gives brightness line on leading edge of 3rd, 6th, and 9th color bars. Fully variable output level control to check receiver under various signal conditions, Dual impedance output, 300 and 75 ohms, for use with residential or commercial MATV or CCTV systems. Power source 120V, 60 Hz. Comes with shielded cable (BNC connectors), direct adaptor, 300 ohm transformer, cable for gun killer and instruction book. Size 4" H x 10" W x 8" D. Shpg, wt. 7 lbs.

Any of These Testers Can Be Purchased on B-A's E-Z Pay Revolving Charge Plan

# SPECTACULAR TEST INSTRUMENT VALUES

FACTORY WIRED, CALIBRATED ... READY TO USE



# VIZ/RGA TECH VOM TESTER 20,000 OHM / VOLT

# **NO-STICK TAUT BAND** DIODE PROTECTED METER

\$50.00 features for only \$19.95 No stick taut band diode protected meter, accurate within ± 3% DC, ± 4% AC with 20,000 ohm/volt DC sensitivity. Dual-detent switch for extra long life and sure snap action. Orange high impact case. 5 functions, 19 ranges with 1% precision resistors. DC volts 0-.5, 2.5, 10, 50, 250, 1000. AC volts (RMS) 0-10, 50, 250, 1000. Sensitivity 9000 ohm/volt. DC current 0-0.05 mA, 25 mA, 250 mA. Resistance ranges 0-10K, 100K, 1 megohms. Decibel readings -20 to +22 db, +22 to 36 db. Size: 5 ½ X 3-5/8 X 2" Supplied

with leads. 35A3178-0. Model WV547B 



# VIZ/RCA

100,000 OHMS VOLT

- Highest sensitivity VOM. Large 5" meter. DC polarity switch. Handle converts to tilt stand.

3 to 1 VTVM type ranging provides good overlap for easy meter reading. Specifications: DC Volts: 0.5, 1.5, 5, 15, 50, 150, 500, 1500; AC Volts: 0.5, 15, 50, 150, 500, 1500; DC Current: 0-15uA, 15mA, 15mA, 50mA, 150mA, 500mA, 50MR, 5A; Resistance: 4 ranges 1 ohm to 20 megohms; Decibels -20 to +55.5 db. DC accuracy is 3% of full scale reading. AC accuracy is 4%. DCV sensitivity is 100,000 ohms/volt, AC sensitivity is 10,000 ohms/volt. Frequency response on 5 VAC range is 10Hz to 100 KHz ± 1 db. Uses 2 "C" cell batteries, not supplied. Size 7 ½" X 5½" X 2-3/8". Shpg. wt. 4 lbs.

35A3233-3. WV520A. Each ..... \$65.00 21A328-0. C Cell (2 required) Each ...... 40°



# **MURA DELUXE MODEL 90M** 50,000 OHMS VOLT

- Mirrored scale.
- Meter protected against accidental

- overload.

  28 ranges, easy to read scales.

  Stand-handle for bench use or easy portability.

Unusual high quality, high sensitivity and an unusually low price make this an extra special test equipment value. Features 50,000 ohm per volt DC and 12,500 ohm per volt AC sensitivity. Special circuitry protects the meter movement against accidental overload. Specifications: DC Volts: 0-25, 1, 5, 25, 100, 500, 2500 Volts ±3%; AC Volts: 0-5, 25, 100, 250, 500, 2500 volts ± 4% volt; Decibels: -20 to +70, DC Current: 0-20, 250 uA, 0-2.5, 25, 250mA ±3%; Ohms: 0-6 Meg in 4 ranges, 40 ohms Center Scale. Powered by One 1.5V size "AA" battery (included). With test leads and instructions. Size 6½ X 4¾ X 1¾". Shpg. wt. 2½ lbs.

\$39.95 



# **POCKET SIZE VOM TESTER**

1,000 Ohms per Volt - 12 Ranges. Outstanding features include precision jeweled movement, wide-view 2-color scale, and 11-position range selector for easy operation. High impact plastic case in textured "sure grip" finish. DC: 0-10-50-250-1,000 (1,000 ohms/volt) DC Current: 0-10-50-250-1,000 (1,000 ohms/volt) DC Current: 0-1-100 Milliamps. Resistance: 0-150K ohms. Decibels: -10 to +22. Ultra-compact size . . . measures just 3½" 'X 2½" x 1". Includes battery, test leads, and instructions.

tions. No. 35A3106-1. Quality Import .....

\$10.95





# TRANSISTOR TESTER

Checks transistors in circuit or out of circuit under operating conditions. Plug transistor into front panel socket or connect with alligator clip test leads provided. Safely identifies low, medium and high power PNP and NPN transistors. Checks electrode open circuits, short circuits and current gain. Makes it simple to match transistors for critical circuits. Neon indicator gives a visual indication of circuit output. Output jacks for use with an AC voltmeter or oscilloscope to measure signal output as low as 5 MA, make sensitive noise tests studying dynamic leakage distribution and wave form inspection.

Black plastic case with aluminum panel. Size 61/4 x 2 x 33/4" W. Full instructions supplied. Shpg. wt. 2 lbs. Imported at Big Savings!

Special Each

\$18.90

# SIGNAL TRACER

Makes service problems easy to locate. Permits audible signal tracing of RF, IF and audio circuits. Easy to operate stage-by-stage tracing of signal from antenna through audio. Has solid state circuit with 4 transistors. Builti-in 2" speaker with volume control. Comes with 9 V battery, test leads and instructions.

Black plastic case with aluminum panel. Size 5 v.

Black plastic case with aluminum panel. Size 5 x 25% x 11/2" D. Shpg. wt 1 lb. \$19.80

# 1) POCKET-SIZE MULTIMETER

20,000 Ohms Per Volt DC Sensitivity. Exceptionally fine meter featuring a 3½" easy reading scale. DC volts ranges 0-5, 25, 125, 500, 1000. AC volts ranges 0-10-50-250-1000. DC current 0-50 ua, 0-250 MA. Resistance 0-60,000 and 0-6 meg. Decibel -20 to +22. Features recessed range selector switch D'-Arsonval meter movement and precision resistors throughout. Readability is superior on all low ranges making this an excellent instrument for servicing transistor equipment.

Molded black case  $4\frac{1}{2}$ " H. x  $3\frac{1}{4}$ " W. x 1" deep. With test leads, instructions and battery. Shpg. wt. 2 lbs. 35A618-8. Special Each.

# 2 POCKET-SIZE MULTIMETER Built-in overload protection circuit—Burnout Proof!

Built-in overload protection circuit—Burnout Proof!

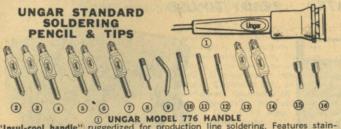
20,000 ohms per volt DC. Pocket multimeter designed for accuracy in the field or on the technician's bench. Easy-to-read heavy black numbers carefully scaled for quick, exact reading. Crystal clear high impact plastic front takes rough treatment and gives full scale view. Popular swinging-lever range-selector allows easy selection of ranges. DC volts ranges: 0-5-25-100-500-1000. AC volts ranges: 0-5-25-100-500-1000. AC volts ranges: 0-5-00 ua, 5 MA, 50 MA, 50 MA. Ohms: 0-6,000, 600,000; 6 Meg, 60 Meg. Expanded low end scale. Decibels: 20 db to +62 db (5 ranges) Size, 434" H. x 3" W. x 11/4" D. Heavy duty bakelite case, precision 250 ua D'Arsonval movement, pin jacks. With batteries, test leads, leather case, instruction manual.

35B569-3. Shpg. wt. 2 lbs. Giant Import Savings. Each \$29.95

Burstein-Applebee Co., 3199 Mercier St., Kansas City, Mo. 64111



# Ungar PRECISION SOLDERING IRONS



\*\*Insul-cool handle\*\* ruggedized for production line soldering. Features stainless steel deflector for low handle temperature, ceramic and glass insulation for longer life, tough phenolic for added durability and extra heavy, extra flexible 6 ft. 18 gauge polyvinyl cord. Cork finger-grip, red colored handle. Accommodates all elements and tips below.

37A3066-5.Type 776 (Less Element and Tip)

© New "Clean Room" Handle. Heat stabilized polypropylene grip with airflow cooling keeps handle cool to the touch all day long. Octagon shaped non-slip poly-grip won't collect dust or deteriorate. Efficient, perfectly balanced. Supplied in attractive easy-on-the-eye blue pastel color. Other features same as Type 776 above.

37A3067-3. Type 777 (Less Element and Tip)

TIPS WITH SELF-CONTAINED ELEMENTS

				VIES-23 /2 WALLS		
For instrumer	nt repair	r and	general use.	Tellurium Copper T	p.	SERVICE A
	Fig.			Size Tip	Temp.°F.	Each
37A3068-1	13	Type 533	Chisel	1-5/8"Lx3/16"W	700	\$2.78
37A3069-9	5	536	Pyramid	1 1/8"Lx5/16" dia.	700	2.78
37A3070-7	3	539	Chisel	1 1/8"Lx3/8"W	700	2.78
		1200	HI-HEAT SE	RIES—37 ½ Watts		Men .

For general service and light to medium production line service. Tellurium Copper Tip. 37A3071-5 13 1-5/8"Lx¼"W 1½"Lx5/16" dia. 1½"Lx3/8" W

37A3072-3 37A3073-1 1236 \* 1239 \* Pyramid Chisel 56 800 d iron silver plated for heavy duty production line use.
4000 SUPER HI-HEAT SERIES—47½ WATTS

For all operations formerly requiring a 150 watt iron. Tellurium Copper Tip, iron clad, silver plated. 1-5/8"\x¼"W 1 1/8"\x3/8" dia. 1 1/8"\x3/8"W 37A3074-9 13 5.13 4033 Chisel 37A3075-6 4036 Pyramid Hvy.Chl. 5.13 37A3076-4 4039 1000 **HEATING UNITS ONLY** 

NEW THREAD ON HEATING UNITS. Use with thread on Mini-tips below Fig. Each Type Wattage Temp. to Tip Stk. No. 37A3077-2 4037 50 \$5.13 3.75 THREAD-IN HEATING UNITS 750° 37A3078-0

Use with Series 300 Copper and Iron Clad Tiplets listed below No. Fig. Type Wattage Temp. to Tip Each Fig. Stk. No. 535 27 37A3079-8 \$2.78 3.75 5.13 37A3080-6 4035 37A3081-4 Hi-heat thread-in unit for use with Series 800 Tiplets. 37A3082-2 5.13 THREAD ON MINI-TIPS FOR 4037 & 1237 HEATING UNITS

Description
34" Long 1/8" Pencil
34" Long 1/8" Chisel
34" Long 1/8" Chisel Each Type PL111\* Fig. \$1.28 37A3083-0 37A3085-5 16 PL113\* 37A3086-3 .63 NO. 300 TIPLETS FOR 535, 1235, 4035 HEATING UNITS Stk. No. Type PL331\* Fig. 37A3087-1

lx %" Pencil Tiplet
1x %" Pencil Tiplet
1x %" Offset Pencil Tiplet
1x %" Pencil 30° Off \$1.03 37A3088-9 37A3089-7 PL332\* 1.03 1x 1/8" Pencil, 30° Offset 1x 1/8" Chisel Tiplet 43 PL333 \* 37A3091-3 37A3092-1 10 1.03 1x 1/8" Chisel Tiplet 333 1.03 PL338 \* 134 x 1/8" Tapered Needle Micro-Needle 37A3094-7 P1340\* EXTRA LONG TIPLETS

(Designed for use with 4045 heating unit only) Description
3/16" Pyramid
3/16" Pyramid
Straight 1x3/16" Chisel
Straight 1x3/16" Chisel Stk. No. 37A3095-4 Type PL823 \* Each \$1.18 P1824\* 37A3097-0 37A3098-8

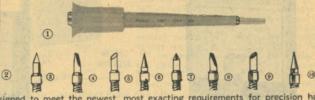
\*Indicates Iron Plated **DE-SOLDERING** TIPS FOR 4045 HEATING UNIT 2 0

Specially shaped tips makes easy removal of parts from P.C. boards. Fits

	heating unit only.	No. 40 (40)	Service to be a sent to be a service of	and a little
Fig.	Stk. No.	Type	Description	Each
1	37A3061-6	Type 857	1"x7/16" Slotted Tip	\$1.47
2	37A3062-4	858	Bar 1½"x3/8"	1.47
			" AGG ICI PERI TIP	

37A3103-6

Doubles life of soldering tips with new tip cleaner Phenolic tray, specially processed sponge and bottom adhesive strips for firm mounting to work bench No. 37A3102-8 No. 455 Refill Sponge for above 720 UNGAR "PRINCESS" MINIATURE SOLDERING PENCIL & TIPS



Designed to meet the newest, most exacting requirements for precision hand soldering in Microelectronic circuitry, high density packaging and assembly.

# 1) PRINCESS FEATHERWEIGHT HANDLE

Molded of heat resistant A.B.S. Has midget thread-in socket to accept heat capsules below. Weight without cord .05 oz., with cord 3 oz. 5" long x 76" dia. at front. Turquoise color, 120 V. AC/DC. 37A3104-4 Type 6902. 2-Wire Cord

Each .....

# **② INTERCHANGEABLE HEAT CARTRIDGES**

Thread into Princess handles with fingertip ease. Heating section is threaded to

Stk. No.	A CONTRACTOR OF THE PARTY OF TH	Wattage	Temp. to Tip	Each
37A3107-7	<b>Type</b> 6910	10	550° to 650°	\$7.10
37A3108-5	6915	15	700° to 800°	7.10
37A3109-3	6918	18	900° to 1000°	7.10

1/8 INCH THREAD-IN NIBS (TIPS)

*are iron	clad, 24 K	gold plated.	All others are cadmium copper.	Spiral Service
Stk. No.	Fig.	Type	Description of the description	Each
37A3110-1	3	6950	.61" Long Pencil	\$0.59
37A3111-9	4	6951	.68" Long Screwdriver	.59
37A3112-7	5	6952	.61" Long Spade	.59
37A3113-5	6	6953	.61" Long Point	1.10
37A3114-3	7	6960*	.61" Long Pencil	1.08
37A3115-0	8	6961*	.68" Long Screwdriver	1.08
37A3116-8	9	6962*	.61" Long Spade	1.08
37A3117-6	10	6963 *	.61" Micro Point	1.98

# PRINCESS 10 WATT SOLDERING IRON KIT

Complete 10 watt kit in handy attractive package. Consists of #6902 Handle and Cord, 6910 Heat Capsule and three tiplets, 6950 Pencil, 6951 Screwdriver, and 6952 Spade. Ideal tool for P.C. boards and micro-circuits.

37A3065-7. Model 6975. 10-Watt Kit, | Each ..... \$13.98

# PRINCESS SOLDERING IRON HOLDER

Equipped with specially processed slit sponge for tip cleaning. Plastic base with swivel mounted tip cleaning. Plastic b metal cage. Wt. 3 oz.

37A3118-4. Type 6990 \$5.52 37A3119-2. Refill Sponge. Type 6991



### PRINCESS DE-SOLDERING TIPS



80°

Each Description 6948 DIP IC \$3.50 37A3303-2 TO Package .375" Dia.

# **UNGAR 3-WIRE SOLDERING IRONS**



For use on Mosfet and IC Devices-meets all military and NASA standards light weight with cool phenolic handle, flexible cord and NEMA plug. Element and cords field replaceable. Standard 100 series mini-Tips shown above left thread directly on the iron. Operates on 110 VAC. Tip not included.

Stk. No. 37A3368-5	Type 127	Wattage 27	Tip Temperature 650°F to 750°F	Each \$8.95
37A3369-3	135	35	750°F to 850°F	8.95
37A3370-1	145	45	900°F to 1000°F	8.95
STATE OF THE PARTY	TIP ADAL	DTEDS FOR	3-WIDE IDONS	

Description Type 100 For 300 Series Tiplets For 800 Series Tiplets 101 37A3376-8

184

1

Burstein-Applebee Co., 3199 Mercier, Kansas City, Mo. 64111



# PRECISION SOLDERING IRONS



COMPLETELY INTERCHANGEABLE HEAT CARTRIDGES
& TIPS TO FIT ANY SOLDERING JOB

Satisfies every demand for a cool, lightweight, easy-handling soldering iron. Engineered to get jobs done faster, better, more economically. Built to provide years of dependable operation. Complete unit weighs less than 5 ounces.

# 1 IMPERIAL "PERMA-COOL" HANDLE

Introduces a completely new heat sink principle . . . double cushion of air, combined with five heat transition surfaces evenly dissipates heat, keeps handle cool and comfortable all day long. Durably built of Lexan high strength polycarbonate resin with built-in die-cast aluminum heat sink. Length 4,7". Turquoise color. (Handle only, less Cord).

### INTERCHANGEABLE PLUG & CORD SETS

Select the cord that fits your needs, plug on to Perma-Cool Handle.  $4\frac{1}{2}$  ft. 18 gauge flexible stranded wire, polyvinyl chloride insulation on both wire and female connector. Turquoise color.

Stk. No.	Type	Description		
37A3132-5	6102	2-Wire cord W/Plug	Each	\$3.83
37A3133-3	6103	3-Wire Nema Cord W/Plug	Each	33.03
				20.03

### 2 INTERCHANGEABLE HEAT CARTRIDGES

New element winding principle provides reduced watt density, insures longer life. Heating element at tip end of cartridge results in less heat to handle, more heat to tip. Stainless steel, completely sealed—eliminates costly breakage. Threaded-end is engineered to resist oxidation, reduce heat waste, providing maximum heat transfer. Slim, tubular design offers easy access to hard-to-reach areas. Extends 2.5" beyond handle. 110-120 volts. AC-DC. Each cartridge (except 15-watt) has color-keyed band for instant wattage indentification. 6200 has red band, 6201 blue band, 6202 green band, 6203 yellow band.

Stk. No.	Туре	Wattage	Temp. To Tip	
37A3134 -1	†6203	55	1150°	Each \$8.00
37A3135 -8	6200	45	950°	Each \$6.80
37A3136 -6	6201	35	850°	Each \$6.80
37A3137-4	6202	25	800°	Each \$6.80
†Use only	iron clad t	ips.		00.00

# INTERCHANGEABLE THREAD-ON "MINI-TIPS"

All tips thread onto Imperial #6200, 6201, 6202 and 6203 heat cartridges only. Numbers with asterisk (\*) all copper alloy; others are iron clad, chromeplated and pre-tinned.

Stk. No.	Fig.	Type	Description	Each
37A3143-2	3	Type 6312*	3/4" long, 1/8" pencil	\$0.82
37A3144-0	3	6313	34" long, 1/8" pencil	1.70
37A3145-7	4	6318*	34" long, 1/8" taper-chisel	.82
37A3146-5	4	6319	34" long, 1/8" taper chisel	1.70
37A3147-3	3	6324*	34" long, 18" taper pyramid	.82
37A3148-1	5	6333	34" long, 1/8" needle	1.70
37A3149-9	7	6304	½" long, 3/64" micro-chisel	1.70
37A3152-3	6	6331	34" long, 1/8" screwdriver	1.70
37A3153-1	6	6481	34" long, 3/32" taper screwdriver	1.70

### UNGAR SOLDERING IRON HOLDER



1

Safety guard design protects operator from accidental burns, protects iron against breakage. Keeps iron cradled safely and securely — ready for easy, instant use. Angle of cradle adjustable for operator's convenience. Attaches to top, side, or underside of workbench Shog wt 1 lb.

37A3101-0. 8000 For Standard Unga	e
87A3302-4. 6800 for Imperial	\$3.27
Each	\$3.27

# UNGAR 8001 ANTI-SEIZE

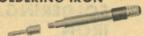
Reduces tip thread seizure. Improves heat transfer.
17A7040-0.
1/2 Oz. Tube \$1.15



Save \$2.00 over the cost of individual components. Includes the 6100 handle, 6102 2-wire cord set, 6200 45 W. heat cartridge, and 3 soldering tips - 6318, 6368 and 6473. Comes in handy plastic pouch. Wt. 1 lb. 6 oz.

37A3384-2. \$15.65

# UNGAR DOUBLE INSULATED SOLDERING IRON





Easy to use, lightweight, compact design with flexible cord. Cool handle is molded of durable plastic with finger-ease grip. Handle with two-conductor cord set and plug are double insulated. Meets OSHA requirements and is UL listed. Shpg. vt. of handle, heater, adaptor and tiplet: 1 lb. 3 oz. to be used with heaters below.

37A3402-2 Model 555. Each ...... \$3.58

THREAD-IN HEATERS

Easy to change - rugged stainless steel, double insulated. To be used with any standard line thread-on Mini-Tips (100 series mini-tips) or with #100 adaptor using all 300 series tiplets and nibs. Or with #101 adaptor and 800 series ti-

TIP ADAPTORS

37A3375-0 #100. For 300 series tiplets. Each 42°
37A3376-8 #101. For 800 Series tiplets. Each 42°

# "HOT-VAC" PRINTED CIRCUIT DE-SOLDERING & CLEANING TOOL

Provides fast, safe de-soldering for easy removal of components and parts. Just place heating tip to soldered connection, press-release bulb, and Hot-Vac "sucks-up" molten solder. Heat can be pin-pointed and solder removed one terminal at a time. Prevents overheating of transistors, diodes, etc. Special coating prevents solder from adhering to tip, or clogging orifice. Comes complete with #777 Clean-Room Handle, #4037 Heating Unit and #7806 Tip. Shpg. wt. 1 lb.

37A3121-8 . Type 7800. Each . . . . . . \$18.80

# REPLACEMENT TIPS

The state of the s	FI FUCE	AIPLIAL III 2	
Stk.No.	Type	Hole Dia.	Each
37A3122-6	7806	.057	\$1.18
37A3300-8	7812	.033	\$1.63

### **UNGAR DE-SOLDERING ATTACHMENT**

Similar to the 7800 Hot-Vac shown above, but attachment only. (Handle/Heating unit not included). For use with 4037 standard line heating unit and 776 or 777 handles; also 3-wire irons 145, and new DI line heater 362. Wt. 1 lb.

37A3371-9 Type 7825 Each ......\$11.55

# UNGAR EXTRACTORS

Instant release...prevents board damage. Eliminatés damaged leads, circuit destruction, burned fingers. Pushbutton simplicity that works reliably...time after time. 37A3299-2 6982. DIP IC Extractor.

37A3299-2 6982. DIP IC Extractor. \$2.95 37A3345-3. 6983. T0-5 Transistor and IC Extractor Each \$3.42

"RE-TIP"

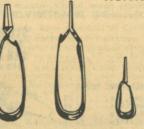
SOLDERING TIP CLEANER \$625



Simply insert hot iron tip into re-tip then withdraw - all contaminants are instantly removed. Prolongs tip life, tips solder faster and longer. Cleans tips up to 14 diameter uniformly, preventing contaminated solder joints. Carry a retip

cartridge in your fool caddy for hand held use.	
37A3408-9. Re-Tip Base and Cartridge Shpg. wt. 1 lb.	
Each	\$6.25
37A3407-1* Re-Tip Cartridge	
Shop, wt. ½ lb. Each	\$2.65
Shod, Wt. 72 ID. Edch	DZ.03

# **HUNTER TOOLS HEAT SINKS**



Berylco.
Each \$1.63
37A3411-3 3¼" Long. Made of Spring Steel, Plated; Copper Jaw.
Each \$2.25

# Weller SOLDER TOOLS

# Weller

# CORDLESS SOLDERING

THE NEW PORTABLE THAT MAKES EVERYBODY ELSE'S OLD-FASHIONED!

For the technician and hobbyist this is the cordless to do the job! Heats up in six seconds. Develops tip temperature of 700° F +. Fast power charger. Long life nickel cadmium batteries. Built-in work light. Interchangeable tips. Fingertip control with safety-lock switch. Shpg. wt. 11 oz. 37A3418-8.

WC100 Soldering Iron. Each ...... \$19.95

	TIPS FOR ABOVE IKON	**
37A3419-6, WC111.	1/8" Tip, Each	\$2.95
27 A 2 A 20 A \W/C 112	1/16" Tip Fach	\$2.95
37A3A21-2 WC113	1/16" Long Reach Tip. Each	\$2.95
37 M3421-2. WC113.	1/32" Conical Tip. Each	\$2.95
3/A3422-U. WC114.	1/32 Conical rip. Euch	THE

### WELLER MARKSMAN SOLDERING IRON

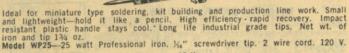


For hobby, kit, radio . . all general purpose soldering. Small, only 81/4" long including tip. Has replaceable tip and stainless steel barrel. Develops up to 750° F. tip temperature. For use on 120 volt AC, 25 watts. With instruction

37A3346-1. Model SP23. Each Marksman Soldering Iron Kit. Contains SP23 iron, 2 extra tips, solder and solder \$7.50

37A3351-1. SP23K. Each ..... 37A3362-8. MT-1 Replacement cone tip. Pkg. of 2 \$1.19

# WELLER PENCIL SOLDERING IRON



37C269-8 \$ \$8.25 Each \$7.50 \$7.50 \$8.26 WP40—40 watt Professional iron. % screwdriver tip. 2 wire cord. 120 V. 37A3363-6 \$ \$10.85 Each \$2.00 \$8.75

REPLACEMENT TIPS FOR WP IRONS
1/6" Screwdriver Tip. Each
1/6" Screwdriver Tip. Each
1/6" Screwdriver Tip. Each



Invaluable repair tool. A must for servicing modern printed circuit boards and solid state electronics. Remove and replace components quickly, with less chance of heat damage. Complete tool includes power handle, vacuum bulb and desoldering head assembly with .063 tip opening. 40 W. 120 V. 2 wire

Cord.	\$16.60
37A3355-2 Model DS40, Each	
3 Each	\$14.95
S Each	440.05
37A3386-7 Model DS403. Like above with 3-wire cord.	\$18.25
Each	£15.45
3 Each	\$13.43

REPLACEMENT	TIPS	FOR	DS40	and	DS403	DESOLDERIN	G TOOLS	
37A3356-0	DS	T1-1	Desolde	ring	tiplet.	.038" Ea	\$1.7	1

37A3356-0 DST1—Desoldering	tiplet.	.038"	Ea. \$1.79
37A3357-8 DST2—Desoldering		.046"	Ea. \$1.79
37A3358-6 DST3—Desoldering		.059"	Ea. \$1.79
37A3359-4 DST4—Desoldering		.063"	Ea. \$1.79





The hottest solder gun value ever offered! Here is true Weller professional performance and quality construction in a small, lightweight, exceptionally easy to handle solder gun. Perfect for hobbyist or serviceman—does a real man-sized soldering job. New improved gun, rated 100/140 watts furnishes soldering heat in just 5 seconds by a trigger control. Prefocused spotlight illuminates work as you solder. Dual heat feature provides reserve power for heavier soldering needs. Uses high efficiency long life tip. 120 volts 60 Hz AC. Fully quaranteed. Wt. 3 lbs.

37C257-3. 8200PK. Each 3 Each 37A62-7. 8200 Gun Onl	1	\$12.75	12 Each	 	 	 	\$14.10
37A62-7. 8200 Gun Onl Each				 	 	 	\$12.20

# **REPLACEMENT HOUSING FOR 8200 GUN**

37A3449-3. 8200RH. Complete left and right housing set. Each ..... \$3.95



37A3425-3. 37A3426-1.

# WELLER HEAVY-DUTY DUAL HEAT SOLDERING GUN KIT

- . SOLDERS!
- MENDS!
- SEALS!
- CUTS!

Comes complete with the very popular Weller heavy-duty dual heat 240/325 watt soldering gun that has such desirable features as: Instant heating — takes only 5 seconds to obtain solder heat; Extra long

seconds to obtain solder heat; Extra long reach to get into the deep inaccessible places; Dual spotlights to focus on work; Rugged housing that stays cool. Dual heat feature provides reserve power for extra sealing, and mending plastic articles; Cutting tip for cutting plastic tiles, removing hard putty from broken windows, etc., tip changing wrench and all purpose solder. Instruction booklet gives helpful hints — tells how to do various jobs. Unbreakable plastic case is convenient for storage and has handle for easy carrying. Shpa. wt. 6 ½ lbs.

carrying. Shpg. wt. 6 ½ lbs.	
37C256-5. D550PK. Each	
31/93 12 EQCI	
37R4-9 D-550 Gun Only Shog wt. 4 lbs. Each	
3 Each \$14.95 12 Each \$13.30	
PEPI ACEMENT SWITCH for all Weller Dual Heat Solder Guns	
37A3286-9. Type 7324. Net Each \$2.95	

# WELLER SOLDERING TIPS

			Pkg.
No.	Type	For Gun Models	of 2
37A3176-2	<b>Type</b> 7250	WS-200, WD-250, S-500, D-550, 8250A Tips Only	
37A3177-0	7135	WD-135, S-400, D-440, 8100, 8200 Tips Only	1.19
37A3178-8	7300	S-107, D-207 Tips Only	1.19
37A3179-6	8125	8200, 8100B Premium plated, tips only	1.19
	R	EPLACEMENT TIPS WITH TIP NUTS	Subset.
37A3425-3.	7250N	WS-200, WD-250, S-500, D-550, 8250A Each .	\$1.19
3743426-1	8125N		.\$1.19

# GC SOLDER AIDS

Hex shaped Butyrate handles. Tools shed solder.

Miniature size for print	
Stk. No. GC No.	Description Each
(1) 37A3321-4 9069	Reamer & Scraper Tip \$1.25
(2) 37A3322-2 9073	Brush & Forked Tip\$1.30
2 2742222 0 9074	Brush & Scraper Tip\$1.25
(2) <b>37A3323-0</b> 9074 (3) <b>37A3324-8</b> 9076	Angle Reamer & Forked
(3) 3/A3324-8 9070	Angle Reamer & Forked \$1.39
	Пр ф1.07
CTANDADD	CITE TIVE LONG

①37A3325-5 @37A3193-7 ②37A3019-4 9088

37A3018-6 9093

SIZE 71/2" LONG	
Straight Reamer & Forked Tip	\$1.50
Fine Brush (7	
Scraper Tip Stiff Brush and	\$1.50
Forked Tip	\$1.50
Angle Reamer & Forked Tip	\$1.50

Get Immediate Shipment From B-A's Large Stocks

# SOLDER GUNS, IRONS AND TORCHES

# WAHL "ISO-TIP" CORDLESS SOLDERING IRONS



No cord or plugs. Powered by nickel cadmium batteries, giving up to 50 watts with over 700° F. tip temperature. Low voltage and isolated-tip construction eliminate electrical leakage and the need for grounding. Reduces the risk of heat damage. Will fully recharge overnight giving enough power for 20 to over 150 consecutive joints, depending on wire size. 8" long with tip. Wt. 6 ozs.

Black type 7500 Soldering Iron with installed nickel cadmium batteries, separate 115 VAC recharging stand, 7545 fine tip and instructions.

37A3377-6 Wt. 1 lb. 2 oz. Each ..... \$19.95 37A3447-7. 0170. Replacement Ni-Cad Batteries.

Orange Type 7700. Quick Charge Soldering Iron Kit. Features exclusive lock off switch to prevent accidential heating of tip. Recharges a complete discharged battery in about 4 hours. Special premium long-life Ni-Cad batteries come inrecharge in 1/3 the time and outlast standard batteries. Kit includes cordless soldering iron, separate recharging stand, one fine tip and one heavy duty soldering tip and an instruction booklet. Wt. 1 lb. 2 oz.

37A3401-4 Each ..... \$24.95 37A3448-5, 0040. Replacement Ni-Cad Batteries. Pkg. of 2 ... \$8.00

Red Type 7800. "60" 1-Hour Quick-Charge Soldering Iron Kit. When completely discharged, the Iso-Tip 60 can be fully recharged and used again in only one hour. Keeps full charge when rested in stand between uses. LED indicator tells when charge is full. Soldering heat in 5 - 8 seconds. Solder up to 125 or more joints per charge. Instantly detachable tips. Long life Ni-Cad batteries come installed. Kit includes cordless Iso-Tip 60 iron, recharging stand, 2 tips and instruction book. Less than 9" long, weighs just over 6 ozs. Shpg. wt. 1 lb. 2 ozs.

# ISOATIP 6500 PC DRILL ATTACHMENT

Converts the Iso-Tip 7500, 7700 or 7800 soldering iron (above) into a small .046 (=56) drill. Ideal for cleaning solder from printed circuit boards when replacing components. 14,600



RPM under no-load conditions. Use soldering iron to remove component, quickly replace tip with drill attachment and clean out lead holes - just as quickly change back and complete component replacement. Fully portable. No additional power source needed. 3" X 1 ¼" dia.

"MICROFLAME" GAS **WELDING TORCH** 

A completely self-contained gas welding torch that fits in the palm of your hand and produces 5000° F. pin-point accurate flume. Welds, brazes, solders
— hundred of uses in the shop, jewelry repair, duttal labs, tool and model
making ... iteal for silver soldering
and printed a cuit repair — anywhere
precision high teat is required. Easy to operate. Complete with torch, 2 welding tips, 1 butane tip, compressed butane and 2 micronox cartridges. Shipg.



wt. 1 lb.	
37B25-4. Model 4200. Each	\$24.95
37B33-8. Butane Cartridge. Package of 2	\$1.90
37B33-8. Butane Cartridge. Package of 2 37B26-2. Micronox Cartridge. Package of 2	\$1.90

# **CUB BUTANE TORCH**

Perfect for every handyman and hobbyist, amateur or professional. De-livers controlled heat that allows pin-point accuracy at 2500° F. Directional adjustable flame can be rotated 360° It solders, brazes - an invaluable tool. Complete with windguard and butane

37A3400-6. .....\$7.95 Butane Cartridge. Pkg. 2 For.. \$1.90





CORDLESS SOLDERING GUN

WORK RANGE EQUIVALENT TO 15 TO 25 WATT PENCIL

> NO MAGNETIC FIELD TO DISTURB **ELECTRONIC COMPONENTS**

Heats in 5 seconds. Fine point - long life - rigid long reach - plug-in tip.
Built-in spotlite. Convenient trigger
control. Handy...right angle styling.
Rechargeable nickel codmium batter ies. Plug-in charger...can be charging while soldering. Will solder 50 to 100 connections per charge. Unbreakable case - complete unit with charger and batteries. Wt. 1 lb.

37A3388-3 Model 17.
Ea. . . \$19.95 3 Ea. . \$15.99
37A3390-9 17A19 Replacement
tip. Each . . . . . . . . . . . . . . . . . \$2.60 \$15.99



Full range of heat power. Includes 25-100 watt fine tip, 100-200 watt medium tip, 200-450 heavy duty tip and roll of solder. Shot. Wt. 13 lbs.

37A3312-3 450K4 Kit.
Each ... \$23.95 3 Each ... \$19.30

37A3313-1 450 Gun only with 200 to 450 watt tip. Eq. \$16.95 3 Eq. \$13.55

\$16.95 3 Ea. .... \$13.55 to 450 watt tip. Ea. .....

# **75 SOLDERING PISTOL**

Soldering pistol produces instant heat. Built-in spotlight. Lightweight with long reach tip. 75 watts does the work of many 100 watt units.

37B214-4 75 Pistol with standard tip. Wt. 3 lbs. \$9.95 3 Ea. ... \$7.99





# **WEN 199** SOLDERING GUN 130 WATTS

Heats in just 2½ seconds. Cools when trigger is released. Small — fits tool kit or pocket, Light—easy to handle, less tiresome to use. 3½" extra long, narrow tip for tight spots. Built-in spotlight. Plastic handle and case are heat and shock resistant. 120 VAC. wt. 2½ lbs. 37A329-0

.... \$13.95 3 Ea. ...\$11.79

### WEN REPLACEMENT TIPS

Description	Tip No.	For Gun Model	Each
Standard	75A7	75	\$2.60
Fine Point	7587	75	2.60
Light Duty	45F7	222, 450	3.00
Medium Duty	45M7	222, 450	3.00
Heavy Duty	45A7	450	3.00
Long Reach	1984	199, 100	1.60
Standard	25A4	250	.80
Long Life	25X20	250	1.20
Standard	28C4	288	1.60

# "SOLDER SIPPER"

Stk. No. 37A3174-7

37A3175 37A3316 37A3317-1 37A3318-0 37A3168-9



# REMOVES SOLDER FROM ELECTRICAL TERMINALS

For Safe, Easy Removal of Components. Just heat soldered connection and For Sate, Easy Removal of Components. Just heat soldered connection and amazing Solder Sipper "sucks-up" motten solder. Heat can be pin-pointed and solder removed one terminal at a time. Prevents overheating and subsequent damage to transistors, diodes and other heat sensitive components. Ideal for working with printed circuit boards, glass epoxy resin boards, any material that becomes soft and weak when heated. Rubber pressure bulb with Teflon Tube. Tube cleaning wire included. Wt. 8 oz. 37730006.

6-1 \$2.39 10-99 Each 37A3006-1 \$2.19

# SOLDER AND ELECTRIC POWER TOOLS



# KESTER "44" RESIN CORE SOLDER

Fast acting, instant wetting flux makes soldering faster and provides a stronger longer-lasting bond. 100% non-corrosive and electrically non-conductive. Immune to fungus growth and resists oxidation or organic decomposition.

ADD/ TIN	CON/	LEAD	DDICEC	PER SPOOL	

ALTERNATION OF THE PARTY OF THE	O'A THE OO'S FFL	D, I IIIOLO	1 511 01 005		
Spool Size	Diameter	1-10 Each	11 Up Each	Each	3 Up Each
1 lb. 5 lb.	3/32" (.093) 3/32" (.093)	\$4.80	\$4.32	\$23.70	\$21.33
1 lb. 5 lb.	/16" (.062)	5.24	4.72	25.90	23.31
					19 11 19
1 lb. 5 lb.	3/32" (.093)	5.84	5.26	28.90	26.00
1 lb. 5 lb.	/16" (.062) /16" (.062)	6.22	5.60	30.80	27.72
6	0% TIN - 40% LEA	D, PRICES	PER SPOOL	San Carlos	SCHOOL
1 lb.	3/32" (093)	7.00	6.30	34.70	31.23
½ lb. 1 lb.	//6" (.062)	4.62 7.22	4.16 6.50	0.0	950858
5 lb. ½ lb.	1/32" (.062)	5.06	4.55	35.80	32.22
1 lb. 5 lb.	1/32" (.031)	8.36	7.52	39.80	35.82
6	3% TIN - 37% LE	AD, PRICES	PER SPOOL	ALL SOL	Wess
1 lb. 1 lb.	1/32" (.062) 1/32" (.031)	7.56 8.62	6.80 7.76	2-20	20.00
1 lb.	(.015)	13.56	12.20	41.10	36.99
1 lb.	(.025)	9.02	8.12	20042	CO COL
	Spool Size  1 lb. 5 lb. 1 lb. 1 lb. 5 lb. 1 lb. 1 lb. 5 lb. 1 lb.	Spool   Size   Diameter	Size   Diameter   Each	Spool   Size   Diameter   1-10   Each   Each	Spool   Size   Diameter   1-10   Each   Each   Each

### KESTER SILVER SOLDER FOR PRINTED CIRCUITS

17A7023-6 1 Lb. Spool. Net	Each	an .062 diameter.	\$13.95
	KESTER T	V-RADIO SOLDER	

# Small boxes for occasional user. 17A7009-5 40% Tin-60% Lead. 1/46" dia. 11/4 oz. net wt. Each.....

# SERVI-TUBE DISPENSER

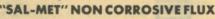
60% Tin - 40% Lead with a	resin flux core. Feeds easily from the handy Ser-
vi-Tube dispenser, Dia, 1/16".	1.3 oz. net wt.
1/A/020-2. Kester Soldering	Paste. Each 39° 10 Each 35°



### SODER-WICK - 5 FT. SPOOLS

Desolder any connection in seconds. Soder-Wick absorbs molten solder instantly. Elimi-nates component damaging heat build-up.

		nates component admagning near bond op.				
Stock No.	G.C. No.	Width	Application	Each		
17A7097-0	40-15	.025	.060 and Smaller Pads	\$1.64		
17A7098-8	40-25	.050	.060 to .125 Pads	1.64		
17A7099-6	40-35	.075	.125 to .190 Pads	1.64		
17A7100-2	40-45	.100	.190 and Larger Pads	1.86		
17A7101-0	40-55	.130	Connectors & Terminals	1.86		
17A7102-8	40-62	.190	Large Connectors & Terminals	1.64		



Solders all metals easily. Put a dab of Sal-Met on the spot to be soldered and proceed to solder in usual manner. Results will be a positive electrical and mechanical connection. One oz. tube sufficient for hundreds of jobs.

17A7008-7. Net Each ..... \$1.99



JUST PLUG **ADJUST** SPEED



CONTINUOUSLY
VARIES SPEED OF
ANY AC-DC MOTOR
FROM ZERO RPM
TO FULL SPEED
WITHOUT LOSS
IN POWER

\$22.95 Make B-A Your Headquarters, For Power Tools

# USM ELECTRIC GLUE GUN



# ELECTRIC GLUE GUN

ONE MINUTE FIXING AND FASTENING TOOL

MAKES SUPER-STRENGTH WATERPROOF BONDS IN ALMOST ANY MATERIAL



Permanently bonds in just 60 seconds: wood, plastic, fabric, leather, metal and many other materials. Uses unique hot-melt solid glue and sealer sticks — never dries out, no bottles or tubes to leak. White sealer sticks provide instant-set, water-proof caulking around bathtubs, shower stalls, etc. With 4 glue sticks, 3 sealer sticks. Operates on 115 V. AC. Shpg. wt. 1 ½ lbs.

	Model 203. Each \$7.95
37A5553-0.	Thermogrip Glue Sticks. Package of 14 \$1.40
37A5548-0.	Thermogrip Glue Sticks. Box of 60
3/A3334-8.	Thermogrip White Sealer Sticks. Package of 14 \$1.40

### BURGESS VIBRO-GRAVER ENGRAVING TOOL



INT SPRAYER

Heavy duty for continuous operation. Comfortable hand-rest design. Delivers 7200 strokes per minute for fast, clean work. Control wheel adjusts "impact" fine, medium or coarse Unbreakable polypropylene housing. With hard Tungsten Carbide point. Wt. 1 lb.

Model V-74M 37A9015-6. Each .... \$17.95 37A9016-4. 98003. Tungsten Point ... \$17.95 \$1.80 37A9017-2. 98080. Diamond Point \$9.00

# BVI ELECTRIC PAINT SPRAYER

A totally new airless paint sprayer to take the drudgery out of home painting jobs. Paints faster and easier than brush or roller, "Will spray just about all types of paint, oil or latex. Also may be used to spray garden insecticides. Heavy 6 ft. cord, 24 oz. jar. 115 V. AC. Shpg. wt. 4 lbs. 37A9096-6. Model 860-5

Each \$22.95

# **MOTO-TOOLS AND ACCESSORIES**



DREMEL MOTO-FLEX **POWER TOOL** 

Shape hundreds of your creative ideas with this complete miniature high speed flexible shaft tool. You can expect speed, power and precision whether you work

with wood, plastics, gems, rocks, leather, glass, metals or ceramics. ½" collet will accommodate all ½" shank accessories (listed below) so you can do a wide variety of creative detail work. Perfect for industrial pattern making or dental lab work.

Features a cool running, slim-grip ball bearing handpiece for "sure" smooth fingertip control. Has 34" long vinyl covered flexible shaft. Handy to get to those hard-to-reach spots. Produces 25,000 RPM. Motor is mounted on a detachable 6 X 8" bench-type 360° swivel base or use built-in hanger on housing to mount on wall with bracket included. Handpiece size: 5-3/8" L. X 23/32" dia. Shpg. wt. 3 lbs.

# DREMEL MOTO-TOOL ACCESSORIES



WIRE BRUSHES
Handy steel brushes for removing rust and corrosion, polishing metal.
//s" shanks.

Threaded stud type for polishing

wheels. 37A9081-8 . Type 424. Each ...... 95°  $\bigcirc$  DRUM SANDER For smoothing, polishing.  $V_8$ " shank. Replaceable bands. 5tk. No. Type Dia. Net Each 37A9068-5 407  $V_2$ " \$1.35

REPLACEMENT BANDS (6 Per Pack)
Stk. No. Type Size PerPack
37A9070-1-408 1/2" Coarse 95°
37A9071-9, 432 1/2" Fine 95°

® POLISHING WHEELS 

①	CHUCK (	COLLE	TS	
For Moto-To	pols 1,2	and :	3.	
Stk. No.	Type	Fits		Each
37A9034-7	416	32-1/8	*	95°
37A9035-4				95°
37A9036-2	418	1-1"		95
For Moto-To		270	280,	380
37A9074-3		1/8-32	"	95
37A9075-0	435	3-10"		95
37A9076-8		16-32"		95
For Moto-To			55-3	and
270, 280, 3	80 series	66-2	and N	Aoto-
Flex Tool No	. 232.			
37A9590-8	3.480	1/8-3	/32"	75
37A9591-6	5. 481	3/32-	1/16"	75

1/16-1/32" 75

### SANDING DISCS

37A9592 -4 482



37A9084-2 Type 411. Coarse Sanding Discs. Box 36 \$1.15 37A9085-9 Type 412. Medium Sanding Discs. Box 36 \$1.15 37A9086-7 Type 413. Fine Sanding Discs. Box 36 ....\$1.15

# SILICON GRINDING POINTS

Silicon for working on hard steel, writing on glass and other hard materials. Va" shank.

A	. 10		
Fig.	Stk. No.	Type	Net Each
(1)	37A9037-0.	83322	95°
(2)	37A9038-8.	83642	95
(3)	37A9039-6	84382	95
(1)	37A9040-4.	84642	95°
(5)	37A9041-2.	85562	95°
(6)	37A9042-0.	85622	95°

# TUNGSTEN CARBIDE CUTTERS



For working tool steel. Outlasts steel cutters many times. 1/6" shank

Fig.	Stk. No. o	Туре	Net Each
1	37A9057-8	9901	\$5.10
(2)	37A9058-0	9903	5.10
(3)	37A9059-4	9906	5.10
(1)	37A9060-2	9907	
3	37A9061-0	9908	5.10

### MOUNTED ALUMINUM **OXIDE WHEEL POINTS**



All have 1/8" shank. Fig. Stk. No. Type

(i) 37A9023-0 953

(ii) 37A9024-8 971

(ii) 37A9025-5 997

(iii) 37A9026-3 921

(iii) 37A9027-1 932

# HIGH SPEED STEEL CARVING CUTTERS

61	17				Tie
10	10	3	](1)	]3	6
For v	wood, pl	astics,	etc.	/8" sha	nk.
Fig.	Stk. N		Туре		t Each
0	37A90		124		\$1.95
2	37A90		134		1.95
(3)	37A90	30-5	194		1.95
(1)	37A90		116		1.95
(5)	37A90	32-1	178		1.95
6	37A90	33-9	198		1.95

# CONSTANT SPEED MOTO-TOOLS

Exciting new concept in space-age electronics. Rugged new industrial type grinder has permanent magnet motor with unique full wave rectifier circuit, produces 30,000 RPM. Has more than twice the power of previous models, will not stall under normal load. Electrically welded armature is dynamically balanced for vibration-free operation. All models use 1/8" collett. Models 261, 271, 281 and 381 are complete with 34 piece accessory kit, including brushes, wheels, cutters, 4 collets and case.

Model 260. Tool Only with 1/8" collet. Size 6 x 11/2". Net wt. 9 ozs. Shpg. wt. 11/2 lbs. 37C160-9. Net Each...... \$29.95

 Model 261. Complete Kit. 260 Tool

 and 34 piece accessory kit.

 37C159-1. Wt. 2½ lbs. Each

 Model 270. Tool Only. More powerful industrial unit with ½″ collet. Size 3½ x 1½″. Tool wt. 11 ozs. Shpg. wt. 2 lbs.

 37C415-7. Net Each

\$39.95
\$34.95 Model 271. Complete Kit. 270 Tool and 34 piece accessory kit.

37C357-1. Shpg. wt. 3 lbs. Net Each. \$44.95

Model 280. Tool Only. Same as 270 but with ball-bearing construction for heavy duty. Tool wt. 11 ozs. Shpg. wt. 2 lbs.

37A9006-5. Net Each. \$39.95 

# DREMEL VARIABLE SPEED MOTO-TOOL

Similar to the above models except tool has fingertip variable speed control. Varies RPM from 5,000 to 25,000. Now have the ability to dial the speed to fit the job. Motor is .9 amp, housing is of sturdy, shatter-proof nylon. Ball bearing construction for heavy duty, weighs just 11 oz. Uses 1/8" collet. Size: 1-11/16" diameter X 7 ¼" long.

Model 381 Complete Kit. 380 Tool and 34 Piece Accessory Kit. 37A9150-1. Shpg. wt. 3 lbs. Each ...... \$59.95

# DREMEL SOLID STATE SPEED CONTROL

Table Control Model 219. Portable, table top speed control. Dial any speed 0 to full RPM. Use with Moto-Tool Models 260, 270, 280, and Moto-Flex 232. Use with other tools and appliances up to 5 amps. Shpg. wt. 2 lbs.

Foot Control Model 217. Same as above, except foot pedal operated. Shpg.

37A9641-9, Each



1) ROUTER ATTACHMENT

Attaches to 260, 270, 280, 380 Moto-Tools. Produces smooth surfaces that need no sanding. Shape edges, cut rabbets, dadoes, mortices, tongues, and chamfers. Steel and delrin construction.

② UNIVERSAL STAND

Leaves both hands free, adjustable to any angle. Has quick action clamp.

Heavy cast iron base. Shpg. wt. 3 lbs.

37A9087-5.. Model 223.Net Each \$12.95 \$12.95

(3) DREMEL DRILL PRESS STAND

Fits 260, 270, 280 and 380 models Moto-Tools. Drill press height 12". Base is 7" X 5". Table can be raised or lowered, locks in any position for accurate depth adjustment. Shpg. wt. 3 lbs. 37A9597-3. Model 210. Each ...... \$19.95

# **DOUBLE INSULATED POWER TOOLS**



# 1) PRO MODEL 801-3/8" VARIABLE SPEED DRILL

Powerful 2.6 amp. ½ H.P. motor. Variable speed 0 to 1200 RPM with 2-speed locking button. Ball thrust and needle bearings. Double reduction gears. Jacobs chuck. Double insulated. 120 VAC. 8¾" X 2-5/8" X 6-7/8" H. Shpg. wt. 3½ lbs.

37A9584-1. Model 801. Each ...... \$22.95

# 2 PRO MODEL 300 - DUAL ACTION SANDER

Powerful 2.6 amp. ½ H.P. motor 4000 orbits or 4000 straight line strokes per minute. Enclosed handle with built-in front guide grip. Instant push-pull switch from orbital to straight line action. No-slip lever action clamps hold sandpaper securely. 120 VAC. 9" L. x 3¾" W. x 6¾" H. Shpg. wt. 4 lbs.

37A9585-8. Model 300. Each ...... \$22.95

# 3 PRO MODEL 802-3/8" VARIABLE SPEED REVERSING DRILL

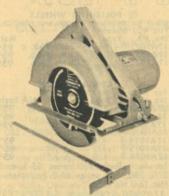
The ultimate in performance, balance, and ease of handling. Fingertip variable speed control from 0 to 1200 RPM. Adjustable speed lock lets you pre-select desired speed and lock for specific drilling job. Just flip lever to reverse rotation. Double reduction gears. Jacobs chuck. Double insulated. Powerful 2.6 amp. ½ H.P. motor. 120 VAC. 8¾" L. x 2 5/8" W. x 6/8" H. Shpg. wt. 3½ lbs.

37A9114-7. Model 802. Each ...... \$29.95

# 2-SPEED RECIPROCATING SAW



Versatile, compact, lightweight. Ideal for homeowners, contractors, electricians, plumbers. Prynes trees, cuts logs . . . plunge cuts, flush cuts, cuts wood, aluminum, brass, steel, pipe tubing. Long one-inch counter-balanced strokes. High speed 3000 SPM. Low speed 2200 SPM. 120 VAC, ½ H.P., 4 amps. 3-position auxiliary handle convenient for left or right hand use. 2-position blade mount for cutting flexibility. Fits easily between 16" center studs and joists. Five blades included. Shpg. wt. 6½ lbs.



71/4 INCH CIRCULAR 2 HP MOTOR POWER SAW

# SHOCKPROOF

Red housings, double insulated against shock hazards. 2 wire cords plug in anywhere. No grounding or 3 prong adaptors required.

Pro-power Model 961 with 11 amp. 2 HP motor, 5100 RPM. Rigid shoe plate and fine balance with rugged, powerful performance yet only 8 lbs. net weight. Maximum depth of cut at 90° 2¾" at 45° 1½". Safety-sure shockproof high impact cyclolac housing, extra heavy duty precision gears, permanent lubricated bearings, with extra safe slip clutch. Calibrated rip fence included. With 7½" combination blade. For 120 VAC, 60 Hz. Shgs. wt. 11 lbs. \$34.95 37A9116-2. Model 961. Each

# **ELECTRIC CHAIN SAW**

DOUBLE INSULATED PLUS UNITIZED CONSTRUCTION



WORLD'S NEWEST LIGHTEST ELECTRIC CHAIN SAW!

ONLY 71/2 LBS. INCLUDING BAR AND CHAIN

- ELECTRIC POWERED! JUST PLUG IT IN AND **PULL THE TRIGGER. NO** GAS OR OIL TO MIX.
- **BUILT-IN 4 OZ. CAPACI-**TY MANUAL OILER LO-CATED ON MAIN GRIP HANDLE.
- SUPER POWERED, DY-NAMICALLY BALANCED . 2 HP MOTOR, 11 AMPS, 120 VAC, 5200 RPM.
- EQUIPPED WITH 10" OREGON REVERSIBLE GUIDE BAR AND CHISEL TOOTH CHAIN.

Powerful, lightweight and value-priced 10" electric chain saw - a time and labor saver for the homeowner or building tradesman. Ideal for tree trimming, pruning, felling trees up to two feet in diameter, cutting fire wood. Instant starting. Plugs into any AC outlet without adapters. 2 HP Unitized Construction motor, double insulated, unbreakable high impact plastic housing guaranteed for life. 5200 RPM no load sprocket speed. Heavy duty gear drive, anti-kickback clutch with hardened steel reversible sprocket for double the life. Built-in manual oiler conveniently located on main grip handle for one hand control of trigger and oiler. Non-slip grip handle, auxiliary handle and cutter bar provide perfect natural balance and ease of handling. Unit includes Oregon 10" bar, and chisel tooth chain. Cutter bar is reversible for extended life. 120 VAC, 11 amps, 2 HP. Shog, wt. 10 lbs. 

# WEN DOUBLE INSULATED POWER TOOLS

# HEAVY DUTY PROFESSIONAL TOOLS

Feature double-insulation - plus unitized construction! Unbreakable housings are guaranteed for life! Shockproof, safer! Two-wire plugs, plug in anywhere!

### MODEL 953 DOUBLE-INSULATED 1/2 INCH VARIABLE & REVERSIBLE HEAVY DUTY DRILL

Handles the big, tough drilling jobs, yet weighs only 5 lbs. ½" geared Jacobs chuck with ½" capacity in steel, 1¼" capacity in hardwood. Variable speed control from 0 to 600 RPM. Adjustable speed-lock lets you pre-select desired speed and lock for specific drilling job. Forward or reverse switch. Drop handle-design for perfect balance, auxiliary ½"-pipe handle. Heavy-duty gears, ball thrust and bronze bearings. Dou-ble insulated. Value-rated and valuepriced—with power to spare. 120 Volt AC, 4 amps. Shpg. wt. 6 lbs.



37A9132-9. Model 953. Each .....

..... \$39.95



Drop handle design for perfect balance and control. New, efficient unitized construction for more reliability and increased performance. Powerful 2.6 amp. ½ H.P. motor. 2000 R.P.M. Ball thrust bearings. Jacobs chuck. 120-V A.C. Universal motor—Red housing. 8¾" long x 2¾" wide x 6½" high.

Shpg. Wt. 3½ lbs. 37A9113-9 Wen Pro Model 700. Each......

### MODEL 919 DOUBLE-INSULATED 3 INCH BELT SANDER



911. 60 Grit. Each \$1.50 914. 50 Grit. Each \$1.50 915. 80 Grit. Each \$1.50 37A9145-1 10 For 37A9146-9 10 For

### DOUBLE-INSULATED VARIABLE-SPEED SCROLL SABER SAW



LATRA DEADES 101 331, 321, 311, 310, 7200, 720, 7070 unu 707
37A9555-1. No.901 Wood, 3 Teeth Per Inch. Package of 3\$3.00
37A9556-9. No. 902 Wood, 5 Teeth Per Inch. Package of 3
3/Ay55/-/. No. 903 Wood, Aluminum, 8 Teeth Per Inch. Package of 3\$2.60
37A9558-5. No. 904 Wood, 14 Teeth Per Inch. Package of 3
37A9559-3. No. 905 Cardboard, Leather, Rubber. 4" Knife Blade. Pkg. of 3 \$2.80 37A9560-1. No. 906 Steel, 14 Teeth Per Inch. Package of 3 \$3.60
<b>37A9560-1.</b> No. 906 Steel, 14 Teeth Per Inch. Package of 3
24 Teeth Per Inch. Package of 3
24 Teeth Per Inch. Package of 3

PERMANENT IDENTIFICATION



ON SHOP TOOLS



ON GLASS



ON SPORTING GOODS

WEN ELECTRIC PENCIL ENGRAVER

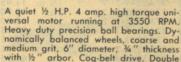


Versatile, lightweight, use it like a ballpoint pen. Writes on almost any material where a permanent identification or pattern is de-sired. For woods, metals, plastics or glass. Perfect balance—contoured to fit hand. Variable stroke adjustment permits heavy wide engraving or fine line according to material and need. Super hard Tungsten carbide tip. 7200 strokes per minute. Tough durable himpact plastic housing. 7" long. 120 V AC.

37A9109-7. EACH ..... \$7.95

WORLD'S FIRST DOUBLE INSULATED BENCH GRINDER!

MODEL 1800 **ELECTRIC GRINDER** 



A quiet ½ H.P. 4 amp. high torque universal motor running at 3550 RPM.
Heavy duty precision ball bearings. Dynamically balanced wheels, coarse and medium grit, 6" diameter, ¾" thickness with ½" arbor. Cog-belt drive. Double insulated. Non-glare, non-mar finish. Exclusive dynamic brake for fast stops. Adjustable spark arrestors. Fully adjustable tool rests and eye shields. Removable water tray, built-in small parts and tool tray, rubber shock mounting feet. 6 ft. 2-conductor cord. Shpg. wt. 15 lbs.

37A9166-7. Model 1800. Each \$59.95



# **MODEL 1501 HEAVY DUTY INDUSTRIAL** 7 INCH GRINDER/SANDER

DOUBLE INSULATED HIGH SPEED





Powerful, rugged, double insulated hi-speed 7" grinder/sander. Weighs just 9 lbs. 5000 RPM for quick grinding/sanding on heavy jobs, has ball and roller bearings and wide face double reduction gears. Contoured non-slip 2-position auxiliary handle, main handle textured for non-slip grip. Built-in top non-mar bumper, ball suspension, and steel protector ring for guard mounting, Includes rubber backing pad and two sanding discs. 120 VAC, 2 HP, 10 amps. Shpg. wt 111% lbs.

37A9152-7. Model 1501. Each .......\$69.95

**OPTIONAL EQUIPMENT FOR 1501** 

 37A9153-5.
 7 Inch Wheel Guard. Each
 \$12.95

 37A9154-3.
 7 X ¼ " Wheel, 36 Grit. Each
 \$8.95

 37A9155-0.
 7 X ¼ " Wheel, 24 Grit. Each
 \$5.95

Use B-A's E-Z Pay Revolving Charge To Buy The Power Tools You Need

# VERSATILE SHOP TOOLS

# 4-IN-1 TOOL

• FORMS

. SHEARS • PUNCHES

Many uses in plant or shop will save the cost of the 4-in-1 Tools many times over. Forms smooth, sharp bends up to 90° in rod or flat stock up to 1" wide and 16 gauge thickness. Rivets easily with hollow or solid rivets up to 1" from edge and combined thickness of 3/8". Shears metal up to edge and combined thickness of 3/8". Shears metal up to 1" wide and 16 gauge thickness. Punches clean, sharp, burr free holes in metals up to 16 gauge and 1" from edge of stock. 3/16" round punch furnished. Made in U.S.A. Shpg. wt. 6 lbs.

37A3278-6. Each ......\$17.95

ADDITIONAL PUNCHES

37A3280-2.1/8" Hex Punch 37A3372-7.1/8" Round Punch 37A3281-0.4" Hex Punch 37A3273-5.4" Round Punch 37A3282-8.1/8 X 4" Rectangular Punch

# BENDING AND FORMING BRAKE



GREENLEE CHASSIS PUNCHES



Quickly cuts clean, accurate holes in chassis or panel to accommodate sockets, switches, controls, meters, etc. Cutting is done by 2-point punch driven by square head cap screw. Operates simply with an ordinary wrench.

(1) No. 730 ROUND HOLE

No.	Size	Wt.	Each	No.	Size	Wt.	Each
37A3032-7	1/2"	2 oz.	\$4.20	37A3046-7	114"	9 oz.	\$4.90
37A3033-5	9/16"	2 oz.	4.20	37A3047-5	1-3/8"	10 oz.	6.15
37A3034-3	5/8"	3 oz.	4.20	37A3048-3	11/2"	13 oz.	6.65
37A3035-0	11/16"	3 oz.	4.25	37A3246-3	1-5/8"	1 1/4 lb.	8.15
37A3036-8	3/4"	3 oz.	4.25	37A3247-1	13/4"	1 1/4 lb.	9.20
37A3037-6	13/16"	3 oz.	4.25	37A3248-9	1-7/8"	1½ lb.	11.40
37A3038-4	7/8"	3 oz.	4.25	37A3249-7	2"	13/4 lb.	11.95
37A3039-2	15/16"	6 oz.	4.70	37A3250-5	21/8"	2 lb.	12.90
37A3040-0	1"	6 oz.	4.70	37A3251-3	21/4"	2 ½ lb.	13.60
37A3041-8	1-1/16"	7 oz.	4.90	37A3252-1	21/2"	2 lb.	21.65
37A3042-6	11/8"	8 oz.	4.90	37A3253-9	23/4"	5 lb.	30.15
37A3044-2	1-3/16"	8 oz.	4.90	37A3254-7	2-25/32"	* 3 1/2 lb.	21.75
37A3045-9	1-7/32"	9 oz.	8.35	37A3255-4			41.55
				*For	3-in. Pane	Meters	

® No. 732 "KEYWAY PUNCH" Makes 1 H" hole with keyway for	Extra Drive Screws for Above No. For Each
Amphenol "S" and similar sockets.	37A3256-2 1/2" 16" or 5/8" Punch 40°
37A3259-6. Each\$12.60	37A3256-2 1/2" 96" or 5%" Punch 40° 37A3257-0 8" thru 7%" 45° 37A3258-3 8" thru 11/2" 50°
No. Size Wt. Each	(3) No. 733 "D" HOLE
37A3262-0 1/2" 5 oz. \$10.90	For HF and miniature tube sockets such as Amphenol's of a D shape.
37A3264-6 3/4" 6 oz. \$11.80	No. Size Wt. Each
37A3262-0 1/2" 5 oz. \$10.90 37A3263-8 56" 5 oz. \$10.75 37A3264-6 34" 6 oz. \$11.80 37A3265-3 76" 10 oz. \$13.80 37A3266-1 1" 10 oz. \$14.25	No. Size Wt. Each 37A3260-4 ½" 2 oz. \$9.35 37A3261-2 5%" 3 oz. 9.95
6 NO. 731R RELAY SOCKET PUNCH for Potter & Brumfield Type KHP re	I. Makes clean, accurate finished holes lay sockets, 1.018"x.861". Wt. 10 oz.
(§) Same as above for P&B type KU	and KUP, RBM type 93Q. Cuts hole
11/4" x 13/6"	\$34.85

BALL BEARING REPLACEMENT DRIVE SCREWS

Greenlee punches cut easier and faster than ever regardless of toughness of metal. Specially designed bearing assembly replaces present drive screw.

Ball bearing	soaks up friction	allowing screw to be turned with	ease.
Stk. No	Туре	For Punch Sizes	Each
37A3268-7	AV322BB	16, 3/4, 13, 7/8"	\$1.85
37A3269-5	AV112BB	56 to 1 1/2" 15%" to 1 3/4"	2.05
37A3270-3	AV249BB	15/8" to 13/4"	4.55
37A3271-1	AV304BB	11/8, 2, 21/8, 21/4, 21/2, 235"	4.75

# STEEL LETTER AND NUMERAL STAMP SETS



High alloy square steel stamps, precision made, heatrigin and square steel stamps, precision made, heat-treated and tested. Each stamp satin finished and rust proofed. 1/8" gothic character type sizes. Letter sets are 27 pieces from A-Z plus "8" sign. Numeral sets are 9 pieces from 1-8 plus 0 (6 and 9 are revers-

bible). Each set packed in attractive carton.

9 PIECE NUMERAL SET. Shpg. wt. 1 lb.
37A3412-1. Hanson 386313. Each ... \$6.73
27 PIECE LETTER SET. Shpg. wt. 2 lb.
37A3413-9. Hanson 386351. Each ... \$20.34

### WAHL THERMAL-SPOT TESTER

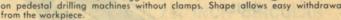
Gives a concentrated spot of heat that can be directed to a specific component without touching the part. A heated stream of air is the only direct contact with the component. Thermal-spot allows the technician to quickly bring each individual component in the circuit to operating temperature one at a time. The defective element will be located without delay. No waiting for the set to warm up before testing. You don't have to use expensive pressurized sprays to cool down hot sets. No danger of breaking adjacent components accidentally. The Thermal-spot is small, lightweight, quick to use and economical. A must for every tube caddy or service bench. The Thermal-spot tester can also be used to heat

shrink insulating tubing safely without use of matches or soldering iron. Speeds up drying of epoxies and cements. Thermal-spot can be used without the spot concentrator to quickly dry out tuners after spray cleaning. Nozzle temperature reaches or exceeds 125° C. For 110/127 V. 50/60 Hz. Shpg. wt. 1 ½ lbs.

37A3446-9. Model 5800. Each ...... \$27.95

# "CONECUT" DRILL KIT

The most successful development in sheet and tube drilling. Drill a burr-free hole in seconds in sheet or tube, drill .007" shim steel without clamps, drill Perspex or Formica without splitting, drill overlapping holes. The "Conecut" works best with electric drills on materials up to 2 mm thick. Has 3.78" round shank. Holes of infinitely materials up to 2 mm thick. nitely variable diameter can be drilled - the fur-ther the tool advances, the bigger the hole. Use on pedestal drilling machines without clamps. Shape allows easy withdrawal



37A9160-0. GC 3400. No. 1 drill only from 1/4"-13/16" (6 mm-20 mm \$12.95 37A9161-8. GC 3405. No. 2 drill only from 5/8" - 1-3/16" (16 mm - 30 mm) Each 37A9163-4. GC 3425. Coolant Compound, 1 fluid Oz. Tube. Each **37A9162-6.** GC 3420. **Set in Plastic Wallet.** Includes No. 1 and No. 2 Tools and Coolant - size range ¼" (6 mm) 1-3/16" (30 mm). Shpg. wt. 11 lbs.





1 NO. 21 TAP & DIE SET

Popular set for the radioman or hobbyist. Consists of excellent quality high carbon alloy steel taps and solid dies, sizes 6-32, 8-32, 10-24, 12-24 and 1/4-20 plus Tap and Reamer Wrench with hardened jaws, and ruggedly constructed die stock. Comes in hinged wood box. Wt. 3 lbs. \$18.95 37A3212-5. PER SET.

(2) TAP WRENCH (3) TAPS Made of high carbon, alloy steel Stk.No. Size O.D. Ec

Stk.No. Size 37A3215-8 2-56 37A3216-6 4-36 Stk.No. Size 37A3218-2 8-32 37A3220-8 10-32 Each Each \$1.55 .78 .78 .086 \$0.83 37A3216-6 37A3217-4 .95

# PORTABLE VACUUM VISE

HANDY ADDITION TO ANY WORKSHOP!



Vacuum Power will hold vise firmly on any non-porous surface. Turn handle to hold vise, turn handle to release,  $360^\circ$  swivel head with both 11/2'' and 21/2'' jaws. Handy for holding material for shaping or sharpening. Precision crafted in Japan. Wt. 5 lbs. \$10.95 37A5549-8. Each

# SPEEDY BEND TOOL

Forms ¼ and ½ watt resistor and diode leads. Graduations in 0.05-inch increments on 0.4 to 1.5 inch centers. Made of high-impact cycolac plastic. Production Devices Model 801.

37A3414-7. Each ..... \$2.39



# VERSATILE HAND TOOLS

# Hunter Tools

**MULTI-PURPOSE ELECTRICAL TOOL** 





# **HUNTER STAINLESS STEEL TWEEZERS**

(1)37A1017-0.#CC15. Needle points. 4 1/4" long. Each	\$4.69
@37A1018-8.#CC17. Curved points. 4¼" long. Each	\$4.33
CARBON STEEL, NICKEL PLATED TWEEZERS	
€ 37A1019-6.#CC-AAA. Strong Tweezer, fine points. 4¼" long.	\$1.97
337A1020-4. #CC50. Slim Tweezer. 41/4" long. Each	
⑤37A1021-2.#CC51. Reverse Tension. 4¼" long. Each	\$1.27
⑥37A1022-0.#CC53. General Purpose. 6¼" long. Each	



1) HUNTER "SMITTY" HEX KEY SET 

2 HUNTER ALL PURPOSE KNIFE Lightweight aluminum handle, steel blade. Diameter 5/16", length 5".		
37A1024-6. Model E20. Each	91	
REPLACEMENT BLADES FOR E20 KNIFE		
37A1025-3. Angled shape for slicing cuts. 5 Blades	81	c
37A1026-1. Curved shape for thin materials. 5 Blades		
37A1027-9. Sharp, long angle blade. 5 Blades	81	c
O		

(3) HUNTER HAND SHEARS Designed to be held in palm of hand to keep fingers free for use. Forged steel, nickel plated. Length, 4 ½". 



# **HUNTER SWISS NEEDLE FILES**

Extremely handy for hobby and shop work.

1

(2)

AND SCRIBER

Same as used by jewelers, watch-makers, tool and die makers, etc. Includes round, half-round, flat, oval, knife, etc. files—one for every need. In compartmented storage stand. Quality made by Swiss craftsmen. 37A703-6. Hunter F228G

HANSON HIGH SPEED

Each ......

SOLDERING AID



Perfect aids in repairing printed circuit boards, holding leads while soldering, stringing dial cords, removing parts from inaccessible places -1000 uses from one tool. Hardened steel scriber point for marking chassis, panels, etc. (1) 37A3008-7. Combination Scriber and Hook - 8½" long. Each \$1.35 (2) 37A3009-5. Combination Scriber and Awl - 8½" long. Each . \$1.35

Contains 13 full jobbers length finest quality high speed drills in sizes 1/4 to 1/4" by 64ths in unbreakable plastic case. Most popular sizes for general use in metal or wood.

37A9567-6. \$9.22 Hanson S-113, Each

13 PIECE DRILL SET

Outfit Your Shop With Tools From B-A

# alpha

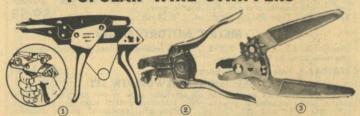
### PLASTIC-BLADE STRIPPER

Protects against careless stripping and defects in wire. Plastic blade cuts

through insulation and deforms around the wire - no chance of damage to conductor. Plastic blade is graoveless, requires no positioning. You don't even have to know the gauge size being stripped. 25% faster than steel blade strippers. Blades insert easily in seconds by injector method. Up to 50,000 strips per blade depending on type of wire. Strips any wire from #12 - #28 AWG. Multiple conductor configurations and more than one hook-up wire can be stripped simultaneously. Includes 3 sets of blades. Replacement blade pack contains 5 sets of blades in plastic dispenser wheel. Shpg. wt. 1½ lbs.
37A1043-6. Alpha STRP-25
Each

\$39.95 37A1044-4. BLD-5. Set Of 5 Replacement Blades. Per Set Each .... \$9.95

# POPULAR WIRE STRIPPERS



\$18.45 37A830-7. Type 766K Complete...





Strip or cut wire up to size 8 solid or stranded. Spring opens blades for easy use, locks when not in use.

① Model 101-S. Screw adjusts for different size wire. ① Model 101-5. Screw augusts 10.
37A888-5. Each
① Model 100. Without spring, otherwise same as 101-5. \$2.19 \$1.69 \$2.73

### MOODY PRECISION TOOL SETS DESIGNED FOR MINIATURE WORK

Each kit is in plastic stand with clear plastic cover. Shpg. wt. 8 ozs.

### SC-5 SCREWDRIVER KIT

Contains 4 hardened steel nickel plated blades, sizes: .100", .080", .070", .055", plus handy awl; 234" knurled steel handle with plastic swivel top. \$2.95 37A708-5



### JEWELERS SCREWDRIVER SET

Perfect for working with jewelry, instruments, small electronic devices, hobbies, etc. Six hardened steel replaceable blades, sizes: 100" .080", .070", .055". O40", .025". Each unit has hexagon swivel head with thumb rest and knurled steel handle. Threaded chuck firmly holds blade in position. Overall length 334". Shpg. wt. ½ lb.
37A845-5. Moody JS-6. Set of 6 Each..... \$6.50





# PROFESSIONAL HAND TOOLS



### WITH UNIQUE SLIP-ON TORQUE HANDLES

Provides the grip, reach and power of standard size drivers. Each set in a see-thry plastic pocket size case with a flat base for use as bench stand.

1 MINIATURE NUTDRIVER SET

A complete set of ten precision miniature size nutdrivers with shockproof, breakproof plastic handles—color coded for instant identification. Sizes:  $\frac{3}{3}$ ,  $\frac{3}{2}$ ,  $\frac{3}$ 

# 1) METRIC NUTDRIVER SET

Contains 3, 3.5, 4, 4.5, 5, 5.5, 6, 7, 8, 10 millimeter black handled nutdrivers, otherwise same as PS120 above.

37A1047-7. Type PS121MM. Each ... 2 PRECISION SCREWDRIVER SET

3 NUT DRIVER AND SCREWDRIVER SET

3 ALLEN HEX TYPE SCREWDRIVERS

Contains 8 midget Allen Hex type screwdrivers in sizes .028, .035, .05, ½6, ½4, ½2, ¼4 and ½". Creater speed and ease in turning than conventional keys. With torque handle and see-through plastic case. \$6.86 37A861-2. Type PS-89. Each

# (3) ALLEN HEX SCREWDRIVERS, METRIC SIZES

Contains .89, 1.27, 1.5, 2, 2.5, 3, 4, 5 millimeter black handled Allen screwdrivers, otherwise same as PS89 above.



4 XCELITE ALLEN HEX SCREWDRIVER SET
Long alloy steel blades provide 4" working length. Contains: 9 interchangeable blade sizes: .05, %, %, %, %, %, %, %, %, %, %, %, 4" extension shaft, servicemaster amber colored handle. In pocket-size, see-through plastic case. Shpg. wt. 1 lb. 37A767-1

Type 99PS-40 Each

(5) SCREWDRIVER NUTDRIVER SET

Contains %6, %2, 1/4, %2, %6, 11/2, 3/8 nutdriver blades, %6 and 1/4" screwdriver blades, No. 1 and No. 2 Phillips, extension blade, handle, and see-through plastic case.

37A863-8. Type 99PS-50. Each..

6 METRIC NUTDRIVER SET

Contains 4, 4.5, 5, 5.5, 6, 7, 8, 9. 10, 11 millimeter nutdriver shafts, 4" extension and handle. Shafts snap in and out of handle easily and are held firmly. In plastic see-through case. \$14.88

37A865-3. Type 99PS51 MM. Each.



# MINI-DRIVER KIT

6 piece miniature slotted and Phillips screwdriver kit in see-thru plastic case. With torque handle, =00 Phillips and .040, .055, .070, .080, and .1 slotted screwdrivers. Shpg. 37A985-9. . M60. Each\$3.30

# HEX & SPLINE WRENCH KIT

Handy pocket size kit contains complete range of wrench sizes used in electronics. Includes Hex (Allen) wrenches that fit No. 2 to 5 16" set 



XCELITE SCREWDRIVERS

Forged from tough Chrome Vanadium Electric Furnace Steel. Xcelite Screwdriver blades withstand heaviest usage. Shock-proof, breakproof amber plastic (UL) handles are shaped for perfect grip and balance. Blades are securely embedded in

	Hallalosi					
1 / ~		1 POCKE	T CLIP STY	LE SCREW	DRIVER	
	Stk. No.	Xcelite No.	Blade	Overall	Each	12 Each
1 1/4/1	37A801-8	R3322	3/32 X 2"	41/4"	\$0.58	\$0.53
0 WM	37A802-6	R3323	3/32 X 3"	51/4"	.65	.62
111	37A803-4 37A804-2	R3324 R181	3/32 X 4" 1/8 X 2"	41/4"	.58	.53
Ø	37A0U4-2	② ROU		SCREWDRI		
//	37A864-6	was built a mile of	1/8 x 2"	45/8"	.68	.62
2 //	37A786-1	R183	1/8 x 3"	51/4"	.65	.59
	37A787-9		1/8 x 4"	65/8"	.75	.68
//	37A788-7	R186	1/8 x 6"	85/8"	.83	.75
-	37A995-8		5/32 x 4"	6-5/8"	.83	.75
	37A789-5	R3163	% × 3"	65/8"	1.08	.98
	37A790-3		3/4 × 4"	75/8"	1.17	1.05
19:30	37A791-1		3/6 × 6"	95/8"	1.30	1.17
3	37A792-9		% × 8"	115/8"	1.53	1.38
	37A793-7 37A794-5		1/4 × 6"	97/8"	1.67	1.50
la m	37A795-2		1/4 × 8"	117/8"	1.80	1.62
16:1	37A996-6		5/16 x 6"	10-1/2"	1.87	1.68
(1)	of Linearity	3 STUBBY	SQUARE B	LADE SCR	EWDRIVER	
The state of the s	37A805-9		1/4 × 11/4"	31/4"	\$1.02	\$0.92
	37 A000 C	STORY IN THE	A STATE OF THE PARTY OF THE PAR			ALEX OF C
4	DES STATES	① PH	ILLIPS TYPE			40.75
	37A796-0		0-1/8 x 2"	41/2"	\$0.83	\$0.75
//	37A797-8		1-1/6 × 3" 2-1/4 × 4"	65/8"	1.25	1.38
//	37A798-6		3-5/4 × 6"	101/4"	2.25	2.03
U	3/4/33	V-103	0 746 × 0	10/4		No.

### SCREWDRIVER SET

6 Screwdrivers. 4 for slotted screws, 2 for Phillips. Contains 1 each: R184. R3166, R144, R5166, X101 and X102. \$8.66

# LEATHER TOOL POUCH



Fits belt. 5 compart-ments for pliers, screwdrivers, etc., snap for knife. 8x9". Fin-est pliable leather, stitched and riveted. Wt. 1 lb. Xcelite 150. 278174.0 37B174-0.\$10.78

# XCELITE 4-WAY TOOL



Phillips screwdriver, 16" nut drivers, No.

\$2.54 37A707-7. . Each \$2.27 10 Each

# XCELITE HOLLOW SHAFT NUTDRIVERS



Color coded, shockproof, plastic handles. Depth of hole 43%" or longer. Wt. 7 oz.

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XCELITE NUTDRIVER SETS

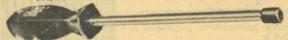


No. 127TB. The 7 most popular size nutdrivers. Shockproof, breakproof plastic handles are color coded for easier selection of sizes. Fully polished 3" blades. Consists of sizes: \( \frac{1}{16}, \frac{1}{12}, \frac{1}{16}, \fr

### XCELITE METRIC NUTDRIVER SET

Contains 4, 4.5, 5, 5.5, 6, 7, 8, 10, 11, 13 MM black handled nutdrivers, all with 31.75 MM depth shaft hole. Packaged in rolled kit (not illustrated). Shpg. wt. 2 

# XCELITE MAGNETIC NUTDRIVERS



Alnico magnet holds fasteners firmly for easy one hand driving. Comfort con-

tour handle.			primeble: ##1	A STREET BISIO	on rough
Stock No.	Xcelite No.	Nut Size	Length	Each	12 Each
37A986-7	8M	1/4	7	\$2.22	2.00
37A987-5	10M	5/16	7	2.22	2.00
37A988-3	M8A	1/4	10	2.78	2.51
37A989-1	Alom	5/16	10	2.78	2.51
37A990-9	AA8M	1/4	203/4	6.43	5.79
37A991-7	AAIOM	5/16	203/4	6.43	5.79

# PROFESSIONAL QUALITY HAND TOOLS

# XCELITE NUTDRIVER AND SCREWDRIVER SETS

No. 99PR—Consists of amber plastic handle with 9 snap-in nutdrivers, sizes  $\frac{3}{16}$ " to  $\frac{1}{2}$ "; snap-in screwdriver bits with  $\frac{3}{16}$ " and  $\frac{3}{12}$ " blades; and snap-in screwdrivers with Phillips No. 1 and 2 blades. Tools fasten simply—are held securely in handle. Plastic roll case. Wt. 1 lb.

# 37A754-9. Complete ... \$15.69

### XCELITE SERVICE MASTER KIT

Handles 99% of All Service Calls



Versatile set of high-quality tools meets almost any radio-TV servicing

need.

Set includes: 6" long nose pliers; 5" diagonal cutters; 6" adjustable wrench; 9 regular nutdrivers 1" through 1/2"; 3 stubby nutdrivers 1", 1" and 3", 1", 1" and 1/4" slotted screwdrivers; #1 Phillips screwdrivers; #1 Phillips screwdrivers; #1 Phillips screwdrivers; #1 handle and stubby handle. All tools tough alloy steel with highly polished nickel chrome finish. In roll-up kit with separate compartment for each tool. Shpg. wt. 3 lbs.

37A756-4. Type 99SM. Ea. \$44.93 tool. Shpg. wt. 3 lbs. 37A756-4. Type 99SM. Ea. \$44.93

### XCELITE SEIZER TOOLS

Especially designed for working with miniature components. Clamps on to work and will outhold needle nose pliers. Ideal for use as a heat sink, holding leads while soldering, restringing dial cords, etc. All stainless steel with precise box joints. Length 6".

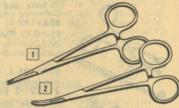
①37A811-7. Model 42H. \$7.18

12Lots Each. \$6.47

②37A812-5. Model 43H. Curved Nose, Net Each. \$7.38

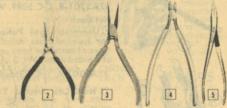
12Lots Each. \$7.38 \$7.38

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# UTICA ELECTRONIC PLIERS

12 Lots Each.

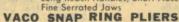


Best choice for today's dense circuitry and miniature components. Designed for use in close confined areas. All have coil spring to open jaws. Avg. Wt. 2 oz. All have cushion grip handles.

Fig. Stk. No. Utica No. Description

Each 6 Each

/15	37A855-4	247 CEIC	4" C -   N - D' -   C - W'	Locali	o Lucii
(1)	3/A833-4	347 CFJS	4" Snub Nose Diagonal Cutting Pliers	\$8.81	\$7.71
(1)	37A856-2	47-4 CFJS	4" Flush Edge Diagonal Cutting	\$6.99	\$6.12
(2)	37A859-6	25-5 CFGRS	5" 60° Angle Bent Chain Nose	\$0.77	30.12
			Pliers, Unscored Jaws	\$9.17	\$8.02
(3)	37A979-2			SALES OF THE PARTY	40.02
		CFGRS	5" Thin Chain Nose Pliers-Extra	\$6.91	\$6.05
(4)	37A981-8	34-6 CFS	6" Long Handle Diag. Cutting		
			Pliers Thin Narrow nose, long handles	\$7.98	\$6.98
(5)	37A997-4	82-8C	8" Needle Nose Assembly Pliers	-	
			Jona Reach Handles Short Nose		





Removes and inserts retaining rings. With spring and cushion grip handle. 37A921-4. Vaco 210 Internal with Spring. Each \$4.55 37A922-2. Vaco 220 External with Spring. Each...\$4.55

\$5.33 \$4.66

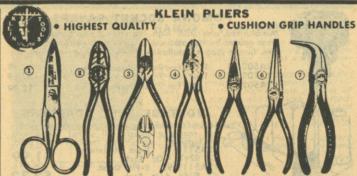
VACO

1

① Fast positive gripping power. Set or remove screws in tight quarters. Will not slip out. Tough durable spring steel blades. Large comfortable handles. Stk. No. VACO No. Blade Overall Each Each

37A877-8 K-23 37A878-6 K-28 37A880-2 K-36 37A883-6 K-46 1/8 x 3 1/8 x 8 5¾ 10¾ 36x6 91/2 1/4×6

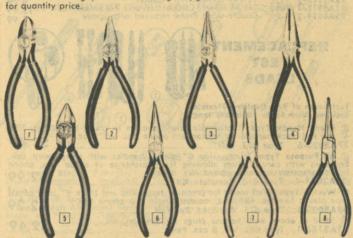
G Grips and starts any cross slot screw. Ideal for hard-to-reach places. Not for tightening screws all the way in.
Stk. No. VACO No. Length Each \$2.13 tightening \$2.56 Stk. No. \$3.16 37A875-2 \$3.38 37A876-0 Each K-15 K-19



	COMMENTS		150.03	SUP SPECIAL	Committee of the Commit	
Stk. No.	Mfg. N	o. Fig	. Wt.	Description	Each	*6 Each
37A710-1	2100-5	1	6 oz.	Xela "S" Scissors	\$5.92	\$5.15
37A711-9	D201-7	NE ②	9 oz.	7" Side Cutting Pliers	5 90	\$5.15 5.13 6.81 4.40
37A712-7	D213-9	NE ②	9 oz.	91/4" Side Cutters	7.83	6.81
37A713-5	D202-6	3	4 oz.	6" Oblique Cutting Pliers	5.90 7.83 5.06	4.40
37A714-3	D245-5	W 3	4 oz	5" Cutters w/wire strippers	5.07	4.41
37A771-3	D240-5	(3)	5 oz.	5" Cutters W/.052"		
	AC 528 FOR	1 3 900		Skinning Hole	5.46	4.75
37A715-0			9 oz.	7" Oblique Cutting Plier	6.07 4.55	5.28 3.96 4.35
37A716-8	D301-7	(5)	8 oz.	7" Long Nose Pliers	4.55	3.96
37A717-6	D203-6		6 oz.	Long Nose w/Cutters	5.00	4.35
37A718-4	D305-6	0	6 oz.	6" Long Flat Nose Plier	5.00 5.12 5.52	4.45
37A719-2	D302-6	0	5 oz.	6" Long Curved Nose Plier	5.52	4.80
		*Co	annot a	ssort for quantity prices.		100 B

KLEIN ELECTRONIC PLIERS

All have cushion grip handles. Average shpg. wt. 3 oz. \* Cannot be assorted



Klein No.	Fig. Description	Each	*6 Each
D257-4	1 4" Oblique Cutting Plier	\$4.38	\$3.81
D257-4C	1 4" Oblique Cutting With Coil Spring	4.61	4.01
D321-41/2	2 4½" Long Nose Plier	4.22	3.67
D321-41/2 C	2 41/2" Lg. Nose With Coil Spring	4.45	3.87
D323-41/2	3 4½" Flat Nose Plier	4.66	4.05
D323-4 1/2 C	3 4 1/2" Flat Nose / With Coil Spring	4.89	4.25
D224-4 1/2 C	4 4 1/2" Transverse End Cutting Plier	6.22	5.41
D209-4C	5 4" Pointed Nose Cutting W Coil Spg	4.74	4.12
D209-5C	5 5" Ptd. Nose Cutting W/Coil Spring	5.39	4.69
0307-51/2		4.22	3.67
D307-5 1/2 C		4.45	3.87
D221-5 1/2 C		5.06	4.40
D318-51/2C		5.60	4.87
	D257-4 D257-4C D321-4½ D321-4½ C D323-4½ D323-4½ D224-4½ C D209-4C D209-5C D307-5½ D307-5½ C D221-5½C	D257-4 1 4" Oblique Cutting Plier 1 257-4C 1 4" Oblique Cutting With Coil Spring 1 4" Long Nose Plier 1 21-4 22 2 4 2" Long Nose Plier 1 323-4 24 3 4" Flat Nose Plier 1 323-4 24 3 4" Flat Nose Plier 1 323-4 24 4 24 5 4 4" Transverse End Cutting Plier 1 209-4C 5 4" Pointed Nose Cutting W Coil Spring 1 209-5C 5 5" Ptd. Nose Cutting W Coil Spring 1 209-5C 5 5" Slim Long Nose Plier 1 209-5C 5 5 2" Slim Long Nose Plier 1 209-5C 5 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose with Coil Spring 1 201-5 2 C 5 2" Slim Long Nose with Coil Spring 1 201-5 2 C 5 2" Slim Long Nose with Coil Spring 1 201-5 2 C 5 2" Slim Long Nose with Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2" Slim Long Nose With Coil Spring 1 201-5 2 C 5 2 Slim Long Nose With Coil Spring 1 201-5 2 C 5 2 Slim Long Nose With Coil Spring	D257-4 1 4" Oblique Cutting Plier 4.38 D257-4C 1 4" Oblique Cutting With Coil Spring 4.61 D321-4½ 2 4½ " Long Nose Plier 4.22 D321-4½ C 2 4½ " Lg. Nose / With Coil Spring 4.45 D323-4½ 3 4½ " Flat Nose Plier 4.66 D323-4½ C 3 4½ " Flat Nose Plier 4.66 D323-4½ C 4 4½ " Flat Nose Plier 4.89 D224-4½ C 4 4½ " Transverse End Cutting Plier 6.22 D209-4C 5 4" Pointed Nose Cutting W / Coil Spring 7.90 D307-5½ 5 5" Ptd. Nose Cutting W / Coil Spring 7.90 D307-5½ C 6 5½ " Slim Long Nose Plier 7.90 D307-5½ C 6 5½ " Slim Lg. Nose with Coil Spring 7.90 D307-5½ C 6 5½ " Slim Lg. Nose With Coil Spring 7.90 D307-5½ C 6 5½ " Slim Lg. Nose With Coil Spring 7.90 D307-5½ C 6 5½ " Slim Lg. Nose With Coil Spring 7.90 D307-5½ C 6 5½ " Slim Lg. Nose With Coil Spring 7.90 D307-5½ C 6 5½ " Slim Lg. Nose With Coil Spring 7.90 D307-5½ C 6 5½ " Sli

# KLEIN ADJUSTABLE WRENCHES

Chrome plated drop forged alloy steel combines maximum strength, lighter weight with lasting beauty.

Stk. No. Mfg. No. 37A738-2500-4 37A738-2500-6 37A740-8500-8 37A741-6500-10 6 oz.



# KLEIN ELECTRICIANS' KNIFE

Standard 23¼" knife blade and a special screwdriver blade with insulation cutter and wire scraper. Screwdriver blade locks in open position. 33½" black plastic handle with shackle ring, polished bolsters, and brass linings. Made to government specs. Shpg. wt. 7 oz.

7 oz. 37A867-9 \$4.04 Each..... \$3.51



# TOOLS FOR THE SERVICE SHOP

# POMONA SOCKET SAVERS Miniaturized, only .336" high. Protects tube tester sockets from wear caused by repeated use. Assures positive contact to tube pins. Simple plug-in installation, no wiring. Shpg. wt. 3 oz. 12A5021-7 12A5023-3. **VOLTAGE TEST ADAPTERS** Handy for checking circuit voltages, etc. without removing chassis. All socket connections are topside ... within easy reach of a test prod. 12A5118-1. 7-Pin Miniature. GC 9247. 4 Oz. Each 12A5119-9. 8-Pin Octal. GC 9248. 4 Oz. Each \$2.32 12A5120-7. 9-Pin Miniature. GC 9249. 4 Oz. Each \$2.32 12A5121-5. Kit of 3 (above) \$6.39 in convenient container. GC 9290. Kit. VECTOR CURRENT OR VOLTAGE TEST ADAPTERS Read voltage or current on any pin of an operating tube. Special P-2 probe breaks circuit for current measurement when inserted in adapter tab. Shpg. wt. Kit 8 ozs., Adapter 4 oz. Stk. No. Mfg. Type Description 12A5114-0T789C Set of 7 pin, 8 pin octal and 9 pin miniature with Problem box Each \$2 12A5115-7 T9RC 9-Pin Novar Adapter 12A5116-5 T12C 12-Pin Compactron Adapter 12A5117-3 T912C Set of Novar, Compactron and P-2 in box 135A8014-2 P-2 Double-sided Probe required with above 1 P-2 \$20.99 5.99 6.99 15.99 1.99

# REPLACEMENT LEADS



Test Leads of Best Quality—Flexible, kinkless Wire 48 to 50 inches long.

37A3456-8 - Red Your Choice 37A3457-6 - Black Each .....

37A3023-6. Type 613. Pair.	\$1.49
② All Purpose Type. Sturdy, slim 6" plastic handles with sharp Equipped with banana plugs allowing for interchange of spade	point tips. lugs, phone
tips or alligator clips all supplied. Wt. 8 oz.  37A3024-4. Type 610. Complete Kit	\$2.99
3 Weston Type. Well made for precision tests. Red and black 4" type plastic handles, 48" lead, molded finger grip phone tips.	
37A3025-1. Type 625. Wt. 8 oz. Per Pair.	\$2.29
3 Same as above with banana plugs for Simpson, etc.	\$2.49

Phono Needle Type, Replaceable phono needles in chuck-type collar. Slim
 red and black handles. With standard phone tips, Wt. 8 oz.

(3) "Slim Jim" 6½ Inch Prods. Have long slim probes with the red probe insulated to the extreme tip - otherwise like Weston type leads above. Perfect for deep probing in complicated wiring mazes. Wt. 8 ozs.

No. 37A3192-9. Type 698. Per Pair .....



# 'THE GRABBER" SERIES TEST PROBES AND LEADS

Features clip-on and clip-off with thumb and two fingers. High temperature Lex-an Polycarbonate resists melting when soldering. Gold plated hook connects to .025 square wire wrap pins or components. Wt. 1 oz. (1) Micro-Grabber Probe only. 1.75" long. Accepts test lead wire up to .090"

dia. Pomona 4233.		Sala of the late of the
37A3450-1 - Red	Your Choice Each \$1.19	10
37A3451-9 - Black F	ach \$1.19	Each \$1.00
(2) Grabber Probe	Only. 2.54" long. Accepts test le	ad wire up to .090" dia.
Pomona 3025		
37A3429-5 - Red	Your Choice	10
37A3430-3 - Black F	Your Choice Each 99°	Each 85°
(3) Maxi-Grabber P	robe only. 6" long. Accepts test I	ead wire up to .090" dia.
Pomono 4225	3.500 DB	
37A3452-7 - Red	Your Choice	10
37A3453-5 - Black F	Your Choice Each \$1.79	Each \$1.65
(4) Mini-Test Clip C	Grabber with 48" test lead and	stacking banana plug on
other end. Same size of	as Grabber Probe. Pomona 3782-	48.
37A3454-3 - Red	Your Choice Each \$1.89	10
37A3455-0 - Black	ach \$1.89	Each \$1.70
(4) Mini-Test Clip G	crabber with 48" test lead and st	acking phone tip plug on

QUICK-PICK TOOLS

REMOVE TRANSISTORS EASILY!

Set of 7 Tools. Removes transistor and capacitors easily from complicated, crowded circuits. Tools clamp over transistor or part acting as a heat sink, leaving both hands free for soldering or de-soldering. A slight pull on the quick pick will remove the part when the leads are free. Plastic case for bench or tool box. bench or tool box. 37A3366-9. G.C. 9216. Per Set. \$7,95

IC REMOVAL TOOLS

Set of two tools. One removes and inserts DIP IC's. Tool slides apart and hooks under ends of 14 or 16 terminal DIP. Other tool clamps on TO-5 outline IC's for removal. Also serves as heat

37A3374-3. GC 9228 Each ..... \$3.69 CLOSED

# POPULAR SERVICE SHOP TOOLS

1 Tube and Parts Extractor. Spring steel rubber cushioned prong. 37A3197-8. G-C 5092. Wt. 12 oz. Each. \$2.25 (2) G-C Illuminated Inspection Mirror. Gets into dark, hard-to-get-at places. Insulated. 7/8" dia. adjustable mirror, lucite rod. Lgth. 12¼". With bulb. Wt. **37A3198-6.** G-C 8725 (less batteries). **Each** . . . . 21A327-2. Batteries for above. Each ...... 30° Flexible Screwholding and pickup tool. With retractable spring steel jaws. 24" long. 37A3201-8. C-C 5089. Wt. 5 oz.

\$2.41 Net Each ... ① Universal Fuse Puller. Accommodates all kinas and types of fuses including household screw-in plug types of cartridge fuses up to ¾" or 100 amps. Made

of molded nylon. Wt. 3 ozs.

37A3203-4. G-C 9356. Each ..... \$1.29 (3) Ne-O-Lite Electric Trouble Shooter. Handy for radio men and electricians for testing AC lines, polarity of AC or DC, for blown fuses, tracing ground line in AC circuits, as an RF indicator, spark plug and cable tester, etc. Can be used on voltages of 60 AC to 550 volts AC or DC. Wt. 3 ozs. 37A3020-2.

5100. Each .... ① Low Voltage Test Light. Tests any source from 5 to 50 volts AC or DC. Light brightens as voltage 35A8011-8 CC 5105. With Tip Prods. \$1.89. 35A8012-6 CC 5110. With Alligator Clips.\$2.49

1 2

 Phono Needle Type—Tapped removable chuck holds standard phono needles. Tenolite handle. 

 Solderless Type—Tapped removable plug holds wire securely by means of knurled collar.
 37-03027-7-002-6 - Red
 37-03027-7-010-9 - Black
 The secure of the s Type 302. 5 1/2 " L. Each

**PHONO NEEDLES** 

(3) Hard steel. Used in test prods. 24B333-7. Pkg. of 25 ...... 39°

Test Lead Wire—Non-kink flexible wire with live rubber insulation. 5000 volt breakdown.

2A421-6.7' Red. 7' Black. Each \$1.69 2M64-4. 25' Red or Black .... \$2.40



# **HOOKON TEST PROBE**

UNIVERSAL

Accepts and adapts to existing terminations and banana plugs; phone tips, test prods and wire. Reaches through the densest wire jungles and hooks onto leads, pins, square wire wraps for safe, sure connections. The fingertip slide control includes a self-locking open position and a "no hands spring grip" upon trigger release. 6" long. Red. Wt. 4 oz. 37A3424-6. Type 3070. Each \$3.95

Coax Cable Adaptor for Hookon, for use with scopes, generators, etc., using coax input. BNC female to Hookon probe. 37A3458-4. Each

\$2.49 Ground Lead Clip Extension. Clips on shell of BNC to extend ground lead 18" Has insulated mini alligator clip. 37A3459-2. Each

Burstein-Applebee Co., 3199 Mercier St., Kansas City, Mo. 64111

# TOOLS FOR THE SERVICE SHOP



# Hunter Tools SOCKET SETS

11 PIECE SET 1/4" SQUARE DRIVE

Contains a square drive reversible ratchet handle, a 6" spinner handle, an extension and seven 6-point sockets: 3/16", 7/32", 4", 9/32", 5/16", 11/32" and 3/8" packed in a selector tray in a hinged cover steel storage case. Sockets and attachments are precision machined, forged and tempered for rugged stability and are triple chrome plated. Designed to give a lifetime of service to the hobbyist, electronic kit assembler or mechanic needing this size set. Case size 7-5 /8" X 4 ¼" X 1 ¼".

37A1034-5. Hunter W-1000. Shpg. wt. 3 lbs. Each ............ \$9.02



# Hunter Tools SOCKET SETS

21 PIECE SET 1/4" & 3/8" SQUARE DRIVE

Actually two sets in one. Covers all jobs from electronic assembly to automobiles. Has 3/8" square drive reversible ratchet handle, 3/8" to ¼" adapter, ¼" square drive spinner handle, 3" extension, 5" extension, 13/16" spark plugs socket with neoprene insert, seven ¼" square drive 6-point sockets; 3/16" 7/32", 15/16", 11/32", 3/8" and seven 3/8" square drive 12-point sockets; 3/8", 7/16", ½", 9/16", 5/8", 11/16" and ¾". Packed in a selector tray and hinged over steel storage case. Shpg. wt. 5½ lbs.



# **BINOCULAR MAGNIFIER**

Large lens area for depth and clarity. Greatly magnifies work, gives natural 3 dimension vision. Greatly reduces eye strain, may be worn over regular glasses. Optical glass lenses ground and polished to precision standards. Dial adjustment continuous headband. Swivels up out of way when not in use. Net wt. 4 ozs. Shpg. wt. ½ lb. made in U.S.A.

\$16.95 OPTILOUPE MAGNIFIER easily attaches to either eye of magnifier, adds 2 1/2 monacular use. 37A5563-9.



# EYE LOUPE

# 3/8 INCH LABEL MAKER

### MAKES PROFESSIONAL SELF-ADHESIVE LABELS

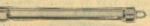
Simple to use and built to last. A single lever prints, spaces and cuts labels. Last letter printed appears instantly, reduces mistakes. Prints 12 symbols (period, comma, etc.) in addition to alphabet and numbers. Cuts tab for removing label backing. Order easy loading cartridge below. Shpg. wt. 1

37A7509-0. Label Maker. Each ... \$3.99

Tape for above. 3/8" X 12 ft. 37A7708-8-521-5 - Black 37A7708-8-523-1 - Blue 37A7708-8-522-3 - Red 37A7708-8-524-9 - Green

37A7708-8-527-2 - Gold

Your Choice, Per Roll ..... 99°



# FLUORESCENT WORK LITE

Portable lighting tool. Hold it, hang it. Insulated and shatter-resistant. For hard to reach, hard to light places. Doesn't get hot, eliminates burns. 15-watt, lights a greater area than a 150 watt incandescent bulb ... for 1/10th the electricity. 7500 hours of lamp life, easy replacement. 25-foot grounded cord. 120 VAC. 20" long X 1¾" O.D. Shpg. wt. 4 lbs.



# CONDUCT-A-LITE

Goes where other lights can't! Makes all hard-to-see, hard-to-reach areas easier to light. For exacting industrial/commercial inspection and repair. Comes with interchangeable extensions. Kit includes: 2-cell holder; 1-cell holder (for use in very small areas); 6" straight, 4" curved and 2½" straight extensions; clipon mirror (when used with curved extension, makes light around a corner in full 360° arc). Uses "AA" cells (not included). Comes in soft fold-up carrying case. (not included). Comes in soft, fold-up carrying case. Shpg. wt. 1 lb.



# HANDY TV ALIGNMENT KITS

Low Cost Kit. Contains all the necessary tools for doing a complete TV servicing job, 9 tools in all—in a convenient pocket sized leather-

Deluxe Kit. Similar to above but with 16 tools in roll case. Handles alignment of most TV sets. All tools are of best quality available. Designed to give long service. Wt. 1 lb.

37A3022-8. GC8280. Each.

# "LUCKY 13" ALIGNMENT KIT

37A3273-7. Each.....





# COLOR TV ALIGNMENT KIT

GC ALIGNMENT TOOLS FOR ELECTRONIC SERVICING

Average wt. 3 oz. each

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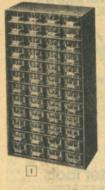
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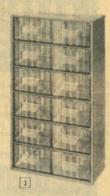


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# SAMS INTERNATIONAL CODE TRAINING SYSTEM

Specially programmed charts and recordings teach receiving and sending speeds up to 22 WPM. Enables transcribing code messages at 2-3 WPM in just a few minutes without memorizing code characters. 96 pages, 7 x 7", plus recording. Wt. 1 lb. 9A3090-9. With 3 33 ½ LP Records. \$9.75 9A3199-8. With Tape Cassette \$12.50

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# HEADSETS, AMATEUR EQUIPMENT

# TELEX MODERN HEADSETS



Specifically designed for communications in classrooms, teaching centers, or music. All parts are molded, sonically sealed, laminated, or riveted. Shell is made of molded ABS plastic. Student and tamper proof.

# 1) 610 SERIES HEADPHONE

With soft, comfortable ear cushions, 5' removable, flexible plastic cord, molded ¼ " phone plug. Brown color. 610-1 is available in yellow, blue, and green on

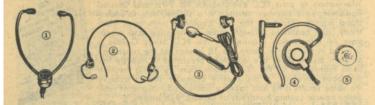
Model 610-1 600 ohms. YOUR CHOICE Model 610-2. 2000 ohms. EACH ..... 9A3123-8

Replacement Ear Cushions for 610 and 600 Series. Pair 70°

# **2600 SERIES HEADPHONE WITH MICROPHONE**

Has a noise cancelling dynamic boom microphone. Includes ear cushions, cords, and two  $4^{\prime\prime}$  phone plugs. Brown color.

Model 600-1. 600 ohm phone; 300 ohm Dynamic Mike. 9A3127-9. Each .....



Metal Monoset. Comfortable under-chin featherweight 1.1 oz. Anodized aluminum removable white plastic eartips, Shpg. wt. 5 ozs. Furnished with 5 ft. cord and 1/4" phone plug. 9A3148-5. HMV-2. 125 Ohms, Magnetic 9A3080-0. HMY-2. 2000 Ohms, Magnetic Each \$13.20

\$13.20

Twinset. Extremely lightweight, 1.6 oz. Magnetic receivers rest lightly at temples, adjustable tubular arms pipe sound to ears, blocks out background noise. FAA approved. Shpg. wt. 5 ozs. With 5 ft. cord, 1/4" phone plug. 9A3081-8. HTW-2. 500 Ohm

3 Tele-Fi. 30% better understanding from induced tone lag. Sound reaches one ear 1/1000 sec. after other, creating "depth" of sound. Magnetic receivers, response 60 to 6000 Hz. Ideal for hams, language students, secretaries, etc. All have 5 ft. cord, 1/4" phone plug. Wt. 4 ozs. 9A3144-4. HFR-91. 15 Ohms 9A3147-7. HFX-91 1000 Ohms 9A3146-9. HFW-91. 500 Ohms 9A3082-6. HFY-91 2000 Ohms.

\$8.50 Your Choice Each . Metal Earset. Rugged magnetic unit with reversible loop slips over either ear resting lightly in place. All have 5 ft. detachable cord, ¼ " phone plug. 9A3150-1. EMR-2. 15 Ohms 9A3084-2. EMX-2 1000 Ohms 9A3151-9. EMV-2. 125 Ohms 9A3153-5. EMY-2 2000 Ohms

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(5) Telethin Magnetic Receiver Units Only. Rugged high quality replacement Units, same as supplied with complete ear loops and Tele-Fi headsets above. PA3135-2. RTR-04. 15 Ohms 9A3138-6. RTX-04. 1000 Ohms 9A3137-8. RTW-04. 500 Ohms Your Choice Each \$4.20

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Private listening device for church, li-brary, museum, theatres, exhibits, etc. Small molded plastic housing contains matching transformer, 2 volume con-trols, 2 jacks for earphones. New sanitary accoustic shell phone units fit over either ear. Operates on 8 ohm, 70 volt or 25 volt program source. With 2 phones. Neutral tan color, gold front. No. 9A3154-3. Net Each ..... \$49.95



# SHORTWAVE LISTENER ANTENNAS

Long Wire Inverted "L".

ALNICO V HEADSET

For Radio Amateurs, SW Listening, Crystal Sets, etc. Popular small size lightweight, extra sensitive. Powered by Alnico V magnets to assure high fidelity response and excellent volume. Sturdily constructed of durable black plastic. Adjustable spring steel headband with vinyl cover on double headsets. Complete with 4½ ft. cord. 1 lb.

Double Headset, with Pin Tips. 2000 ohms. \$4.69 Each

(2) Single Headset, 1000 ohms. With  $41/2^{\prime}$  cord and pin tips. 9A3063-6. Each \$2.49

(1) Trimm Deluxe Headset. Superior low cost headset for use with crystal sets, code training, all radio communications. Double tubular headband,  $4\frac{1}{2}$  ft. cord with pin tips. Bakelite shell and cap. 4000 ohms. \$5.45

**HEADPHONE CORDS** 

9A3076-8. Double cord, tips on one end, spade lugs other . .

# GROUP HEARING AID COMPONENTS

Outlet Box





Lorgnette Type



For group hear-ing aid systems in churches, theatres, etc.

Trimm Lorgnette Type Phone. "Featherweight." Small, light. Hearing unit only  $2V_8$ " dia. x 34" thick. Weighs only  $1V_4$  oz. but durably constructed of black plastic material. Hi-impedance 9000 ohms, DC resistance 2000 ohms, ldeal for large installations using 500 ohm lines. With 6 ft. cord. Shpg. wt.

9A3069-3. Net Each.

Trimm Outlet Box with Volume Control. Combines in a single unit volume control, phone jack and terminal strip for incoming circuit. Brown wrinkle finish, 334 x 21/8". Control is 10,000 ohms for use with above phones. No. 9A3070-1.

Trimm 90° "Flat" Phone Plug. Non protruding. Fits outlet box or other 1/4" phone iack. Set screws hold standard phone cord tips.
No. 9A3071-9. 96 Net Each...

# **DENTRON 160-10L AMPLIFIER**

160 thru 10 meter continuous duty amplifier. All ham bands from 1.8 MHz to 30MHz. 2000 watts P.E.P. on SSB, 1000 watts DC on CW, RTTY or SSTV. Has four 811-A Triodes in grounded grid mounted in cooling chamber. Features "On Demand" variable forced air cooling system. 7 1/4 H. x 14 1/2 W. x 14" D.

9A3309-3. Model 160-10L.

Shpg. wt. 43 lbs. **\$499.50** 

# **DENTRON ANTENNA** TUNERS

Model 160-10AT. Continuous tuning, 1.7 - 30 mc. Antenna inputs: coax line, random line and balanced line. Handles maximum legal power. Tune out load reactance, transform load imped-ance to 50-75 ohms. 10 X 6¼ X 10". Shpg. wt. 13 lbs.

9A3304-4. Each .... \$129.50

Model 80-10AT. For 80 thru 10 meters. Continuous tuning 3.2 - 30 mc. Random wire tuner that handles maximum legal power. 12 position switch. 7 X 5 X 8". Shpg. wt. 6 lbs.

9A3305-1. Each

# WATTMETER

meters read reflected and forward watts at the same time. Forward watt watts at the same time. Forward watt scale: 2000 or 200. Reflected watt scale: 2000. Accuracy ± 5%. Sensor box may be extended 4 feet. Wattmeter size: 7 x 3½ x 6". Sensor Box: 4 x 2½ x 2½". Shpg. wt. 6 lbs. 9A3306-9. Model W-2. \$99.50







Dual in-line wattmeter. 2 individual

Make B-A Your Headquarters for Amateur Equipment

# AMATEUR STATION EQU



# SPR-4 ALL SOLID STATE COMMUNICATIONS RECEIVER

Receives SSB (upper and lower), AM, and CW. Covers (with supplied crystals): 150 KHz -1.5 MHz. 6.0-6.5 MHz, 7.0-7.5 MHz, 9.5-10 MHz, 11.5-12 MHz, 15-15.5 MHz, 17.5-18.0 MHz, 21.5-22 MHz. Selectivity. AM-4.8 KHz @ 6 db., CW-.4 KHz @ 6 db. 1st IF 5645 KHz crystal lattice filter. Paguery Stability: better than ± 100 Hz. Sensitivity. SSB and CW-.25 uV, AM-.5 uV. Input Impedance: 50 ohms. Output: 3 W. at 4 ohms. For 115 VAC or 12 VDC. Size: 5½" x 10¾" x 12¾". Wt. 18 lbs.

No. 9A469-8.	doctoring principal Street was	\$420 00
Less speakers. E	ach :	3027.00
9A3119-6. A	MS-4. Matching Speaker, Each	\$24.95
9A3193-1. 5	S-NB. Plug in noise blanker. Each	\$70.00
9A3194-9.	OC-PC. DC Power Cord. For 12VDC. Each	\$5.00

TR-4C TRANSCEIVER

300 W. PEP SSB, 260 W. CW, 260 W. PEP (50 W. out) AM, 80 through 15 meters in seven 600 KC ranges. Solid state VFO. Selectable sideband. 5½ x 103/4 x 14-3/8" deep. Wt. 16 lbs. \$500 05

7A433-4.	Net Edith
9A3196-4.	TR-4C ACCESSORIES  34PNR Noise Blanker Wt 2 lbs Net Fach \$100.00
9A3117-0.	AC-4 AC Supply. Wt. 19 lbs, Net Each
9A3118-8.	RV-4C Console VFO/Speaker, Wt. 7 lbs. Net Each \$120.00
9A3119-6.	MS-4 Matching Speaker. Wt. 6 lbs. Net Each
9A3118-8. 9A3119-6. 9A3120-4.	DC-4 12 V. DC Supply. Wt. 10 lbs. Net Each
9A3121-2.	MMK-3 Mobile Mounting Kit. Wt. 3 lbs. Net Each \$7.00
	VER. SSB, AM, CW, RTTY. Covers ham bands 80, 40, 20 15 me-
	5 to 29.0 MHz with crystals furnished. 1.5 MHz to 30 MHz in 500
	with accessory crystals. VFO has 1 KHz calibration. Size
5 1/2 x 10 3/4 x 1	1-5/8" deep. Wt. 16 lbs.
04429-2	Net Each \$599.00

T-4XC TRANSMITTER. Will transceive with R-4C receiver. Has its own VFO. 200 W. PEP SSB and AM, 200 W. CW. Requires AC-4 power supply above. Size 51/2x103/4x115%" deep. Wt. 14 lbs. \$599.00 

# MN ANTENNA MATCHING NETWORKS WITH WATTMETER

Match 52 ohm coax with VSWR of 5:1 or less, 75 ohm at lower VSWR. Front panel switching to network, direct to coax or to dummy load. Reads power output on VSWR. Has SO-239 coax connectors.

Model MN-4 for up to 200 watts continuous 5 ½ H x 10 ¾ W x 8 ½ " D.

9A3207-9. Model MN-4. Each ..... Model MN-2000 for up to 2000 W. PEP. 51/2 H x 103/4 W x 143/4" D.

9A3208-7. Model MN-2000. Each ...... \$220.00

DRAKE W-4 DIRECTIONAL RF WATTMETER

Monitors forward and reflected RF power on 52 ohm, coax line. Two scales
0-200 and 0-2000 W. ±5% accuracy, 1.8-54 MHz. 6" H, 31% W, 4" deep.
9A3091-7. Wt. 4 lbs. With Removable Coupler. Net Each...........\$72.00
9A3113-9. Model WV-4 as above, for 20-200 MHz. Net Each.......\$84.00

### **FS-4 FREQUENCY SYNTHESIZER**

For R-4/T-4 series, or use with 1523 interface kit below for the SPR-4. Provides general coverage throughout their tuning ranges on either transmitter or receiver. Not for the TR-4.



SSR-1 COMMUNICATIONS RECEIVER

Synthesized, drift cancelling system gives 30 tuning ranges from the 10MHz crystal oscillator for SSB frequency stability. General coverage range is from 0.5 to 30 MHz, displayed directly on the tuning dial. Solid state circuitry receives CW, AM and SSB (both upper and lower side bands). Sensitivity: SSB 1uV 0.5 to 2MHz, AuV above 2MHz; AM 3uV 0.5 to 2MHz, 1uV above 2MHz; Selectivity: SSB 6 db at 3KHz, AM 6 db at 5.5KHz. Has S meter. Telescoping antenna is built-in, external antenna may be used. Has built-in speaker with phone jack on panel. Uses 8 D cells (listed below) with 117/240 AC supply built in. When AC line is disconnected automatically switches to batteries. Size: 13" W X 11" D X 5 ½" H.



Triton IV Transceiver Solid state, 200 watts in on ham bands 3.5 to 29 MHz (to 30 MHz with crystals below). Crystal heterodyne VFO, full break-in, excellent SSB quality and clickless CW. LED shows ALC threshold and offset tuning. 50 ohms output. Receiver sensitivity approx. 0.2 uV, has crystal filter. Has 2 dial scales and SWR/S meter. Built-in speaker. For 12VDC or 115 VAC with 252 or 262 power supply. Size: 13-5/8 X 12 X 4 ½". Shpg. wt. 19 lbs.

9A543-0. Triton IV. Each	\$699.00
Crystals for 29 to 30 MHz for Triton IV.	£ \$5.00
9A3298-9. Type 212. For 29 to 29.5 MHz. Eac 9A3299-6. Type 213. For 29.5 to 30 MHz. Eac	h\$5.00

160 Meter Converter. Model 240. Allows all operating features of Triton IV on 160.

Argonaut 509 Transceiver. SSB or CW on any ham band 3.5 to 30 MHz. Solid state. Operate for hours on even a 12 volt lantern battery or from 115 VAC with the 210 power supply. Receiver sensitivity is 0.5 uV, has offset tuning, AGC, built-in speaker and S meter. Transmitter has 5 watts input, full break-in, 2 watts minimum output. Has CW sidetone. Size: 13 X 7 X 4½". Shpg. wt. 6 lbs.

9A545-5. Each ...... \$329.00

405 Linear Amplifier. 100 watts input from 12 volt battery or AC pack operation. Solid state. Designed for the Argonaut. Use 251 power supply for 405 and 509. Size: 7 X 8 X 4½ ". Shpg. wt. 4 lbs.

252 Power Supply. 13VDC regulated, 225 watts. Solid state, circuit breaker protected. 1% regulation 0 to 18 amps. Size: 13 X 8 ½ X 4 ½. Shpg, wt. 16 lbs.

**262 Power Supply.** Same as 252 above plus VOX system and 3 X 5" speaker. Mike input HiZ, VOX sensitivity 1mV, adjustable delay 0.1 to 1 sec. Size: 13 X 9 ¼ X 4 ½". Shpg. wt. 18 lbs.

9A3284-8. Each ...... \$129.00

251 Power Supply 100 watts protected by 10 amp circuit breaker. Regulation 1% 0 to 9 amps. Other specs similar to 252 above. Size: 8 X 8 ½ X 4 ½ ". Shpg. wt. 11 lbs.

210 Power Supply. 15 watts regulated, output 12.5 VDC ± .5V. Other specs similar to 252 above. Size: 6" X 4" X 2½". Shpg. wt. 4 lbs.

9A3278-0. Each .....



KR50 Electronic Keyer. Fully adjustable, iambic (squeeze) or conventional keyer, characters self-completing. Side tone level control, speed 6-50 wpm. For 117 VAC or 6-14 VDC. Size: 8 ½ X 5 ½ X 2 ½ ". Shpg. wt. 4 lbs.

9A3301-0. Each ...... \$110.00 Model KR-20-A, similar to above but without iambic feature. Size: 6 X 4 X 21/2". Shpg. wt. 4 lbs.

9A3282-2. Each ...... \$67.50 KR1-A Paddle. Same as used in KR 50 above. For iambic or conventional key-

ing. For 6-14 VDC. Size: 6 X 4 X 2". Shpg. wt. 3 lbs. 9A3333-3. Each .....

Model KR 2-A. Same as KR 1-A but for conventional keying only. 9A3334-1. Each ...... \$15.00

regency 2 METER FM TRANSCEIVERS





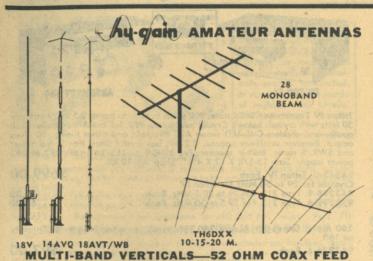
2 Meter FM, Solid State, Narrow Band Transceiver. 144 channel capability. 30 watts min. at 13.6V DC. Ceramic mike. Includes one pair crystals, 146.94 MHz. Size: 2¾" X 6½" X 9" D. Shpg. wt. 6 lbs.

# **AMATEUR ANTENNAS & ACCESSORIES**

Wt. Lbs. Net Each

\$33.00 67.00 97.00

24.95



# Coil Loaded, 10 thru 80 M., 18' high 10 thru 40 M., 18 high—Trap design 10 thru 80 M., 25' high—Trap design Roof Mount Kit for 14AVQ

Description

MONOBAND VHF BEAMS New Total Performance Beams, Seamless aluminum tubing, machine formed heavy brackets MIL spec, iridited. F/B ratio 20-30 db. VSWR 1.5:1 at resonance. Max, wind survival 100 MPH.

 
 Stk. No.
 Model
 Description
 Gain
 Element Lath.
 Boom

 9A62-1
 341
 2 M., 8 El.
 14.5 db.
 3 Ft.- 6 In.
 14 Ft.

 9A170-2
 230
 6 M., 4 El.
 12.7 db.
 9 Ft.-11 In.
 12 Ft.
 \$37.00 45.00

# THUNDERBIRD 10, 15, 20 METER BEAMS

Feature the new frequency stabilized Hy-Q Traps, offering better performance and mechanical reliability. Beta matched 52 ohm coax feed. Handles maximum legal power. F/B ratio 20-25 db.

Stk. No.	Model	Description	Gain	Lgth.	Boom	Wt.	Net Each
9A162-9	388	3 Elements	8 db.	28 Ft.	14 Ft.	36 Lbs.	\$199.95 239.95
9A163-7	389	6 Elements	8.7 db.	31 Ft.	24 Ft.	62 Lbs.	239.95
		MATCH for 1					The state of the s
9A23-3.	Mode	1242 Wt. 1	lb. Net	Each			\$15.95

EICO GRID DIP METERS

Stk. No. Model

Model 710. Compact, versatile and rugged. Easy to hold and thumb-tune with one hand. Covers 400 KHz to 250 MHz in 7 overlapping ranges. Plug-in coils have protected "internal" windings. Exceptionally stable, pre-calibrated for accuracy. Has sensitivity control, 500 microamp meter, built-in absorption wave meter circuits and 110 VAC transformer power supply. 2 ½ X 2-9/16 X 6-7/8". Wt. 3 lbs.

9A3041-2. Kit with Tubes and Instructions.

9A3042-0. Factory-wired and tested Each \$79.95

# INSULATORS FOR LONG WIRE AND DOUBLET ANTENNAS



Molded high strength Cycolac. HyGain C1 heavy duty center insulator. Each. HyGain E1 heavy duty end insulator. Pair for.

### PETERSEN HIGH QUALITY CRYSTALS











**Z9C FUNDAMENTAL CRYSTALS** 

Supplied within the following bands, calibrated integral kilohertz only at oscillator load capacity of 32 pfd, Pin spacing standard .487" pin diameters, Z-9C .093", Z-6@ .050". Specify stock number and frequency wanted. Crystal certificate supplied. Mail to manufacturer. Crystal shipped prepaid, 2-3 weeks.

tere topping at man to mandractorer. Crystal simplea prepara, 2 o meeks.			Wooks.
Frequency Range	Calibration	Frequency Range	Calibration
1,750 to 2,000 KHz	+ 250 Hz.	8,000 to 8,222 KHz	+ 500 Hz.
3,500 to 4,000 KHz	+ 500 Hz.	8,334 to 9,000 KHz	+ 500 Hz.
7,000 to 7,425 KHz	+ 500 Hz.		
9M3272-3. Each	\$3.50	6 Each	\$2.95
9A3100-6. Z-6A.	100 KHz Freq. Sto	andard. Each	\$6.95

# CHYSTAL SOCKETS

Stk.No.	Mfg. Type Millen 33302	Description	Each		
(5) 12B299-4	Millen 33302	.05 D. Pins, 1/2" Spacing, Ceramic	\$1.09		
(5) 12A5123-1	Millen 33102	.095" D. Pins, .487" Spacing, Ceramic	1.49		
(6) 12A5124-9	Cinch 2KM	.095" D. Pins, .487" Spacing, Bakelite	.49		
(7) 12A5212-2	Connector Corp.	CONTRACTOR OF THE RESIDENCE OF MANAGEMENT			
OD OTHER	CS109A5	093" D. Pins 3/16" Spacing Bakelite	.89		



AMATEUR BEAM **ROTOR SYSTEMS** 

### HAM II ROTOR

Heavy duty rotor handles heavy antennas with a wind load up to 7.5 sq. Heavy cast aluminum painted gray. Turning torque 800 inch pounds, brake torque 3500 inch pounds. Full 360° rotation in less than 60 seconds. Mounts on pipe-mast, top tower, or inside tower. Accepts masts up to 2-1/16" dia. Dual 6" double thrust bearings. Electrically controlled wedge brake. Contemporary styled control box. Brushed gold panel with light tan and brown cabinet. Front panel controls with direction meter, calibration control, on-off switch, counter-clockwise switch, brake release switch and clockwise switch. Shpg. wt.

Model Ham II 9A3031-3. Each .... \$159.95

# CD-44 ROTOR

Handles amateur and CB antennas with a maximum wind load of 2.5 sq. ft. 500 inch pounds turning torque. Brake torque 800 inch pounds. Disc type brake. Shpg. wt. 22 lbs.

Model CD-44 9A3032-1. Each \$129.95 BIG TALK ROTOR

6" dual race 50 ball bearing rotor as-sembly. Machined stainless steel drive gears. Max. antenna size: 2.5 sq. ft. of wind area. 500 in. lbs. turning torque. 800 in. lbs. brake torque. Shpg. wt. 19

9A3302-8. Model Big Talk. Each ...... \$99.95



### LOW PASS TRANSMITTER TVI FILTERS





All are rated 1 KW RF power, have very low insertion loss and provide excellent attenuation of transmitter harmonics falling in TV bands, All have SO-239 fittings. Factory adjusted for maximum attenuation. Average shpg. wt. 2 lbs.

① 9A3043-8. Barker-Williamson Model 425. For 52 ohm coax. 3.5-30 MHz.

② 9A3315-0. Model TV-3300-LP. 1000 watts max. below 30 MHz. 2 9A3197-2. Model TV-42-LP. Below 30 MHz 100 watts continuous \$10.95

RF COAX SWITCHES AND RELAYS









B & W COAX SWITCHES. 1 KW, 52-75 ohms to 50 MHz. For receiver/transmitter switching to antennas. Dia, 4 x 2 ¼". ¼" x 1" shaft. Wt. 2 lbs. All have \$0-239 coaxial connectors.

Stk. No. Type Description Net Each
(1) 9A3047-9 550A S.P. 5-Position, Radial Connectors \$14.00
(1) 9A3048-7 550A2 S.P. 2-Position, Radial Connectors \$12.50
(2) 9A3049-5 59O S.P. 5-Position, Axial Connectors 17.95
(3) 9A3240-0. 595 S.P. 6-Position, In-Line Connectors 18.50

(4) B & W COAXIAL ANTENNA CHANGEOVER RELAY. Model 377. Switches antenna from transmit to receive. Introduces less than 1.15:1 VSWR, automatically grounds receiver connector when in transmit position. 48 to 130 VAC. Power rating: 2 KW PEP (1KW CW).

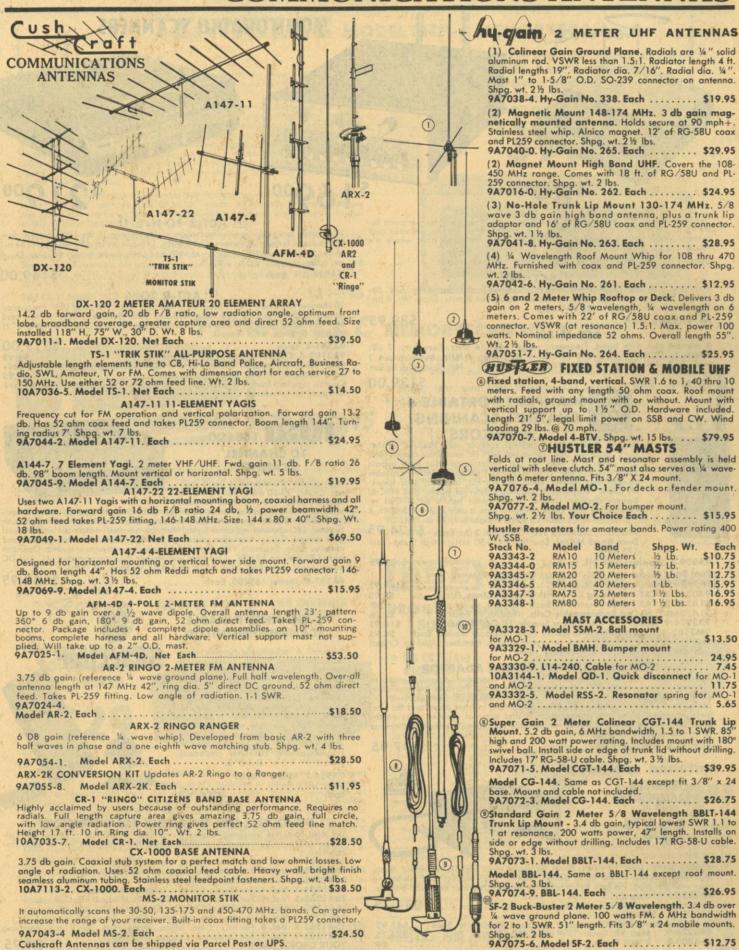
Net Each 334A DUMMY LOAD WATTMETER

Use the 334A to avoid creating interference when testing is required. Oil cooled. DC to 300 MHz. Ranges: 10-100-300-1000 W. Output 52 ohms. VSWR less than 1.3:1 up to 230 MHz. Power range: 50 watts continuous; 1000 watts intermitent with warning light to signal excessive temperature. Input connector SO-239. Accuracy: Up to 30 MHz, ± 5%; up 150 MHz, ± 10%; up to 230 MHz, ± 20%. Size: 4¾" X 9" X 10¼". Shpg. wt. 13 lbs.

CRYSTAL BASE ADAPTOR Adapts readily available HC-25/U crystals to older transceivers with HC-6/U crystal bases. American Electronics Model 96-001.



# **COMMUNICATIONS ANTENNAS**



# **SCANNING MONITORS**



The Professional, the hobbyist and the curious tune to Regency for pin-point listening to the real life drama of police, fire, civil defense, marine, weather and business radio signals. Monitoradio Scanner hears the news from where it's happening... while it's happening.

Operate on 117VAC or 12 VDC. With mobile mounting bracket.

4 channel high VHF band. Frequency range 148-174 mHz. Sensitivity .6uV. Selectivity 50 dB @ ±32kHz. Max. Frequency separation 8 mHz. Shpg. Wt. 4 lbs. Size: 2¼" x 6½" x 6½" x 6¾". 120 VAC only.

ACT-M-8H

8 channel high VHF band. Frequency range 148-174 MHz. Sensitivity .7 vV. Selectivity 50DB @ ± 18 KHz. Frequency separation 8 MHz. Audio output 5 watts @ 4 ohms. Shpg. wt. 7 lbs. Size 2 ½ x 5 ½ 7 ½". Not illustrated, similar

9A526-5. Each



LAM

# SCANFARE PORTABLE 4 CHANNEL SCANNING MONITORS

Rugged solid state 4 channel scanner with flexible "rubber duck" antenna. Dual conversion with HF monolithic crystal filter and ceramic IF filter for top performance. Has scan bypass switch on channel 1, auto/manual channel selector, variable squelch and volume. Jacks are for ext. antenna, aux, speaker/phone (earphone is included), external power and Ni-Cad battery charger. Uses 4 "AA" regular penlite or Ni-Cad rechargeable cells. Gray hi-impact case is only 3" W. X 5.6" H. X 1.4" D. For-VHF: 146-175 MHz. Weighs only 13 oz. net.

9A530-7, Scanfare VHF, Shpg. wt. 2 lbs. Each \$124.95 Dual Band Model. Low band (30-50 MHz). High band (146-175 MHz)

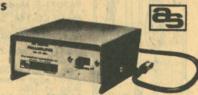
Dual Band Model. VHF (146-175 MHz). UHF (450-475MHz). 9A548-9. Scanfare VHFH-U. Each 9A3287-1. CAT-4 Carrying Case with shoulder Strap. Each \$5.95
21A327-2. "AA" Cells (requires 4). Each 30°
21A5056-2. Ni-Cad Rechargeable Cells. (requires 4). Each \$2.76
9A3274-9. CHB6. 117 VAC Power Supply / Ni-Cad Recharger \$14.95
9M3180-8. Crystals for above, specify exact frequency wanted. Each \$4.95
Crystals supplied from B-A stock or crystal card is furnished. Mail to Crystal Manufacturer, crystals sent prepaid in 2 weeks.

**FANON SCANFARE MOBILE ADAPTOR** 

Adapts Scanfare 4 channel hand-held to mobile operation. Amplifies audio to 2.5 watts. Built-in speaker. External antenna connector. Provides unit operating power. Recharges ni-cad battery pack. Vinyl textured finish. Complete with DC power cord and all mounting hardware. Unit inserts in front panel and the one-piece connector plugs into power, charger and external speaker jacks on the Scanfare. May be quickly removed for portable operation. Provision for hook-up of an externally mounted antenna.

9A3288-9, SCMA-1, Each .....

antenna specialists MONITOR



Increase signal level 10 times. Bring up those weak signals to usable levels. High amplification broad band design. Mobile mtg. bracket and connecting coax with pin plug. Pin jack for antenna connection. Operates on 9 volt battery. 9A3225-1. Mon 25. Covers high band 148-174 MHz. Each \$34.75 9A501-8. Mon 26.

Covers high band 148-174 MHz and Low band 30-50 MHz. Each ... \$45.95 9A3226-9. Mon 28. Covers UHF band 450-470 MHz. Each ... \$34.75 21A305-8. 9 Volt Battery. Each ... ... 89

2 ACT-R 10 H/L/U

10 channel action for any combination of frequencies in the UHF, high or low VHF bands. Frequency ranges 30-50 MHz, 148-174 MHz, 450-470 MHz. Sensitivity .5uV on low VHF, .7 uV on hi VHF and UHF. Audio output 5 watts. Shpg. wt. 6 lbs. Size 6½ x 2½ x 9¾".

9A524-0. Each ...... \$169.00

3 ACT-R 20/6

20 channel capability for frequencies in low VHF, high VHF, and UHF. Frequency ranges 30-50 MHz, 148-174 MHz, 450-512 MHz. Sensitivity .5uV on low and high VHF, .7uV on UHF. Scan rate 15 channels per second. Size: 9<sup>3</sup>4" W X 3" H X 10½" D. Shpg. wt. 7 lbs.

9A541-4. Each \$219.00
9A3192-3. Cigarette Lighter Cord. Each \$3.95
9M3180-8. Crystals for all Regency and RCA Scanners except Aircraft. Specify exact frequency wanted. Each \$4.95
Crystals supplied from B-A stock or Crystal Card is furnished. Mail Crystal Card to crystal manufacturer. Crystals sent prepaid in 2 to 3 weeks.

# 165400 10 CHANNEL SCANNER

High quality, 10 channel 4 band scanner. Covers 30-50 MHz, 150-174 MHz, 450-470 MHz, 470-512 MHz. Varactor

430-470 MHz, 470-512 MHz. Varactor under with 0 to 4 seconds adjustable scan delay. Monitors public safety broadcasts. Each channel programmable for every band. Lock-out switch for each channel, LED channel indicator lights. Variable squelch. Automatic and manual scan control. Crystal filters for selectivity. Built-in speaker. External speaker and antenna jacks. Separate VHF and UHF telescoping antennas included. Operates from 120 VAC or 12 VDC. Complete with mobile mounting bracket, AC and DC power cords. Size: 7¾" W X 2-5/8" H X 8½" D. Shpg. wt. 5 lbs.

# **4-CHANNEL TUNABLE SCANNING MONITOR**

Features 4 individually tunable channels. Electronic tuning - no crystals needed. Covers high PSB 150-174 MHz. Manual/Scan select switch allows selection of automatic scan or manual advance. LED channel indicator lights show scan action, indicate channel being received. Channel 4 by-pass switch. Fully variable squelch control. 2 ½" speaker. Earphone jack. Operates on 6 "AA" size batteries (not included) or AC converter (included). Size: 4" W X 1¾" D X 8" L.

9A554-7. Model 7-2985. Shpg. wt. 3 lbs. Each ..... ..... \$69.95



# POLICE CALL FIRE EMERGENCY RADIO DIRECTORY

The most complete frequency directory available. Thousands of listings both al-phabetically and by frequency. Includes police, fire and public service band fre-

quencies.

16A1299-9. Vol. 1. For Conn., Maine, Mass., N.H., N.Y., R.I., Vermont.

16A1300-5. Vol. 2. For Delaware, Maryland, New Jersey, Pa.

16A1291-6. Vol. 3. For Ohio, Michigan.

16A1263-5. Vol. 5. For Iowa, Kansas, Minn., Mo., Nebr., N.D., S.D.

16A1263-5. Vol. 5. For Iowa, Kansas, Minn., Mo., Nebr., N.D., S.D.

16A1302-1. Vol. 6. For Dist. of Col., Fla., Ga., N.C., S.C., Va., W. Va.

16A1292-4. Vol. 7. For Ala., Ark., La., Miss., Okla., Tenn., Tex.

16A1285-8. Vol. 8. For Ariz., Colo., Idaho., Mont., N.M., Nev., Utah, Wyoming.

16A1303-9. Vol. 9. For California, Oregon, Washington.

\$4.95

See Page 208 For Monitor Antennas

# **PROGRAMMABLE SCANNERS**

# TENNELEC MODEL MCP-1 MEMORYSCAN

A microcomputer system enables this unit to search out known and uncharted frequencies, store them in memory, and recall them on command. No crystals used. No code book needed.

The MCP-1 microprocessor provides control of frequencies through a phase-lock loop synthesizer and offers, for the first time ever in scanning receivers, the ability to enter frequencies directly from a numeric keyboard, just as a number is entered into a calculator. Keyboard has 10 numeric keys to enter frequencies, 8-function keys to control unit. Has an exclusive search capability of up to 16,000 frequencies. In the "SEARCH" mode, the MCP-1 searches a total of 1.2 MHz in SKHz steps up from the start frequency. Stops whenever an active frequency is found, and displays frequency on the digital readout. Searching can be resumed by the push of a button.

Has a 16 channel memory to store known frequencies or frequencies found during a "SEARCH" scan. In "AUTO SCAN" mode, all memory channels that are not locked out will be included in the auto-scan sequence. Digital readout alternately displays frequencies scanned and channel numbers.

Total frequency coverage: 31.180 MHz to 51.655 MHz, 151.180 MHz to 171.655 MHz, (451.180 MHz to 471.655 MHz - tunable over a 7 MHz range). Sensitivity 0.5 uV. Tuning resolution 5 KHz. Adjacent channel selectivity -60 db. Scan rate 10 channels per second. Complete with an 18" whip antenna. For 110 to 120 VAC 60 Hz. Encased in wood-grain metal cabinet. Size: 4½" H. X 10¾" W. X 9¾" D. Shpg. wt. 8 lbs.

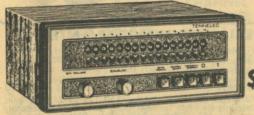
# MANY ADVANCED FEATURES!

- EXCLUSIVE SEARCH CAPABILITY.
- ELECTRONIC MEMORY.
- 6-PLACE DIGITAL READOUT.
- KEYBOARD OPERATION.

39995



# TENNELEC MEMORYSCAN MS-2



\$33995

Now you can select and change trequencies whenever you want without having to buy another crystal . . . ever! If you want to listen in on the action on a new frequency for five minutes or five hours all you have to do is punch in frequency code.

It's as easy as dialing a telephone. Tennelec includes a code book of 4000 low-high and UHF frequencies in use. All you have to do is look up the frequency codes you want. Then, simply punch in the (0-1) codes on the scanner and you're ready for action listening. You won't ever have to buy another crystal.

- No crystals required . . . up to 10 times more accurate.
- Solid state, auto or manual, channel lockout, squelch.
- · High, low and UHF base and mobile.
- Capable of receiving up to 16,000 frequencies.

Total frequency coverage: low band 31.18-50 MHz; high band 146-148 MHz, 151.18-170 MHz; UHF 451.2-470 MHz (490-580.825 MHz†). Adjacent channel selectivity: 50 db  $\pm$  25KHz. Modulation acceptance:  $\pm$  7.5 KHz, maximum. Scan rate: 12 channels per second, nominal.

Whip antenna provided for hi/lo and UHF. Power comsumption: 105-130 VAC 25 W; mobile (with MK1 listed below) 13.8 VDC .8 A max, 6 mA standby, negative ground. (9 volt battery holds memory when removed from auto, boat or home). Size: 4.5" H. X 10.75" W. X 9.75" D. Wt. 6 lbs.

†Reception requires retuning.



The ACT-W10 is a programmable, 10 channel, frequency synthesized three-band FM monitor. Provides live monitoring of the activities of police and fire departments, announcements from civil defense and weather bureaus, and business radio signals. Features a unique means of frequency selection that also provides the unit with a memory that is unaffected by power loss. The memory consists of programmable "Frequency Combs" that are merely plugged into the rear of the unit for each frequency (up to ten) that you want to monitor. The SCAN-TRACK circuitry does the rest, selecting the desired band and frequency. Will automatically scan any combination of one to ten channels. Also has manual selection to monitor a particular channel.

Frequency range: 30 MHz to 50 MHz, 146 MHz to 174 MHz, 440 MHz to 512 MHz. Sensitivity .5 uV to 1 uV, except 495-512 MHz 3 uV (retunable). Includes connectors for external speaker, external antenna, DC power connection. Has frequency code book, pack of 20 combs, and instructions on how to program combs. For 110-130 VAC 60 Hz, or 11.5-15 VDC. Size: 10" W. x 4" H. x 8½" D. Shpg. wt. 10 lbs.

9A540-6. ACT-W10. Each \$329.00 9A3296-2. Comb and Label. Each \$25

# SBE OPTI/SCAN 10-CHANNEL

PROGRAMMABLE SCANNER

- NO CRYSTALS REQUIRED.
- PROGRAM CARDS PROVIDE MEMORY.

OPTI SCAN digitally derives 16,000 different frequencies and uses no crystals. Operates from a card which is inserted in a panel slot where its program is "read" by optical means and the frequencies digitally synthesized. Scans the ten frequencies selected



ten frequencies selected in the order chosen. You program card initially by referring to code list supplied. Cards are simple to program, have a space for program identification, and enable anyone to operate the receiver. Convenient when traveling by car, truck, RV, boat. Change the complement of ten stations as fast as one card can be removed and another inserted. Extra cards provide for an unlimited number of programs. All with more convenience and less expense than crystals. Lock-out switch for each channel plus push-button switch for manual selection.

Frequency range: 30 MHz - 50 MHz, 150 MHz - 170 MHz, 450 MHz - 470 MHz, 490 MHz - 510 MHz. Sensitivity .5 uV. Complete with 2 program cards, mobile bracket and DC power cord. Size: 2.6" H. X 7.9" W. X 10" D.

# IDLAND PORTABLE VHF WEATHER MONITOR

# INSTANT U.S. WEATHER SERVICE FORECASTS BY PUSHING A BUTTON!

- STREAMLINE DESIGN WITH WOOD-GRAIN ACCENTS.
- SENSITIVE, FOLD-DOWN ANTENNA.
- . DESK-TOP SIZE 61/2" LONG

Provides constant weather information and emergency severe storm warnings. FM receiver picks up. U.S. Weather Bureau forecasts and emergency weather broadcasts on 162.55 MHz, or 162.40 MHz, frequencies. Can be pretuned to either frequency. Felescoping antenna pulls in signal from 40 miles away depending on local conditions. 1½ in. PM speaker, Ivory and brown plastic cabinet has walnut-grain face plate. Push-on, volume, and tuning controls. Size: 6½ X 3 X 1%". 9 volt battery included. Shpg. wt. 1 lb.

No. 94515-8.

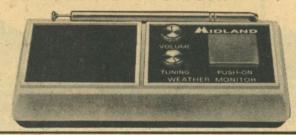
Model 13-902B. Each .....

\$15.95

# Weatheralert WEATHER MONITOR

- Exclusive built-in Weatheralert hazardous weather warning siren.
- AC or battery operation.
- 25 inch telescoping antenna.
- Guaranteed 40-50 mile range exceeds U.S. Government recommended performance standards.

Provides constant weather information whenever wanted or operates automatically as a hazardous weather emergency radio. The local National Weather Service transmits a code signal which triggers a siren in the weather alert followed by a broadcast concerning the hazardous weather. Two channel crystal operation controlled. 40-50 mile range. Operates on 117 VAC adaptor (included) or 9 volt battery (not included). Switches to battery automatically if AC power fails. 3 X 5 X 1½". Wt. 8 oz. Shpg. wt. 1 lb.





# Royce

# HAND HELD MARINE TRANSCEIVER

Marine styled, with 6 channel capacity. Channels 6, 16 and 22 are factory installed. 2 watts maximum power, 1 watt in-harbor. Has built-in battery/S meter. Case and speaker are water resistant. Has mike connector for external mike and screw in telescopic antenna so fixed antenna may be connected. Also has jacks for external speaker/earphone and for external power/charge. Operates on 8 pen cell batteries or NiCad rechargeable pack listed below. With carrying case. Shpg. wt. 4 lbs.

\$399.95 



### FIBERGLASS MARINE ANTENNA

8½ ft. high with cycolac tilt-over base, 6 db gain. With hardware, 20 ft. of cable and PL-259 connector. Shims allow antenna to be mounted on up to

9A1002-6. 2-230A. Each ..... \$69.95



MODEL 1-700

A complete 25 watt (or 1 watt in-harbor) marine transceiver with 14 channel capacity (12 transmit), with crystals for channels 6, 16 and 68. Both NOAA weather channels are included. All solid state with water resistant cabinet and speaker. Has S/RF meter. Switch allows use as a 3 watt hailer, external speaker may be used. With microphone. For 13.8 volts DC, negative ground. Size 9¾ X 8½ X 2-7/8". Shpg. wt. 10 lbs.

\$449.95 

# ANTENNA SPECIALISTS MONITOR ANTENNA

(1) Mobile Model MON R16 Antenna 130-174 MHz. 3 db gain on "Quick-Grip" trunk mount. Installs quickly—easily. Includes 17' 50 ohm coax cable and PL259 connector. Stainless steel whip and spring.

9A7026-9. Each \$26.50

Model MONR17 Antenna 150-174 Mhz. 3 db gain. Mounts on 1½" (or less) pipe. Stainless steel radiator/radials. 38" radiator—24" radials. Order cable below. 9A7027-7. Each \$26.50

9A7027-7. Each. \$26.50

Model MON-1 Mobile Antenna. Universal—location mobile antenna covering the entire 130-174 MHz. plus the 450-470 MHz range when cut to approximately 6" Cutting chart included. Mounts on roof top or any flat deck location, excellent reception. Pin plug connection plus adaptor for SO-239 connections. Complete with 15' RG-58/U cable. \$9.7019-4. Each. \$9.95

Model MON-3 Base Station Antenna. Universal antenna for any base application where professional monitoring capability is a must on Aircraft, Business and public safety bands from 150-512 MHz (450-470 MHz when cut to approx. 6". Cutting chart included.) Stainless steel radials, rugged construction. Mounts on any pole or mast top to 14" diameter—cable not supplied. Termination for PL-259. Order cable below. 9A7020-2. Each. \$10.95

6 Model MON-8 Combination Base Station Antenna. Multiple loading coil design for 25-50 MHz and 150 174 MHz. No tuning necessary. Designed for extended omni-directional reception. SO-239 connection. Order cable below. Mounts on 1½" (or less) pipe.

ALL BAND COMBINATION ANTENNAS

① Model MON-32. Quick-Grip mount attaches to trunk
lip . . . no holes required. Provides optimum reception on lip . . . no holes required. Provides optimum reception on all three Police and Public Safety bands - 30-50, 150-174, 450-470 MHz. Stainless steel whip with weather-proof phasing coil. 17' cable and connector. 21" high.

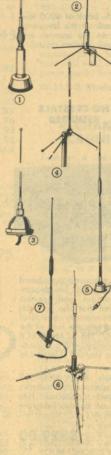
proof pricing Con.
Low profile base.

9A7056-6. Each
9A7057-4. Model MON-33 same as Mon-32 but for roof or trunk deck mounting. Requires 34" hole.

\$22.95

Base Model MON-31 Clamps to any mast up to 1½" diameter. 18" radials. Stainless steel radiator with weatherproof phasing coil. Covers 30-50, 150-174, 450-470 MHz. SO-239 receptacle.

9A7058-2. Each \$26.50



# CITIZENS BAND WALKIE-TALKIES



# IDLAND INTERNATIONAL

2-CHANNEL 7 TRANSISTOR SUPERHETERODYNE TRANSCEIVER

OUR LOWEST PRICED 100 MW HAND-HELD TRANSCEIVER!

Attractive two-tone cabinet, alert tone system carries signal further than voice transmissions and saves battery. Trans-mitter uses effective AM collector modulation system. 8-section 37" telescoping antenna and earphone jack

Includes earphone, carrying strap, 9-volt battery and Channel 14 crystals. Size: 6-5/16"H. x 2-11/16"W. X 1-5/8"D. Shipping weight 1 lb. 10A130-3. Model 13-426

Each ..... \$17.95



# IDLAND

2-CHANNEL 100 MW TRANSCEIVER

Solid-state circuitry provides dependable performance and long-life. Crystals for channel 11 are installed. Transmits with channel 11 are installed. Transmits with high-level modulation system for greater efficiency and power output. Receiver is crystal controlled superheterodyne type. Rugged black metal case has chrome trim and built-in telescopic antenna. Accessory jacks for 110 VAC adaptor and earphone. Uses 8 "AA" pencell batteries or rechargeable battery pack. Complete with carrying case. Size: 7-3/16" X 2-5/8" X 2½". Shpg. wt. 1½ lbs. 10A129-5.

5/8" X 2½". Shpg. wt. 1½ lbs.
10A129-5.
Model 13-123B. Each ... \$39.95
21A327-2. AA Pencell. Each ... 30°
10A3085-6. Ni-Cad Rechargeable
Battery Pack. Each ... \$28.95
10A3086-4. Charger for Ni-Cad Battery Pack. Each ... \$9.95

NO LICENSE REQUIRED!



Royce electronics Model 1-400

**DELUXE 1-WATT** 2-CHANNEL TRANSCEIVER

10A3085-6. Model 2-101B Ni cad rechargeable battery pack. Each \$28.95
No.10A3086-4. Model 2-103B Charger for above. \$9.95
Each \$30°
21A327-2. Pencell. Each \$30°
10A3062-5. 12 volt cigarette lighter cable. Ea. \$2.95





MODEL 1-402

PROFESSIONAL 2 WATT/3 CHANNEL TRANSCEIVER

\$28.95



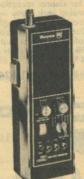
**DUAL POWER** 3-CHANNEL TRANSCEIVER WITH SEPARATE SPEAKER MICROPHONE

**MODEL 1-406** 



Separate speaker and microphone gives maximum separate speaker and microphone gives maximum transmit range. Choose the power input needed, 5-watt or 2-watt power input. Tuned RF stage for excellent sensitivity and ceramic filter for good selectivity. Built-in automatic noise limiter, fully variable squelch control, and AGC circuit for improved persquelch control, and AGC circuit for improved performance. Rugged, all-metal cabinet with black and chrome color front with heavy-duty telescopic antenna. Accessory jacks - earphone/external speaker, AC adaptor, battery charger/external power, external antenna. Uses 8 "AA" pencell batteries. Size: 9½ X 3½ X 2½". Shpg. wt. 3 lbs.

\$89.95 



Royce electronics

**PROFESSIONAL** 5-WATT 6-CHANNEL HAND-HELD TRANSCEIVER

Model 1-408

Transmitter features a three stage system using high efficiency modulation. Choose from two power ranges 5 watts or 2 watts. Combined with 6 chanefficiency maoutation. Choose from a congest 5 watts or 2 watts. Combined with 6 channel versatility for maximum flexibility, equipped with channel 11 crystals. Sensitivity is 0.75 uV for 6 db, electronically automatic noise limiting. AGC reduces fading and blasting of signals. Fully variable squelch, battery saving push pull audio and 2 ¼" speaker. Includes built in PA, extra rugged Texon corrying case, 3 way metering, 60" telescopic antenna, and earphone jack. Chrome front with silver and black trim. Uses 8 "AA" pencell batteries. Size: 9 ¼ X 3 ½ X 2 ½". Wt. 3 lbs.

10A131-1. Model 1-408. Each ...\$109.95

10A3085-6. 2-101B Nickel cadmium rechargeable battery pack. Each ...\$28.95

21A327-2. Pencell.Each ...\$30°

10A3086-4. Model 2-103B Charger for above. Each ...\$9.95



IDLAND INTERNATIONAL

> 5 WATT, 23 CHANNEL TRANSCEIVER

Features a dual conversion receiver with 0.7 uV senwatts when needed, or 2.5 watts to save batteries. 23 channel synthesized circuitry, no extra crystals to buy. 3 function meter reads battery condition, signal strength and RF output. External speaker/microphone jack and PA/CB switch lets the unit act as a fully extended by the address applifier. Here 8 needs to be a full to a condition. fully portable public address amplifier. Uses 8 penlite cells or rechargeable battery pack listed below. With carrying case. Size: 9¾" X 3" X 2-3/16". Shpg. wt.

# Royce HIGH PERFORMANCE CB TRANSCEIVE

# MODEL 1-614 IN-DASH CB AND AM FM STEREO

- Full Variable Squelch.
- AM/FM lighted tuning dial.
- In-Dash security.
- Large 1-3/8" X 3/8" CB Meter.
- Push-Button function switches.

A perfect combination! A Royce quality designed and engineered CB transceiver with AM/FM stereo radio. Mounts in-dash for maximum security against theft. Since the 1-614 utilizes the car speakers, you can get full high quality sound from your CB as well as the AM/FM stereo. Features include the Royce "Gyro-Lock" (phase-lock loop) CB oscillator for pinpoint, drift-free 23 channel operation. Has illuminated AM/FM slide-rule tuning dial. Fully variable, slide-type tone and balance controls. Advanced design allows some controls to serve double duty. Local/distant switch for FM is also an RF gain switch on CB. Stereo indicator light on FM is transmit indicator light on CB. Large, easy-to-read CB meter measures output power and receiver injust signal strength. meter measures output power and receiver input signal strength. Convenient push-buttons are provided for the switchable ANL, distant/local, CB/radio, and AM/FM modes of operation. CB section also features ceramic filters for razor-



sharp selectivity and fully variable squelch to silence receiver between calls. Sensitivity 0.5 uV for 10 db. S+N/N. Selectivity 5 KHz at 6 db. Has adjustable shafts, separate antenna inputs for CB and AM/FM radio reception. Comes complete with plug-in microphone and handsome universal trim plate. Size: 7" W. X 6" D. X 2" H. Shpg. wt. 5 lbs.

10A182-4. Model 1-614. Each ...... \$269.95

# Royce 1-590 3-CHANNEL MOBILE ECONOMY TRANSCEIVER

Transmitter runs five watts of input power with a receiver having a tuned RF stage providing excellent sensitivity. A ceramic filter and 3 I.F.T.'s give razor sharp selectivity. Automatic noise limiting reduces static and man-made interference, AGC prevents fading and blasting of incoming signals of varying input levels. Set-and-forget slide type squelch control. For positive and negative ground operation 12 VDC. 3 channel versatility (channel 9 factory installed). Legal maximum 4 watt RF output. Comes with microphone and built-in speaker.



**MODEL 1-620** 23-CHANNEL AM BASE STATION TRANSCEIVER



Sophisticated styling! Walnut wood end caps with charcoal gray top and black control panel. Illuminated S-RF meter. Large readout channel dial. Bar-type lights indicate transmit (red) and modulation (green). Greater range. Tuned RF stage. Dual power supply, 117 volts AC or 12 volts DC (Positive or negative ground). Fully variable tone control. Razor-sharp selectivity. Pushbutton automatic noise limitor. Delta tuning pinpoints incoming signals. Tape recorder jack. Squelch control, Variable. Full 4-watt RF output power. Size 12 x 4½ x 8". Shipping wt. 12 lbs.

10A140-2. Model 1-620. Each ...... \$219.95

**MODEL 1-635 REMOTE CONTROL** SSB/AM MOBILE CB TRANSCEIVER



Change channels automatically from a remote switch control on the mike. WARN-TRON protection circuit minimizes damage to RF output transistors by cutting off power to the driver and final transistor circuits automatically. MOS-FET RF receiver amplifier circuit provides greater sensitivity minimizing adjacent channel interference, crossmodulation and intermodulation. Fully variable RF gain control, eliminates overload distortion from nearby stations. RF noise blanker, filters noise 3-4 times more effectively than ANL circuits. New, circular, larger S-RF meter. Permits easy reading of RF output power indication and signal levels. Public address feature converts the 1-635 into a 5watt PA system.

Specifications: RF Output Power-maximum legal limit SSB: 12.0 Watts Pep (25 Watt input) AM: 4.0 Watts (output), Audio output power-4 Watts Max., PA output power-5 Watts Max., Power supply-12 Volts DC (13.8 EIA) Positive or Negative Ground.

Size: 8 1/4" W x 8 3/4" D x 2 1/4" High. Shpg. Wt. 9.0 lbs.

10A169-1. Model 1-635. Each ......

**MODEL 1-590** 3-CHANNEL CB



DIGITAL READOUT AM PROFESSIONAL 23-CHANNEL BASE STATION



MODEL 1-624

New Digi-tron Dial System gives you digital readout with numbers a full ¾ of an inch high. Variable RF gain control adjusts receiving range and prevents overload and distortion from nearby stations. Three large meters (1¼" X¾") monitor receive signal strength, transmit power, and forward and reverse SWR of your antenna system. Continuous fine tuning control gives pinpoint receiver accuracy. Pushbutton High-Low tone control, Pushbutton CB-PA switch converts the unit into a powerful public address unit. Pushbutton ANL circuit reduces noise, for clearer reception. Headphone jack on front panel for privacy ... external speaker jack. Fully variable squelch. Superb styling with smoked plexiglass (blackout) front panel with walnut wood. Tuned RF stage for better range reception. Dual conversion superheterodyne receiver. AMC circuit for full transmitter modulation. Audio output - 4 watts, RF output - 4 watts. Power supply - AC 115 volts 60 Hz, DC 12 volts (13.8 EIA) DC positive and negative. Dimensions: 15" W. X 4¾" H. 10½" D. Shpg. wt. 20 lbs.

10A168-3. Model 1-624. Each ...... \$339.95



Hoyce

SSB/AM **CB TRANSCEIVER** 

MODEL 1-640



Superb styling. Trimmed with extruded brushed aluminum. Walnut-grained wood on top and sides. 3 large separate meters monitor S-RF and SWR. Full feature backlighted digital clock. Clarifier control adjusts transmit and receive frequencies in the SSB mode. Changes to Delta tune in AM mode. Unique "Warntron" protection circuit. Full variable tone control. Receiver sensitivity adjustment. Adjustable A.G.C. Pushbutton switches for: (1) Power on-off. (2) PA-CB, (3) Noise blanker (4) A.G.C. Operates from 110-120 volts AC or 13.8 volts DC. (Positive or negative ground.) Special 3-stage noise blanker. Built-in P.A. with separate volume control. Full 12-watts P.E.P. SSB output power (25 watts P.E.P. input) plus 4 watt output on AM. Headphone jack. Squelch control. Tape jack. Lets you record. Choice of 46 upper and lower SSB plus 23 AM channels. 69 modes. MOS FET R.F. stage. Size: 15" W. X 44" H. X 10½" D. Shpg. wt. 20 lbs.

# Royce HIGH PERFORMANCE CB TRANSCEIVERS

**ROYCE MODEL 1-650** 





**ROYCE MODEL 1-653** 

**ROYCE MODEL 1-655** 



**ROYCE MODEL 1-662** 



**ROYCE MODEL 1-658** 

WIRELESS







**ROYCE WIRELESS CB's** 

Truly a dramatic CB breakthrough, Royce promises long-term reliable and professional performance with each of it's "Wireless" models. Each Wireless transceiver has a modular chassis design with one master circuit and five modules which are computer tuned and tested. Not one wire is used to connect the modules. The result is uniform quality, peak power and performance that you can

depend on for years.

Every Wireless has features you can read loud and clear too! Each employs an Amplified Automatic Gain Control which amplifies weak signals, and reduces overload from nearby stations. An exclusive IC audio stage offers 6 watts RMS for maximum clarity and power. Adjacent channel interference is greatly re-

1-650 23-CHANNEL MOBILE CB TRANSCEIVER

Has all the wireless features.

Attractive black mat camerá finish cabinet.

Accessory jacks for external speaker, antenna and DC power cord.

Popular price.

1-653 23-CHANNEL MOBILE CB TRANSCEIVER

All are for positive or negative ground operation (13.8 VDC) and have an RF output power of 4 watts (legal maximum). Sensitivity 0.5 uV for 10 db (5+N)N; Selectivity 5kHz @ 6 db down. All come with microphone, mounting bracket, and DC power cord.

duced by three ceramic filters. Dual conversion receiver plus tuned RF stage pulls in even the weakest signals. All Wireless' have relay switching which permits reception without microphone. Fully variable squelch control, AMC circuit for maximum transmitter talk power, separate L.E.D. transmit light, large S/RF meter, metal case RF output transistor, and a large 3" speaker are just a few more reasons why any Royce Wireless model is a logical choice when you look for the

Has all wireless features PLUS

very best in CB

Pushbutton ANL switch to minimize noise and static.
Pushbutton PA/CB switch to convert unit to powerful PA system.
Accessory jacks for PA speaker, external speaker, antenna and DC power

Handsome vinyl coated, leather grained, all metal cabinet.

# 1-655 23-CHANNEL MOBILE CB TRANSCEIVER

All wireless features PLUS

Pushbutton RF gain control prevents overload from nearby stations, provides extra power for weak stations.
 Pushbutton ANL switch and pushbutton PA/CB switch.
 Accessory jacks for PA speaker, external speaker, antenna and DC power codes.

Beautiful, scuff-resistant, vinyl-clad metal cabinet.

1-658 23-CHANNEL MOBILE CB TRANSCEIVER

All wireless features PLUS . . .

Vol-U-Mike lets you adjust receiver volume from microphone or front panel.

Variable fine tuning control.

Pushbutton ANL switch.

Continuous PE racin control.

Variable fine tuning control.

Pushbutton ANL switch.

Continuous RF gain control.

Accessory jacks for PA speaker, external speaker, antenna and DC power

Attractive leather-grained, vinyl-coated scuff-resistant metal cabinet. Shpg. wt. 5 lbs.

# 1-662 23-CHANNEL DIGITAL READOUT MOBILE CB TRANSCEIVER

All the wireless features PLUS

Digital readout dial system with L.E.D. numerals plus pushbutton bright/dim

Vol-U-Mike for receiver volume control from microphone or front panel.

Variable fine tuning control.

Pushbutton ANL switch.

Ontinuous RF gain control.

Pushbutton PA/CB switch. Variable fine tuning control.
Pushbutton ANL switch.

 Accessory jacks for PA speaker, external speaker, antenna and DC power cord.

Beautiful, rugged, vinyl-clad cabinet which is scuff-resistant Shpg. wt. 5 ½ lbs.

The miracle of CB miniaturization. Three separate components result in an ultra compact system that can virtually be installed in any vehicle. Small control unit can be mounted on visor, in glove compartment, floor shift consoles. Control unit has controls for volume, squelch, PA-CB, and tone, plus it contains the speaker and the S/RF meter. All the electronics are in a separate control unit. Chan-L-Matic microphone lets you switch channels automatically with remote switch AND the channel dial is built right into the mike. Fully variable squelch. AGC prevents fading and blasting. Built-in full time ANL. Dual conversion receiver with three ceramic filters. Tuned RF stage. Integrated circuit in audio stage. External speaker jack. AGC circuit. Sensitivity .5 uV for 10 db (S+N) N. Selectivity 5KHz at 6 db down. Semi-leadless chassis minimizes failure from broken wires. Positive or negative ground operation. Size of control unit: 1¾" H. X 3" D. X 4" W. Main unit: 6" X 6" X 2". Shpg. wt. 6 lbs. The miracle of CB miniaturization. Three separate components result in an ultra

Ask about B-A's 4-Payment Credit Plan



**ROYCE 1-580** MOD-U-LAR 3-PIECE MOBILE CB TRANSCEIVER

No Finance Charge — See Page 256

# HIGH PERFORMANCE CB TRANSCEIVERS



Built with quality engineering features the RJ-3100 gives you about the best reliability and accuracy on the road. ANL switch silences background and ignition noise. 3-position Delta tuning provides crystal clear reception by pulling-in off-center signals. Large S/RF power meter (1½" dia.). Lighted channel indicator displays channel being used on click-stop channel selection dial. PA switch converts the unit into public address system. Fully variable squelch control. Built-in 3 inch speaker for maximum clarity. Dynamic microphone with convenient "push-to-talk" switch. Transmits a full 4-watt output (maximum legal power). Sensitivity less than -6 db for 10 db S/N at 1KHz of 30% modulation. Selectivity bandwidth 5KHz minimum for 6 db. Accessory jacks for external speaker, PA speaker, antenna and DC power line. Quick-release mounting bracket for maximum portability. Rugged metal vinyl-covered case with attractive brushed aluminum front panel. Size: 2-5/16" H. X 6-7/16" W. X 9-3/8" D. Shpg. wt. 5 lbs.

((P)) CB143 23-CHANNEL MINI-SIZE MOBILE TRANSCEIVER



The CB 143 is a mini-size transceiver with "Better Ears" receive and "Big Talk" transmit. Transmitter equipped with rugged silicon output and drive transistors for conservative delivery of 4 watt power output (legal maximum). Sensitive dual conversion superheterodyne receiver has narrow band for greater adjacent conversion superneterogyne receiver has narrow band for greater adjacent channel rejection. Noise limiter circuitry for quieter mobile operation and clear communications. Features include 23-channel synthesized design, external speaker jack, high clarity audio circuit and dynamic plug-in microphone. Front panel has S/RF meter, PA system control, fully variable squelch control, large channel selector dial and indicator lamp for transmit mode. Sensitivity 0.5 uV for 10 db STN/N. Adjacent channel rejection 50 db minimum. Audio output 5 watts. For 12VDC positive or negative ground operation. Size: 1-5/8" X 5" X 7". Shpg. wt. 4 lbs.

10A159-2. Model CB 143. Each ...... \$144.95

CB123A ECONOMY MINDED 23-CHANNEL MOBILE



Total performance and feature-packed value were designed into the CB 123A by Pace engineers to achieve new highs in practical values with absolutely no extras to buy. The CB 123A relies upon high performance circuity with speech suppression to achieve unsurpassed transmitter audio qualities. RF output delivers 4 watts full legal power. Super-sensitive dual conversion receiver assures high efficiency comparable to much more expensive models. Features a local distant control for clear reception in nearby or remote areas. S/RF meter for monitoring incoming signal strength and relative power output. Separate transmit and receive model indicator lights. PA/CB switch. Squelch control. Full 23 channel synthesized design. Audio output 5 watts. Sensitivity 0.5uV for 10db S+ N/N adjacent channel rejection 50 db minimum. For positive and negative ground operation 12VDC. Comes complete with dynamic hand microphone. Size: 2" X 6½" X 7".

10A160-0. Model CB 123A. Shpg. wt. 5.5 lbs. Each ...... \$169.95

# **Panasonic**

MODEL RJ-3200 23-CHANNEL MOBILE CB

Quiet operation combined with total power-packed performance makes the RJ-3200 an excellent mobile transceiver choice. Delta tuning control obtains "fine" reception of stations that are slightly off frequency. NB (ANL) reduces noise caused by ignition, lightning, etc. Tone selector enables you to adjust tone to high or low. Illuminated channel display and large S/RF meter. On-air indicator in transmit mode. Modulation indicator indicates strength of your voice when speaking into mike. PA/CB selector. Squelch control. Built-in TV interference trap. Delivers full 4-watt power (legal maximum). Sensitivity less than -6 db for 10 db S/N at 1KHz of 30% modulation. Adjacent channel rejection 60 db. External speaker and PA jacks. Comes with quick-release mounting bracket and dynamic microphone. For positive and negative ground operation 13.8 VDC. Size: 7" W. X 2" H. X 9" D. Shpg. wt. 6 lbs.

10A195-6. Model RJ-3200. Each ...... \$179.95

((P)) CB161 23-CHANNEL MOBILE TRANSCEIVER WITH DIGITAL SYNTHESIZER



The Pace CB 161 incorporates a digital synthesizer that provides 23 channel operation with only one crystal in a Phase Lock Loop circuit. Large Scale Integration (LSI) circuit modules provide for easy modification in case of channel expansion. A quality built-in dual conversion superheterodyne receiver with tuned IF filters for immunity from adjacent channel bleed-over and provide for added noise reduction. Fully variable squelch control silences receiver between calls eliminative control silences.

Peatures S/RF meter. PA function with front panel control. External speaker and PA jacks. Comes with dynamic plug-in microphone. Sensitivity 0.5uV for 10dB S+N/N. Adjacent channel rejection 50dB minimum. Audio output 4 watts. Transmitter power output 4 watts (maximum legal power). For 12VDC positive or negative ground operation. Size: 6-5/8" X 1-7/8" X 9".

10A244-2. Model CB 161. Shpg. wt. 5 lbs. Each ............ \$149.95

CB166 23-CHANNEL MOBILE TRANSCEIVER WITH DIGITAL SYNTHESIZER

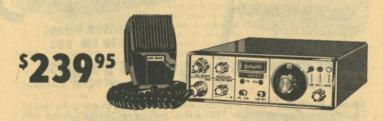


A combination of the latest in high frequency transceiver design techniques. Full 23 channel operation is made possible with just one crystal using sophisticated integrated circuit modules in a phase lock loop circuit. Extra range operation from special Class A modulation on transmit. Shaped audio response in transmiter. Fully variable squelch control silences receiver between calls. Built-in dual conversion superheterodyne receiver with tuned IF filters eliminates adjacent channel bleed-over and provides added noise reduction. Front panel controls for ANL, Noise Blanker (NB), and PA/CB. S/RF meter monitors incoming signal strength and relative power output. Transmit and receive mode indicator lights. Sensitivity 0.5uV for 10dB S + N/N. Adjacent channel rejection 50 dB minimum. 4 watt (legal maximum) RF power output. External jacks for PA and external speaker. For positive and negative ground operation. Comes complete with dyspeaker. For positive and negative ground operation. Comes complete with dynamic hand microphone and mounting bracket. Size: 6-5/8" X 1-7/8" X 9".

10A245-9. Model CB 166. Shpg. wt. 5 lbs. Each ............ \$209.95

# ((P)) PACE HIGH PERFORMANCE CB TRANSCEIVERS

((O)) CB 145 23-CHANNEL MOBILE TRANSCEIVER WITH 2 WEATHER CHANNELS



Will contribute to a more relaxed and enjoyable travel schedule with weather and traffic information as-you-go. The full featured CB 145 comes with WX-1 and WX-2 weather receiving channels installed and factory adjusted. The transceiver section has a Noise Blanker switch to suppress pulsing noise. Delta tuning control provides fine tuning of received signals. RF gain control for receiver sensitivity adjustment. Built-in ANL. S/RF meter. Transmit and receive mode indicator lights. Delivers full 4-watts of legal output power. PA/CB switch. Squelch control. Sensitivity 0.5uV for 10 dB (S+N)/N. Adjacent channel rejection 60dB minimum. Jacks for external speaker and PA. Dynamic microphone and mobil mounting bracket included. For positive or negative ground operation 12VDC. mounting bracket included. For positive or negative ground operation 12VDC. Size: 2 ¼" x 7 ½" x 10". Shpg. wt. 11 lbs.

10A162-2. Model CB145. Each ...... \$239.95

PACE CB 113 MINI-SIZE 23-CHANNEL CB BASE/MOBILE



Handsomely designed CB base station offers maximum performance in a small package. Extra range operation from special Class A modulation on transmit. Shaped audio response in transmitter. Built in dual conversion, superheterodyne Shaped audio response in transmitter. Built in dual conversion, superheterodyne receiver with tuned IF filters prevents adjacent channel bleedover. Narrow band width design adds to noise reduction. CB 113 can be used as a base or mobile transceiver, 117VAC 60 Hz or 12 VDC. Fully variable squelch control silences receiver between calls. PA/CB switch. ANL control prevents external noise. Local/Distant control for receiver range adjustment. S/RF meter. Transmit and receive mode indicator lights. Sensitivity 0.6uV at 10 dB S½ N/N. Selectivity 6 KHZ at 6 dB. External speaker and PA jacks. Includes dynamic hand microphone and mobile mounting bracket. Size: 3" x 9½" x 8½". Shpg. wt. 5½ lbs.

PACE CB1000M 23-CHANNEL AM/SSB MOBILE TRANSCEIVER

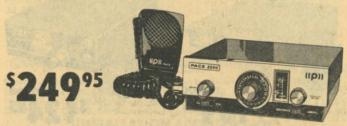


A companion to the CB1000B, the CB1000M embodies a classic decorator styled cabinet with all of Pace's innovative engineering design. The same SSB concept provides the same controlled communications quality and performance.

RF gain control provides receiver sensitivity adjustment and prevents strong signal overload. Clarifier ensures exact tuning and adjusts the clarity of the received signal. Switchable Noise Blanker circuit suppresses impulse noise interference. 23 synthesized channels AM with 4 watts maximum legal power output; 46 channels SSB with 12 watts PEP maximum legal power output. Transmit and receive indicator lights. S/RF meter. Sensitivity 1.0uV AM/0.5uV SSB.

Adjacent channel rejection 50 dB minimum. PA jack. Includes low impedance dynamic microphone and mobile mounting bracket. Size: 2 ¼ " x 7 ½ " x 10". Shpg.

((D)) PACE MODEL 2300 23-CHANNEL



The Pace 2300 is designed to give you the best receive and transmit performance possible. The transmitter is equipped with rugged silicon output and driver transistors for conservative delivery of 4 watt maximum legal power output. Dual conversion superheterodyne receiver for greater adjacent channel rejection. Built-in Noise Limiter suppresses external noise. Superior series gate impulse noise limiting for clear reception, even with the weakest signals. Full size "S" meter. Cascaded amplified AGC eliminates noise interference. Shaped audio response for best voice clarity. Front panel control for built-in PA and Loud Hailer system. Local/Distant control for range adjustment. Squelch control. Sensitivity 0.35uV for 10 dB S+N/N. Adjacent Channel Rejection 50dB. Positive or negative ground operation 12VDC. Includes ceramic plug-in microphone and locking mounting bracket. Accessory jacks for external speaker/hailer. Size: 2½" x 634" x 8". Shpg. wt. 6 lbs.

10A163-4. Model 2300. Each ..... \$249.95

> ((D)) PACE DX2300B 23-CHANNEL **CB BASE STATION**

Characterized by the quality design concepts of the Pace engineers, Characterized by the quality design concepts of the Pace engineers, the DX2300B will surpass your expectations of two-way radio performance. Built-in dual conversion superheterodyne receiver with tuned IF filters prevents adjacent channel bleed-over and provides additional noise reduction. Delta Tuning control enables fine tuning of received signals. Fully variable squelch control silences receiver between calls. Built-in provision for Tone Call mutes the radio for no interruptions until the call is for you. PA/Local/Distant switch. TVI shielding. Lighted "5" meter. "On air" indicator light. Cascaded amplified AGC assures constant audio output and lowest noise interference. Sensitivity 0.35uV for 10 dB  $\times$  N/N. Adjacent channel rejection 55 dB major image; 40 dB all others. External speaker and accessory jacks. Comes with high impedance ceramic hand microphone. Classic decorator styling. 117VAC or 220VAC. Size:  $3\frac{1}{2}$ " x  $9\frac{1}{2}$ " x  $9\frac{1}{2}$ " x  $9\frac{1}{2}$ " Shpg. wt. 14 lbs.

10A164-2. Model DX2300B. Each ...... \$279.95

((D)) CB1000B 23-CHANNEL AM/SSB BASE MOBILE TRANSCEIVER



The ultimate in high quality performance and reliability, CB1000B is unsurpassed in the CB world. The very best in communications control is assured with the single side band feature, a superior method of wireless transmissions over greater distances with a minimum of noise and interference. Use as a base station or mobile CB because CB1000B has both 117VAC and 12VDC operation.

Switchable Noise Blanker circuit suppresses impulse noise interference. Full range RF gain control adjusts receiver sensitivity and prevents signal overload. Clarifier ensures exact tuning of received signal. S/RF and SWR meters. Transmit and receiver mode indicators. AM,LSB and USB mode status indicator lights. PA/CB control. 4 watts maximum legal output power. 46 channels SSB with 12 watts REP maximum legal power. Sensitivity 1.0uV AM/0.5uV SSB. Adjacent channel rejection 50 dB minimum. Digital clock has automatic timer/alarm switch. PA jack on CB. Comes with a dynamic hand microphone and mounting bracket. Size: 11" x 5 ½" x 14". Shpg. wt. 17 lbs.

10A181-6. Model CB1000B. Each ...... \$489.95

# **CB COMMUNICATIONS PRODUCTS**

# REA CB CO-PILOT TRANSCEIVERS





Model 147200 is a deluxe 23 channel frequency synthesized solid state mobile transceiver featuring Delta-tune, switchable ANL, modulation light and illuminated S/RF meter. Delta-tune permits clear reception of slightly off-frequency transmissions, and switchable automatic noise limiter minimizes interference. LED modulation indicator light with automatic control of modulation level assures maximum talk power. Push-to-talk dynamic mike is included. 4" PM speaker is built-in, Transmitter has 4 watts maximum output to a 50 ohm antenna. Receiver sensitivity is 0.7uV for 10 db S + N/N, selectivity 6KHz is -6 db, 20 KHz is -50 db. Has squelch control, CB/PA switch, and external speaker jack. For 12 to 15 VDC, positive or negative ground. Size: 6½ X 2½ X 7¾". Shpg. wt. 5 lbs.

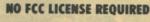
Model 14T100. Same as 14T200 but without modulation indicator light, ANL switch, CB/PA switch or Delta tune features. Does have Transmit indicator light and external speaker jack.

10A201-2. Model 14T100. Each ...... \$124.95

# **CB** /NOBILE /NONi

HEAR THE HIGHWAY ACTION!

BE AWARE OF TRAFFIC AND ROAD CONDITIONS. HEAR WHAT THE TRUCKERS SAY AND HOW THEY SAY IT. AVOID TRAFFIC JAMS.





Features include on-off volume control, gutter clip antenna, 23 channel operation, long range reception, impact resistant case. No tuning, automatically receives the strongest available CB signal. Powered by 9 V. battery (battery not included), it is completely portable and may be installed in minutes, clips to your sunvisor. Size: 4 X 3 X 1 ½". Shpg. wt. 1 lb.

10A246-7. Each ..... \$24 21A305-8. 9 volt Transistor Battery for above.

# 23 CHANNEL CB CONVERTER



• WORKS WITH ANY RADIO. • NOISE BLANKER ELIMINATES INTERFERENCE.

Very simple, easy installation. Works with present car radio antenna including windshield type. Hear truckers and other interesting CB communications - more exciting than Police band receivers. Tune channels from your AM radio. RF type noise blanker for reduced interference. Switch permits returning to normal AM radio at any time. 36" power lead. 5 X 3 X 1 ¼". Self adhesive mounting strip. Wood grain finish. Shpg. wt. 2 lbs.

### CB REPLACEMENT POWER CORDS

For replacement of lost or damaged power cables on nearly all mobile CB transceivers. Complete with fuse holder and 2 amp fuse in red lead. Standard red and black color code as used by original manufacturer. 4½" ft. long.



For direct wired units. Each end stripped and tinned. 10A3137-5. Each ...... Standard 2-Pin Cable. As used on Royce, Robyn, Midland, Lafayette and others. 10A3140-9. Each ......\$3.75 Standard 3-Pin Cable. As used on Courier, Pearce-Simpson, Cobra, Midland

A STATE OF THE PARTY OF THE PAR JOHNSON VIKING 352D AM/SSB

JOHNSON MESSENGER S 130A MOBILE

Johnson Messenger 130A. A dynamic new concept that's changing the face of CB communications! Messenger 130A mobile radio gives private listening with automatic speaker silencing as you lift the handset. Provides deluxe features including built-in Johnson speech compression, 23-channels, and built-in PA functions. Transmitter, max. FCC permitted power (4 watts output). Power required: 12 VDC positive or negative ground. Complete with handset speaker/mike, universal mounting bracket, and instructions. Size: 6½ X 8-15/16 X 6-15/16 D." Shpg. wt. 8 lbs.

10A144-4. Each ......

Johnson Viking 352D AM/SSB. 23 channels, all solid state. Operates full carrier AM or suppressed upper or lower SSB. Synthesized single conversion receiver in both modes. Sensitivity: AM 10 db (S+N)/N at 0.5uV input, SSB 10 db (S+N)/N at 0.35uV. Selectivity is 4.5KHz. min. bandwidth at -6db, 30 KHz at -60db. Has PA speaker jack, chrome nose piece. Transmitter power output 4 watts max. on AM, 12 watts max, on SSB at 13.8 VDC, positive or negative ground. Size: 7.5 W X 10.7 D X 2.4" H. Shpg. wt. 7 lbs.

10A174-1. Each \$359.95



23 channels, full 4 watts output at 13.8 VDC. High Level modulation is assured by electronic speech compression. Receiver sensitivity is 0.5uV, with 3 watts audio output and PA capability. Bar-graph LED relative power output/S meter. Chrome nose piece. For either positive or negative ground. With ceramic mike. Size: 6.2 W X 2 H X 8.9" D. Shpg. wt. 7 lbs.

.....\$159.95 10A248-3. Messenger 191. Each



# JOHNSON MESSENGER 92 CB TRANSCEIVER

Receiver sensitivity 0.5 microvolts. 6KHz bandwidth at -6 db. Squelch is highly immune to impulse type noise. Comes with nickel cadmium battery pack and in-line charger. Squelch control silences receiver on "standby", prolongs battery life. Transmitter RF power output 1.7 watts, 5 channel capability, channel 12 crystals supplied. Size: 9" X 3.6" X 1.8". Shpg. wt. 3 lbs.

10A249-1. Messenger 92. Each ...... \$169.95 10A3009-6. Extra crystals for Messenger above.

BELTEK

# MOTORCYCLE MOUNT 23-CHANNEL CB TRANS

Incredibly compact. It's the toughest, most versatile CB unit ever! Built for rough-riding equipment. ± 0.005% frequency control from -22° to +140° F. Weather resistant case. Perfect unit for motorcycles, snowmobiles, boats. Features intercom system, PA/CB switch, external speaker jack, modulating channel indicator light, 3-stage noise filter, boom mike, cycle mounting bracket and remote switch assembly with power cord for handle bar mounting. For 13.8 V. positive or negative ground systems. Size: 9½" L. X 6" W. X 2½" D. Shpg. wt. 5.5 lbs.

10A237-6. Enduro 23 \$229.95 10A3163-1. Passenger Headset.



# CB ACCESSORIES FOR TOP PERFORMANCE



# REGULATED DC **POWER SUPPLY**

Double the use of your CB mobile equipment, auto stereo tape player, or car radio. Converts 115-125 VAC to 13.6 VDC  $\pm$  1%, 3 amp continuous. Regulated output voltage is free of major variations with line voltage and load charges. Regulator employs a pre-cision integrated circuit and power transis-

supply from damage due to short circuits. Ripple less than 30 mv peak-to-peak. Load regulation 1%. Line regulation 1%. On-off indicator light, wood-grained steel cabinet. Size: 3½" H x 5½" W x 7" D.

# 12 VOLT DC **POWER SUPPLY** 095

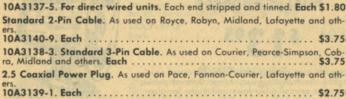


Double the use of your auto stereo tape player, car radio or CB mobile equipment by using in your home or office. Converts 115 VAC to 12 volts DC. Delivers 4 amps, 6 amp surge. No noticeable hum or voltage dip. Screw terminals. Neon on-off indicator light. Automatic circuit breaker. Shpg. wt. 5 lbs. Size: 3 ¼ " H. X 5" W. X 5" D.

13A8041-1. Each ......\$19.95

# **CB REPLACEMENT POWER CORDS**

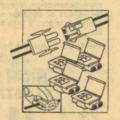
For replacement of lost or damaged power cables on nearly all mobile CB transceivers. Complete with fuse holder and 2 amp fuse in red lead. Standard red and black color code as used by original manufacturer. 4 ½" ft. long.



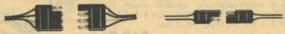
# QUICK DISCONNECT CONNECTOR

Accessory power lead. Completely insulated, polarized. Positive locking. No soldering, no stripping, no screws, no tape. Installs with pliers. Package contains one quick disconnect and 4 quick splice connections.

12A5213-0. Each ..... \$1.99



# **AUTOMOTIVE POWER CONNECTORS**



Power connectors for positive contact. Do not separate even under constant vibration. Pairs are connected together by 16" leads. Cut apart or use as wired 

# **AUTO RADIO NOISE SUPPRESSORS**



1 Master Distributor Suppressor. Sure use separately, or in severe cases, with	individual suppressors.
38A8009-9. Net Each9	
(2) High Efficiency Spark Plug Suppresso	
38A8010-7. Pkg. of 2 For	98c
(3) Alternator Noise Filter. Cures interferstereo player caused by the alternator, to install, Size 2½x1½". Shpg. wt. ¼ 38A8000-8. Imported. Net Each	Encapsulated, long life design. Easy lb.
( Generator Filter .5 uf. @ 250 Volt	for auto radios. Metal encased with
insulated lead. Wt. 2 oz. 15A5165-9. Spec. Each	
In handy kits, the needed suppressors, stallation. Easy to install by anyone.	condensers, etc., for a complete in-
38A8012-3. For cars with up to 8 cylinder	ers. Per Kit \$3.90

### CAR NOISE SUPPRESSOR KIT

Effectively kills the interference or noise caused by ignition system or alternator in some cars. Kit contains choke and capacitor and easy to follow instructions

\$2.33 38 A8020-6. Each .....



# **CB ALTERNATOR NOISE FILTERS**



Eliminates interference in your CB set caused by the alternator. Easy to install. 10A3113-6. CB60. For Alternators up to 60 amp. Each . . . . . \$8.25 10A3114-4. CB100. For Alternators up to 100 amp. Each . . . . . \$12.95 10A3115-1. CB200. For Alternators up to 200 amp. Each . . . . . \$18.90

### INSTALLATION ACCESSORY KIT

Needed only where alternator output wire is assembled into the alternator, rathter than to a terminal post.

10A3121-9. CBAK60/100. For 60 and 100 amp filters. Each .......\$1.50
10A3122-7. CBAK200. For 200 amp filter. Each ............\$2.75

### COAXIAL FEED-THRU

Recommended for air-conditioners, voltage regulators, ignition coils or other automotive accessories. 10A3116-9. CBFT40. For up to 40 amps. 0.5 uf/50 VDC. \$2.99

Each 10A3117-7. CBFT60. For up to 60 amps. 0.5 uf/50 VDC. Each 10A3175-5. CBFT20. For up to 20 amps. 0.1 uf/600 VDC. Each

L-C Tuned Filter. Utilizes a ferrite inductive element with a coaxial capacitor for maximum effectiveness. Use with any automotive accessory from 1 to 100 amps. Rated 75 VDC.



(1) LOW PASS TVI FILTER

A pre-tuned low pass filter, designed to reduce TVI from second and third Har-monics. Cut-off frequency 43 MHz. For up to 1000 watts input. With SO-239

10A3158-1. CBTVI-1. Each

(2) ALL PURPOSE FILTER

Provides high performance when installed at the receiver power leads to prevent stray noise. Install as close to the receiver as possible to block out unwanted noise. It has capacitive and inductive elements for maximum effect on 27 MHz. Max rating 24 VDC

### MOBILE IN-LINE PREAMPLIFIER



Add signal power to your mobile rig without any modification. Insert between transceiver and antenna to boost receiver sensitivity 20 db. Exclusive RF sniffer circuit operates the instant transmitter is keyed. Mount on dash, firewall, in trunk, 

EACH ..... \$34.95

# LOW PASS FILTER

**ELIMINATES** TV INTERFERENCE



Eliminates TV interference. Achieves maximum attenuation of both hi and lo band TVI, yet maintains a low SWR. 100 db rejection of spurious RF above 40 MHz. Variable input impedance 50-70 ohm. Handles to 1 KW. Negligible insertion loss. 1½ X 2½ X 12″. Standard SO-239 connectors. With instructions. Shpg. wt. 2 lbs.

10A3127-6. Telco XL-1000. Each .....

# **APPLIANCE FILTER FOR BASE STATIONS**

For home appliance (hair dryers, hot combs, blenders, etc). Use at appliance or noise producer. For 110 VAC. 60 Hz. 5 amp. 10A3119-3. Cornell-Dubilier CBBS2. Each . . . . . \$3.95



# **BASE STATION FILTER**

Removes interfering signals from AC power line caused by home appliances, industrial equipment, etc. For 110 VAC 60 Hz. Has 3-wire cord and 3-wire receptacle. Size: 6½" X 4" X 2¼". Shpg. wt. 2 lbs.
10A3118-5. Cornell-Dubilier CBBS1. Each . . . . . \$20.46



# CB ACCESSORIES FOR TOP PERFORMANCE



OCOMBINATION FIELD STRENGTH AND SWR METER

Here are two units in one. A field strength meter shows relative RF singal strength. Good for checking antenna radiation and comparing one antenna to another. Uses a telescopic antenna. You can also check the SWR of your coax. Indicates up to 3:1 with 99.5% accuracy. Make sure your antenna is getting all the power it is supposed to. 52 ohm impedance. Size: 6" H. X 2" W. X 2¾" D.

10A3039-3. Each ...... \$19.95

**② COMPLETE CB TEST METER** 

Measures Field Strength, modulation percentage from 0 to 100%, antenna SWR and power in two ranges (0-10 and 0-100 Watts). Connectors are rear panel mounted for convenience. Black cabinet with wood-grain front panel. Large meter, supplied with telescopic antenna. Shpg. Wt. 4 lbs.

10A3108-6. Each ......\$39.95

**3 PROFESSIONAL POWER SWR MONITOR** 

 $2\frac{1}{4}$ " meters give power reading up to 100 watts. Simultaneous SWR reading of infinity to one. Output power: 0-10, 0-100 watts. SWR meter has separate (%) reflected power scale. Calibration control. Size:  $5\frac{1}{2}$ " x  $4\frac{1}{4}$ " x  $5\frac{1}{4}$ ". Black cabination net has satin chrome and wood grain trim. Shpg. wt. 3 lbs.

10A3173-0. Each .......\$59.95

( IN-LINE SWR METER

Compact SWR meter for easy in-line measurement. 1½" scale calibrated 1-1.5-3-5-10. Separate (%) reflected power scale. Calibration control. 2¼" x 4" x 1½". SO-239 connectors. Black with silver trim. Shpg. wt. 2 lbs.

10A3174-8. Each ...

(5) THREE-FUNCTION CB METERS

Measures transceiver RF output power on two scales. SWR and relative field strength. Has a telescopic antenna for field strength measurement, and can be left in coox line with negligible signal loss. Has switchable impedance setting for testing twin antennas. Specifications: SWR scale: 1:1 - 3:1 VSWR, power scales: 0-10, 100 watts, FS scale: 1-10, frequency: 1.5 - 144 MHz. For 52, 75 ohms. Size: 6 x 2 ½ x 2 ½ ". Shpg. wt. 2 lbs.

10A3168-0. Each ...... \$29.95

**(5) ANTENNA IMPEDANCE MATCHER** 

Maximize the efficiency of any CB installation by adjustment of SWR under all conditions. Use with an SWR meter, and can be left in coax line permanently. Impedance range 25-140 ohms. Size: 3 ¼ " x 2 ¼ " x 2 3/8".

### 24 HOUR DIGITAL CLOCK

Features big, bold 2" numerals - can be seen by everyone in a large room. Ideal for offices, factories and stores. White numerals on black background. and stores. White numerals on black background.

Has leaf-type readout and precision synchronous motor. Comes with a slot for hanging and chrome stand for counter use. Operates on 110 VAC. Size: 11½" W. x 5" D. x 6½" H., plus 2" removable base. Shpp. wt. 6 lbs.

47A323-1. Model 801 - White

47A324-9. Model 801 - Red

47A325-6. Model 801 - Yellow

EACH ......

YOUR CHOICE EACH .....

\$59.95

# 24 HOUR DIGITAL ELECTRIC CALENDAR CLOCK

Handsome illuminated clock shows time, day and date . . All automatically. Accurate noiseless operation. Brushed aluminum case. Built-in diffused light. 8½ x 4 x 3½" U.L. approved. 115 volt AC. 60 Hz. Shpg. vst. 3 lbs. 9A3270-7

216



# TELEX COMMUNICATIONS HEADSETS





Model CB-1200 CB Communications Headset. High performance headset for CB communications. Combines a dynamic receiver with a ceramic boom microphone, talk switch and FET amplifier. The single muff design lets you monitor your radio at all times. The mike boom rotates a full 310 degrees. A two-position talk switch on the cord depresses momentarily or locks-in. Use "shorted" 

Model CB-88 Dramatically better aviation type, lightweight headset. Amplified, noise cancelling, low impedance magnetic mike. Single magnetic receiver matches external speaker output. 8' cord with in-line push-to-talk switch. 140" receiver plug and unterminated mike lead. Weighs 6 oz. Shpg. wt. 1 lb. 10A3177-1. Shorted Switching. Your Choice 10A3178-9. Non-Shorted Switching.

# TRUMPET FOR CB AND **PUBLIC ADDRESS**

Natural tone paging speaker for universal application. Smooth frequency range, free of peaks, cuts out unintelligible lows and highs for clear, crisp sound. Wide angle 90° spread for maximum penetration. Weatherproof re-entrant type, for indoor or outdoor use. 180° swivel mount with screw flange. 5 watt power rating. 8 ohms. 5 inch horn opening. 5-3/8" long. With wire lead. Shpg. wt. 2

HIGH IMPACT PLASTIC HORN

8 ohm, 8 watt maximum; weather proof; rust proof. White horn, black bracket. Size 4-5/8"W X 4-3/8"H X 4-3/8"D. Shpg. wt. 2 lbs.

49A4051-2. Each ..... \$17.95



CB EXTENSION SPEAKER

KRIKET MOBILE **CB SPEAKER** CB SPEAKER





Designed for rugged use. Ideal for vehicles with high noise levels. Penetrating audio power of your CB comes through strong and clear. 4 foot audio lead with miniature phone plug to fit fack on transceiver. Durable plastic housing with metal grille and metal swivel bracket. 8 ohm impedance. Size: 4½" W. X 4½" H. X 2" D.

10C3111-0. Each ..... \$9.95

Gives improved sound from your CB. Snap lock mounting bracket for easy positioning. Black naugahyde covering. 3 oz. ceramic magnet, 3½" weatherproof cone. ¾" voice coil, 5 watts RMS 8 ohm. 4 ft. cord with miniature phone plug. 4½ X 5¼ X 4¼" deep. Shpg. wt. 1½ lbs. 10A3096-3. KC35. Each \$14.95

Kricket Base Station Speaker 5' weatherproof cone. 5½" X 5½" X 5½" X 4½" deep. Otherwise as above.

10A3124-3. KC55. Each \$24.95

# CB ACCESSORIES FOR TOP PERFORMANCE

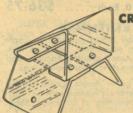
#### PORT-A-MOUNT CB MOUNTING BRACKET

CB unit with attached mount lifts off transmission hump to store in trunk for security. Easy to take to second vehicle. Velcor strips on underside provide grip to carpet. Piano-hinged arms adjust to fit any car and also fold under to save space for storing. Heavy gauge metal with black hammertone finish. Shpg. wt. 4 lbs.



10A3132-6. Each ...

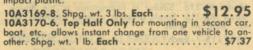
..... \$15.95



Complements the finest automobile interior. Durable acrylic plastic. Mounts over transmission hump. Fully adjustable to fit any auto and CB mobile unit. Shpg. wt. 3 lbs. \$19.95

#### 10A3123-5. Each ..... **CB SLIDE MOUNT**

Has 9 inch length of RG58/U cable with PL-259 to connect to CB unit. SO-239 for antenna connection is on top half of mount, and remains in the car when CB is removed. Multi-connector joins 4-wires and coax line. Hiimpact plastic.







#### **EASY SLIDE MOUNT**

Complete with mounting hardware and wiring. Takes just minutes to install. Heavy duty, adapts to any car stereo, radio or CB unit. Shpg. wt. 3 lbs.

10A3157-3 Each ...... \$9.95



#### **HUMP MOUNT**

Screwdriver adjustment for any angle for any hump. Tilts up or down. Hole in center allows sound to come out of CB's with bottom speakers. Great for car stereos too! Shpg. wt. 3 lbs.

10A3166-4. Each ...... \$5.95



#### MIKE HOLDERS

Non-destructible plastic fits all microphones with hanger button. Holds on steel with strong magnet, or on plastic with double sided tape supplied. Shpg. wt. 8 oz.

10A3149-0 Each .....





#### CB MICROPHONE CONNECTORS

10C3107-8. 3-Pin	PLUG . Each	\$2.50
10C3090-6. 4-Pin	PLUG . Each	\$2.95
	PLUG . Each	

#### **CHASSIS MOUNT JACKS**

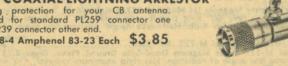
Mate with plugs above.		
10A3142-5. 4 Pin Jack. Each	\$1.99	
10A3143-3. 6 Pin Jack. Each	\$2.49	



#### **COAXIAL LIGHTNING ARRESTOR**

Lightning protection for your CB antenna. Threaded for standard PL259 connector one end, S0239 connector other end.

10A3128-4 Amphenol 83-23 Each \$3.85



STOWIT CB ANTENNA MOUNT
Lets you hide your CB antenna when not in use. Use with
any trunk mount or roof mount antenna. Simple to install, needs only 2 holes in inside hollow core trunk panel, no holes in outside of car. Mount swivels so antenna is stowed inside trunk, out of sight in seconds, for instant return to operating position. Shpg. wt. 2 lbs.





The Nailer is an alarm system that can be easily installed in a matter of minutes to work off of your 12-volt battery. It can be hooked up to an auxiliary alarm system or to the horn in your vehicle. If a thief attempts to remove your CB radio or your CB antenna, the alarm will automatically be set off to scare even the bravest thief. The Nailer is permanently armed. Works with ham two and six meter radio systems too.

The Nailer is great insurance that no The Nailer is great insurance that no CB or ham radio owner should be without. Size: 2½" X 2-1/8" X 1¾". Shpg. wt. 2 lbs.

47A5664-3. Each .... \$29.95

# **CB ALARM SYSTEM**

- PROTECTS CB EQUIPMENT FROM
- INSTALLS EASILY, QUICKLY.

COAXIAL

CABLE ASSEMBLIES

NO SWR LOSS



100-	
Stk. No.	Description
2A9871-3	18 inch RG58/U
2A4000-4	3 Ft. RG58/U
2A9867-1	5 Ft. RG58/U
2A9870-5	12 Ft. RG58/U
2A9866-3	12 Ft. RG58/U
2A9986-9	20 Ft. RG58/U
2A4002-0	20 Ft. RG58/U
2A9869-7	50 Ft. RG58/U
2A9868-9	100 Ft. RG58/U
2A9979-4	50 Ft. RG8/U
2A9980-2	100 Ft. RG8/U

	0/10/11		
	FOR CB—AMATEUR—M ANTENNA CIRCUI Finest low-loss polyfoam tached PL259 plugs, factor bled to save time and mo	coax, a	it-
U	With PL-259 Both Ends	Wt. 2 Oz.	Each \$2.85
0	Both Ends	3 Oz.	
	One End, Spade Lugs Other End		
	Both Ends	12 Oz.	4.27
	One End, Spade Lugs Other End	12 Oz.	3.82
	Both Ends	1 Lb.	5.00
	One End, Spade Lugs Other End	1 Lb.	4.26
	Both Ends	3 Lbs.	7.56
U	Both Ends	6 Lbs.	10.88
	Both Ends	6 Lbs.	15.55
	Both Ends	11 Lbs.	26.69

\$4860

CB ANTENNA PHASING HARNESS
Use with any pair of antennas. 18 ft. inter-connecting harness plus 17 ft. coax to CB rig. Provides uniform signal pattern all directions. Weatherproofed molded cable junction. Shpg. wt. 2 lbs.

10A7094-4. Each ..... \$11.95

#### ASTATIC **POWER MIKE**

The famous D104 microphone with T-UG8 amplified grip-to-talk stand. Volume control under base adjusts with screwdriver. Noise-free, click-free switching. Internal slide switch selects relay or electronic control. High impedance crystal element. 30-7500 Hz Freq. response. Output -46DB. Uses 9 volt battery (not included). 6 ft. (extended) 4 wire coil cord.Shpg. wt. 3 lbs.

Like TUG8-D104 except 6 wire cord.

\$54.60 29A773-9. Model D104-TUG9. Each .....

#### **ASTATIC GOLDEN EAGLE**

Similar to power mike above but has gold plated mike, stand and base. 6 wire cable for operation with all CB transceivers.



#### ASTATIC SILVER EAGLE

Deluxe base station power microphone has push-talk bar on base as well as grip bar on handle. All chrome with American Eagle engraved on mike. 6 wire cable for operation with all CB transceivers. Shpg. wt. 3 lbs.

29A774-7. Model TUP-9-D104 Each ..... \$71.40

#### **ASTATIC D104-M CB** MOBILE MIKE

Field effect transistorized amplifier is adjustable through a 40 db range. Smooth press-to-talk DPDT switch operates control circuit and turns battery "on" when pressed. Output level is -44 db. Has 5 ft. (extended) coiled 4-wire cord, factory wired for electronic switching, can be readily converted to relay switching. Size: 3-3/8" X 2-3/8" X 21/32". Shpg. wt. 1 lb.

29A775-4. Model D104M. \$33.00





# ANTENNA SPECIALISTS MOBILE CB ANTENNAS

M-125 M-276 MR-180 M-432 MS-178 M-267 M-247

\$22.50

MODEL M-210 LUGGAGE RACK ANTENNA Like M125 except on a handy clamp to fit up to  $\frac{3}{4}$  " round or square pipe. 17 ft. coax and connector. Shpg. wt. 3 lbs. 10A7090-2. Each ..... MODEL M-276 TRUNK LID MOUNT

For trunk lip mounting. No holes necessary, Base-loaded with shock spring. 17 ft. RG/58U coax and PL-259 connector. Has in-line coax connector. Shpg. wt. 2 lbs. 10A7142-1. Each ...

**MODEL M-432 HATCHBACK MOUNT** Hatchback mount lets you adjust antenna to vertical on hatchback and fastback model cars. In-line coax connector. Stainless whip. Shpg. wt. 2 lbs. 

MODEL MR-180 GUTTER MOUNT ANTENNA Center loaded, stainless whip, mounted on "Flipper" gutter mount. Can be positioned vertical/horizontal or in-between. Rustproof clamp/fittings. Complete with 10 ft. cable/connector. Shpg. wt. 2 lbs.

10A7114-0. Each ......\$22.95 MODEL MS-178 MAGNET MOUNT Die-cast mount with powerful ceramic magnets provide strong holding power. No holes to drill, In-line coax connector lets you remove antenna without removing coax. 24 ft. of coax and PL-259. Shpg. wt. 2 lbs. 10A7088-6. Each ..... \$24.75

MODEL M-431 TRUNK GROVE HATCHBACK MOUNT Base loaded, stainless steel whip with shock spring. Trunk grove/hatchback mount lets you adjust antenna to vertical. Has in-line coax connector, 17 ft. type 58U coax and PL-259. Shpg. wt. 3 lbs. 10A7144-7. Each ......\$26.95

MODEL M-267 CB & AM FM COMBINATION ANTENNA A standard cowl mount that serves a dual purpose. Negligible loss on AM/FM with a coupler that provides outstanding CB performance. The same system used on police disguise antennas. Loading gives good CB performance on front or rear cowl mount. Coax cable furnished. 48" high. Stainless steel whip; chrome fittings. Shpg. wt. 2 lbs.

10A7089-4. Each ......\$37.95 MODEL M-247 CAMPER/TRAILER ANTENNA 102 INCH STAINLESS STEEL WHIP 9A49-8. Model M3B. Each \$9.75

218



#### **BIG MOMMA MOBILE ANTENNA**

Coolest running mobile antenna in the A/S line. New Dura-Con whip for superconductivity and to prevent detuning from excess heat. "Quick-grip" base loaded trunk lip mount converts easily to a ¾" hole rooftop mount. 45" high. 17 ft. coax with PL-259. Has an in-line coax connector to simplify installation of antenna. Shpg. wt. 4 lbs

10A7140-5. Model M-510. Each . . . . . \$36.75

#### **TWIN CB ANTENNAS**

New and unique static ball tuning provides a simple method for fine frequency adjustment. No whip trim-ming! Come with factory tuned phasing harness, and connector assembly. Stainless steel shake-proof whips.

Model M-313. For rain gutter mount. Center-loaded 42" high whips and weatherproof molded coils on "Flipper" mounts to permit positioning of antennas. Shpg. wt 5 lbs

10A7096-7. Model M313. Each ..... \$39.95 Model MR-315. For mirror mount. Center-loaded stainless steel 52" whips. T-handle on mounts make installa-

tion and removal a snap. Hardware supplied also permits permanent installation. Shpg. wt. 7 lbs.

10A7097-7. Model MR-315. Each .... \$41.95

Model M-316. Similar in appearance to the double eared MR-315. Single antenna without T-handle. 54" tall. Shpg. wt. 3 lbs.

10A7115-7. Each ..... \$19.95

MR-415 SUPER CANS DUAL

TOP-LOADED DIESEL MOBILE ANTENNAS
Rugged, heavy duty antennas with "monster-mounts" to
take the vibration. Maximum range, burnout-proof coils. Easy tuning, tapered stainless steel, top whip. Phasing harness included. Coaxial connector on antenna to keep out the water. Double bolts clamp the mount on the mirror-releasing one bolt releases the antenna. The antenna

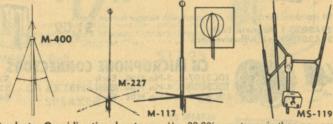
Model MR415 for both antennas, harness and mounts. 10A7086-0.

Each ..... \$59.95



BASE STATION CB ANTENNAS
Model M-216 Big Daddy. Top of the directional base
station line. Yagi design with five horizontal and five
vertical halfwave elements. 15.5 db gain. Seamless aircraft quality aluminum throughout. 22 ft. boom. 18 ft.
elements. Weighs only 40 lbs. Mounts to any mast up to
1½ inches inside diameter for pipe, 2" outside diameter
maximum. Includes five position coax switch. Shpg. wt.
45 lbs.

10A7141-3. Each ..... \$219.95



Starduster Omnidirectional antenna. Has 32.2% greater gain than any previous omnidirectional, 5.0 db gain over ground plane. Reduces angle of radiation, puts out more useable signal. Power handling capability provides 500 to 1 safety factor. Accepts 1" threaded pipe or 1 ¼" mast. 17" high overall. Radials 8 ft. 10" long. 6' total dia. Weighs only 3 ½ lbs.

No. 10A7079-5. 

New! Mighty Magnum III Model M-227. Height 16 ft. 7 in. Electrically short-ened radials only 60" long permit easy installation and lower wind loading. Omnidirectional gain 4 db. Half-wave height provides low angle of radiation. Wt. 10 lbs.

Model M-117 Super Magnum Omni-Cain Cround Plane. Gives 3.75 db gain. Features low angle of radiation. Has rigid aluminum radiator, 41/4 wavelength radials. Exceptional mechanical strength. Shpg. wt. 10 lbs. 10A7008-4. Model M-117. Each ....

Model MS-119. Super Scanner Omni or Directional Antenna. Rotates signal. NOT THE ANTENNA. 5.75 db omni gain. 8.75 directional gain. Vertical elements are 17½' long mounted at 120° points on 3' radius circle. Requires 4 wire TV rotor type cable for scan control and 52 ohm coax lead for antennas. Comes with control box, antenna mounted relay box, and coax harness. Shpg.

# **CB ANTENNAS AND MOUNT**



SUPER CLR THE PENETRATOR. The only antenna you can buy that'll SUPER CLR THE PENETRATOR. The only antenna you can buy that'll outperform the HyGain CLR2. Full 5/8 wave (22'9½") radiator concentrates your power even closer to the ground ... where you want it. The Penetrator is capable of pumping out up to 1,500 watts. Advanced double-matching-tuning and linear phasing for low SWR give you a new standard of electrical performance. Four full length radials for more radiated energy . . boost your talk power. Perfect 52 ohm to match your transceiver. High strength aircraft type aluminum. Specifically designed to accept AM-FM-SSB-DSB signals low loss. New top discharges more static. Recessed coax connectors. Double-matching and linear phasing eliminate contained transformers and frequency drift due to heat. Shpg. wt. 13 lbs.

9A7037-6. HyGain No. 500. Each \$49.95

CLR-2 COLINEAR. Embodies every significant electrical and mechanical innovation. Radiator height of 19 ft. 10 in. lowers the angle of radiation directing a maximum distance-reaching signal along the horizon.Radiator and 8 ½ ft. radials are all high strength seamless aluminum. Has tough styron insulators and iridated weatherproof double grip mast support. DC grounded for lower noise, from 4 db gain in improved signal-to-noise ratio. Wind survival 80 mph. Shpg. wt. 8 lbs. 10A7003-5. Model CLR-2/473. Wt. 7 lbs. less coax and mast. Ea. \$39,95

#### LONG JOHN 5-ELEMENT **ROTATABLE BEAM**

Base station to mobile, or point-to-point, the Long John will multiply your power 18.4 times. It is designed for unmatched perfor-

Features heavy-wall aluminum elements and super strength taper swaged tubing. Elements are optimum spaced on the 2" O.D. boom to insure maximum theoretical gain. The driven element is at DC ground for improved signal-to-noise ratio and lightning protection. Power multiplication 18.4, gain 12.3; front-to-back ratio 31 db; SWR less than 1,5: 1. Boom length 24 ft. Shpg. wt. 24

10A7072-0. Model 410.

Net Each ..... \$89.95

#### CB3 . . . 3 ELEMENT BEAM

An outstanding performer . . . delivers 8.2 forward gain; 20 db average F/B ratio; and, 40 db F/S ratio. Will multiply your transceiver's output power by 6.6 times. Feeds with 52 ohm coax. Full sized ½ wave-length elements. Rotates with standard TV rotator. Boom length 8 ft., longest element 18 ft., turning radius 4 ft., and maximum wind survival 80 mph. Weight 7 lbs.

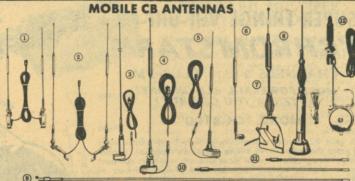
No. 9A7036-8 



(1) Model 100B. 3-way mount bracket for base loaded differing.
10A3165-6. Shpg. wt. ½ lb. Each
10A3099-7. Shpg, wt. ½ lb. Each
10A3164-9. Shpg. wt. ½ lb. Each
10A3101-1. Each \$6.90 (5) Model 114. Trunk mount assembly, chrome plated. Fast, permanent instal-

lation. Shpg. wt. ½ lb. (6) Model 503. Split die cast ball mount. Accepts 3/8" X 24 antenna.

Accepts 3/8" X 24 antennas. Shpg. wt. 3 lbs. 



(1) Two 25" Rain Gutter Mounted Antennas. Fits any size gutter, a cle. 180° swivel balls, 12' coax phasing harness. Shpg. wt. 3 lbs.	ny vehi-
9A7052-5. Hustler DTG. Each	\$31.95

(2) Super Deluxe Trunk Groove Mount. 48" stainless steel. Chrome Plated mounts. Swivels 180°. 17' dual phasing harness. Shpg. wt. 4 lbs.

(3) Trunk Lip Mount. "No holes"-Swivel ball, 48" high. 17' of RG-58U cable, impact spring. Shpg. wt. 3 lbs.

(4) Trunk Lip Mount. "No holes"-180° swivel ball. 17" of RG-58U cable. 55" high with resonator and adjustable tip rod. Shpg. wt. 3 lbs.

10A7100-7. Hustler HQ-27M. Each ...... \$28.95

(5) Trunk Groove Mount. "No holes"-30" high, heavy duty mount. Completely adjustable for lowest SWR. With 17' of RG-58U cable and PL-259.

10A7101-7. Hustler TLS-27L. Shpg. wt. 2 lbs. Each . . . . . . . . . . \$24.10 (6) Portable Base Station Antenna. 21" high. Right angle PL-259 attaches to any CB transceiver. Factory pre-tuned for lowest SWR. Shpg. wt. 1 lb.

10A7145-4. Hustler TMR-27. Each ...... \$9.60

(7) Mura CBA-1 Gutter Clip Antenna. Easy installation on auto rain gutters of any size or shape; adjustable; complete with 9' of coaxial RG-29U cable and PL-259 connector. Adjustment for lowest SWR. Shpg. wt. 3 lbs.

10A7119-9. Each ...... \$17.95 (8) Mura CBA-2 Trunk Lid Mount. "Quick grip" mount — no holes to drill, stainless steel tapered rod with loading coil. Adjustable for lowest SWR. Base 3" in diameter, overall length 45". Includes 16' of coaxial cable plus PL-259 connec-

10A7120-7. Each ...... \$19.95

(9) Valor Model 334. 96" Fiberglas antenna. Shpg. wt. 1 lb. 10A7123-1. Each ...... \$16.00 (10) Valor Model 333. 4 ft. Fiberglas top-loaded antenna. Shpg. wt. 1 lb.

(11) Valor Model 333 ½, 2 ft. Fiberglas top-loaded antenna. Shpg. wt. ½ lb.

10A7111-6. Each ..... \$13.95 (12) Valor Model VE-027-FR. Electric antenna prevents thefts. 48" stainless

steel. Complete with hardware for front or rear mount, RG-58U cable and PL-259. Shpg. wt. 4 lbs. 10A7138-9. Each.



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	part street	BODY MOU	NTS 3/8"-24	The same of the sa
		Chrome swivel body mou		
		iffy Mount. Fits Under de	ck lid. Ant. Spec. Mi	
Eac				\$7.95
(3)	9A237-9.	Deluxe Swivel Body Mo		
		Ant. Spec. M13. Each		
(3)	9A238-7.	Aluminum Swivel Body	Mount. Ant. Spec. N	13. Each \$8.95
(4)	9A3095-8	3. Insulated gutter clip. F	ly Gain GCP. Net E	ach \$2.95
(5)	9A64-7.	Stainless Steel Strap Bum	per Mount. Hy Gain	BPR. Each \$11.95
(6)	9A161-1.	Double Chain Bumper A	Nount. Ant. Spec. M	191. Each . \$13.95
		Cadmium Plated Spring		
漢下		Ant. Spec. M3A Eac	h	\$6.95
(8)	9A240-3.	Chrome plated spring. I	Deluxe version of abo	ove.
		Ant. Spec. M3AD. E		
(7)	9A46-4.	Deluxe Chrome Spring. H	ly Gain SPG. Each	\$7.95
(7)	9A26-6.	Heavy Duty Chrome Spri	ng. Hy Gain SPGH.	Each \$11.95
(7)	9A27-4.	Miniature Stainless Steel	Spring. Hy Gain SPO	GM. Each \$4.95
(8)	9A3291-3	Gutter Clip Mount wit	h coax. Ant. Spec. A	M236.
Eac				\$14.95

# POWERFUL WINEGARD TV ANTENNAS

# SUPER FRINGE VHF-UHF-FM "CHROMSTAR

CHANNELS 2-83... PLUS FM MOST POWERFUL ALL-CHANNEL ANTENNA YOU CAN BUY!

MODEL "CH-8100"

High gain 82-channel antennas with high front-to-back ratio and extra sharp directivity ensure ghost-free reception. Unique "wedge" design allows use of more elements in a more compact antenna. Narrow vertical reception lobe prevents pick-up of 7 /16" dia, elements and 1" square boom for extra support.
Perfect no-loss coupling between VHF and UHF sections and precise impedance match. Support brackets keep elements rigid and in perfect alignment. Easy to install. For extra power in extreme fringe areas or to operate several sets, use Chromstar antenna amplifier (see listing opposite page).



CH-8100

CH-8100, CH-8096 and CH-7080 are too large to ship parcel post or UPS and must go via motor freight. Please check with your local agent for freight rate. CH-7078 and CH-7076 can be shipped parcel post to 2nd class post office or R.F.D.

Stock	Model	No.	Boom	Recept
No.	No.	Elements	Length	Arec
7A6594-9	CH-8100	64	144"	Extreme
7A6595-6	CH-8096		118"	Deep Fri
7A6596-4	CH-7080		83"	Fringe
7A6597-2	CH-7078		65"	Suburbo
7A6598-0	CH-7076	15	46"	Metropo

Reception	Shpg,		2
Area	Wt.	Each	Each
Extreme Fringe		\$99.95	\$95.75
Deep Fringe	18	75.95	69.25
Fringe	8	32.95	48.25
Suburban	0	45.95	41.50
Metropolitan	0	33.93	32.73

#### VHF-FM ANTENNAS

For super color and black and white, FM and FM stereo. New 7/16" dia. elements and full 1" boom for extra strength. New VHF director system for added reception distance. Built-in weatherproof housing accepts 300 ohm wire or 75 ohm cable. Not mailable.

Stock	Model	No.	Boom	Reception S
No.	No.	Elements	Length	
7A6599-8 7A6600-4			153"	Extreme Fringe Metropolitan

Each Each \$99.95 \$91.95 39.95 36.00

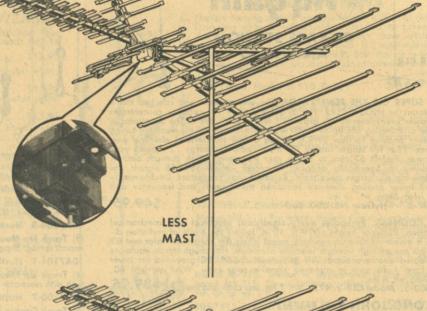
# EGARD MODEL U-620K

USES ONLY ONE LEAD-IN WIRE ATTACHES TO YOUR VHF MAST

Stk. No. Model Elements Length A6547-7 U-610K 12 26" A6548-5 U-620K 20 41"	Shpg. Wt. 6 lbs. 9 lbs.	Each \$20.95 24.95	\$18.7 22.9
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COLOR TRACKER CHANNEL 14-83 **UHF ANTENNA** 

Features parabolic reflector and staggered yagi-type directors for unprecedented UHF performance. Rugged, lightweight and compact. All gold anodized aluminum. Comes complete, easy to install—includes back of set VHF-UHF band separator and phasing wire with connectors for quick installation to your VHF antenna. Mailable—2nd and 3rd class and RFD.



**EXCLUSIVE!** Built-in 300 ohm and CHROMSTAR

CH-7078

75 ohm downlead connections. NO MATCHING TRANSFORMER REQUIRED!

See Page 225 for Cables with Connectors attached.

#### DELUXE QUALITY

All Winegard antennas shown here are built of finest quality materials that lock-in peak performance for many extra years. 7 patents and patents pending indicate the unique engineering design advancements in these antennas.



INDOOR FM DIPOLE ANTENNA

Reception

Area Deep Fringe

Fringe

Lbs. Each

10 \$56.95

32.95

Each

29.75

Boom

62"

Model

No. No. Elements 7A6601-2 CH-6065 20

7A6602-0 CH-6060

No.

Elements Length 5 20 125"

Not illustrated - Flat wire concealable FM antenna can be tacked to the back of set, put under rug, etc. Signal pickup better than most built-ins. 7A4504-0. Wt. 4 ozs. Each

# IT'S EASY TO INSTALL A WINEGARD ANTENNA SYST

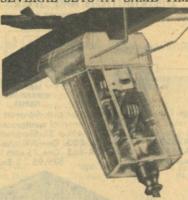
# WINEGARD

#### **CHROMSTAR 82-CHANNEL** ANTENNA MOUNTED AMPLIFIERS

BOOST UHF-VHF OR FM ACCORDING TO YOUR LOCAL NEED—UP TO 7 TIMES MORE SIGNAL POWER

SOLID STATE SIGNAL BOOSTERS EXTEND RECEPTION RANGE . . . STRENGTHEN WEAK CHANNELS AND LET YOU OPERATE SEVERAL SETS AT SAME TIME





There's a high gain, transistorized amplifier for every reception area. Precision printed circuitry with long-life silicon overlay transistors boost TV signals on antenna right at point of interception. Perfect for color and black and white. Amplifier boards slide easily into the built-in housing on all Winegard Chromstar antennas. (For other antenna models, order housing Model AH-0100 shown below.) Includes connector and power supply. 117 VAC. Shpg. wt. 2 lbs. For FM amplifier use cartridge for weak VHF Models AC-2230 or AC-2950.

#### RECOMMENDATIONS . . . IF YOU HAVE:

Weak VHF and UHF, use models below.
7A2658-6. AC-8230 (for 300 ohm line). Each . \$54.95 2 Each \$50.25 7A2659-4 AC-8950 (for 75 ohm cable). Each \$54.95 2 Each \$50.25
Weak VHF, Strong UHF, use models below. 7A2660-2. AC-2230 (for 300 ohm line). Each \$43.95 2 Each \$39.75
7A2661-0. AC-2950 (for 75 ohm cable). Each \$43.95 2 Each \$39.75
Weak UHF, Strong VHF, use models below.
7A2662-8. AC-4230 (for 300 ohm line). Each . \$42.95 2 Each \$38.75
7A2663-6. AC-4950 (for 75 ohm cable). Each \$42.95 2 Each \$38.75
High Gain Low-Noise Amplifiers for fringe area reception. Helps insure snow-free reception. 75 ohm only, connector for RG/59U furnished.
7A2664-4. Model AC-9130. Each \$52.95 2 Each \$48.75
For Weak UHF and VHF. 24 db, VHF gain, 9.3 db. UHF gain.
7A2665-1. Model AC-9820. Each \$64.95 2 Each \$59.25
Universal Amplifier Housing attaches to any TV or FM antenna with U-bolt provided. Accepts any of solid state amplifiers listed here.
7A2666-9, Model AH-0100, Shpq. wt. 1 lb. Each \$9.95 2 Each \$8.50

#### CB INTERFERENCE TRAP

Fits inside the built-in housing on Chromestar TV antennas. Has a -26 db attenuation to block 95% of the interfering CB signal from the TV set. 7A2668-5. Model TP-0270. Each . . . \$4.95 2 Each . . . 2 Each ..... \$4.00 WINEGARD MULTIPLE SET COUPLERS

#### FOR UHF-VHF TV AND FM COLOR OR BLACK & WHITE

Used in home TV-FM systems. Divides signal from antenna or booster 300 ohm lead for 2 or more sets or for wiring 2 or more outlets where one set is to be moved about. Prevents ghosts caused by poor match. High isolation between sets prevents interaction. Use with regular 300 ohm twin lead for VHF, UHF or FM. Excellent for color as well as black and white TV. 300 ohm input and 0utputs. 5-way brackets for indoor or outdoor mounting. Shpg. wt. 1 lb.

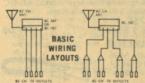
mounting. or	.h.P			
7A2519-0.	CC-282B	for 2 sets	. 1000 100	
Each	\$5.59	2 Each		\$5.00
7A2520-8.	CC- 482B	for 3 or	4 sets.	
Each	\$6.9	9 2 Each		\$6.25
7A2637-0.	CC-787	has 75 o	hm input,	two
75 ohm out	puts.			
75 ohm out Each	\$12.29	2 Each	\$	11.00
7A2650-3.	CC-997	has 75 o	hm input,	four
75 ohm out	puts.		CHECKS !	
Each	\$24.05	2 Fach	<	11 25



TO TV SETS

ANTENNA

COUPLER



#### SOLID STATE 82 CHANNEL TV-FM BOOSTER/COUPLER

Highly efficient TV-FM signal amplifier with newest overlay silicon transistors and printed circuitry. Delivers full gain on all 82 channels, enough to operate up to 4 TV sets. High isolation between sets to prevent inter-action. Baked enamel steel cabinet. 117 V. AC. Shpg. wt. 3 lbs.

	BC-382,300	ohms	in and
out, screw co	nnections. \$55.95 2 Each	h	\$50.50
7A2527-3.	BC-782, 75	ohms	
	5 "F" connecto \$55.95 2 Each		\$50.50



SOLID STATE VHF-FM BOOSTER COUPLER

PRE-AMPLIFIER

A transistorized VHF-FM Booster/Coupler/Amplifier, designed to distribute signals to several TV sets or wall outlets. May be used as a 4-set 300 ohm booster-coupler with +10db gain to each output, or a high input distribution amplifier with + 17 db gain and a total output of 66dbmv (2.1 volts). Choice of 75 or 300 ohm input. Output connections are through four 300 ohm 'no strip' screw terminals or a single 75 ohm, F jack. 117VAC, 60Hz. Two F-59 connectors and mounting hardware provided.

7A2533-1. Model BC-234. Each .... \$44.95 2 Each ......\$40.75

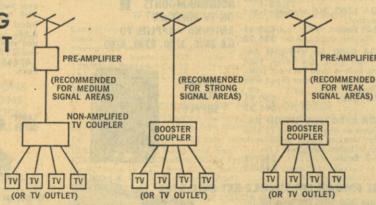
Model BC-274. Similar to BC-234 above except output is thru four 75 ohm, F-jacks, Amplifies VHF-FM signal and provides +6.2 db gain to each output. Five F-59 connectors. 7A2534-9. Model BC-274.Each ...... \$45.95 2 Each ..... \$42.00

## SOME POPULAR HOME TV SYSTEMS USING WINEGARD EQUIPMENT

It is quite easy to install a convenient home TV antenna system that will provide equally fine reception on two, three or four TV sets.

Select compatible equipment, making sure you are providing plenty of clean signal to each set or outlet.

NOTE: For VHF-UHF systems, be sure to select equipment designated as "82 Channel" or VHF-UHF". A VHF-UHF System requires a Back-of-set Band Separator for each TV Set - Model CS-380 or CS-387.



# TV COUPLERS/AMPLIFIERS

#### WINEGARD MULTIPLE ANTENNA COUPLERS

MOÚNT ON ANTENNA, JOIN 2 ANTENNAS TO SINGLE 300 OHM LEAD



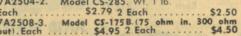
SIGNAL DOUBLER. Combines signals of two antennas pointed in the same direction and doubles the power output. Also couples any two antennas to single downlead regardless of direction antennas are pointed. (If VHF and UHF antennas are combined use CS-285 band separator shown below.) 300 ohm in and out. Weatherproof housing with mast clamp. Wt. 1 lb.

7A2503-4.	Model SD-33.	Each	\$6.95 2 Each \$6.25
7A2578-6.	Model SD-37.	(300 ohm in : 75 ohm	out).
Each		\$9.49 2 Each	\$8.50



**75 OHM COAXIAL LINE SPLITTERS** 

WINEGARD 300 OHM VHF-UHF BAND SEPARATOR WINEGARD 300 OHM VHF-UHF BAND SEPARATOR
Use with any antenna downlead carrying both VHF
and UHF signals to divide signals to separate input
terminals on TV set 300 ohm input and outputs.
7A2504-2. Model CS-285. Wt. 1 lb.
Each \$2.79 2 Each \$2.50
7A2508-3. Model CS-175B.(75 ohm in, 300 ohm
out). Each \$4.95 2 Each \$4.50





7A2639-6. Model CS-380. Connects single 300 ohm downlead to separate VHF-UHF and FM terminals on TV and FM receivers.

Each \$3.49 2 Each \$3.00

7A2640-4. Model CS-387. Connects single 75 ohm downlead to separate VHF-UHF and FM terminals on TV and FM receivers.

Each \$5.19 2 Each \$4.75

7A2574 5. Model CS-775 (Separate 75 ohm inputs for VHF and UHF antennas and single 75 ohm output). Each \$9.95 2 Each \$9.25

75 0HM - 82 CHANNEL TV SET CORDS

Five ft. cord of RG-59/U coax with "F" connector and molded 75 to 300 ohm matching transformer for use with VHF or UHF line taps.

7A2644-6. Model MTJ-5. Each .......\$6.49 2 Each ......\$5.50

Five ft. cord of RG-59/U coax with "F" connector and 82 channel band separator for connecting line taps to separate 300 ohm VHF and UHF antenna connections to TV set connections to TV set.

7A2643-8. Model MSJ-5. Each ...... \$6.99 2 Each ...... \$6.25

SOLID STATE ANTENNA AMPLIFIERS
Boosts signals on antenna that doesn't have built-in amp. housing. Oper-

ate from 117 volts AC. Amplifier for VHF-FM Antenna. High low noise. Lightning protected.

Model GA 3000. 300 ohm input and output. 7A2671-9. Each \$38.95 2 Each \$35.00

Model GA 3700. 300 ohm input and 75 ohm output. 7A2672-7. Each \$38.95 2 Each \$35.00

Model GA 8300. for VHF-UHF Antenna. High gain, low noise. Twin transistors. Built-in fixed FM trap. Light-

Model GA 8700 for VHF-UHF Antenna. Same as above but has 75 ohm output for coaxial cable downlead. 



HOUSING MOUNTS ON TV MAST OR **ANTENNA - APPLIES TO** GA 3000, 3700, 8300, 8700





#### MODEL FM340 FM SINGLE SET BOOSTER

Solid state 300 ohm FM booster increases signals 18 db. No. 7A2608-1. ... \$20.95 2 Ea. . \$18.50



#### SOLID STATE 82 CHANNELS 2-SET BOOSTER/COUPLER

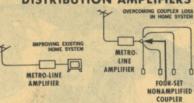
Divides and amplifies signals for a single antenna installation to operate two TV sets. Perfect for color or black and white on VHF, UHF and FM. High isolation between sets to prevent interaction. 117 VAC.

7 A 2670-1. Model BC 8330. (300 ohm in and out). Ea. . . . . \$40.95 2 Each . . . . . . \$36.50



.. \$36.50

#### METRO-LINE VHF-UHF-FM DISTRIBUTION AMPLIFIERS



High Input- High Output- low cost designed especially for strong signal areas

in cities and suburbs. Commercial quality construction. 12 DB gain on VHF, 9 DB gain on UHF, Size 6 x 4 ½ x 2". Shpg. wt. 2 lbs.

7A2652-9. Model DA-803. One 300 ohm input, one 300 ohm output.

7A2653-7. Model DA-805. One 75 ohm input, one 75 ohm output.

Your Choice Each ......\$39.95 2 Each .......\$35.75



#### 25 DB 82-CHANNEL COLOR SYSTEM AMPLIFIER

 Solid state, printed circuits.

75. ohm inputs for VHF and UHF antennas.

75 ohm output.

Extremely flat +25 db gain on all channels 2-83. Ultra-low noise insures clear, snow-free color and black and white. Long life, low cost operation. 117 V. AC. (VTF-73A line tapoffs recommended). 3 F-59 connectors supplied. Shog. wt. 3

Model DA-825B. Each .... \$73.95 2 Each ..... \$69.50

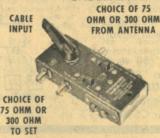
Model DA-815. Similar to DA-825B but has +15 db gain. Has single 75 ohm input for 82 channel antenna. Shag. wt. 3 lbs. 2 F-59 connectors supplied. 7A2570-3. Each ...... \$48.99 2 Each ...... \$46.50

WINEGARD 30 DB. 82 CHANNEL LARGE SYSTEM AMPLIFIER

All Solid State Printed Circuits. 30 db gain on all 82 channels. Separate gain con-trols for each band, Switch

trols for each band. Switch selectable FM trap. Separate VHF, UHF inputs. Will operate large number of TV-FM sets from single antenna installation. Amplifier features over two volts output on the VHF low band, VHF high band and UHF band at 0.5db sync compression and separate 15 db gain controls on each band. Rugged commercial extruded aluminum housing. Complete with mounting bracket and 3 F-59 connectors. Shpg. wt. 6 lbs. 7A2645-3. Model DA-830. Each \$151.75

#### CABLEMATE TV SIGNAL SELECTOR



Connects Both Home Antenna and Cable T.V. to your T.V. Set. You simply select which you want by the flip of a switch. Works with any IV antenna. Works with any Cable JV system, old or new. Special circuitry lets VHF, UHF, Mid-Band and Super-Band signals pass through to your IV set. Special isolation circuitry (58db) to prevent antenna and Cable TV signals from interfering with each other. Size: From interfering with each other. Size: 9½ x 6 x 2. Shpq. wt. 1 lb.
No. 7A2649-5.
Each ... \$17.95 2 Each . \$16.75

#### 82-CHANNEL TV /FM FLUSH WALL OUTLETS

Matches perfectly this design, appearance and color Matches perfectly this design, appearance and color of AC outlets and switches being installed in modern homes. All flush wall plates can be installed with or without standard electrical boxes. All types except T-77A are complete with matching "no-strip" molded plugs. Necessary matching circuits are built into each outlet. Average shpg. wt. 6 ozs. Use only one on the lead direct from the antenna or booster or one on each lead from a multiple set coupler. Outlet to set is 300 ohms. Ivory color. 300 ohms. Ivory color.



		950	
r.	3,	T-7	A

W	inegar				
Stk.No.	No.	Designed For	Input Wiring	Each	6 Each
7A2529-9	T-3	One TV-FM Set	300 Ohm Lead	\$2.15	\$1.95
7A2521-6	T-7A	One TV-FM Set	75 Ohm Cable	5.19	4.50
7A2522-4	TR-35	One TV-FM & 5-Wire Rotor	300 Ohm Lead	4.40	4.00
7A2530-7	TR-7	One TV-FM & 5-Wire Rotor	75 Ohm Cable	7.49	6.50
7A2576-0	TP-10	Replacement Plug (300 ohm	lead)	.95	.65
7A2597-6	SM-1	Surface Mtg. Box for any wo		1.20	1.05
T-77A less	cable c	onnectors. Order two F cable	connectors liste	d on pa	ge 225
for each pla					4/15
7A2648-7.	T-77A	. I had been been a	A in the second		

#### 82-CHANNEL COAX LINE TAPOFFS WITH VARIABLE ISOLATION

One TV-FM Set (75 ohm in and out). Ea. ..... \$2.20

"Feed thru" type 75 ohm coaxial cable runs from tap-off to tap-off. Adjustment at tront of tap-off allows isolation to be varied from 10 to 25 db to balance amount of signal received at each set. No interaction between sets. Terminator should be used on last tap-off on feeder line. Outlet to set is 3 ohms, plug provided. Ivory color. Shpg. wt. 8 ozs. Outlet to set is 300



6 Ea. . . \$2.00

SM-1		VT	F-	73
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Stk.No. Wine	gard No.	Designed For	Input Wiring	Each	6 Each
7A2524-0	VTF-73A	One TV-FM Set. Flush Mtg.	75 Ohm	\$5.50	\$4.75
7A264-5	SLTB	Terminator		.69	.50
7A2597-6	SM-1	Surface Mtg. Box for any wall T	V Plate	1.20	1.05

#### INTERFERENCE REJECTION FILTER

① Back-Of-Set 300 Ohm Input for VHF. Eliminates FM interference and citizens band and amateur radio transmissions. 7A2583-6. Model T-223F.

.. \$8.49 2 Ea. .. FM SIGNAL TRAPS

② Back-Of-Set FM Trap and matching transformer. Attenuates FM band -20 db. 75 ohm input, 300 ohm output. 7A2584-4. Model T-283FM

Each ..... \$8.49 2 Each ..... \$7.50 3 Indoor FM Trap with 75 ohm input and output. Attenuates FM band —25 db. Includes 2 F59 connectors.

7A2585-1. Model T-FM7. Ea. .....\$10.99 2 Ea. .....\$10.00

4 FM Trap with 300 ohm input and output. Mounts at set or on antenna mast. Attenuates FM band—25db. 7A2586-9. Model T-FM3. Ea. . . . . . \$10.99 2 Ea. . . . . \$10.00

WINEGARD 75 OHM COAXIAL LINE TRANSFORMERS

(5) Antenna Mounted for attaching 75 ohm coaxial cable to 300 ohm antenna or to 300 ohm input to set. 82 channels, UHF/VHF. Includes mounting clip, F-59 connector and boot. 7A2598-4. Model T-28M

Each .... \$4.29 2 Ea. .... \$3.75

1 Indoor Model. For adapting 75 ohm coax 



#### HIDEAWAY TRAVEL TV ANTENNA



IDEAL FOR TRAILERS, CAMPERS, BOATS AND MOBIL HOMES

o PICKS UP STATIONS IN ALL DIRECTIONS

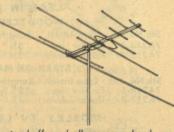
o OPENS AND CLOSES LIKE AN UMBRELLA

Completely weatherproof. Shielded coaxial cable helps eliminate ghost images. Compact, neat appearance. Anyone can install it easily. For black and white or color or all channels 2-83 plus FM. Complete outfit includes antenna in weatherproof housing with rain cap, shielded antenna cable with connectors, back-of-set VHF/UHF band separator and mounting hardware.

7A6588-1. Each .......\$39.95 2 Each ......\$34.75

#### ALL 82 CHANNELS - COLOR/B&W/ **FM STEREO**

**B-A DELUXE** CITY SUBURBAN **ANTENNA** OUTFIT



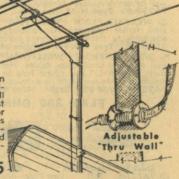
Includes 4 ft. tripod mount, 50' lead-in, stand-offs and all necessary hardware for a fine roof-top installation. Range VHF 50 miles, UHF 40 miles, FM 50 miles. Of finest materials, riveted and reinforced, and designed for quick installation. Gleaming gold vinyl clad for permanent high performance. Shpg. wt. 5 lbs.

MOBILE HOME 82 CHANNEL **ANTENNA** OUTFIT

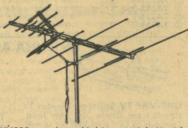
Includes the popular city-suburban antenna above with special installation hardware and 6 ft. mast for wall mount. Easily oriented for strongest signal. Designed to be lowered for traveling without folding. Kit includes 25 ft. 300 ohm lead, wall-thru bushing and back of set VHF-UHF band separator. Shpg. wt. 6 lbs. Not mailable.

746564-2. Model

7A6564-2. Model \$15.95



**IDEAL SUBURBAN ANTENNA PACKAGE** 



For reception of UHF-VHF-FM the CUV500 uses the multi-driven straight Yagi for VHF and a corner reflector/Yagi UHF section. 15 active elements on a 60" boom. Complete kit contains antenna, 4 ft. tripod mount, 40' lead-in, 4 standoffs, all mounting hardware. Separator for back of set.



#### PERMA POWER PICTURE TUBE BRIGHTENERS

BRINGS BACK PICTURE QUALITY AND CONTRAST FOR BLACK AND WHITE TUBES

Model C401. For duodecal base tubes with parallel wired filaments.

13A8016-3. Each ......\$1.59 6 Each ......\$1.20

UNIVERSAL "TU-BRITE" "IF THE BASE IS RIGHT, THE BOOST IS RIGHT"

Completely universal series or parallel, regardless of heater rating. No charts to check. Has slide switch for series or parallel. Will not endanger delicate filaments through too much voltage boast. Shpg. wt. 8 ozs.

13A8018-9. Model C-202. Duodecal Base. Series 0.6 A. filaments.

13A8019-7. Model C-212. 110° Button Base.

13A8020-5. Model C-222. 110° Shell Base.

Choice Each ..... . \$3.59 6 Ea .....\$2.65

"COLOR-BRITE" FOR COLOR TUBES

Uses type 501 and 511 where filament boost only is required; 503 and 513 for isolation to overcome picture tube filament-to-cathode short.

For most 70° base 21" round color tubes wt. 2 lbs.

When a single gun weakens prematurely, this device restores color picture bal-13A8039-5. Model B-150. Each ...... \$6.59 6 Each ...... \$4.95

# ANTENNA INSTALLATION ACCESSORIES

#### LEAD-IN INSULATORS

/21 844	COOL	CCDEM	TVDE
(1) 99	OOD	SCREW	ITPE

Stk.No.	Type Insert	Length	Each	5 For	100 Fo
7A214-0	For Flat Line	31/2"	25	69'	\$6.67
7A215-7	Flat or Tubular	3 1/2	25'	69°	\$6.67



Stk.No. Length Each 100 For 7A216-5 69 Flat or Tubular



#### MOSLEY TV LEAD-IN INSULATORS



\*\*SEATHER-PROOF "WALL-THRU" BUSHING. For all types TV transmission line and small coax cables. Has anchor points for open wire line. Installs through \(\frac{1}{6}\) \(\frac{1}{2}\) \(\frac{

#### FLAT 300 OHM LINE CONNECTORS









\$tock No. 7A221-5 7A222-3 7A223-1 7A233-0	311	Description Line Plug—Mates with Fig. 2 Socket Line Socket—Mates with Fig. 1 Plug Terminal Adapter—Mates with Fig. 2 Joins 300 ohm lead. Solderless	Net Ea. 79° 79° 79° 49°	10 For \$6.00 6.00 6.00 3.50
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#### ANTENNA ACCESSORIES





UHF-VHF TV Splitter. Divides TV signal from single 300 ohm lead. Connects to UHF and VHF set termin-

7A2547-1 \$1.90 Special Ea.

TV Cheater Cord. UL approved 6' cord. Enables plugging in set while back panel is detached or chassis out of cabinet. Wt. 4 ozs.







41A37 1-6 .....



2-Cond. Socket and Plug. Handy for 300 ohm lead, speakers, intercom, etc. Mounts on surface with Coupler. For 300 ohm lead. Efficient balun 7A2502-6 \$1.69

7A2555-4 \$1.29

AC Line Noise Filter. Plug-in, easily in-stalled. Stops static caused by most elec-trical devices. 7A2594-3 Special Each \$1.99

#### STRANDED GALVANIZED STEEL GUY WIRE



Highest quality, full gauge steel wire, heavily galvanrightest quality, full gauge steet wire, nearly galvanized to prevent rust and corrosion. Specially coiled to minimize kinking and tangling. Approximate breaking strength: 4 strand No. 20, 240 lbs.; 6 strand No. 20, 250 lbs.; 6 strand No. 20, 350 lbs.; 6 strand No. 18, 640 lbs. Approx. shpg. wts. from 13 to 33 lbs. per 1000 ft.

2A6022-6. 50 Ft. Coil. 4 strands No. 20. Per Coil . . . \$1.29 10 Coils \$9.99 2A6030-9. 50 Ft. Coil. 6 strands No. 20. Per Coil . . . \$1.79 10 Coils \$13.99 2A6023-4. 50 Ft. Coil. 6 strands No. 18. Per Coil . . . \$2.99 10 Coils \$22.99

#### GALVANIZED HEAVY DUTY GUY CABLE

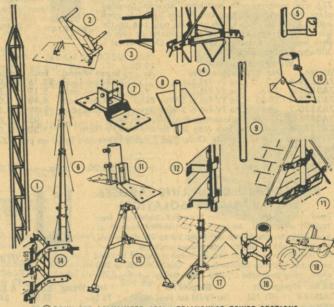
%" high strength 7 wire pre-formed stranded steel. Rated 2,850 lbs. breaking. Wt. 68 lbs. per 1000 ft. 2A6031-7. 100 Ft. For. \$14.99 1000 Ft. For. \$110.00

### SCREW-IN EARTH ANCHOR FOR GUYS

Very easy to install. Literally screws into ground at an angle to conform with pull of the guy. Pounds of pull rated is for average soil. Rods are 46" long, have 1.7/16" eye and are 11/16" dia.

40 long, na	ve i // io eye	and are 1171	o dia.		
Stk.	Mfgr's Pull				
No.	Rating	Description	Wt.	Each	6 Ea.
7A8514-5	4500 lbs.	4" plate	7 lbs.	\$5.29	\$4.76
7A8515-2	6000 lbs.	6" plate	8 lbs.	5.99	5.39

#### HIGHEST QUALITY ANTENNA MOUNTS



### Torque Bracket with a seamless 114" heavy wall uprights, 8 precision welded programment of the programme

(4) STAINLESS STEEL START College (1) Stainless steel strates (2) Steel strates (2) Steel strates (3) ROPE (2) TA9510-2. Two 34" X 18 ft. straps. Each \$11.29 10 Each (3) ROPHN TRIANGULAR ROOF MOUNTS (4) Hot dipped galvanized tuoular steel. Takes masts to 13/4".

7A9506-0 3 Ft. Type TRT36. Wt. 8 lbs. Net Each (4) TA9506-8 5 Ft. Type TRT60. Wt. 11 lbs. Net Each (5) VENT AND PIPE MOUNT

For vents up to 2 4" dia. Takes masts to 1 14"
7A9508-6. Per Pair. \$2.61
7A9509-4. Vent Mount 4 to 6". Per Pr. \$5.59 10 Pair Each...
Tinhtens strans easily, equally, 

Tinhtens strans easily, equally,



			cacn	IU FUI
1	7A278-5.		59.	\$5.39
1	7A237-1.	3/16" GUY WIRE CLAMP, for standard wire. Each	49	3.95
2	7A238-9.	Closed 4" TURNBUCKLE. 3/16" bolt. Each	45	3.55
2	7A211-6.	Closed 51/2" TURNBUCKLE 1/4" bolt. Each	59°	4.90
	7A208-2.	GUY WIRE THIMBLE Each	12°	.85
4	7A240-5.	11/2" MAST GUY CLAMP. Each		6.16
5	7A209-0.	11/4" Strain Insulator, Each		2.69
6	7A241-3.	Heavy Strain Insulator, 2" long, Each	85°	27.27
7	7A274-4.	Hex Head Lag Screws. ¼ x 2". Each	12°	1.90
7	7A275-1.	Hex Head Lan Screws 3/8 x 3" Fach		1.90

#### FREE STANDING **ALUMINUM TOWERS**

LIGHTWEIGHT, RUST FREE, EASY TO ASSEMBLE, RUGGED STRENGTH FOR TV, FM, HAM RADIO, INDUSTRIAL INSTALLATIONS, FIRE, POLICE, MARINE, ETC.

Aluminum towers offer light weight with maintenance free lifetime beauty. Eliminates painting. You can assemble a tower on the ground and walk it up, or assemble it erect section by section. Tested for 80 m.p.h. winds and are designed to exceed that wind velocity. In addition to all of these advantages total cost is less than similar steel towers extended over the life of the tower.

CHOOSING THE PROPER TOWER

Determine the projected area of your antenna. This figure is often in the literature that comes with the antenna. Standard TV antennas are about two square feet in area; 6 & 10 meter beams and large TV antennas utilize 4, 5 sq. ft. models; 20 & 40 meter beams utilize 8, 9 sq. ft. models; large 20 & 40 meter beams or multiple antenna arrays utilize 21, 23 sq. ft. models. Decide on the tower height that you want. 10 foot sections give you many possible sizes and the ability to add sections later. The model number is the wind loading followed by the height size. For example, if your antenna calculation resulted in a tower designed for five square feet and you wish it to be 50 feet high, the model you want is 5-50.

Towe	er 3 ht sq. ft.	4 5 sq. ft. sq. ft.	7 sq. ft.	9 sq. ft.	15 sq. ft.	21 sq. ft.	23 sq. ft.
30 ft	man some	4-30 \$146.10	STONE SHE	9-30 <b>\$194.40</b>			23-30 <b>\$399.65</b>
40 ft	29.91	4-40 <b>\$243.90</b>	7-40 <b>\$304.30</b>				23-40 <b>\$595.30</b>
50 ft	STREET S	4-50 5-50 <b>\$340.55\$387.60</b>			15-50 <b>\$642.40</b>	-	- Topo
60 ft	er, en le	4-60 \$485.45		9-60 <b>\$677.40</b>			AND NA
70 ft	3-70 \$629.10	4-70 <b>\$776.45</b>	7-70 <b>\$825.95</b>	100	2000		

Order Stock No.7M8523-6 show Model Number and Price above. BASES FOR ABOVE TOWER

Hinged bases to be set in concrete. 7A8524-4. Universal No. B-14C Fits 4-30. Each
7A8526-9. Universal No. B-22B fits 3-70, 4-60, 5-50, 7-50, 9-40, 9-50, 15-40, 21-30, 23-30. Each \$54.45
7A8527-7. Universal No. B-26B fits 4-70, 7-60, 7-70, 9-60, 15-50, 21-40, 23-40. Each \$69.98
40. Each All Universal towers and bases are shipped from factory at Detroit, Michigan by truck freight collect.

For complete tower listing and specifications, accessories list and mounting tips order Universal catalog 16A1254-4. FREE.



#### DRAKE "HIGH PASS" TV FILTER To stop interference entering TV Set through 300 ohm antenna lead.

Eliminates amateur or other signals on 6 thru 160 meters. 60 db attenuation from zero to 52 Mhz. Does not decrease TV signal itself.
7A2535-6. Type TV-300-HP. Wt. 8 oz. Each \$8.95



#### WINEGARD ATTENUATION PAD FOR **ELIMINATING COLOR GHOSTS** INSTALLS IN ANTENNA LEAD AT SET

All color TV sets are sensitive to signal overload and produce pictures of poor quality, offen full of ghosts and other problems. REDUCING the signal is the cure! Attenuation pad has control to adjust antenna input for best possible results. Size: 3-7/8 X 2-5/8 X 1¾" H. Shpg. wt. 8 oz. 6-0. VP-3. 300 Ohm in and out. Each. \$7.49 2 Each. \$6.50 7-8. VA-87. 75 Ohm in and out. Each. \$15.95 2 Each. \$14.75 7A2656-0.

#### ANTENNA GROUNDING ACCESSORIES









(1) UNIVERSAL UHF-VHF LIGHTNING ARRESTOR open, flat, or tubular lead-in on both UHF and VHF. Shpg. wt. 12 oz. 24-9. Each .........\$1.59 10 Lots, Each ..........\$1.44 7A224-9.

(2) NO. 8 ALUMINUM GROUND WIRE
oft drawn. Recommended by National Electrical Code. Wt. 2 lbs. 100 ft.
B29-7. 50 Ft. Coil . . . . . . \$1.99 100 Ft. . . . . . . . . . . . . \$3.49

(3) GROUND CLAMP 7A225-6.

(4) GROUND ROD. Screw-clamp to hold No. 4 to No. 14 gauge wire. Shpg. wt. 3 lbs. 7A8509-5. ..... \$1.79 10 Lots Each ...... \$1.65

#### UHF-VHF TELEVISION TWIN LEADS



BELDEN COPPER 300 OHM TWIN LEAD. 8225. Highest quality brown polyethylene insulated. Wt. 17 lbs. per M.

Stk.No. 25 Ft. 50 Ft. 100 Ft. 1000 Ft. 1000 Ft. \$25.95 \$3.45 2A9970-3. . \$1.44 \$2.16

 $\widehat{\ \ }$  BELDEN WELDOHM FLAT 300 OHM TWIN LEAD, 8230. Has  $1\sqrt{2}$  times the strength of pure copper, yet retains all the electrical characteristics. 72 mil brown poly. 20 gauge copper coated steel wire. 18 lbs. per M'.

50 Ft. \$2.26 \$1.58 2A9923-2. \$3.03 \$3.77 \$28.20 3 BELDEN CELLULINE 300 OHM LEAD, 8275. Ideal for color or black and white. Highly efficient, VHF or UHF. Absolutely water-proof cellular foam construction. Brown poly, jacket. 356 O.D., 7/28 copper over steel conductors. 36 lbs. per 1000 ft.

1000 Ft \$60.90 Per Ft. 100 Ft. \$7.75 500 Ft. \$30.45 Stock No. 2A9924-0

(1) BELDEN 8290 SHIELDED PERMOHM. The long awaited perfect lead-in for all 82 channels color or black and white. Eliminates interference caused by line pick-up. Easy to install . . . no standoffs, tape it to the mast, run through gutters, conduit, even underground. No matching transformer needed. Stranded copperweld, 2 conductors, cellular polyethylene oval insulation, Beldfoil shield, polyethylene  $\frac{1}{2} \times \frac{5}{16}$  oval jacket overall. In coils as priced.

2A 9926-5. 75 Ft. 100 Ft. 500 Ft. 50 Ft. For \$9.75 For ...\$12.90 For ...\$16.45 For ...\$66.00 BELDEN 9085 LEAD-IN WIRE. Designed for reception in low interference suburban areas. 50 Ft. 75 Ft. Stock No. 2A493-5 \$3.08 3.95 \$4.85 BELDEN 9090 LEAD-IN WIRE. Shielded to provide cleaner, stronger signals in high interference metropolitan areas. Stock No. 25 Ft. 2A-494-3 . . . . . . \$5.09 50 Ft. \$6.73 100 Ft. \$8.70 \$10.68 ( 1-INCH LOW LOSS OPEN LEAD-450 OHMS

Size 18 solid conductor copperweld with 1/4" polystyrene insulators spaced every 6". Recommended for weak signal areas or where extremely long lines are needed. Matches 300 ohm antennas and receivers. Wt. 21/2 lbs. 100 ft. 2A9967-9, 100 ft. Coil.. \$7.59 2A9968-7. 500 ft. Reel.. \$32.19 2A9967-9. 100 Ft. Coil . . \$7.59

#### 75 OHM COAXIAL TV ANTENNA CABLES



Protessional antenna installers have learned that 75-ohm coaxial is well worth the small additional cost over flat 300-ohm antenna wire. It is shielded to effectively block out interfering signal(s) which cause ghost images in metro and suburban areas. It can be run next to metal or through conduit without degrading TV signals. It has much longer life and will rarely require replacement. (300-ohm antenna wire is still considered satisfactory for deep fringe area use.)

#### For UHF-VHF Color or Black and White

Made of highest quality, low-loss coax having 82 channel color capability. Strong and flexible. Has copperweld center conductor, polyethylene foam dielectric, two-layer aluminum toil plus polyester film for 100% shielding and black PVC weather abrasion resistant jacket. Can be taped to masts, run close to metal without affecting signal.

#### CABLES WITH F-59 CONNECTORS BOTH ENDS

50
50
00
00
50
40
48
90

BELDEN 8228 75 OHM 82-CHANNEL DUOFOIL COAX

Lowest loss of any .242" O.D. 75 ohm coax. 100% polyester film with aluminum lamination shield. Wt. 3½ lbs. per 100 ft. Use F-56 connectors. 2A9983-6 100 Ft. 1000 Ft. Per Ft. . . . . . . 15°

#### "F" CABLE CONNECTORS

(1)7A267-8.F-56. Fits Belden 8228 cable Ferrule supplied. 67 (1)7A262-9.F-59. Fits RG59/U Coaxial cable, solid or foam dialectric type. Ferrule supplied. Ea...........69° 12 Ea..........59° 

(4)7A265-2.F-11. Fits RG11/U coaxial cable solid or foam dia-lectric type. Each...........\$1.35 6 Each............\$1.06 (5)7A266-0,F-81M. Cable to cable adaptor connects two F-59 or F-11 connectors together. Ea.,.....\$1.49 6 Ea......\$1.27

#### FERRULE CRIMPING TOOL

Ferrule crimping tool assures tight, neat crimp every time. Has forming slots for both RG-59/U and RG-11/U coaxial cable. Shpg. wt. 1 lb. 37A999-0. Model CR-1. Net Each .... \$12.95

**q** 

2

# Indoor



Selectacolor Rotating Antenna

MODEL 10X808

Combines revolutionary performance features with decorator-inspired styling to set a new standard for indoor antenna performance and design.

Exclusive UHF director/reflector loop for directional UHF reception. It gives the user greater control and more accurate tuning for sharper, clearer re-

Unique dual antenna rotation. By controlling a single knob, the user sets UHF and VHF elements for maximum pickup. Dipoles rotate in opposite direction to UHF receptor to minimize coupling between UHF & VHF sec-

12-position selector for precise fine tuning. Push button controls for widening the range of tuning combinations. The Selectacolor not only works great, it looks great. Beige and brown cabinet. Shog. wt. 5 lbs. \$30.95



THE ANTENNA THAT DOESN'T BELIEVE IN GHOSTS!

**COLOR-CEPTOR CR-300** 

BEST FOR COLOR AS WELL AS BLACK AND WHITE

FOR ALL-CHANNEL RECEPTION 2 TO 83 VHF AND UHF

At last — an indoor antenna that "shuts out" ghosts, eliminates interference from cars, planes, appliances lets you really enjoy all TV broadcasts.

Has exclusive signal filter and signal splitter for back of set. Uses coaxial cable instead of usual 300 ohm line to shield out ghost pickup Fine tuning control touches up performance on all channels.

on all channels. Made of finest materials throughout, with 4-section elements that telescope smoothly from 45" to 12", and a molded decorator styled  $7\frac{3}{4}$  x  $6\frac{1}{2}$ " base that won't tip or mar furniture. Shpg. wt. 3 lbs. 7A4514-9

\$19.95 Walnut Brown. Each.....



10X280 VHF/UHF/FM. 45" telescoping dipole elements, full swivel ball sockets, 12 position selector switch. Special color circuitry. Rotating double UHF loop Beige finish with walnut inlay. Wt. 3 lbs. \$20.95



10X250 VHF/UHF/FM. 45" telescoping dipole elements, full swivel ball sockets, 12 position selector switch. Double UHF loop. Brown finish. Wt. 2½ lbs. 7A4518-0. Each ......\$14.50

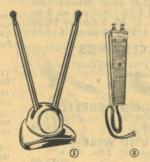
10X203 UHF/VHF/FM. 38" telescoping dipole elements, 12 position selector switch. Single UHF loop. Brown finish. Wt. 2 lbs. \$7.95



TUBE GUARD

Eliminates voltage surge, main cause of TV and radio failure. Feeds current slowly while tubes and parts warm-up. Minimizes replacement costs. For TV, radios, Hi-Fi, recorders, CB—all types of electronic equipment. Shpg. wt. 8 ozs.

HANDY TV ANTENNA CONNECTORS



## LOW COST ANTENNAS!

#### (1) STANDARD 4-SECTION RABBIT EARS

VHF Channels 2 to 13. Only 13" high ... but extends to full 38" to capture maximum signal. Ratchet-swivel design permits quick, easy and positive positioning of dipoles, Decor-styled mahogany base has fine appearance. Weighted to prevent accidental tipping. Complete with 300 ohm lead. Wt. 2 lbs.

7A4501-6 Each ..... \$3.80 Each ..... \$3.31

Each, 10 Lots

Mighty handy. Makes connecting and disconnecting 300 ohm lead from TV set quick and easy. Snaps onto antenna terminals of set. Shap, wt. 1 oz. 7A242-1 10 Lots, Ret Each . . . 36° Each . . . 29°

**UHF LOOP ANTENNA** 

Adjustable swivel brackets. Attaches to TV easily. Adjusts to any angle up or down. Shpg. wt. 6 oz. 7A4513-1. Each .....

2 BEHIND THE SET ANTENNA

Fits most portables...other sets too! Installs easily on back of set. Telescoping 5-section 38" dipoles pivot on ball socket in all directions, disappear into antenna housing when not in use. Length closed 73/4". 

# CDE ANTENN

FOR TV AND **AMATEUR BEAMS** 



HEAVY DUTY ROTOR UNIT. First choice of thousands! Rotates at approximately 1 RPM with positive, automatic stop in either direction. Instant reversing. Built-in 6" diameter ball thrust bearing will handle heavy antenna... no additional bearing support needed. Clamps take 7/8" to 2" dia. Mounts also on rotor plate when lower mast support is removed. Mechanism has oilite 

SOLID STATE PUSH-BUTTON AUTOROTOR AR-33. Only push-button controlled rotor made. Set antenna direction once for each of 5 channels ... then return to that direction automatically by push-button selector. Also has dial



#### **ROTOR THRUST** BEARING

Takes stress off rotor where needed for extra heavy or high antenna installation. To be used when antenna mast extends 3 feet above rotor mast socket. Mounts on any mast up to 1-9/16" diameter, accepts any mast up to 1½" diameter. For use with rotators mounted on side of mast. Shpg. wt. 2 lbs.

..... \$5.99 7A277-7. Each







controlled selector for any compass point. Completely silent, all solid state. Use standard 5-wire cable. With same heavy duty rotor unit as above.

SOLID STATE AUTOROTOR AR-40. Just set the control knob to the desired direction, press the knob and the rotor turns antenna to the indicated direction and shuts itself off automatically. Uses same heavy duty rotor unit as AR-22L. Noiseless in operation. Uses 5 wire cable. For 115 VAC. Shpg. wt. 15 lbs. Mfg.



#### BELDEN ANTENNA ROTOR CABLE

Stk. No. Belden Type

2B20-6. 8464 2A9940-6, 8463 2B21-4. 8485

Tinyl plastic weatherproof insulation. Flexible stranded.

tk. No. Belden Type Description Per Ft. 100 Ft.

B20-6. 8464 4-Cond. #20 Flat 13c \$6.75
A9940-6. 8463 5-Cond. #20 Flat 15c 8.25
B21-4. 8485 5-Cond. #20 Round 15c 8.80
B22-2. 8488 8-Cond. #22 Round 17c 10.20

MODEL AC-747 SHOWN FOR MODEL DEEP, DEEP AC-727 FRINGE CHANNELS 2-83

MODEL AC-727

Fringe Area channel 2-83 antenna for color and black and white. 28" VHF corner director, 28" UHF corner reflector, 60" boom, 35 total active elements, 14 driven elements, 13 directors, 8 reflectors. Square blue boom, gold elements with VHF-UHF splitter. Wt. 8 lbs. 7A6592-3. Model AC-727.

\$35.95

SAVE ON SHIPPING CHARGES!

FRINGE AREA ANTENNAS THAT CAN BE SHIPPED U.P.S. OR PARCEL POST TO SECOND CLASS, RFD OR APO's.

MODEL AC-747

MODEL AC-747

For Deep-Deep fringe, for color and black and white, for UHF-VHF-FM stereo. Rugged deluxe construction throughout. 2 piece square boom and UHF power PAK are swedged to make strong plug-together assembly. 48" VHF corner director system, 48" UHF corner reflector, 63 total active elements, 22 driven elements, 31 directors, 10 reflectors. Double mast clamp. Blue boom, gold elements with VHF-UHF splitter. Wt. 14 lbs.

7A6591-5. Model AC-747

\$69.95

#### **50 FT. CRANK-UP MAST**

IDEAL FOR TV & CB INSTALLATIONS

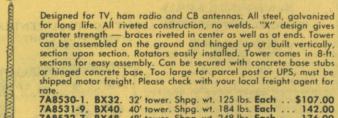
- 16 GAUGE CONSTRUCTION.
- HOT-DIPPED GALVANIZED.

. HINGED BASE.

Increase the range of your TV or communications equipment with this high quality mast. 16 gauge construction throughout for extra strength. Hot dip galvanized inside and out to insure permanent rust-proofing. Strong 1 ½ " round, 10-ft. top section designed to handle rotor and heavy antenna arrays. Has 1¾ " round, 20-ft. middle section. 2" square, 20-ft. bottom section. 10-ft. top section pushes up and locks in place with set screws. 20-ft. middle section telescopes to increase overall height from 30 ft. to 50 ft. Unit is 23-ft. long overall when collapsed. Complete with hardware, guy rings, hinged base, drive rods, house bracket, crank and cable. rings, hinged base, drive rods, house bracket, crank and cable. Too large for Parcel Post or UPS, must be shipped by motor freight. Please check your local freight agent for freight rate. Shpg. wt. 69 lbs.

7A8529-3. CP5016. Each ...... \$79.95

# **ROHN BX TOWERS**



rate.	St. Comment			No. of Line		ALC: NO.	ALCOHOLDS.	
7A8530-1.	BX32. 32'	tower.	Shpg.	wt. 125	Ibs. E	ach	\$107.00	
7A8531-9.	BX40. 40'	tower.	Shpg.	wt. 184	Ibs. E	ach	. 142.00	
7A8532-7.	BX48. 48'	tower.	Shpg.	wt. 248	Ibs. E	ach	. 176.00	
7A8533-5.	BX56. 56'	tower.	Shpg.	wt. 323	Ibs. E	ach	. 237.00	
7A8534-3.	EX-H2. Ad	diustabl	e house	brack	et. Eac	h	11.00	
7A8535-0.	FL. Heavy-o	luty ma	st clam	p. Each	1		5.90	
7A8536-8.	BX-B4. Bo	se stub	for B)	(32. Pk	g. of 3	100.1	12.55	
7A8537-6.	BX-B5. Bo	se stub	for B)	(40. Pk	g. of 3	1	12.55	
7A8538-4.	BX-B6. Bo	se stub	for B)	(48. Pk	g. of 3		12.55	
7A8539-2.	BX-B7. Bo	se stub	for B)	(56. Pk	g. of 3		16.50	
7A8540-0.	BX-HC. Hi	nged b	ase for	BX32,	40, 48	Each	28.25	
							227	į

# Now everybody can enjoy building electronic kits



Simple step-by-step instruction. Pre-drilled copper plated etched printed circuit boards. Finest quality parts. You can build an Eico-craft kit in about 1½ to 2 hours.



#### ELECTRONIC VOX

#### HAM CB VOX

Solid state Ham CB voice operated switch (VOX) with variable time delay and Anti-Vox input circuitry. This circuit many be used with a CB or ham tansmitter or transceiver which will actuate the transmitter when speaking into a microphone and return to receive operation when you stop speaking. Requires 6 volt battery.

#### TREASURE FINDER

Battery-operated beat-frequency metal locator can be used to locate both ferrous metals (iron, steel, etc) and non-ferrous metals (gold, silver, copper, etc). Consists of 2 RF oscillators and a search loop. This distinctive audio signal pitch 



EICOCRAFT "LIGHT CHASER"

COMPLETE

Remember the "moving" lights on the theatre marquee? . . , or the booths at the local carnival?

You can produce a similar sequence of "on-off" states that create the appearance of light "running around."

Put a "light chaser" string of lamps around your front door for holidays. Or add extra attention-getting power to any indoor or outdoor display, theatrical, bazaar or fun atmosphere—your imagination is the only limitation. The convenient Speed Control makes possible a wide latitude of

#### 3 CHANNEL PSYCHEDELIC LIGHT CONTROL CENTER SYNCHRONIZE LIGHT WITH MUSIC!

Use with spotlights or any group of incan-descent lights up to 500 watts per channel or a total of 1500 watts. Great for musical groups, window displays or anywhere a big attention getting display is wanted.

Operates from speaker output of amplifier, 3 separate sensitivity controls. With aluminum case, all parts and complete instructions. Operates on 115 VAC.

20A1261-3. Bowman PSA-3L Complete Kit. Each . . . . . . \$18.95

FREQUENCY CONTROLLED 3 CHANNEL LIGHT CONTROL CENTER. Lights respond with different sound frequencies and volume. No channel interaction. Sound spectrum 60-1,000 Hz, 1,000-8,000 Hz, 8,000-15,000 Hz. Other features same as above unit. Wt.11/5/1b. 20A1275-3. Bowman PCC-3L. Complete Kit, Each ........... \$28.95 No Technical Knowledge or Experience Necessary!

#### **BOWMAN SOLID STATE**

# Dewellin

EASY TO FOLLOW INSTRUCTIONS AND DIAGRAMS EACH KIT SUPPLIED WITH ENCLOSURE

#### VHF CONVERTER KITS

NO TECHNICAL KNOWLEDGE OR EXPERIENCE NEEDED!

FOR POLICE, FIRE,

EXCELLENT FOR SCIENCE FAIR AS LOW AS



Receive Shortwave, Weather, Police and Fire with your own Radio. 20A1302-5 is used with FM Radio, all others used with AM Radio. Place the converter near your radio, no interconnections necessary.

Changes VHF band to lower frequencies that your radio can handle. Complete with all parts including vinyl and gold anodized case. With instructions, Less battery.

20A1300-9. Shortwave 7-12 MHz. Each	\$8.95	
20A1301-7. Police and Fire Lo-Band 30-50 MMz. Each	\$0.73	
20A1302-5. Police, Fire & Weather Hi-Band 150-164 MHz. Each	\$9.95	
20A1299-3. Aircraft 118-130 MHz. Each	\$8.95	



#### AIRCRAFT RECEIVER KIT

Picks up strong signals in the 100 to 200 MHZ aircraft frequency range, 3 stage super high gain amplifier, telescoping antenna. Earphone included. Requires 9.V. battery.

20A1232-4. AIR-3. Each \$7.95
21A305-8.9 Volt Battery. Each 89°



#### SUPER-SLEUTH AUDIO HEARING AID KIT

21A326-4. AAA Battery. Each ..... PROXIMITY SWITCH KIT



Uses capacity bridge network, silicon controlled recti-fier, and transistor. Switches on when someone comes near unit. stays on until AC power is removed. Use to trigger lights, alarms, etc. or devices using universal motors up to 5 amps. 115 VAC operation.

PRS-100. Each ..... \$10.95

#### LIE DETECTOR KIT

Using sound, scientific principles. This psychogalvanometer indicates changes in skin resistance due to uncontrollable nervous perspiration. Uses 9 valt battery (Illustration not shown.) 20A1314-0, LDT-3, Each

20A1314-0, LDT-3, Each \$11.95 21A305-8, 9 volt battery, Each 89



AM Radio Kit, Kit. Two transistor audio reflex circuit. Tunes 550 to 1600 KHz AM broadcast band. Earphone supplied. Easy to build. Requires 9 V. battery. 20A1262-1. Ea. \$8.95

9 V. Battery 21A305-8. Each . 89°

Electronic Stethoscope Kit. Uses special 3 tran-sistor high gain ampli-fier. Complete with sensitivity control. Steth-oscope shuts out back-

ground noises. 20A1266-2.Ea. \$11.95 9 V. Battery 21A305-8. Ea. . . . 89°



5 Watt Amplifier Kit.
Use with tuner, phono,
guitar, microphone, hipower intercom, etc.
With volume control
Operates any 3 to 16
ohm speaker.
Uses 6 V. Bottery

20A1237-3. Ea. \$6.95 6 V. Battery 21A319-9. Ea. \$2.48



PSYCHEDELIC KITS CONVERT SOUND TO LIGHT With Enclosure and Easy To Follow Instructions
Converts sound to changes of colored lights. Lights blink in unison with the beat of the music. Each kit has 4 colored lights for a foscinating lighting effect. Uses silicon controlled rectifiers to trigger light action. Easy to build. Responds to voice and music. Built-in sensitivity control. Model PSA-1. Connects to speaker of hi-fi, radio or phone. For 115 VAC operation. 20A1235-7. Each...

#### SOLID STATE MODULES



COMPLETELY ENCAPSULATED AS SMALL AS AN ICE CUBE

FULL INSTRUCTIONS INCLUDED FOR BUILDING THE USEFUL DEVICES YOUR CHOICE

Each module is a small ready to use molded capsule containing a completely wired circuit of transistors, resistors, capacitors, and other parts. Most modules require only 2 or 3 items (battery, mike, speaker, etc.) to complete each device.

20A1160-7. PUBLIC ADDRESS AMPLIFIER MODULE. High gain for use with high or low impedance, crystal or dynamic mike. Drives any size PM speaker or trumpet. Operates on 6 volt battery.

20A1161-5. INTERCOM MODULE. Ready for instant use . . . just to two speakers, 6 volt battery and switch. Provides a complete system.

20A1163-1. POLICE SIREN MODULE. Produces high level upward scream and downward wail. Drive any 8 ohm speaker. For use with 6 volt battery. Complete instructions.

20A1166-4. CB MICROPHONE PREAMP MODULE. Ready to use preamp Increases modulation to optimum for dependable transmissions. Use any 11/2 volt battery.

**20A1167-2. BURGLAR ALARM MODULE.** Automatically sounds a siren alarm when window or door is opened. For use with 6 volt battery and 8 ohm speaker. Complete instructions.

20A1226-6. C.W. MONITOR MODULE. Operates from RF energy surrounding your transmitter. Keying transmitter in normal way produces CW note in any 8 ohm speaker. Requires 1½ V. battery.

WIRELESS MICROPHONE TRANSMITTER MODULE Connects to any high impedance microphone and 9 volt transistor battery. Will transmit voice into nearby radio, In accordance with the regulations of the Federal Communications Commission these wireless modules are warranted by the manufacturer to have a power input of less than 100 milliwatts and may be used by anyone without licensing or registration of any kind. 20A1169-8. For AM Radios 20A1172-2. For FM Radios 20A1170-6. For FM Radios as above except for low impedance mike.

YOUR CHOICE ANY OF ABOVE, EACH \$3.49

BATTERIES FOR ABOVE KITS 

 21A329-8.
 1½ Volt Battery. Each
 40°

 21A319-9.
 6 Volt Battery. Each
 \$2.48

 21A305-8.
 9 Volt Battery. Each
 89°

DUAL FLASHER (FLIP-FLOP) MODULE Build auto road warning lights, window display attention getters, model train grade crossing flasher, bicycle rear wheel safety flasher, etc. \$1.99 21A319-9. 6 Volt Battery. Each \$2.48

METAL LOCATOR MODULE

Detects and locates larger metal objects at distances up to several feet away and smaller metal objects (such as coins) at distances up to several inches away. Use with AM radio (no connections required). Requires 9 volt battery, 5000 ohm pot, 30 feet of =22 insulated wire, and 2 pieces of wood.

20A1238-1. Each ... \$5.00 and \$5.00 several inches away. Some point of the pieces of the several inches away. Some point of the pieces of wood.

#### BATTERY CHARGER MODULE

Charges flashlight and transistor batteries from 1½ to 22½ volts from 115 VAC. Trickle charges at 3 mil rate. Makes batteries last several times longer. Requires a line cord and wire and clips to connect to batteries. Wt. 4 oz. 20A1176-3. Special Each.



CODE PRACTICE OSCILLATOR MODULE Operates from any 1½ to 6 volt battery and any PM speaker. Only 3 connections to make. Requires no adjustment. Wt. 4 oz.

20A1177-1. Each ..... 98°

495 EXCITING RECONVERTER MODULES

SEPARATE CONVERTER MODULES TO RECEIVE...

- INTERNATIONAL SHORTWAVE
- VHF POLICE AND FIRE
- VHF AIRCRAFT

• FM-VHF POLICE & WEATHER

Efficient means of receiving Shortwave and VHF broadcasts. For use with your standard broadcast band AM radio. No actual connection to radio is required. Small radiation loop connected to module couples converter signal for reception on a quiet spot on the AM dial. Tuning is by small knob on module. Requires standard 9 V. transistor battery and 25' or more antenna for SW, or a short wire for VHF (20A1280 also requires 5,000 ohm Potentiometer). Very easy-to-follow instructions supplied. Wt. each 4 ozs.

20A1157-3 International Shortwave Converter Module. Tunes 25 31

20A1157-3 International Shortwave Converter Module. Tunes 25, 31,

20A1157-3 International State Water Converter Founds (7-12 MHz).
20A1158-1. VHF Aircraft Converter Module. Tunes 118-128 HMz.
20A1159-9. VHF Police & Fire Converter Module. Tunes 30-50 MHz.
20A1280-3. FM-VHF Police and Weather Converter. Tunes 150-164

YOUR CHOICE 21A305-8. 9 Volt Battery. Each \$4.95

#### HIGH POWER YELP SIREN MODULE USE FOR HOME OR AUTO BURGLAR ALARMS!



Delivers 5 screaming watts of powerful attention getting volume. Draws only 500 mils current and can be used on any 6 or 12 volt automobile or lantern battery.

Only 3½ X 1¾ X ½". Requires any 8 ohm 5 inch or larger trumpet speaker (order below) and SPST switch. Only 4 leads to connect. Shpg. wt. 1 lb.

20A1312-4.

Each ..... \$8.95

#### 8 OHM TRUMPET

Wide angle 90° spread for maximum penetration. Weather-proof re-entrant type, for indoor or outdoor use. 180° swivel-mount with screw flange. 5 watt power rating. 8 ohms. 5 inch horn opening. 5-3'8" long. With wire lead. Shpg. wt. 2 lbs.

49A4008-2. Import Special ..... \$13.95 19A7210-7. SPST Push-Button Switch. Each . . . . . . 99 12 Volt Lantern Battery. Each . . . . . . \$6.50 21A324-9.





#### **AUTOMOBILE BURGLAR** ALARM MODULE

Triggers and "locks on" car's own horn as an alarm. Opening a door, attempting to start car or switching on lights will trigger alarm. Uses current sensor principle to trigger alarm. Contains module, lock switch and wire.

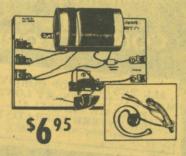
\$6.95 Each

#### PHILMORE CRYSTAL RADIO KIT

#### WITH 1000 OHM EARSET

Easy to build. Features new midget tuning condenser, Germanium fixed crystal diode for better sensitivity and selectivity than regular type crystal sets. Parts all mount on a 3½" thick plywood baseboard included. Coil comes already wound. Simplified construction with gummed label pictorial diagram which fits baseboard as a template showing location of parts and connections. Wt. 1 lb.

With Headset 47A8521-2.....\$6.95





#### PHILMORE OUTDOOR ANTENNA KIT

GREATLY IMPROVES SIGNAL STRENGTH OF ANY RADIO

Can be installed on roof, between trees, in attic or garage, etc. Consists of 50' coil stranded copper aerial wire, 25' rubber covered lead-in wire, 1 ground clamp, 1 lead-in strip, 2 porcelain insulators, 2 nail-it knobs. Complete with instructions. Shpg. wt. 1 lb. \$3.49



DIGITAL CLOCK KIT

One complete kit with everything needed to build a modern, futuristic styled Digital Clock. Features 110 volt operation, bright LED readout, AM-PM indication and step-by-step instruction book with helpful hints. In event of power failure, when power returns readout will flash until time is reset. Red ½" digits. Beige cabinet with smoked front. Size: 3¾ X 3¾ X 3¾". Shpg. wt. 1 lb.

20A1317-3. GC G2-108. Each . \$29.95



ALPHA BRAINWAVE MONITOR GET INTO YOURSELF ... DISCOVER YOUR

> ALPHA BRAINWAVE BIOFEEDBACK

A completely safe, battery operated biofeed-back system with features and sensitivity comparable to professional models. Detects your Alpha Brainwaves (which occur when you are totally relaxed) and produces a tone varying in frequency according to your mental state. With stethescopic earphone, electrode headband and complete instructions. Uses 9 volt battery.

20D1318-1. Eico BW-300.

21D305-8. Eveready 216 9 Volt Battery. Each \$34.95

BARGAIN BONUS!

# SAV

ON AMERICAN MADE

#### SEMI-CONDUCTORS

ALL TESTED-TOP QUALITY MANUFACTURERS! AT LOWEST BARGAIN PRICES! ALL GUARANTEED OPERATIVE! Average shpg. weight 3 ounces.



4 Ruggedized 12AU7 Tubes. Type 6211. Exact replace-ment for 12AU7. Outlasts regular 18A1323-5

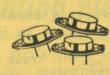


2N4443 SCR Rec-

tifier. For power control/switching. 400 PRV, 8 amps; gate 10 V, 30 mA.

Each ..... 99°

18A1696-4.



3 PNP High Power Transistors. As-sorted cases. 10-40 W. Similar to 2N155, 2N255 and

20A1107-8



4 RF Silicon Transistors. NPN type. Similar to 2N914, 2N834, 2N708, 2N-20A1108-6



5U4 Silicon Rectifier Tube. Replaces 5U4GB, 5V4GA, 5W4, 5Y3, 1½ x 1¾" H. 20A1250-6 Each ...99c

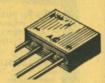


Color TV Rectifier. 2000 PIV, 1 Amp. For TV replacement, experimenting, etc. Encapsulated 1/4 x 1/2 x 7/8", with wire leads. 20A1126-8 Ea99c

4 - 2 Amp Silicon Rectifier. Rugged 10-32-% mt 50 PIV. rugged construc-tion. DO-4 case. Positive polarity. 20A1120-1 990

5 Transistors similar to 2N35 NPN general purpose germanium. Rated 150 MW. Vcb 25 germanium. Rated 150 MW, Vcb 25 Gain to 125. TO-5

20A1100-3 5 For ..... 99



Amp Wave Bridge Rec-(a) 1.5 A. Molded case .69 × .52 .25" with 1" leads.

Ea. ..... 99



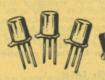
25 Germanium Diodes. Similar to 1N34, 1N60, 1N64. Use for crystal sets, radios, etc. Terrific low B-A price! 20A1111-0

6 Assorted NPN and PNP Micro Transis-tors U-8. Used in mid-audio output. Smallest transistor 20A1103-7

PNP General

PNP General Purpose Audio Transistors. Similar to 2.N107-CK722 for pre-amps, mike and phono circuits, code oscillators.

20A1211-8



3 200 MHx Silicon Expitaxial Transis-tors. Similar to 2N706. TO-18 case. Vcb 25, HFe 20, 10 20A1105-2 3 For .....

Volts

8 PNP Germanium Switching Transis-tors. TO-5 case. tors. TO-5 case. Freq. 8 MHz 150 MW, HFe 40 typical. Similar to 2N1305, 2N394 20A1125-0 99

FULL WAVE BRIDGE RECTIFIER



200 Volts PIV (a. 1.5 A. Molded case .688 L. x .469 H. x 25 T. with 11/2"leads. For transistor power supplies, bias and relay

20A7511-5. Special Each ...... \$1.27

ACTUAL SIZE



UNIVERSAL RECTIFIER

2 1/2 AMP -1000 PIV

Popular triacs for builders projects available at tremendous savings. Use in motor, speed controls, light dimmers, relay controls, heating controls, etc. Use 200V for 120 volt line operation, 400 V for 240 volt line operation.

RMS Off State Cate Firing Requirements



Load Current Volt Rating 200V 400V Stock No. 20A1282 -9 20A1283 -7 20A1284 -5 20A1285 -2 20A1286 -0 20A1287 -8 20A1289 -4 40 to tripper Diac to trigger triacs. Breakover voltage 32V.

LIGHT SENSITIVE PHOTO CELL



ONLY

Tiny glass enclosed cell,  $f_{\rm e} \times V_2^{\prime\prime}$  dia. Cell resistance changes with light. Operates sensitive AC relay without amplifier. Interesting and practical circuits included.

Shpg. wt. 3 oz. 20A22-0. Spec. Ea.. \$1.49

#### SAVE ON AMERICAN MADE SILICON POWER RECTIFIERS

EVERY ONE TESTED AND GRADED FOR QUALITY

Now you can afford to stock up and save! These fine power silicons ordinarily sell for several times our price. Needed for DC power supplies, chargers, experimental and builders projects, etc. Hex metal case, stud mounted. Positive polarity types have cathode connected to stud mounting; negative types have

6 Amp 7/1	6" He	c. 10-32 × 5/1	6" Stud	30 Amp - 11/16" Hex. 14-28 Stud					
Stk. No.	PIV	Stud Polarity	Net Ea.	Stk. No.	PIV	Stud Polarity	Net Ea		
20A1178-9	100	Positive	\$0.49	20A1186-2	100	Positive	\$0.69		
20A1179-7	100	Negative	.49	20A1187-0	100	Negative	.69		
20A1180-5	200	Positive	.74	20A1188-8	200	Positive	.99		
20A1181-3	200	Negative	.74	20A1189-6	200	Negative	.99		
20A1182-1	400	Positive	.99	20A1190-4	400	Positive	1.39		
20A1183-9	400	Negative	.99	20A1191-2	400	Negative	1.39		
20A1184-7	800	Positive	1.49	20A1192-0	750	Positive	1.99		

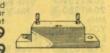
20A1185-4 800 Negative 1.49 20A1193-8 750 Negative

100 Piece Assortment. Contains 2 - 15 watt PNP-AF germanium T0-3, 2 - 15 watt NPN silicon mesa gen. purpose T0-3, 2 - 15 watt PNP germanium gen. purpose T0-3, 4 - .4 watt PNP germanium gen. purpose T0-9, 4 - .4 watt NPN germanium gen. purpose T0-5, 15 - .2 watt NPN germanium MADT T0-24, 2 - 2 watt PNP germanium DAT T0-5, 5 - .2 watt germanium diodes, 2 - .2 AMP silicon SCR T0-18, 22 gen. purpose germanium diodes, 27 gen. purpose silicon diodes, 4 - 2 AMP 200 volt silicon stud rectifier, 9 assorted zeners with marked voltages. zeners with marked voltages.

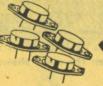
BIG EXPERIMENTER SEMICONDUCTOR
ASSORTMENT

6 Lots 

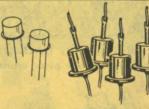
1 AMP 4000 VOLT RECTIFIER Encapsulated for easy mounting, electrical insulation and stability. Compares with rectifiers selling for 3 times our low give-away price! Size: 34 X 34 X 3. Terminal height 3/8". Mtg. ctrs. 21/2". Shpg. wt. 8 ozs. \$2.49 18A1561-0. Each...















7 Silicon Power Rectifiers. 2 to 6 amp ratings, 50amp ratings, 50-400 PIV. 10-32 stud mount, DO-4 case. Positive poarity

4 - PNP 100 MHx. Germanium Mesa Transistors. Similar 10. 2N705, 2N711, 2N974. 360 MW. Vcb 60, HFe 25, 10 MA, TO-18 case. 20A1101-1 4 For ....

8 Transistors similar to 2N404. Short leads for printed circuit. One of the most 20A1112-8 8 For .....

Two 1 Amp SCR's. 100 V. TO-5 pkg. Use for switching, light dimmers, speed control, etc. 20A1249-8 2 For ..... 99

6 Silicon 1 Amp 600 V. Rectifiers. Top hat style. Top quality. For power supplies, radio, TV replacement, 20A1104-5 6 For ..... 99

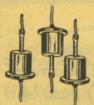


3 NPN 100 MHz Sili-

3 Raytheon CK722 Transistors.

2 NPN 15 W. Sili-con Power tran-sistors. TO-3 case. Audio type for lin-ear operation, ser-vo amps., osc., in-verters, etc.

20A1207-6 2 For .....



Three 1 Amp 1000 PIV Silicon Recti-fiers. Small top hat style, have 1 ½ leads. 4 Amp RMS 200 Volt SCR's. .5 MA @ 1 volt gate. 20A1315-7 18A1600-6 3 For ..... Each ..... 99 990



15-Watt Power 4 15-Watt Power Transistors. PNP type. Similar to 2N158. For audio and switching ap plications 20A1119-3 4 For ..... ..... 99

con 2-Watt Transis-tors. Similar to 2N696, 2N097, 2N1613. Vcb 60 V. HFe 40, 150 MA. TO-5 case. 20A1102-9 For ..... 99°

40 Watt Power Transistor. Stud mtg., equivalent to type 2N173. Just it for power supgulators. 20A1195-3 Each

For switching, driver, output, and amplifiers 18A1494-4

2N3055 Transis-

tor. Silicon NPN.





GITTE

Photo Cells. Pkg. of 2. Cadmium sul-phide. Low ohmage 300 V. 75 MW. Cell

6 Red LED's. 3/32" dia. For 3 VDC min. Use series resistor to limit current to 20-50

99

5 Piece Power Transistor Kit. Power rating 4 to 50 watt. Germanium and silcon types. A orted case sizes.

1N4148 Switching Diodes. Replaces 1N914. places 1N914. Widely used silicon comput switching diode. 20A1316-5 computer

Two 1000 PIV, 1000 MA Recti-fiers. Glass en-closed. For service building. Se-for extra HV and 20A1201-9 2 For ....

4 - 1 Watt Zener Diodes. Individually marked, 10° tolerance. Voltages

20A1203-5 4 For .... 990

6 Pieces 400 MW Zener Diode Assortment. Individually marked. 10% marked. 20A1204-3. Assorted 5 V. to 25 V.

20A1205-0. Assorted 26 V. to 50 V. 20A1206-8. Assorted 51 V. to 90 V. YOUR CHOICE PER ASST., 6 PIECES 99c

20A1113-6 2 For ..... 99

18A1709-5 6 For . . .

20A1116-9 Kit of 5 . . . . 99°

12 For .... 99°



TOP QUALITY! LOW COST

SENSITIVE LIGHT ACTUATED SWITCH

A highly interesting Germanium Photo Power Transistor, which requires only a 6 V. battery to operate relays, motors, etc. Regular two cell flashlight will "trigger" this device. Mounts 11/4" centers overall dia. 1". Includes building diagrams for use. Wt. 4 ozs. 20A1199-5.

2 FOR \$399

25B474 POWER TRANSISTORS

General purpose germanium P-N-P for large audio amplifier application. Use in high fidelity amplifiers and other equipment which require wide frequency range and low distortion. Replaces transistors used in many types of imported equipment. Great choice for hobbyists and builders projects too. Furnished with collector insulator, screw insulators, and mounting screws, nuts, and washers. Quality import.

No. 20A1270-4 Pkg. of 2 For ..

\$3.99

3/4-IN. WIDE PLASTIC ELECTRICAL TAPE

Highest quality import value at far less than American made products. Specify Red or Black. Wt. 6 oz. 66 Ft. Roll.

17A7032-7. Black Choice 17A7033-5. Red Each ... \$1.19 For ... \$5.99



## 1 AMP EPOXY SILICON RECTIFIERS

Guaranteed first quality. Just the ticket for high voltage power supplies in ham gear, TV sets, etc. 1½" axial wire leads.

Wt. 8 oz. per 10. 10 Lots Each Stock No. 20A1291-0 20A1292-8 20A1293-6 20A1294-4 29° 30° 39° 49° GENERAL PURPOSE OR SWITCHING

PNP TRANSISTORS
Similar to popular 2N404 at tremendous savings.

20A1313-2. S-404 Special Each ..... 100 . 34° Each

SUB-MINIATURE 1N34A DIODE Latest sub-miniature glass type. Shown actual size. Has 1,3° axial leads.

No. 18A15-8. Special Each

19c Each

15c

29°



VOICE OPERATED RELAY/SWITCH

Designed to operate motorized toys. SCR circuit switches with voice, clicker, or whistle up to 15 feet from unit. Wired with crystal mike. Ready to use. Use 3 volt battery (2 D Cells) and motor or other suitable load to operate. Circuit diagram included.

No. 18A1601-4

\$1.49

10 Lots Each ..... \$1.29



#### **EQUIPMENT BOX**

Rugged aluminum equipment box with hand-some blue and grey finish - ideal for test equip-ment, science and hobby projects, kit building, experimenters' projects. Features flip-up stand for easy viewing, padded legs and perforated sides and top for heat dissipation. Assembles in minutes with only a screwdriver. Includes all ne-cessary assembly hardware. Internal dimensions: 8-13/16" L. X 5-7/16" W. X 4-23/32" H. Shpg. wt 2 lbs.

5A3098-6. GC H4-748. Each ... \$10.95

# POPULAR ASSORTMENTS

# ENJOY THE EXCEPTIONAL SAVINGS AND NVENIENCE OF FAMOUS B-A ASSORTMEN

B-A quantity purchases bring them to you at exceptional savings. In many instances the value of one piece alone is worth more than the price shown for the complete assortment.



sortment.

18A114-9



Terminal Strip As-

types in various lengths. • Always needed by anyone who builds or re-pairs.

50 Pieces \$1.69



Assortment.

12A2005-3

eyelets, screw etc. Over 60 pieces. Wt. 2 lbs. screws

Each .... \$1.99





Stranded Hook

Up Wire. 8 30-ft. coils. Yellow color. 22 gauge strand-

For .... \$1.88

Insulated

18A1320-1

30 MINIATURE ELECTROLYTIC CAPACITORS 30 FOR \$495

UPRIGHT MOUNTING FOR TRANSISTOR RADIOS & PERF. CIRCUIT BOARDS

30 Miniature 15 WV Electrolytics. 5 Each: 6, 30, 50 and 100 uf; 10 - 10 uf. Import. Wt. 1 lb.

No. 15A5094-1 \$4.95



1 Lb. Cut Hook-Up Wire. Assorted colors, gauges, and lengths. Stripped

easy use.

\$1.49

and tinned quick, easy

2A424-0







Phono

18A509-0 Approx. 50 ... 99c



50 FOR

50 MINIATURE MYLAR CAPACITORS FOR TRANSISTOR RADIOS LATEST UPRIGHT MOUNTING

Fine import quality miniature Mylar by-pass upright mounting condensers as used in thousands of small transistor radios and other tiny devices.
All 100 volts working. Import special.
Contains: 5 each 1, .02, .04, .001;
10 each .01, .05, .005: Wt. 1 lb. 10 each .01, .05, .005 15A5095-8. Import Special. \$4.95 Kit of 50.

HIGH FIDELITY CONNECTING CABLES Import Saving 5739 FOR

4 color coded, shielded connector cables. Each 36 inches long with RCA type pin plugs molded to each end. Includes black, green, red and yellow. 12 A6323-6 Wt. 10. ozs. \$2.39

> FAMOUS B-A WAREHOUSE ASSORTMENT



3 Lbs. Chuck Full of Costly Elec-tronic Parts and Hardware . . . Switches, Condensers, Resistors, Controls, Transformers . . . etc, etc.

A package to truly amaze you! A tremendous value at only a small fraction of the original cost. Definitely not the usual floor sweepings but very useful and costly parts. Try one! If you are not happy blame our Boss Warehouseman, but we will give you your \$3.95 back. Shpg. wt. 3½ lbs 18A1384-7. Assortment \$3.95 100 Asst. .... \$2.99

100 Most Needed Insulated Resistors. American made.

Popular resistances. 75.1/2 and 25-1

14A5042-1

14 Hole Plug But-tons. Assorted sizes. Handy to use in filling unwanted holes. snap-in. 12A2493-1 14 Asst.

Heavy Duty Jumper Cords. Five 22"
L. White, green, black, yellow, and 99c

12A2518-5 Each .... \$2.49

10 Electrolytic Condensers. Twist prong. All new, rific' value! 10 Asstd.

Stereo Foot Bumper, Kit Cords. Made by of 16. 4 sets matched bumpers. Switchcraft. matched bumpers. RCA plugs one-Recessed for tack, end, stripped and screw. Mighty tinned other end.

600

screw. Might handy! Wt. 6 oz. 18A1466-2 99: Each .... \$1.29

5 assorted. Rare find for builders & experimenters.

5 Asst. .. \$1.49

Ant., RF, Osc. Coils and RF Chokes.



2 Lbs. Often Needed Self-Tap-

ping Screws. Big variety of sizes and lengths - Hex. Phillips, Round. 12A2356-0

Lb. Asst. \$1.99



Surprise Parts
Asst. 50 Pcs.
Condensers, resistors, switches, etc.
this page. A real of high temp. intors, switches, etc. this page. A real deal. Wt. 1 lb. 18A1383-9 50 Pieces \$1.49 6 For

sulation. 18A1553-7 990

12A2466-7

50 Molded Tubu-lar Condensers in wide range of ca-pacities - 200, 400 and 600 V. \$9.00

value. 18A232-9 \$1.99

10 Rotary Switches. One switch worth price of entire kit! Experimenters, builders will find use for all! 18A436-6. 1 1/2 lb

Assorted Switches. Toggles push - buttons push - buttons, slides, even micros 1 or 2 pavs for entire lot, Wt. 1 lb. 18A935-7

BIG SAVINGS ON VOLUME CONTROLS



2 FOR 000

Popular CTS American made volume controls with on-off switch. Standard 1/4" shaft, 1" long. 3/4" diameter. Hurry while limited stock lasts. ½ meg control with switch. 18A1497-7. 2 For ..... 99°



#### 6 LOOPSTICK **ANTENNAS**

Standard loopstick antennas for tube and transistor AM radios. Use of 1 or 2 pays for whole package.

18A1633-7. Pkg. of 6 For . \$2.69

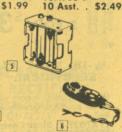
#### **BATTERY HOLDERS** FOR PORTABLES







10 Asst.



Same as used in most transistor portable radios. Has standard snap-on battery connectors. Sturdy plastic construction. Average Shpg. Wt. 3 ozs.

(1) Holds 2 "D" Cells. 12A2453-5. Each \$1.29 (1) Holds 4 "D" Cells.	(5) Holds 6 "AA" Cells. 12A2454-3. Each \$1.39 (5) Holds 8 "AA" Cells.
12A2449-3. Each \$2.49 (2) Holds 2 "AA" Cells. 12A2450-1. Each 99	12A2455-0. Each\$1.59
(3) Holds 4 "AA" Cells. 12A2451-9. Each \$1.19	(6) Double-Snap Fastener for 9V
(4) Holds 4 "AA" Cells. 12A2452-7. Each \$1.19	battery and battery holders above. 12A2012-9. Each, 39°

#### CHASSIS MOUNTING AC SOCKETS



EACH, 10 LOTS

Fits standard AC plugs. Fine for repairs or new construction. Mounts in  $\frac{7}{6}(^33\frac{3}{4})^4$  hole. Mtg. ctrs.  $1\frac{1}{8}$ ". Wt. 1 oz.

10 Lots, 24° 18B26-5 Spec. Each. . 29°

#### SUPER BARGAIN VALUES! BRAND NEW, TOP QUALITY MANY ARE FOUND EXCLUSIVELY AT B-A



RF Choke. 2½ MH at 125 mA. Replaces National R50 or R100. 1" L x 15/32" D. 13A5157-8 \$1.29



12 Volt Subminia-ture Bulb. With two 83¼" leads used in tape play-ers, TV, Hi-Fi and ers, T

12A4464-0 Each



6 Volt Subminiature Bulb. Same as 12 volt at left except 6 volt operated

-0 12A4496-2 ... \$1.29 Each . . . \$1.29



#### LOWEST PRICE EVER!

3 Volt Subminiature Bulb. Same as bulb at left but red color. For indicator light, etc. 18A1631-1 12 For ..... 99°



8 Heavy Duty Rubber Foot Bumpers, Tough, non-marring molded rubber. internal washer.
31/32" D. x 3/8" H.
Screw mount 12A2000-4 8 For ..... 99°



25 Disc Céramic Condensers in most needed capacities. Worth at least \$3.75 regularly Wt. 6 oz. Top quality. 18A323-6 25 Assorted 99







Kit of 10 Insulated Alligator Clips. 5 red and 5 black. Screw terminals. Quality Import.

12A2519-3 ... \$1.29



Transistor Sockets Printed circuit or chassis mtg type. Fits in-line and triangular base 3pin. Imported.



30 Pilot Light Sockets. For bayonet lamps. All have wire leads. Several mounting



Vari-Loopstick Antenna. High Q ferrite core for transistor circuits 365 pf. tuning condenser covers B.C.





60 Ft. Spaghetti. Asst. colors, sizes. High grade ex-truded plastic and cambric tubing 3' Igths. Wt. 1 lb.

12A2467-5 60 Ft. ... \$1.29 Bundle of Spa-ghetti. 24 pcs., each 9" L, var-nished high grade tubing in assorted colors and sizes.

2A8000-0 24 Pc. Asst. \$1.19 10 Sets ...



10 Sets Pin Plugs & Jacks. RCA type so popular for phono, recorders, hi-fi, etc. Wt. 8 etc.

Electronic Drafting Template. Symbols of all kinds of components. 9½ X 5½.

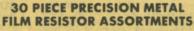
12A6037-2 10 Sets \$1.59 Each .... \$3.49

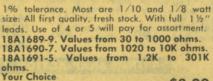


#### 15 WIREWOUND RESISTORS

Power wirewound resistors at a bargain price. Wide range of values and types. Most are 5 and

18A1692-3. Asst of 15. Each ..... \$2.99





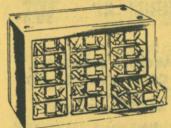
Per Asst. of 30 \$3.99 6 Assts., Each \$3.49



#### **15 PIECE PRESISION WIRE WOUND RESISTOR ASSORTMENT**

1% tolerance. Wide range of wattages and types. Includes non-inductive, aluminum housed, and standard types from ¼ watt to 10 watts. Regular single lot cost would exceed. \$25.00. 18A1693-1.

Assort of 15. Each ..... \$4.99



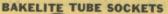
CAPACITOR ASST. LIST VALUE **OVER S60** 

#### CHEST FULL OF CAPACITORS

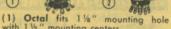
155 CONDENSERS PLUS METAL STORAGE CABINET. Just look at what you get: 20 Tubular Electrolytics, both single and duals, 50 Molded Tubulars, 200, 400 and 600 volts in most popular capacities; 50 Disc Ceramics; and 35 Midget Micas. 155 pieces total, all very usable values. Your average cost

CHEST FULL OF RESISTORS

250 RESISTORS PLUS METAL STORAGE CABINET. Here's what you get: 200-1/2 Watt and 50-1 Watt Insulated Resistors in most popular resistance values. All latest, small types by IRC, Stackpole, etc. Average cost per resistor less thon 6° and the cabinet is free. Includes Metal Storage Cabinet, as with above. Shpg. wt. 6 lbs. 18A235-2. COMPLETE KIT SPECIAL EACH







(1) Octal fits 1½" mounting hole with 1½" mounting centers.

18C210-5

10

Each ... 29° Each ... 26°
(2) 7 Pin Miniature fits 5/8" mounting hole with 7/8" mounting centers.

18C893-8

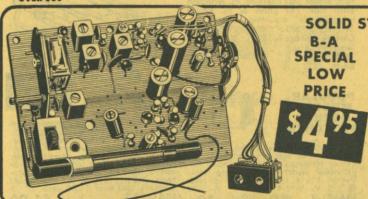
24° Each ... 22°
(2) 9 Pin Miniature fits ¾" mounting hole with 1½" mounting centers.

18C894-6

25° Each ... 22°

Each ... 22°

SOLID STATE AMPLIFIER CHASSIS WITH AM RADIO



HURRY . . . LIMITED QUANTITY! Fully wired, ready for you to connect mike, speaker and batteries or AC adaptor. Parts alone worth more than our low price! Originally built for a Philco cassette recorder. Use it for a minature PA amplifier or phono amplifier with built-in radio. Top performing AM radio. Great for building into your own cabinet or enclosure. Plenty of volume, equals performance of table radios. Built-in antenna and volume control. Has coaxial jack for AC adaptor, miniature jack for speaker or earphone, radio-mike switch. 10" shielded lead for microphone or phono input. Operates from 6 or 7½ volt batteries 4-9/16x3¼ x1¾". With diagram tor easy hook-up.

No. 18A1594-1 Each ..... 29A664-0 

# BAT HANDLE TOGGLE SWITCHES BARGAIN PRICED! BIG SAVINGS ON SWITCHES



AS LOW AS 99 EACH

Stk. No.	Action	Fig.	125 V	. 250	V. 1-5	6-24	25-99	100 up
19A7196-8	SPST	1	6	3	\$0.96	\$0.76	\$0.68	\$0.58
19A7197-6	SPDT	1.	3	1	1.20	.94	.85	.73
19A7198-4	DPST	1	3	1	1.68	1.32	1.19	1.01
19A7199-2	DPDT	100100	3	1	1.84	1.45	1.30	1.10
19A7201-6	SPDT	2	15	10	.99	.79	.71	.60
9A7202-4	DPST	2	15	10	1.52	1.20	1.08	.92
9A7203-2	DPDT*	. 2	15	10	1.84	1.45	1.30	1.10



19A/210-7

Net Each

EXTRA TINY PUSH-BUTTON SWITCH

99° Each ... 89°

SPST normally open, momentary contact. For all sorts of miniature AC or battery powered DC devices. Molded insulated housing and red button. Solder terminals. Really small, only 3½" dia. x 1" long overall. Mounts in 1½ usual cost. Wt. 2 oz.



#### SPST TOGGLE WITH LEADS

Compact, bakelite enclosed with two wire leads. UL listed. 3 amp @ 125 volts. 15/32" diameter x ¼" long mtg. shank. Has one hex mounting nut. Wt. 3 oz. 18A1644-4

Each ..... 79° 10 Each ..... 69°

# SUB-MINIATURE 10-AMP TOGGLE SWITCHES Perfect for miniature equipment. 10 amps @ 125 V. AC. Mtg. shank 32" ONLY \$ 149

x3/8" long. Hardware included. 1 oz.

19A7188-5.		\$2.49
10 Lots Each 19A7189-3.	DPDT. Each	\$2.29

HANDLE





#### SAVINGS SNAP-ACTION SWITCHES

HARD-TO-FIND MERCURY SWITCH BARGAINS

10-99

Each

MAGNETIC PROXIMITY SWITCH CIRCUIT CLOSES WHEN MAGNET APPROACHES SWITCH

ACTUATES FROM MAGNETIC FIELD NO MECHANICAL CONTACT REQUIRED

SMALL

SIZE



WINDOW AND DOOR **SWITCHES** 

2 AMP SPDT

MERCURY SWITCH

49

Normally closed. Actuator button projects 3/32". ¼" quick disconnect or solder terminals. Rated 15 A. 125-250 VAC. 1 ½ X 3/8 X 7/8" overall size. Made by Cherry. 18A1550-3

Each .... 69° Each .... 59°

Slight tip sends mercury to other end for silent operation. Pin terminals, 3/6" dia. x 15/6" L. Removed from equipment. Wt. 3 ozs.

\$1.49 10 @ \$1.29

4PDT LEVER SWITCH



Positive acting for audio switching, speakers, telephones, model railroads, etc. Rated 3 amp @ 120 V. 2 screws on front for mounting. 2½ x 1½ x 5%" behind panel space. Shpq. wt. 8

19A7190-1 Import Special \$1.69

brock molded capsule. Eliminates breakage problem with common Mercury switches. ½" dia. x 1-3/8". 6" insulated wire leads.

An exciting new concept of proximity switching at a tremendous saving. USED FOR:

HIGH CURRENT

10 AMP MERCURY

SWITCH

1-9 Each .. \$1.99

\$1.79 100 Up . \$1.59

#### SLIDE SWITCHES



Small with black bakelite slide handle, Solder lugs. 1 amp @ 125 V. ACWt. 1 oz.

Stock			10	100
No.	Action	Each	Ea.	Ea.
19A7213-1	SPST	32°	24°	16°
19A7214-9	SPDT	34°	26°	170
19A7216-4	DPDT	49	37°	24

#### SPST **PUSHBUTTON** SWITCH



Push on, push off. Same as used on latest hi-fi equipment. Size: ¾" H. X 7 /8" W. X 1 ¼" D. Tapped 6-32 mounting holes - 13/16" mounting centers. Easily modified for momentary action - normally open. Shpg. wt. 2 oz.

# PUSHBUTTON 6 POLE, DOUBLE THROW

Each push reverses the switched position. Solder lugs one side, PC terminals other side. For panel or PC board mounting. 34" mounting centers. Size: 34" H. X 5/16" W. X 1-7/8" D. Chrome knob: 9/16" L. X 34" W. Shpg. vt. 2 oz.

Shpg. wt. 2 o 18A1682-4 Each

#### POPULAR MODERN ROCKER SWITCHES



990



BIG IMPORT SAVINGS

# POPULAR BAT HANDLE DPDT TOGGLE SWITCH

Bakelite encased. Chrome on-off plate. Rated 3 amp @ 125 V. ½" dia. x 3%" L. shank. Wt. 4 oz. 19A7192-7 \$1.09 to Lots, Each.... 99°

TOGGLE SWITCH PLATES. Nickel ploted steel with on-off markings. Use with standard 18" dia. mounting shafts. 19A7195-0. Ea. ... 10° 10 For . 45°



## DPDT TOGGLE SWITCH

CENTER OFF

Each 10 Lots

Bot handle, bakelite case, red and black on-off plate. Screw terminals. Rated 3 amp @ 250 V., 6 amp @ 125 V. Quality import. Wt. 4 oz. 19A7191-9 \$1.69 10 Lots, \$1.54

# DPDT HEAVY DUTY PUSH-BUTTON SWITCH



Push on, push off, 125 volt 3 amp. Supplied with mounting ring nut and

19A7349-3 —Black 19A7350-1 —Red. Your Choice Each

\$2.49

#### WOULD NORMALLY COST OVER \$5.00! MAGNETIC



Hermetically sealed glass tube with a pair of magnetic overlapping reeds. Switches may be actuated with permanent or electro magnets. High sensitivity. Rapid cycling. Mount in any position. Ideal for counting instruments, limiting switches, alarm systems, etc. Size 3 ½ X 1/4" dia. Would normally cost over \$1.00 each.

### Double Rocker Cutler-Hammer. Versatile, one side SPST, other SPDT. Center terminals can be cut apart for individual switching. 13/4" mtg. ctrs. Overall 11/4 x 11/4 x 11/2" D. 6 amp @ '125 V. Wt. 4 ozs. 18A581-9 49c 10 Each. 39c FAST OPERATING Hermetically sealed glass tube contains precious metal contacts. Measures only 1%" long overall and 5/32" dia. Glass length 1 1/8". Magnet 11/16" x 3/16" square. Both easy to mount because of small size and light weight. Shpg. wt. 6 oz. 18A1499-3

DEPENDABLE

18A1425-8



#### MERCURY WETTED VERY HIGH SPEED RELAY

Features billions of operations without contact wear or bounce. Used for telegraph keyers, teletype, etc. at up to 60 operations per second with utmost dependability. Coil 4000 ohms, 7.2 MA pull-in, 6.2 MA release SPDT contacts 5 amps. 25/4/\* H. x. 11/4/\* dia. Hermetically sealed. Octal base. C.P.Clare = HC1077. At a fraction of regular cost! 18C912-6. 18C912-6.

Each . \$4.95 For . \$10.00

RBM SENSITIVE ' DC RELAY



Small size relay with 2 SPDT and 1 SPST crossbar contacts. Armature isolated from frame. 1200 ohm coil. Solder terminals. Two 4-40 mtg. holes. Size: 1½ X 1 1/8 X 1 3/16" H. 18A1565-1

Spec. \$2.99 10 @ \$2.69

P & B SPECIAL TYPE KHU 120 VAC RELAY \$395



uses. Clear poly carbonate housing size approx. 1-3/16 x 1-1/8 x 1" with solder terminals and stud mounting .312" long. No. KH 4695-1.
Shpg. wt. 2 oz. 18A1646-9. Each .... \$3.95

LOWEST PRICE EVER!



#### MAGNECRAFT REED RELAY

Highest quality. No. W101MX1. Coil is for 6 VDC, 100 ohms resistance. Contracts are SPST-NO rated 10 VA max at .5A max or 200 VDC max, resistive load. 5 million operations typical life. Regularly sells for over \$2.00. Size 1" L X ½" D, plus lugs and leads.

18E1703-8. \$1.49 Each ...... \$1.29





(1) Spring loaded plunger returns to open position. ½" stroke Two 8-32 mounting holes. 187 quick disconnect terminals. 1¾ X 1¾ X 2½" long overall. Made by Dormeyer. Shpg. wt. 8 ozs. 18A1587-5 10 Lots

(2) Miniature solenoid, only 1/8 X 1/8 X 1/11/4" long, 187 combination quick disconnect/solder terminals. Tapped 6-32 mounting holes. Made by Dormey-

Each ..... \$1.69

**ON 115 VAC** SOLENOIDS

Each ..... \$1.49

COMAR ENCLOSED PLUG-IN RELAY

3PDT, 10 amp contacts. Continuous duty. Cle plastic case 1% sq., 21/8 seated height. Fits prong socket. Shpg. wt. 4 ozs. 18A1544-6. For 115 VAC

12A1441-1 77 MIP11 Socket. Ea. .....

\$4.95

er. Shpg. wt. 3 ozs. 18A1588-3 Each .....\$1.49

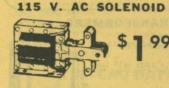
10 Lots Each ..... \$1.29



#### 115 VAC DPDT RELAY REG. NET OVER \$4.00

Molded phenolic terminal blocks, molded nylon bobbin, contacts 10 amp. 115 VAC. Solder lug connections, 6/32 mounting stud. 13/4" L, x 13/4" H, above mounting surface. Shpg. wt. 3 ozs.

18A1560-2. Each.



POPULAR SMALL SIZE Max. 55 oz. lift, 56'' stroke. Intermittent operation. Frame size  $2 \times 1\frac{1}{4} \times 1\frac{1}{2}''$  H. Laminated armature positively positioned in frame. Wt. 1 lb. \$3.50 value.

\$1.99



18A1584-2

18A1585-9

BIG SAVINGS ON

POTTER & BRUMFIELD RELAYS

.187 combination quick disconnect/solder terminals. Use as supplied, with plug-in sockets below or snap cover off for open relays with 6-32 tapped mounting hole. Size: 2½ X 1½ X 1½ ". Shpg. wt. 3 ozs.

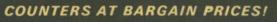
3PST 120 VAC. 5 Amp Contacts. Clear cover.

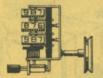
115 VAC 3PDT RELAY Exceptionally nice relay, 10 amp contacts have solder lug connections. Coil has 2" leads 6-32 tapped mounting hole 134 X 1 X 11/6" high. Shpg. wt. 3 oz.

18A1585-9. Each . . \$4.99 Each . . \$4.49

#### **GUARDIAN 115 VAC** PLUG-IN RELAY

115 VAC coil. Has 3 sets of contacts: SPDT, SPST-NO and SPST wired NO but with back contacts so you can complete connection for SPDT easily. 10 amp contacts, continuous duty. 1\frac{1}{2}" square, 2\frac{1}{8}" seated height. Shpg. wt. 8 \$3.95





#### 3 DIGIT COUNTER WITH RESET

Very high quality 0 to 999 tape recorder readout device. Low friction drive, 1" dia. pulley. 16 revolutions turns first digit wheel 1 full revolution. Approx. 1 x 1½ x 2" deep.
18A1371-4.

Spec. Each ...... 99°



**SMALL ENCASED COUNTER** 5 digit left hand drive. Ideal for metering or timing business machines, photo equipment, vending machines, etc. maximum reading is 99999, each complete turn of the ½" round belt drive wheel counts 10 digits. 19/32" long x 1 ¼" wide x 7/8" deep including shaft.

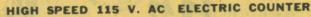
long x 1 1/4" wide x 7/8" deep including shaft.

British Import.
18A1507-3. Each \$1.49 10 Each .... \$1.29

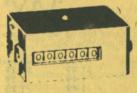


5 DIGIT COUNTER WITH RESET

Advances 1 digit for each 2 turns of its shaft. Mechanical reset allows return to 00000 at any time. Has 2" dia. wheel with rubber tire secured to 18" shaft by set screw. Spring steel strip 2 ½ " long allows mounting (or holding) so proper tension is placed on the wheel. Measure distances by rolling wheel hetween two points. 1 digit placed on the wheel. Measure distances by foling publisher tired wheel between two points. I digit advance is about 12½" in measurement. Overall length, 2¾" x 1" W x 1¼" H; Base 1¼" x 1-3 8"; shaft 7 16" long. Shpg. Wt. 1 lb. 18A1618-8. Each. \$2.95 18A1618-8. Each ...



\$3.99 Each \$3.59



Six digit readout. Counts up to 999,999 and repeats. Very high quality industrial type, made for surface or behind panel mounting. Operates quietly in any position. Single, 25 Millisec. or longer electrical pulse moves counter 1 digit. Body size 3¼ x 1-3/8 x 2-9/16" high. Made by Durant. Shpg. wt. 1 lb.

18A1307-8. While Limited Quantity Lasts .... \$8.95



VEEDER-ROOT ELECTRIC COUNTER High quality industrial type unit with digital readout dials. Counts up to 999,999, non-resetting. Single electrical pulse moves counter 1 digit. Has 110 V. DC coil, 5000 ohms. Use on 115 V. AC by adding small power rectifier.  $1_{10}^{\infty} \times 1 \times 3_{10}^{\infty}$ " H. Ideal for use with an electric eye for counting people or objects. Original cost several times our price. Shpg. wt. 10 oz. \$5.95 188973-8 Special Purchase Price



#### MINIATURE TRANSISTOR **AUDIOS**



Tiny size. 34 x 5/8 x 5/8". Highest quality import. Wt. 6 oz. 13A950-1. Input. Pri. 20,000 ohms; sec. 1000 ohms.

13A951-9. Driver. Pri. 10,000 ohms; sec. 2000 ohms C.T.
13A952-7. Output. Pri. 500 ohms C.T.; sec. 3.2 ohms.

13A949-3. Crystal Mike Input. Pri. 200,000 ohms; sec. 1000 ohms. Your Choice \$1.49 10 Lots \$1.29

# MIDGET POWER TRANSFORMERS



#### 12 VOLT PLUG-IN TRANSFORMER

**ENORMOUS SAVINGS!** 

Handy assembly plugs into your 115 Volt A.C. outlet delivers 12 V A.C. at 500 MA. Screw terminals for easy wiring of 12 Volt output. Has ears for permanent securing of transformer to household outlet by using center screw on face plate. Use external rectifier and make up your own power supply. Ideal for powering all sorts of devices. Shpg. wt. 1



#### 1 AMP 20 V. C.T. TRANSFORMER 115 V. AC PRIMARY

Exceptionally nice high quality transistor transformer. Fully enclosed construction. 2" X 1¾" X 1-5/8". 2-3/8" mtg. centers, with 18" leads. 115 V: AC primary. 18A1626-1. Each ...... \$3.99

#### FILAMENT TRANSFORMERS AT BIG SAVINGS



6.3 V. @ 1.5 AMPS
Size 2 x 2-3/8" with 3" mtg. ctrs. Wt. 1 ¼ lbs.
13A967-5. Japan. Each \$2.99
6.3 V. @ 3 AMPS
Size 3 ¼ x 2 ½ x 2" with 2-13/16" mtg. ctrs. Wt. 1 lb.
13A968-3. Special Each \$3.99 12.6 V. @ 1 AMP Size: 1-7/8" H. X 2¼" W. X 1½" D. 2-5/8" mounting centers. 8" lead. Shpg. 12.6 V. @ 1 AMF

Tapped @ 6.3 V. Size: 3 1/4 x 1 1/4 x 2" H with 2-13/16" mtg. ctrs. Wt. 1 1/2 lbs. Tapped @ 6.3 V. Size: 3 ½ x 1 ½ x 2" H with 2-13/16" mtg. ctrs. Wt. 1 ½ lbs.

13A969-1. Special

12.6 V. @ 2 AMP

Size 2 x 3 ½ x 2 ½" with 2-13/16" mtg. ctrs. Wt. 2 lbs.

13A243-1. Special Each

25.2 V @ 1 AMP

Size: 3 ½ x 2 ½ x 2" H. with 2-13/16" mtg. ctrs. Wt. 2 lbs.

13A970-9. Special Each

25.2 V @ 2 AMP

Size: 4 x 2 ½ x 2-5/8" H. with 3-9/16" mtg. ctrs. Wt. 2 ½ lbs.

13C501-2. Special Each

\$6.99

48 VOLT CT 1 AMP



BA special purchase saves you money. 

#### BIG SAVINGS ON OUTPUT TRANSFORMERS



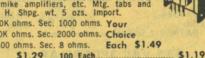
For 50L6, 50B5, etc. 2500 ohms to 3-4 ohms V<sub>1</sub>C. 1¾" mtg. centers. X 1¼" H. X 3√8" thick core. Wt. ½ lb. No. 18A888-8 \$1.49 Each Special Each

#### VERY TINY TRANSISTOR TRANSFORMERS

Exceptionally small, only  $\frac{1}{2}$  inch largest dimension, nicely constructed. Equivalent domestic made units would cost many times more, Impregnation and special coating seals the coil. The right types for building transistor radios, tiny audio or mike amplifiers, etc. Mtg. tabs and wire leads. Size  $\frac{1}{2}$  x  $\frac{1}{2}$  x  $\frac{1}{2}$  x  $\frac{1}{2}$  H. Shpg. wt. 5 ozs. Import. No.13A904-8.Input. Pri. imped. 200K ohms. Sec. 1000 ohms. Your

No.13A905-5 Driver. Pri. imped. 10K ohms. Sec. 2000 ohms. Choice

No.13A906-3.Output. Pri. imped. 500 ohms. Sec. 8 ohms. Each \$1.49 \$1.29 100 Each.... 10. Each



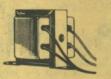
#### **B-A GIANT SAVINGS**

## MINIATURE TRANSISTOR **AUDIO TRANSFORMERS** S 1 49



Stk. No.	Type	Pri. ohms	Sec. ohms	1-9 Each	10 up Each
13A1080-6	Driver	10K	2K.CT	\$1.49	\$1.29
13A1082-2		1K.CT	8	1.49	1.29
13A1081-4	Output	500 CT	3.2	1.49	1.29

#### TRANSISTOR POWER SUPPLY TRANSFORMERS 115 V. AC PRIMARY







② 28 V CT. @ 1 Amp. 25%" H. × 25%" × 21/4". Shpg. wt. 3 lbs.
No. 18A1489-4. \$3.69 10 Lots
Each Each \$3.69

③ 30 V. CT. @ 2 Amp. 21/4" H. x 23/4" W. 31/8" mtg. ctrs. Wt. 3 lbs. No. 13A986-5. \$6.99 Each .... \$6.59

(i) 30 V. CT (a. 5 Amp. Size 2 ¼" H. x 2" x 2 ½". Shielded construction mounting centers 2-3/8". For 115 VAC. Shpg. wt. 2 lbs. 18A1532-1. Each .....

#### 24 VOLT .3 AMP TRANSFORMERS

B-A's best selling transistor power transformer. Top quality. These are made to B-A's rigid specifications by a leading American manufacturer.

Fully encased, continuous duty type. Rated .3 amps with fully isolated 115 V. 60 Hz. AC primary. Size 1%" H. x 11/2" W. 2" mtg. ctrs. Wt. 6 ozs.

No.13A903-0 \$2.29 10 Lots \$2.09 Each \$1.69

Same as above except has center tap on secondary.

No.13A861-0 \$2.59 to Lots \$2.39 Each \$2.19 SAVING!

MULTIPLE VOLTAGE TRANSFORMER

Husky I amp. transistor power supply transformer. Will furnish 6, 9 or 12 VDC ofter full-wave rectification; 18-24 V. 12, 18 or 24 VDC after half-wave DC supply rectification. Secondary has center tap. Primary 115 VAC. Exceptionally well made, nylon bobbin construction. Best transistor supply transformer we've seen! 3" mounting centers. Size 2"H. x 2½"W. x 2"D. Shpg. Wt. 2 lbs. No. 13A902-2"

\$5.99 Terrific Import Value



#### SAVE ON P.A. LINE MATCHING TRANSFORMERS

#### **CONSTANT VOLTAGE** LINE MATCHING **TRANSFORMERS**

10 Watt Rating. Match any 4 or 8 ohm voice coil for 0.63, 1.25, 2.5, 5 or 10 watts power input. Clearly marked 9 inch leads. Size: 1-5/8" H. X 2" W. X 2" D. 2-3/8" mounting centers. Shpg. wt. 1, lb. For 25 volt line

18A1685-7. Each ...... \$3.29 10 Each ...... \$2.99 18A1684-0. Each ...... \$3.49 10 Each ...... \$3.19

20 watt ratings for high volume speakers. Match any 4 or 8 ohm voice coil for 1.25, 2.5, 5, 10, or 20 watts power input. Solder lug terminals clearly marked for wattage. Size: 2-1 4" L x 1-5 8"W x 1-7 8" H. 2-5 8" mounting centers. Shpg. Wt. 1 lb.

Shpg. Wt. 1 lb. For 25 volt line. 13A1078-0. Each .... \$4.49 10 Each ..... \$3.99 For 70 volt line. 13A1079-8. Each ..... \$4.49 10 Each ..... \$3.99

## **POWER SUPPLY VALUES!**

TRANSISTORIZED 6-9-12 V. DC @ 1 AMP UNIVERSAL POWER SUPPLY

Provides well-filtered DC power from 115 V. AC line. For use with all kinds of battery powered transistor equipment, radios, intercoms, tape recorders, record-players, amplifiers, tuners, transceivers, experiments, etc. Input 115 V. AC 60 Hz. Metered output . . . switches to 6-9-12 volts. Heavy duty metal case  $6 \times 3 \frac{1}{2} \times 2 \frac{1}{2}$ ". Wt. 3 lbs, 13A8009-8. Top Import Value! Special Each...................................\$29.95



VARIABLE VOLTAGE SOLID STATE POWER SUPPLY

0-15 V. DC @ 1.5 AMPS.

Highly reliable power for every conceivable type of solid state device. Output voltage selected by front control. Meter indicator output voltage. Has pilot light, fused output with binding posts which accept phone tips or banana plugs. Housed in attractive black metal case with aluminum front panel. Top quality components and workmanship throughout. Size  $2\frac{1}{2} \times 4 \times 7$ " D. Shpg. wt. 3 lbs. \$44.95

# SAVE ON BATTERY COSTS

### FAMOUS "DYNAMIC" PLUG'N'CHARGE HOME BATTERY CHARGER

Operates from any AC outlet. Recharges "weak" batteries, 4 batteries at one time, size D, C, AA or 9 V. transistor; carbon-zinc, alkaline, nick-el-cadmium or mercury types. Safe operation on 115 V. AC with interlock lid. Wt. 2 lbs. \$7.95





#### OWN LIGHT CONTROLLED THE USUAL COST! FRACTION OF









ANNOUNCING

ON AT OUSK AND SUNAME

LIGHT SENSITIVE PHOTO CELL 5

AND RELAY

RELAY SIZE: 11/8" x 11/8" x 15"

The two basic components, a high quality extra sensitive relay and a light sensitive cell . . . plus circuit diagrams for building useful and interesting devices . . . day-night control of lights or other electrical equipment, light actuated burglar alarm and remote control TV "Commercial Killer." Many other uses will suggest themselves to the experimenter and engineer. Fine for production or traffic counters, door openers, etc. Tiny glass enclosed light cell is only ½" x5/16" with 2 wire leads. Relay, size 1½ X 1½ X 1-3/16" H. Has 2 SPDT and 1 SPST crossbar contacts rated lampere. Completed control operates on 115 V. AC.

41A4022-1. Wt. 1 lb  BATTERY CHARGER KIT



FOR 6 OR 12 VOLTS Amazing low price! Top quality parts Amazing low price! lop quality parts to build a compact, dependable charger for 6 or 12 volt batteries. For full wave rectification using filament or similar transformers of your choice. Kit Contains 4-2 amp stud mtg. rectifiers, mounting kits for rectifiers, 3 x 3 ½" heat sink and instruction sheet.

No. 20A1200-1.

Special Each ..... \$2.00

AC ADAPTORS

LOW CURRENT DRAIN . . . REQUIRES ONLY PENNIES TO OPERATE

**SUPPLIES** 

**TEST LEADS** 

YOUR CHOICE

EACH

CONVERTS: RADIOS TAPE RECORDERS, WALKIE - TALKIES, PHONOS AND OTHER LOW POWER 6, 9 OR 12 VOLT BATTERY OPERATED DEVICES! FOR 6, 9 OR 12 V. RADIOS, ETC.

SIMPLY PLUG-IN IN PLACE OF BATTERIES - OPERATES ON 117 VOLT AC

Operates transistor radios, walkie-talkies, tape recorders and other devices from 115 VAC. Reliable noise-free operation. Simple to use—just plug adaptor into wall outlet and equipment. Requires no change in your equipment—unplug adaptor for portable use. 200 mA. rated. UL listed. 6 and 9 volt models have 3.5 mm (miniature) phone plug. 12 volt model has 2.5 mm (micro-miniature) plug. Shpg. Wt. 34 lb.

plug. Shpg. Wt. 34 lb.
13A8007-2. 6 V. Nominal Output, 4.8 V. at 200 mA, 7.2 V. at 20 mA.
10A3030-2. 9 V. Nominal Output, 6.5 V. at 200 mA, 10.3 V. at 20 mA.
10A3021-1. 12 V. Nominal Output, 10.5 V. at 200 mA, 14.4 V. at 20 mA.
\$7.95

#### NI-CAD BATTERY CHARGER

Tiny self-contained unit operates from 115 V. AC providing 50 mA charging rate for a 1.2 V. Ni-Cad battery cell. Made for continuous duty use. Charger size 2x1-3/8x1-3/16". Wt. 4 ozs.



Eliminates the use of batteries in cassette and cartridge recorders and other battery operated units. Adaptor plugs into 117 V. outlet. Switch selects 6, 7½, or 9 volts. 300 MA output. Polarity reversing connector. Not recommended for small radios or other devices with low power consumption. 3 way connector has miniplug, sub-miniature plug, 2.1 MM coaxial jack. Size: 8 oz.

2¾ x 1¾ x 2" (with prongs). Shpg. wt. 8 oz. 13A8052-8. Each

..... \$6.95

#### SPECIAL

INCH TEST LEAD **EXTRA** FLEXIBLE

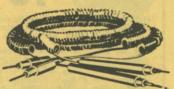


Both the test prods and the plug tips have flexible strain reliefs to minimize breakage at these points.

35A8053-0

\$1.99

RETRACTABLE TEST LEADS



Extends to 96 inches, retracts to 16 inches. 1 ea. phone tip test prods Red and Black are 6 inches long. 35A8016-7

\$3.29

# MOTORS. FANS. BLOWERS

HI-TORQUE SLOT CAR MOTOR

Operates on 12 volts DC @ 9000 RPM.  $1\frac{5}{8}$  x  $\frac{7}{8}$ " dia. Shaft 3/32 x 7/16" long. Shpg. wt. 9 ozs.

18A1481-1 Special 3 For -------------SPECIAL PURCHASE **SAVINGS ON GEAR DRIVE MOTOR 35 RPM VERY HIGH TORQUE** 



115 V. 60 Hz. fractional horsepower shaded pole motor with permanently lubricated enclosed gear train. Great lubricated enclosed gear train. Great for rock tumblers, barbecue spits, displays, models and hobby work. Small size for its terrific power, only 2¾ X 2¼ X 3" H. ¼" dia. X 1" long shaft. Beautiful design and construction. Wt. 2½ lbs. New. While Limited Supply Lasts

\$4.95 18A1321-9. Each ... 

COMBINATION ELECTRICAL LOCK DIAL ACTUATES INTERNAL SWITCH



FOR DOORS, ALARMS, ETC.
Pick-proof—Made for Maximum
Security.

"Locked" position holds circuit open of Dialing a 3 number combination closes circuit until dial is again turned p to a random setting. Very well made, with black finished dial, white markings and chrome finished die-cast enclosure and 2 wire lead from rear. Overall diameter 2½". Mounts in h closure and 2 w. Overall diameter Overall diameter 21/2". Mounts in 13/4" hole, extending 11/4" deep. American made. 18A1375-5, While Limited \$4.95

18A1375-5. While Li Quantity Lasts, Each.

**60 RPM HURST TIMING MOTOR** Hurst model EA quiet running precision timing motor is designed for continuous run operation. Clockwise rotation viewed from end of 3/16" diameter shaft.

Mounts on panel with 3 holes tapped for 4-40 screws on 2-3/8" centers. Shpg. wt. 2 lbs.

18A1641-0. Each ..... \$4.95

Permanent magnet field, electrically reversible, is rated at 6 VDC but actually operates from 2 to 12 VDC at speeds from 50 to 500 rpm. Develops high torque. 1 ¼" pulley is removable from 3/16" dia. shaft, ½" long. Gear housing is 5 ¼" L. X 2" W. X 1" D. with mounting ears, mounting holes on 2½" centers. Motor is 1-7/8" D. X 2½" L., with solder luss and leads Shop at 2. with solder lugs and leads. Shpg. wt. 2

18A1659-2. Each ..... \$4.95

9 VDC GARRARD MOTOR





LOW

VOLTAGE GEAR DRIVE MOTOR

3200 RPM governed speed. 4 step shaft. Counter-clockwise rotation 134" dia. 2½" long including shaft. 7" Shpg. wt. 5 oz. 18A1609-7

99° Each ..... 89° Ea.



**EXHAUST** FAN SUPER QUIET MOVES 60 CFM E95

18A1713-7. Each ..... \$5.95

#### NOISELESS 4-INCH HI-FI "BOXER" FAN



Cenuine "Boxer", made by IMC Magneties Corp. Engineered specifically to cool and ventilate enclosures for amplifiers, tuners, etc. Operates with a minimum of noise. Comes with mounting kit, vibration damping grommets, new self-adhesive easy mount and AC cord for wiring into equipment power switch. Can be installed to pull in or expell air or simply blow across components. Frame size: 418" sq. x 11/2" deep. 41A4047-8. Wt 3 lbs.

41 A4047-8. Wt. 3 lbs. \$19.95

MIDGET REVERSIBLE DC MOTOR

MODEL CARS, BOATS, TOYS, Etc 3 FOR 99

3

FOR 99c

Operates from 1½ to 6 V. dry cell batteries. High torque, PM type. 1½x1½ x1¾" H. Shaft 32" dia. x 32". Wt.

99c 18A379-8. Special 3 For .... \$3.49

MOTOR SPEED CONTROL

Top quality speed control for motor driven models, hobby tools, sewing machines, etc. Screw type terminals. Rated up to 1.2 amps, 115 VAC/DC. Use with 115 V. motors. Size: 3-3/8" W. x 5-5/8" L. x 2½" H.

19A7273-5. Each ..... \$3.99

CYCLOHM 4 INCH "MUFFIN" FAN RATED 120 CFM 115 V. 50 /60 Hz. BARGAIN PRICED!

Highly efficient, quiet operating, continuous duty. Made especially for circulating cooling air through electronic equipment, music systems, transmitters, etc. Very highest quality. Noiseless induction motor. Can be installed to either pull in or exhaust air. Made by Howard Industries. 4-11/16" sq. x 1½" deep. Weighs 1 lb. Shpg. wt. 2 lbs.

\$12.95 

6-INCH

VENTILATING

FAN

Circulates 400 CFM. Powered by Fasco type 21 motor designed especially for ventilation and exhaust fans. Precision, open frame shaded pole, 1800 RPM motor with bronze bushings.



# WHOPPING SCOOP VALUES!

115 VOLT AC BLOWERS

FOR COOLING, DRYING, VENTILATING, 95 EXHAUSTING, ETC.

High quality, dependable, efficient, quiet-operating blowers. Have shaded pole induction type motors; smooth-running Torrington wheels; well designed glossy black ers. Have shaded running Torrington wheels; well design enamel housings.

Fine for photo dark-rooms, forced ventilation of appar-

atus, forced draft to furnaces, exhausting bad odors or harmful vapors in kitchen, lab, etc., cooling of tubes and equipment plus hundreds of other useful home, shop, or industrial applications. All are 115 V. 60 Hz. AC.

Stock No.	Illus.	Air Cap. CFM	Free Air RPM	Full Load Amps.	Wheel Diam,	Intake Diam.	Outlet	Flange	Overall (Less FI H. x W.	ange)	Lead Length	Wt. Lbs.	Spec. Each
41A4002-3 41A4003-1 41A4004-9 41A4005-6	(1) (1)	15 100 140 525	3160 2870 3020 1570	0.21 0.74 1.02 3.25	2" 3"," 3"," 65,"	178" 31 " 31 " 512"	21 / Rnd. 21 / Sq.	2 <sup>1</sup> 4" Rud. 4 <sup>3</sup> 2" Rud. 5 <sup>1</sup> "x4" 6 <sup>5</sup> x"x5 <sup>5</sup> x"	3"," 4", 5"," 65, 753" 653 111"," 9",	" 634"	6"	21 <sub>2</sub> 43 <sub>4</sub> 53 <sub>4</sub> 14	\$13.95 17.95 19.95 38.95

#### SUBMINIATURE **EDGEWISE METER**



Only 9/16" x 5/8" with 7/8" mount-Only 9/16 x 5/8 with 7/8 mount-ing center, Indicator window is ¼" H x 9/16" W, projects ½" through panel, 260 uA. DC, 500 ohms internal resist-ance. Solder lug connections. Imported. 35A6220-7. Each ..... \$5.50

#### DIGITAL READOUT CIRCUIT BOARD

EACH

2 FOR \$8.88

With 2 Burroughs Nixie Readout Tubes. Bright red neon glow easily read in all light conditions. Large character size 2½" high X 1½" wide. Board has contacts for edge connector, approximately 30 transistors and over 100 assorted diodes, capacitors and resistors. Tubes require 170 volt DC supply voltage. Diagram supplied for tube pin connections only. Boards have been removed from operating equipment. Shpg. wt. 2 lbs.

Each ...... \$4.95 FOR ..... \$8.88



#### **EXCITING METER VALUES!**



MINIATURE PANEL METERS

#### POPULAR 2-IN. EDGEWISE TYPE

Precision moving coil instruments with zero set. Beautifully constructed, top quality throughout. Excellently shielded against magnetic fields. Scales calibrated black on bright metal with red pointer. Body molded plastic with clear plastic front. Mounts in 3/8 x 13/8" rectangular hole. front. In.

35A6173-8. Each ...... \$5.95



#### SPECIAL PURCHASE BARGAINS!

#### DUAL MOVEMENT 200 MICROAMP METER



Ideal for Stereo Balance, Recording Levels, Forward and Reflected Power. Has Many Experimental Applications Square 3" clear plastic case, 1 black pointer for "left" scale, 1 red pointer for "right" scale. Finest D'Arsonval movements. By matching pointers stereo levels are easily and perfectly adjusted. Full scale sensitivity 0.5 volts DC. Mounts in 234" hole.

#### POPULAR MIDGET VARIABLE CONDENSERS

VARIABLE FM/AM 2 GANG



Has cut plate oscillator section on AM. Both FM sections are similar. Tunes with standard R.F. coils. 1-3/8 x 1-5/8 x 1 3/4". 1" shaft. Wt. ½ lb.

18A1651-9 ..... 99°



**REG. \$2.99 SAVE \$1.99** 

#### MINIATURE 365 PFD. VARIABLE WITH DIAL



Condenser 1-in. Square

Only 1" square x 1/2" deep. Close fitting clear plastic 11/4" dia. dial with gold trim and numerals. Knurled edge for easy tuning. Wt. 4 oz. Import

12A2404-8 Special Net Each ..... \$2.99

#### **JUMBO PLASTIC** SYPHON PUMP

Not messy like other syphon methods. Easy to use. Handy to carry in your car for emergencies or have around the house to pump gas from your car to lawn mower

18A1726-9. Each ..... \$1.00

#### **HOOK-UP WIRE BARGAINS SAVINGS UP TO 60%**



Tremendous savings on fresh, clean hook-up wire. Vinyl insulated. Buy plenty while supplies last. Shpg. wt. 4 lbs. per 100 ft.

24 GAUGE STRANDED. Assorted solid and striped colors (no color choice). Compare at \$10.00 per thousand ft. Subject to limited quantity on hand. 2500 Ft.

500 Ft. ..... \$2.99 (one length) ...... \$9.99 22 GAUGE STRANDED. 5 30-ft. coils. Clean yellow vinyl insulated. 18A1635-2. Per Pkg. of 5 Coils

24 GAUGE SPEAKER WIRE. Stranded 2-conductor. 10 ft. lengths.
18A1314-4
10 - 10 Ft. Lengths For ..... 99° Lengths For ...... \$3.99

#### ALARM BELLS AND BUZZER

# 3-INCH 117 V. AC ALARM BELL

Produces loud, clear ring. Overcomes high background noises. Operates di-rectly from any 117 VAC power

Shpg. Wt. 8 ozs. Imported. 41A4045-2

Special Each ......\$8.99



**8 INCH WEATHERPROOF** ALARM BELL

Works on 6 or 12 volts DC. Extra loud, heavy duty bell for burglar and fire alarms. Steel bell for clear ring. Red enamel finish. High quality. Made in U.S.A. Shpg. wt. 5 lbs. 41A4101-3

#### LOUD DC BUZZER

Works on 1½-16 volt DC. Use wherever an attention getting signal is desired. 2¼" dia. 1" thick. Single screw mounting. No. 18A1624-6

1½ INCH SIGNAL BELL
Operates on 4 to 12 volts DC or AC. 9/64" mounting hole in frame. Size 1½" D. X 2¾" L. Shpg. wt. 4 oz. Imported. No. 18A1622-0

# WESTCLOX APPLIANCE CLOCK TIMER

Turns on equipment up to 10 hours after setting. Switch roted at twenty cmps, big enough to handle nearly any appliance, air conditioner, etc. Attractive  $4\frac{1}{16}$ " clock face with domed plastic cover. 2" deep behind cover. With 5" leads for easy connection. Shpg. wt. 1 lb

18A1282 -3. Special Each . \$2.95





10 FOR

Popular 1/25 watt bulb as used for pilot light assemblies, volume level indicators. Unbased, with 2 wire leads ¼" dia., 1-1/16" long. Requires 200,000 ohm series resistor for 105-125 V. operation. Wt. 4

SAVE ON NE2A NEON LAMPS

12A4129-9 10 For ..... \$1.60

For ..... \$6.00



# EXPERIMENTERS AND BUILDERS

## SAVE ON THESE POPULAR CODE SETS!

CODE PRACTICE SET TRANSISTOR CODE PRACTICE OSCILLATOR

KEY INCLUDED

Top import value compares with other ascillators selling for twice this price. Perfect for the learning beginner or the professional who wants to keep in practice. Variable pitch control. Switch selects tone, light or combination operation. Built-in speaker has sub-miniature headphone jack. Oscillator size 6 ½ X3½ X 2-5/8" Key, batteries and instructions supplied. 1074 X 2-5/8 Rey 3 Structions supplied. \$17.99

Complete Unit

Beautifully made import. Gives clear steady "code note" at ample listening level, or will operate one or several pairs of headphones wired in parallel. Two sets, each with headphones and hooked together with wire will transmit code messages 100 ft. apart. Uses standard flashlight battery. 9A3106-3. Less Battery. Wt. 1 lb.

FINE QUALITY

Net \$5.99 For \$11.00 21A329-8. Battery. Each . . . 40°

B-A BARGAIN SPECIAL TELEGRAPH KEY

WORTH MUCH MORE!

Finest key we've seen at anywhere near this low price. Neat, import made with heavy ½" contacts, bright plated sturdy steel lever arm, fully adjustable spring and spacing, brass hardware, molded bakelite base. Wonderful for code practice or ham station operating: Wt. 10 oz.

9A3093-3. Special Each ... \$1.99

LEARNING THE CODE
ARRL Book provides basic instruction
for sending and receiving. Wt. 6 oz.
16A63-0. Each..........\$1.00



**EARPHONE WITH** 

24 FOOT CORD Low impedance earphone works with most TV's, recorders, radios and other solid state devices. With one miniature and one sub-miniature plug to fit practically any set. Special import value

32A4044-6. Each ..... \$1.59

#### DELUXE BRASS FAST-ACTION SPEED KEY

We thought we had seen 'em all ... but this one is different, even better than the famous J-38. Quadruple ball bearing pivots give key fast action ... ideal for novice, perfect for high speed operator. Base is bright polished solid brass, silver contacts. Fully adjustable for the right "feel ... Nickeled, knurled hardware, shorting lever switch and standard black knob. Believe us, this import is an unusual value and would ordinarily cost several times more. Shpg. wt. 1½ lbs.

9A3107-1 Special Each ..... \$4.99

#### PROFESSIONAL STYLE **EQUIPMENT KNOBS**

PKG. OF 2 5 1 59

BIG IMPORT SAVINGS

Beautifully made, will really dress up equipment. Skirted, 11/4" D. with white filled 0 to 10 marking. and brass insert. Specify Black or Grey.

12-02007-9-008-3. Gray 12-02007-9-010-9. Black

Un-numbered, white pointer on skirt 12-02008-7-008-3. Gray 12-02008-7-010-9. Black Choice, Package of 2 ......\$1.59



#### **VELVET SMOOTH** VERNIER DIALS



Planetary drive ratio 8 to 1 in 180° counter clockwise. Brushed silver dial with deep-etched black-filled markings reads 0 to 100. Knob and housing molded black phenolic, Surface mounting for 1/4" shaft. Shpg. wt. 8 oz.

12A2306-5. 2" Dia Each...\$3.99 12A2009-5. 3" Dia with vernier to 1/10th division. Each....\$5.99 \$3.99

DYNAMIC EARSET For transistor radios, cassette recorders, etc. Has 3 ft. cord with miniature plug attached. A quality import.

18E1705-3 . Each ... 69° 10 Each ...... 59°

SAVINGS

HI-FREQUENCY BUZZER FOR CODE PRACTICE



Fine companion for key above Gives clear, steady "code" note. Fully adjustable. Operates on single 1½ V. battery. In molded bakelite case 2" dia. Imported, at lowest cost ever. Wt. 4 oz. 9A3104-8. \$1.99 

BARE COPPERWELD ANTENNA WIRE



500 FT. COIL

Has many times the strength of ordinary copper wire—does not stretch or sag. Ideal where long lines are need-ed. Electrical properties same as cop-per at high frequency. Wt. 3 lbs.

2B24-8. Size 18 500 Ft. Coil.

\$7.29

#### COIL LOADED 5 795 CB ANTENNA

# FOR WALKIE

areas or places where extended antennas are impractical.

Mounts quickly on existing antenna with screw clamp. Durable construction, Handy to have in confined ware-house areas, dense under-growth, athletic events, etc. 10A7000-1 Special Each ... \$2.95

STETHOSCOPE TYPE CRYSTAL EARSET IMPORT

Modern, lightweight, under-chin design. Fully adjustable. High impedance, wide range. 3 ft. cord \$2.99 32A9004-5. Wt. 8 oz. Each \$2.99

**CALRAD 75-471 CB TELESCOPIC** ANTENNA

10 section, coil loaded. Excellent CB replacement antenna. Extends 47½", collapsed 7-11/16". Base diameter 13/32". Shpg. wt. 10A7118-1.

Each ..... \$3.95

# TALKIES

Ideal for use in confined

Compact unit adjusts from 14" to 16" for tuning. Replaces 3-ft. to 5-ft. telescopic antennas.

DYNAMIC EARSET AND

CRYSTAL EARPHONE

Extra sensitive high - power high imped-

Wt. 4 02. 32A9000-3 \$1.29

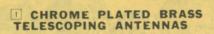
ance. 3

cord.

Lightweight, high quality. Im ft. cord, plug, jack. Wt. 4 oz 32A9002-9. 2000 Ohm 32A9001-1. 15 Ohm Imported. 3

\$1.49 CHOICE, EACH. DYNAMIC EARSET with ultro miniature .097" dia. plug (no jack) Japanese radios. 15 ohms.

32A9003-7 Wt. 3 oz. \$1.29



FOR WALKIE-TALKIES, TRANSISTOR RADIOS, ETC. Precision machined for perfect fit and action. Tapped at bottom for 4-40 screws and supplied with 6-32 and 8-32 adaptor for mounting in CB Walkie-Talkies, miniature radios, etc. No better quality anywhere! Imported. Average shpg. wt. 8 ozs.

10A7033-2. Top Quality Import. Special Each

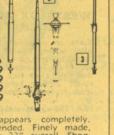
No. Sections Dia. Collapsed Extended -1 7 8" 8" 461/2" -9 8 47" 71/2" 48" -7 9 431" 734" 51" -4 11 432" 61/2" 50" 3 No. Section 10A3035-1 7 10A3036-9 8 10A3037-7 9 10A7032-4 11 Each \$3.29 3.39

② Telescoping Folding Monopole Antennas. Disappears completely, Swivels or folds 90° in any direction when extended. Finely made heavily chromed plated brass. 8 sections extend to 23" overall. Shpg

32 Inch 7-Section Antenna. 90° swivel joint. Has 4 inch section with adaptors at bottom to extend down into set. Brass, chrome lated

\$4.49 10A7031-6. Special Each







#### HIGH CAPACITY AND GENERAL PURPOSE ELECTROLYTICS SAVE OVER 1/2 ON THESE B-A BARGAINS!

Special purchases made throughout the year make it possible for B-A to offer special purchases made throughout the year make it possible for B-A to other you these top quality electrolytic capacitors at a fraction of their usual cost. All are made to the most rigid specifications of equipment manufacturers, assuring the best performance for your use. Products of both U.S. and foreign manufacturers are represented in this listing. Shipping weights average 5 oz. each.



(3) 2,000 uf. 20 V capacitor. 1-3/8" dia. x 2-1/4" long overall. 1/2" solder lugs. 18A1589-1. Each
(1) 50 uf. 25 VDC. $5/8''$ dia. x 1-5/8" long. Insulated case. Has mounting bracket like fig. (6).
15A5123-8. Each
(1) 500 uf. 25 VDC. 3/4" dia. x 1-5/8" long. Insulated case. 18A1406-8. Each
(4) 4,000 uf. @ 25 V. Aluminum can 1-3/8" x 2-5/8". Heavy plastic insulated. Made in Italy by Ducati.  18A1590-9. Each
(5) 1,500 uf. @ 35 V. 1" dia. x 2" long. 1/4" leads. Blue vinyl insulating sleeve.  18A1506-5. Each
(1) 1 uf. 50 VDC. 5/8" dia. x 2" long. Insulated case. 1188608-0. Each
(4) 50 uf. @ 150 VDC. Aluminum can 1" dia. X 1-9/16" long. Plastic insulated. 18A1348-2.Each
(1) 4 uf. @ 450 VDC. 5/8" dia. X 2" long. Insulated. 18A1358-1. Each

#### COMPUTOR GRADE CAPACITOR

#### **MULTI-SECTION HIGH CAPACITY TYPES**

Fig.	Stk. No.	A 125 V Pu SECTION	Volts	Size
(4)	18C857-3 18B689-0	850-400/100/15	16/4/11.5	1-3/8"x1-34"H.
(4)		80/4-4/200	475/450/25	1-3/8"x3-9/16"H.
(4)	18C858-1	400-100/400	16/3	1"x1-1/2"H.
СНО	ICE EACH		10 Each Asstd.	39

#### **BIG SAVINGS ON VOLUME CONTROLS**



#### TUBULAR ELECTROLYTICS

AS LOW 38° EACH



#### SUB-MINIATURE AXIAL LEAD CAPACITORS

Miniature size for general replacement use as well as for the minimum size requirements of modern, compact, solid state circuits. Top quality imports. Metal case with epoxy end fill, vinyl insulating sleeve around sides. Use 16 volt types for all voltages below 16 volts.

16 VOLTS

		10 Anr			
Stock		Size		1-9 10	
No.		Dia.	Length E	ach E	
15A5680-7		7/32	19/32 19/32 19/32	\$0.38	\$0.34
15A5681-5	10	1/4	19/32	.38	.34
15A5682-3	22	5/18	19/32	.38	.34
15A5683-1	50	5/16	19/32	.40	.36
15A5684-9		13/32	1	.49	.34 .34 .36 .44
15A5685-6		1/2	11/16	.58	.52
15A5686-4		19/32	29/32	80	.72
15A5687-2		23/32	1-21/32	1.00	.90
15A5586-6		23/32	15/8	1.50	1.35
1343300-0	2000		The state of the s	1.00	1.00
		35 VOI	TS	100	Mig.
15A5688-0		1/4		.38	
15A5689-8	10	5/16	19/32	.38	.34
15A5690-6	22	5/16	13/16	.42	.38
15A5691-4		13/32	1 /1 1	.56	.50
15A5692-2		23/32	1	.65	.59
15A5693-0		19/32	11/4	.80	.72
15A5694-8		23/32	1-21/32		1.08
15A5695-5		1/8	21/4	1.75	1.58
15A5588-2			21/4	1.98	1.78
13A3300-/	2200	1	3	1.30	1.70
		50 VOI	TS		
15A5696-3	1		15/32	.38	.34
15A5697-1		13/64	15/32	.38	.34
15A5581-7		15/64	15/32	.40	.36
15A5582-5		5/16	39/64	.40	.36
15A5698-9		25/64		44	40
15A5583-3	50	23/04	11/16	.48	43
		1/2	1 /16	.40	.77
15A5584-1			11/4	.85	
15A5585-8		19/32	15/8	1.06	.95
15A5589-0	500	25/32	15%	1.42	1.28
THE RESERVE OF THE PARTY OF THE	The same of the	1 100			CARL PROPERTY.

#### PRINTED CIRCUIT TYPE **FILM CAPACITORS**

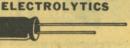


Extremely small, high quality Film Capacitors. Perfect for transistorized circuits. High dielectric strength and rugged construction assures long life. Epoxy coating withstands high humidity and temperature. Top quality import.

Stock	100 WORK	Size	Inches	1-9	10-99
No.		H	W	Each	Each
15A7535 15A7538 15A7536 15A7537 15A7539 15A7540 15A7541 15A7542 15A7543 15A7544	-5 .0047 -9 .01 -7 .022 -3 .033 -1 .047 -9 .068 -7 .1 -5 .22	.455 .455 .455 .455 .455 .490 .490 .710 .945	168 168 247 275 335 335 380 428 522 630	.20 .20 .21 .23 .25 .29 .29 .32 .78 1.49	.18 .18 .19 .21 .23 .26 .26 .29 .70 1.34

SAVE ON CAPACITORS

#### PRINTED CIRCUIT ELECTROLYTICS



Stock No.	uF	16 VOI Size Dia.		1-9 Each	10-99 Each
15A5661- 15A5662- 15A5663- 15A5664- 15A5665- 15A5666- 15A5667- 15A5668-	5 10 3 22 1 50 8 100 6 220 4 500	33/64 19/32	21/32 13/16 31/32	\$0.25 .25 .28 .35 .39 .52 .79 1.05	.23

	35 VO	LTS		
15A5669-0 5	1/4	3/8	.25	.23
15A5670-8 10	5/16	13/32	.28	.24
15A5671-6 22	3/8	15/32	.35	.32
15A5672-4 50	3/8	9/16	.40	.36
15A5673-2 100		3/4	.50	.45
15A5674-0 220		31/32	.79	.67
15A5675-7 500	3/4	15/8	1.05	.95

#### CROSSOVER NETWORK CAPACITORS

CALRAD No. 15A5003-2. 2 MF No. 15A5004-0. 4 MF No. 15A5005-7. 8 MF Your Choice Each

#### **50 PIECE LOW VOLTAGE ELECTROLYTIC CAPACITOR ASSORTMENT**



Most popular sizes in compact low voltage types as used in todays modern circuitry. Contains both P.C. types and axial leads, some are duals. Capacities from 2 UF to 1000 UF. An up-to-date assortment of usable capacitors at a fraction of their usual cost. Imported. Shpg. wt. 2 lbs.

#### **B-A SUPER BARGAIN VALUE!**

3.6 MFD. 5000 VOLT FILTER CONDENSER HIGH CAPACITY—SMALL SIZE



SIMILAR RATED CONDENSERS COST OVER \$35.00

New production surplus from modern space age projects. Very small size for voltage and capacity rating. Ideal high capacity filter for HV supply on linear RF power amplifiers. Case only 21/4x27/6x41/4" H., with handy mtg. brackets attached to sides. Shpg. wt. 2 lbs.

No. 18A1441-5

Special Each.

Special Each

\$6.95



#### MINIATURE PLUGS & JACKS



Solder terminals. Plug 1" long X 3/8" dia. 16" dia. finger. Jack mounts in 14" hole. Wt. 1 oz. 12A6080-2. Red Plug. Each..... 59

12A6080-2. Red Plug. Each... 59-12A6081-0. Black Plug. Each... 59-12A6082-8. Metal Plug. Each... 69-12A6072-9. Jack. Each... 29-

TWO COLOR METAL UTILITY CABINETS

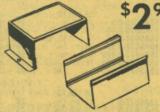




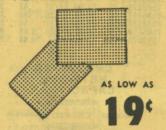


Strikingly handsome utility cabinets for housing miniature or medium sized equipment such as inter coms, amplifiers, control systems, power supplies etc. Have black wrinkle steel cover with ventilating perforations at rear. The white front and rear panels are recessed slightly behind the cover edges. Panels and bottoms are one piece aluminum for easy drilling. Assembled by four screws at bottom of cover, the panels can be tilted for easy viewing of controls if desired. Cabinets have four rubber feet, semi-hidden by the cover which extends slightly below the cabinet floor. A quality im-

Stock	Size Inches	Shipping Weight 1 lb 1-1/2 lbs 2 lbs	1-24	25-99	100 up
No.	H. W. D.		Each	Each	Each
5A3074-7	2-3/16x3-1/4x4		\$3.99	\$3.50	\$3.19
5A3075-4	3-1/2x4-1/4x4-3/8		4.99	4.49	4.09
5A3076-2	3-5/8x6x5-1/8		6.99	6.39	5.99
/	> \$1	299	ALL A	LUMINUM ECE BOX	Mahir Mahir



#### PERFORATED BOARDS



Quick, convenient way for assembling transistor circuits. 1/4" thick, .062 dia. holes set 1/4" between centers. Average wt 4 025

12A9626-9.	2,76×33/8".		19°
12A9628-5 12A9630-1	334×63/4". 7,5×63/4".	Each	49
12A9631-9	101/2×7.15".	Each.	\$1.39

.062" dia. Clips. 100 For ... \$1.75

Lid snaps into place, no screws showing. Has "U" channel that printed circuit board slides into. Case may be drilled or punched for transistor mounting. Thick aluminum makes excellent heat sink. Size 3-5/8x2¾x1¾" H. Shpg. Wt. 4 oz.

5A3043-2 2.99 Each .. \$2.69

#### RECTIFIER MOUNTING KITS

Each set contains 6 pieces: insulating washers, solder lug lock washer and nut.

For The Hex Rectifier type DO-4, TO-64, R2 and R6. Wt. 1 oz.

No. 12A2402-2. (2) 29 For H. Hex Rectifier ty and R3. No. 12A2403-0. Per Set for One Rectifier. 490



ALLIGATOR CLIP LEADS

Bundle of 10. Flexible plastic insulated 15 inch jumper cords with spring alli-gator clip and insulator on each end. Wt. 8 oz. 12A1996 Bundle of 10 ..... \$1.99

#### INSULATORS FOR POWER TRANSISTORS

Nylon Screw Insulators for TO-3.
No. 12A2490-7.
Package of 16 - Per Pkg. \$1.09;
Mica Collector Insulators for TO-3. No. 12A2491-5.
Package of 8 - Per Pkg. . . \$1.09
Mica Collector Insulators. For TO-66 No. 12A2848-6.
Package of 10 - Per Pkg. \$1.09
Mica Collector Insulators and Wash-No. 12A2847-8. Package of 16 - Per Pkg. . \$1.09

#### **FLUTED PLASTIC KNOBS**





Beautifully styled like used on latest hi-fi equipment. Molded plastic chrome finish knob with black insert. For ¼" splined shaft. Bushing extends 5/8" behind knob. Knob diameter: 1 inch. 18A1679-0. With pointer line. 18A1686-5. Without pointer line.

Your Choice 4 For ..... \$1.00

#### FLEXIDUCT LAY-FLAT POWER EXTENSION

Bring power where it's needed. Attaches to any floor surface with double-faced tape. Lets you re-arrange desks and furnishings as often as needed. Flexible and withstands heavy traffic.

stands heavy traffic.
41A4162-5. 4 Ft. Black ...
41A4163-3. 6 Ft. Black ...
41A4164-1. 8 Ft. Black ...
41A4165-8. 10 Ft. Black ...
41A4166-6. 12 Ft. Black ...
41A4167-4. 8 Ft. Yellow ... \$16.95

\$18.95 \$21.95 \$23.95 \$25.95 \$21.95 \$41A4168-8. 10 Ft. Yellow . \$23.95 \$21.95 \$41A4169-0. 12 Ft. Yellow . \$25.95

#### **ELECTRICAL CIRCUIT BREAKERS**

	Control of the Contro	The second second	AND THE RESERVE AND ADDRESS OF THE PARTY OF			
Stock Mfg.	Break Current	Carry	Stock No.	Mfg. No.	Break Current	Current
12A1997-2 FA1	1 Amp	.65 Amp	12A1998-0	FA3.5	3.5 Amp	2.2 Amp
12A1313-2 FA1.		1 Amp	12A1324-9	FA4	4 Amp	2.5 Amp
12A1318-1 FA2	2 Amp	1.25 Amp	12A1325-6	FA4.5	4.5 Amp	3 Amp
12A1320-7 FA2.		1.6 Amp	12A1332-2	FA5	5 Amp	3.25 Amp
12A2480-8 FA2.			12A1999-8	FA5.5	5.5 Amp	3.6 Amp
12A1323-1 FA3	3 Amp	1.9 Amp			6 Amp	3.9 Amp
12A2481-6 FA3.		2.0 /1111	12A1334-8		7 Amp	4.14 Amp
Color TV Dual		ker R.L	break current		amp. horizo	
		Mei. D.T	Diean Cuitche	2.75	ump. mornes	
current .65 am			10		Let Land	\$1.74
12A2482-4. Work	man FAU. Each		\$2.05 12	@ Fa	ch	91./4

#### PRESSURE SENSITIVE LABELS

Codes wires, leads, circuits, relays, and other parts fast and cheap. Card has 6 of each character. 2A8033-1. Card of numbers 1 to 33. 2A8034-1. Card of letters A to Z. 25 68' Each ...... 62' 58' Per Card Each ..... 100 Each







#### **AC LINE CORDS**

18A1615-4. Extra Long 12 Ft. ¼" round, 18 gauge 2 conductor with molded plug. Light blue. Each .... 79° 10 Each ....... 74°





Highest grade, extra flexible plastic POT (SPT-1) zip cord with size 18 conductors. Fine for speaker hookups, AC extensions, etc. Brown or Ivory. Shpg. wt. 100' 1 lb.

02-09892-9-601-5. Brown 25 02-09892-9-609-8. Ivory Ft. \$1.86 100 Ft. . . \$5.50 1000 Ft. \$45.20

REMOTE 15 FT. SWITCH EXTENSION Piggyback plug with 18-2 cord and switch adds ex-tra convenience all around the home. Just plug into AC outlet ahead of the device to be controlled. 41A351-8. Net Each ..... \$4.19



#### MODERN U/L APPROVED **ELECTRICAL SWITCHES**

- FAR MORE CONVENIENT THAN USUAL TYPES
- FIT STANDARD OUTLET BOXES AND SWITCH PLATES



1 HANDY DELAYED ACTION LIGHT SWITCH







#### REPLACEMENT APPLIANCE **ELEMENTS**

① 115 VOLT COILED NICHROME WIRE ELEMENTS quality, for repair of Hot Plates, Toasters, Heaters. Shpg. wt. 2 oz. 41-9. 600 W. #3, ½" dia. coil. Net Each...69° 10 @ Each.59° 42-7. 1000 W. #7, ½" dia. size 20. Net Ea......\$1.09 3 for \$2.99

(a) NICHROME COILED ELEMENT WIRE Wattage length rating on each spool. Use #2 for repair of light duty appliances, #3 for hot plates. #4 for 1000 W. appliances. Shpg. wt. 6 oz. Description

12 Ft. #2—Size 22, ½" dia. coil.

10 Ft. #3—Size 22, ½" dia. coil.

10 Ft. #4—Size 20, ½" dia. coil. Net Ea. 3 @ Ea. Stk. No. \$5.60 \$7.84 \$10.56

© 1000 WATT CONE HEATER ELEMENT—Shpg. wt. 6 oz. 41A346-8. Standard 115 V. screw base. Net Each.. \$2.29 10 @ Each. \$2.09

#### AUTO ACCESSORY **CORDS AND ADAPTORS**

AUTOMOTIVE ACCESSORY EXTENSION CORDS



#### **6 FOOT EXTENSION CORD**

For portable cassette tape recorders, radios, etc. With a 2.5 MM coax plug.

12A6121-4. Special Each . . . . . \$3.95

#### **AUTOMOBILE BATTERY ADAPTOR CORDS**

Use your car or boat battery to power your tape recorder, dictating machine, portable radio or CB set! Plugs in cigarette lighter receptacle. Saves batteriesgives you full power, always! Transistor regulated circuit assures constant voltage. Max. current: 300mA. Comes with special adapter with 3 plugs to fit practically any set and has polarity reversing feature.

38A8021-4.	12	volt	to	6	volt. Each \$8.95	
38A8022-2.	12	volt	to	7	1/2 volt. Each \$8.95	
38A8023-0.	12	volt	to	9	volt. Each \$8.95	



#### **COAXIAL PUSH-ON CONNECTOR**

Performs same function as PL-259. Provides instant connect-dis-connect of coaxial line. Mates with S0-239. Provides firm hold for secure electrical and mechanical connection.

12A2880-9, Each



#### **COILED POWER CABLE**

15 ft. coiled power cable with cigarette lighter plug attached. Stripped ends. Ideal for CB, ham or any mobile or portable 12 volt equipment.

47A5670-0. Each ..... \$3.99



#### **PUSH-TYPE BINDING POSTS**

Same type as used on expensive stereo equipment. Red and black. 1 4 " mounting centers.

12A2881-7. Each ...... 75°



#### **COILED CORDS FOR TELEPHONES**

Spade terminals and metal cord clamp attached, vinyl

Hurry	Limited quantitie	s!
25 Ft. Black. Regul	ar \$11.00.	***
18A1711-1. Each		\$4.99
5 Ft. Blue. Regular		00.
18A1712-9. Each		99°



#### XENON STROBE TUBES

Low Power Strobe Tube. Great for experimenters' use in building low cost psychedelic strobes. Flash voltage 300 volts, maximum flash voltage 400 volts, minimum starting voltage with min. 4.0 KV Trigger 200 volts. Normal life in flashes at max. input 8,000.

No.12A4488-9 Each. 12A4491-3. 6 KV Trigger Transformer. Each ...... \$2.95



5 FOR

#### HIGH QUALITY **HEAVY DUTY CARRYING HANDLES**

Tough molded plastic handle with bright plated hardware for attachment to equipment cabinet, speaker case or anything that must be lifted or carried. Fasteners \$2.49

SOLDER TYPE TERMINAL LUGS

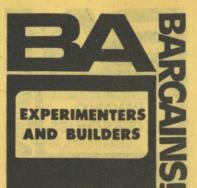


Stk. No. Type	Lgth.	Hole	100	1000	Stk. No. Type	Lgth.	Hole	100	1000
12A1286-0 A	5/11	8	\$2.49	\$14.90	12A1294-4 G	15/6"	10	\$2.49	\$15.00
12A1287-8 B	5/811	8	2.49	14.90	12A1296-9 H	15/6"	10	3.59	25.00
12A1288-6 C	17/32"	8	1.99	12.00	1241298.5 1	47/11	4	2.49	15.00
12A1289-4 D	5/8" 5/8" 17/32" 7/8"	8		12.00	12A1298-5   12A1299-3	47/64"	6	2.49	15.00
12A1290-2 E	17/32"	6	2.49	14.90			, 内外是自	1 2	Oko Silver
12A1291-0 F	5/8"	6	1.99	12.00	12A1300-9-1	7/8"	8	249	15.00





3/32" black tubing. Shrinks about 50%. Insulate splices, terminals etc. In 4 ft. lengths. Limited quantity. 18A1581-8 24 Ft. For . 49° For ... \$2.99



#### WOW! 70% OFF LIST PRICE ON PURCHASE OF 6 OR MORE!



INTERNATIONAL SERVICEMASTER (formerly Mullard)

EXTRA BIG SAVINGS ON 30 **BEST SELLING TUBES** 

1st QUALITY FAMOUS TUBES

#### ONE FULL YEAR WARRANTY

Just return defective tubes with order papers for prompt replacement.

May be assorted for quantity Prices—The more you buy the more you save at B-A!

No.	Stock	Tube	Mfg.	1-5	6 or more
26A10020-6 26A10030-5 26A10030-5 26A10030-5 26A10040-4 26A10040-4 26A10040-3 26A10040-4 26A10040-3 26A10040-3 26A10040-3 26A10040-3 26A10060-2 26BK4C/6EL4A 29.5 26A10060-2 26BK4C/6EL4A 29.5 26A10070-1 26BK2CF80 3.65 1.28 1.09 26A10080-0 26BK4C/6EL4A 29.5 26A10090-9 26A10090-9 26BC6 26A10090-9 26BC6 26A10090-9 26BC6 26BC8 2	No.	Туре	List	Each	Each
26A10030-5 5U4GB 4.10 1.44 1.23 26A10040-4 6AQ5A/6HG5/EL90 4.50 1.58 1.35 26A10045-3 6AU6A/EF94 4.35 1.52 1.30 26A10050-3 6BA6/EF93 4.45 1.56 1.33 26A10060-2 6BK4C/6EL4A 9.95 3.48 2.98 26A10070-1 6BL8/ECF80 3.65 1.28 1.09 26A10080-0 6BQ5/EL84 5.20 1.82 1.60 26A10090-9 6BZ6 4.20 1.47 1.26 26A10100-6 6CG8A 5.75 2.01 1.72 26A10110-5 6CL3 5.35 1.87 1.60 26A10120-4 6DQ6B/6GW6 7.15 2.50 2.14 26A10130-3 6EA8 5.25 1.84 1.57 26A10140-2 6FQ7/6CG7 4.05 1.42 1.21 26A10160-0 6GF8A 7.05 2.47 2.11 26A10160-0 6GH8A 4.20 1.47 1.26 26A10170-9 6GM6 5.60 1.96 1.68 26A10190-7 6HM5/6HA5 5.10 1.79 1.53 26A10100-8 6GU7 5.55 1.94 1.66 26A10190-7 6HM5/6HA5 5.10 1.79 1.53 26A10200-4 6JC6A 5.95 2.08 1.78					
26A10040-4         6AQ5A/6HG5/EL90         4.50         1.58         1.35           26A10045-3         6AU6A/EF94         4.35         1.52         1.30           26A10050-3         6BA6/EF93         4.45         1.56         1.33           26A10060-2         6BK4C/6EL4A         9.95         3.48         2.98           26A10070-1         6BL8/ECF80         3.65         1.28         1.09           26A10080-0         6BQ5/EL84         5.20         1.82         1.60           26A10090-9         6BZ6         4.20         1.47         1.26           26A10110-5         6CL3         5.35         1.87         1.60           26A10120-4         6DQ66B/6GW6         7.15         2.50         2.14           26A10130-3         6EA8         5.25         1.84         1.57           26A10140-2         6FQ7/6CG7         4.05         1.42         1.21           26A10150-1         6GF7A         7.05         2.47         2.11           26A10160-0         6GH8A         4.20         1.47         1.26           26A10170-9         6GM6         5.60         1.96         1.68           26A10190-7         6GM6         5.60         1.96 <td></td> <td>3A3C/3B2/3AW3</td> <td></td> <td></td> <td></td>		3A3C/3B2/3AW3			
26A10045-3 6AU6A/EF94 4.35 1.52 1.30 26A10050-3 6BA6/EF93 4.45 1.56 1.33 26A10060-2 6BK4C/6EL4A 9.95 3.48 2.98 26A10070-1 6BL8/ECF80 3.65 1.28 1.09 26A10090-9 6BZ6 4.20 1.47 1.26 26A10100-6 6CG8A 5.75 2.01 1.72 26A10110-5 6CL3 5.35 1.87 1.60 26A10120-4 6DQ6B/6GW6 7.15 2.50 2.14 26A10130-3 6EA8 5.25 1.84 1.57 26A10140-2 6FQ7/6CG7 4.05 1.42 1.21 26A10150-1 6GF7A 7.05 2.47 2.11 26A10160-0 6GH8A 4.20 1.47 1.26 26A10170-9 6GM6 5.60 1.96 1.68 26A10190-7 6HM5/6HA5 5.50 1.94 1.66 26A10190-7 6HM5/6HA5 5.10 1.79 1.53 26A10200-4 6JC6A 5.95 2.08 1.78	26A10030-5	5U4GB	4.10	1.44	1.23
26A10050-3 6BA6/EF93 4.45 1.56 1.33 26A10060-2 6BK4C/6EL4A 9.95 3.48 2.98 26A10070-1 6BL8/ECF80 3.65 1.28 1.09 26A10080-0 6BQ5/EL84 5.20 1.82 1.60 26A10090-9 6BZ6 4.20 1.47 1.26 26A10110-5 6CL3 5.35 1.87 1.60 26A10120-4 6DQ6B/6GW6 7.15 2.50 2.14 26A10130-3 6EA8 5.25 1.84 1.57 26A10140-2 6FQ7/6CG7 4.05 1.42 1.21 26A10150-1 6GF7A 7.05 2.47 2.11 26A10160-0 6GH8A 4.20 1.47 1.26 26A10170-9 6GM6 5.60 1.96 1.68 26A10190-7 6GM6 5.55 1.94 1.66 26A10190-7 6HM5/6HA5 5.10 1.79 1.53 26A10200-4 6JC6A 5.95 2.08 1.78	26A10040-4	6AQ5A/6HG5/EL90	4.50	1.58	1.35
26A10060-2         6BK4C/6EL4A         9.95         3.48         2.98           26A10070-1         6BL8/ECF80         3.65         1.28         1.09           26A10080-0         6BQ5/EL84         5.20         1.82         1.60           26A10090-9         6BZ6         4.20         1.47         1.26           26A10110-6         6CG8A         5.75         2.01         1.72           26A10110-5         6CL3         5.35         1.87         1.60           26A10120-4         6DQ6B/6GW6         7.15         2.50         2.14           26A10130-3         6EA8         5.25         1.84         1.57           26A10140-2         6FQ7/6CG7         4.05         1.42         1.21           26A10150-1         6GF7A         7.05         2.47         2.11           26A10160-0         6GH8A         4.20         1.47         1.26           26A10170-9         6GM6         5.60         1.96         1.68           26A10190-7         6HM5/6HA5         5.10         1.79         1.53           26A10200-4         6JC6A         5.95         2.08         1.78	26A10045-3	6AU6A/EF94	4.35	1.52	1.30
26A10060-2 6BK4C/6EL4A 9.95 3.48 2.98 26A10070-1 6BL8/ECF80 3.65 1.28 1.09 26A10080-0 6BQ5/EL84 5.20 1.82 1.60 26A10090-9 6BZ6 4.20 1.47 1.26 26A10110-5 6CL3 5.35 1.87 1.60 26A10110-5 6CL3 5.35 1.87 1.60 26A10110-3 6EA8 5.25 1.84 1.57 26A10110-2 6FQ7/6CG7 4.05 1.42 1.21 26A10150-1 6GF7A 7.05 2.47 2.11 26A10150-1 6GF7A 7.05 2.47 2.11 26A10160-0 6GH8A 4.20 1.47 1.26 26A10170-9 6GM6 5.60 1.96 1.68 26A10180-8 6GU7 5.55 1.94 1.66 26A10190-7 6HM5/6HA5 5.10 1.79 1.53 26A10200-4 6JC6A 5.95 2.08 1.78	26A10050-3	6BA6/EF93	4.45	1.56	1.33
26A10070-1         6BL8/ECF80         3.65         1.28         1.09           26A10080-0         6BQ5/EL84         5.20         1.82         1.60           26A10090-9         6BZ6         4.20         1.47         1.26           26A10100-6         6CG8A         5.75         2.01         1.72           26A10110-5         6CL3         5.35         1.87         1.60           26A10120-4         6DQ6B/6GW6         7.15         2.50         2.14           26A10130-3         6EA8         5.25         1.84         1.57           26A10140-2         6FQ7/6CG7         4.05         1.42         1.21           26A10160-1         6GF7A         7.05         2.47         2.11           26A10170-9         6GM6         5.60         1.96         1.68           26A10180-8         6GU7         5.55         1.94         1.66           26A10190-7         6HM5/6HA5         5.10         1.79         1.53           26A10200-4         6JC6A         5.95         2.08         1.78	26A10060-2	6BK4C/6EL4A	9.95		2.98
26A10080-0         6BQ5/EL84         5.20         1.82         1.60           26A10090-9         6BZ6         4.20         1.47         1.26           26A10100-6         6CG8A         5.75         2.01         1.72           26A10110-5         6CL3         5.35         1.87         1.60           26A10120-4         6DQ6B/6GW6         7.15         2.50         2.14           26A10130-3         6EA8         5.25         1.84         1.57           26A10140-2         6FQ7/6CG7         4.05         1.42         1.21           26A10150-1         6GF7A         7.05         2.47         2.11           26A10160-0         6GH8A         4.20         1.47         1.26           26A10170-9         6GM6         5.60         1.96         1.68           26A10180-8         6GU7         5.55         1.94         1.66           26A10190-7         6HM5/6HA5         5.10         1.79         1.53           26A10200-4         6JC6A         5.95         2.08         1.78	26A10070-1	6BL8/FCF80	3.65		1.09
26A10090-9 68Z6 4.20 1.47 1.26 26A10100-6 6CG8A 5.75 2.01 1.72 26A10110-5 6CL3 5.35 1.87 1.60 26A10120-4 6DQ6B/6GW6 7.15 2.50 2.14 26A10130-3 6EA8 5.25 1.84 1.57 26A10140-2 6FQ7/6CG7 4.05 1.42 1.21 26A10150-1 6GF7A 7.05 2.47 2.11 26A10150-0 6GH8A 4.20 1.47 1.26 26A10170-9 6GM6 5.60 1.96 1.68 26A10180-8 6GU7 5.55 1.94 1.66 26A10190-7 6HM5/6HA5 5.10 1.79 1.53 26A10200-4 6JC6A 5.95 2.08 1.78	26A10080-0	6BQ5/F184	5.20	1.82	1.60
26A10100-6         6CG8A         5.75         2.01         1.72           26A10110-5         6CL3         5.35         1.87         1.60           26A10120-4         6DQ6B/6GW6         7.15         2.50         2.14           26A10130-3         6EA8         5.25         1.84         1.57           26A10140-2         6FQ7/6CG7         4.05         1.42         1.21           26A10150-1         6GF7A         7.05         2.47         2.11           26A10160-0         6GH8A         4.20         1.47         1.26           26A10170-9         6GM6         5.60         1.96         1.68           26A10180-8         6GU7         5.55         1.94         1.66           26A10190-7         6HM5/6HA5         5.10         1.79         1.53           26A10200-4         6JC6A         5.95         2.08         1.78					
26A10110-5 6CL3 5.35 1.87 1.60 26A10120-4 6DQ6B/6GW6 7.15 2.50 2.14 26A10130-3 6EA8 5.25 1.84 1.57 26A10140-2 6FQ7/6CG7 4.05 1.42 1.21 26A10150-1 6GF7A 7.05 2.47 2.11 26A10160-0 6GH8A 4.20 1.47 1.26 26A10170-9 6GM6 5.60 1.96 1.68 26A10180-8 6GU7 5.55 1.94 1.66 26A10190-7 6HM5/6HA5 5.10 1.79 1.53 26A10200-4 6JC6A 5.95 2.08 1.78					
26A10120-4         6DQ6B/6GW6         7.15         2.50         2.14           26A10130-3         6EA8         5.25         1.84         1.57           26A10140-2         6FQ7/6CG7         4.05         1.42         1.21           26A10150-1         6GF7A         7.05         2.47         2.11           26A10160-0         6GH8A         4.20         1.47         1.26           26A10170-9         6GM6         5.60         1.96         1.68           26A10180-8         6GU7         5.55         1.94         1.66           26A10190-7         6HM5/6HA5         5.10         1.79         1.53           26A10200-4         6JC6A         5.95         2.08         1.78					
26A10130-3     6EA8     5.25     1.84     1.57       26A10140-2     6FQ7/6CG7     4.05     1.42     1.21       26A10150-1     6GF7A     7.05     2.47     2.11       26A10160-0     6GH8A     4.20     1.47     1.26       26A10170-9     6GM6     5.60     1.96     1.68       26A10180-8     6GU7     5.55     1.94     1.66       26A10190-7     6HM5/6HA5     5.10     1.79     1.53       26A10200-4     6JC6A     5.95     2.08     1.78					
26A10140-2     6FQ7/6CG7     4.05     1.42     1.21       26A10150-1     6GF7A     7.05     2.47     2.11       26A10160-0     6GH8A     4.20     1.47     1.26       26A10170-9     6GM6     5.60     1.96     1.68       26A10180-8     6GU7     5.55     1.94     1.66       26A10190-7     6HM5/6HA5     5.10     1.79     1.53       26A10200-4     6JC6A     5.95     2.08     1.78					
26A10150-1     6GF7A     7.05     2.47     2.11       26A10160-0     6GH8A     4.20     1.47     1.26       26A10170-9     6GM6     5.60     1.96     1.68       26A10180-8     6GU7     5.55     1.94     1.66       26A10190-7     6HM5/6HA5     5.10     1.79     1.53       26A10200-4     6JC6A     5.95     2.08     1.78					
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26A10180-8 6GU7 5.55 1.94 1.66 26A10190-7 6HM5/6HA5 5.10 1.79 1.53 26A10200-4 6JC6A 5.95 2.08 1.78					
26A10190-7 6HM5/6HA5 5.10 1.79 1.53 26A10200-4 6JC6A 5.95 2.08 1.78					
26A10200-4 6JC6A 5.95 2.08 1.78					
20A1U21U-3 0JEOC/0LQ0 11.13 3.90 3.33					
26A10220-2 6JS6C 9.85 3.45 2.96					
26A10240-0 6SN7GTB 5.65 1.98 1.70					
26A10250-9 8FQ7/8CG7 4.05 1.42 1.21					
26A10260-8 12AX7A/ECC83 3.75 1.31 1.12					
26A10280-6 12BY7A/12DQ7/12BV7 4.75 1.66 1.42					
26A10300-2 35W4/HY90 2.95 1.03 .89					
26A10500-7 50C5/HL92	26A10500-7	50C5/HL92	4.10	1.44	1.23

#### PACK OF FIVE MINIATURE TUBES



Fine Quality Import

MOST COMMON TYPES 1-12AV6

Brand new and perfect, fully warranted by B-A at a tremendous savings. Just think, a whole set of 5 tubes for less than the retail price of two. Stock up now Buy several packs at B-A's money saving low prices!

#### **BURROUGHS NIXIE READOUT TUBES** DISPLAYS A TO Z AND 0-9

Large character size 21/2" high. wide. Bright red neon glow easily read in all light conditions. Requires 170 volt DC supply voltage. With socket and pin connection data. Tubes are used. Each checked and guaranteed. Burroughs B-7971. Shpg. wt. 8 ozs. 18A1567-7





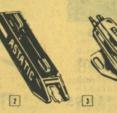
# PHONO **ACCESSORIES**

PHONO ARM WITH TURNOVER CARTRIDGE Smooth gray plastic arm with monaural turnover cartridge. Arm is 8 ½ "

al turnover cartridge. Arm is 8½' long, plays all records 12" or smaller.

24A4049-5







EXCEPTIONAL SAVINGS ON MOST POPULAR CARTRIDGES





STEREO CARTRIDGES

(1) ASTATIC 133D CERAMIC with diamond stylus for stereo and LP, 3 mil sapphire for 78 RPM. Perfect high quality replacement for most changers and players. Fits standard ½" mtg. Ceramic element unaffected by temperature change. .5 volts output. High fidelity performance 20 to 15,000Hz. Wt. 3 oz. 24A4108-9

Diamond Stylus for stereo and LP, sapphire for 78 RPM. One of the most popular American made cartridges. 5 V. output. 20-15,000 Hz. Mfg. list \$8.95. 24A4058-6. Wt. 2 oz. \$4.95 \$4.95 Special Each

STEREO ARM AND TURNOVER CARTRIDGE

For playing all records - monaural and stereo. Output .3 V. Gray plastic 8 ½" arm plays all records 12" or smaller. Complete with mounting hardware. Wt. 10 oz. 24A4050-3

\$3.99

### AUDIO SPECIA



SOLID STATE STEREO PREAMP

INPUT FOR MAGNETIC PHONO AND TAPE HEADS 30-20,000 Hz.



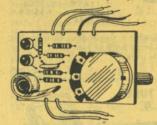
SOLID STATE STEREO PHONO PREAMP

Plays magnetic phono pickups through stereo amplifiers that do not have low level inputs. Hear the increased bass and treble notes from the magnetic pickup. 6 mV input gives .5 volt output. Mounts inside phono cabinet if you wish. No controls are used. Plugs into 117 V 50/60 Hz. Size 4¾ X 2½ X 1½". Shpg. wt. 2 lbs. 53A826-4 



**SUB-MINIATURE 2-WATT** TRANSISTOR AMPLIFIER

> HI-IMPEDANCE - INPUT 4. 8 OR 16 OHM OUTPUT



SOLID STATE PHONO AMPLIFIER \$ 1 29

Use with crystal phono cartridge. Op erates from 6 volt DC. 300 mw output. With volume control. Wire leads for easy connection. Wiring diagram supplied. Size: 1-3/8 x 1 ¼ x 2".
18A1591-7.

Each . \$1.29 For ... \$1.99

STEREO SPEAKER WALL PLATE
COMPLETE WITH TWO 1-INCH PLUGS
New Ivory wall plate with two 1/4" phone jacks mounted.
Hardware supplied for use with standard outlet box or
dry wall mounting. Two 1/4" phone plugs included. Size
23/4 × 41/2". Wt. 1/2 lb.
\$3.99 \$3.99 12A6334-3. Special Each.



MONAURAL PHONO CARTRIDGES

UNIVERSAL TURNOVER. Fits most changers and players. Regular 1/2" mounting. 3 V. output. 40 to 13,000 Hz. Sapphire needles. Wt. 3 oz. 24A4052-9 Import Special, Each \$2.49 Each

RCA TYPE 45 RPM. Exact replacement for 45 RPM players. 1 V. output 50-10,000 Hz. 1 mil sapphire stylus. Quality import.

24A4054-5 10 Lots Special Each ...... \$1.99 Each ..... \$1.79

EXACT REPLACEMENTS FOR BSR CARTRIDGES

§ Replaces TC8H. Fits all BSR plastic and metal brackets for quick replacement. 3.25 volt output. Black color.

24A4062-8 .— Monourol \$2.59 10 Lots Each \$2.39

Replaces SX1H. With flat metal bracket allowing replacement of dozens of models of Astatic, Electro-Voice, Euphonics, Sonotone, Varco, etc. 2.75 volt output. Light gray color.—Stereo 24A4063-6. \$3.29 10 Lots \$2.90

\$3.29 10 Lots Each

#### SAVE OVER HALF!



STEREO CARTRIDGE

C-400 stereo cartridge with flip-over diamond/sapphire stylus. 75 uV output. Complete with mounting bracket. Regular price \$9.90.

18A1721-0. Special Each ...... \$4.90

**VARCO VACO** STEREO CARTRIDGE

CN73 stereo cartridge with flip-over .7 mil diamond and 3 mil sapphire stylus. 1.5 volt output. Regular price \$6.80.

18A1715-2. Special Each . . . . . . . . . . . . \$2.99

# SUPER BARGAIN VALUE!



**FAMOUS SHURE M70EJ** STEREO MAGNETIC CARTRIDGE

**SAVE 75%** Elliptical REG. \$39.50

Diamond Stylus

Perfect replacement for any high fidelity stereo magnetic type cartridge. There is absolutely no compromise in quality or performance at B-A's special low, low price. Frequency response 20 to 20,000 Hz. 1½ to 3 grams tracking. More than 20 db separation at 1000 Hz. Output voltage 6.2 mv per channel at 1000 Hz. Recommended load impedance: 47,000 ohms. 4 terminates the comprehensive services of the comprehensive services at the comprehens nals. Uses Shure N70EJ elliptical diamond replacement stylus.

52A5134-9. Each ...... \$9.79



**UNIVERSAL 45 RPM** ADAPTOR

Works on over 90% of record changers. Replaces both flat and round types. Fits Admiral, BSR-McDonald (except mini changer), Collaro, Delmonico, Garrard (except SL72, SL95, SLX3 and Zero 100), GE, Glaser Steers, Maestro, RCA, Silver-tone, Telefunken, VM, Webcor and Straight Spindle Zenith. 52A752-3.

..... \$3.95

MODEL SFG-2 STYLUS FORCE GAUGE



The ideal way to have your tone arm set to exactly the correct tracking force. Detects, both excessive or insufficient tracking forces. Accuracy to within 1/10 gram in the 1/2 to 11/2 gram primary operating range; extended range to 3 grams.

24A6050-1. Model SFG-2. Each

#### SPECIAL VALUE HIGH COMPLIANCE SPEAKERS



4-INCH EXTENDED RANGE SPEAKER

Acoustic Suspension

• Full Range 10 watt

2-WAY CROSSOVER

WITH LEVEL CONTROL \$095

Large, Powerful Ferrite Magnet

Excellent for use in most hi-fi systems. Impedance: 8 ohms. Frequency Response: 40-15,000Hz. Size: 4 inches with 134" depth. Shpg. wt. 5 lbs. 34A544-7. Special \$9.95

6 INCH SPEAKER
WITH WHIZZER CONE

Ideal for solid state and tube amplifiers alike.
Response: 35-18,000 Hz.
Power capacity 20 watts.

Large cone with flexible cloth edge provides more power in the low frequency range. Impedance 8 ohm. Recommended cabinet size is 7½x1134x6½" Shpa. wt. 6 lbs.

34A408-5. Special Each \$19.95

Fine appearance. Comes assembled on sturdy finished metal panel, ready to install on your speaker enclosure. Features high quality L/C type network with tweeter level control. Crossover point, 3000 Hz. Impedance 8 ohms. Convenient push type, spring-loaded binding posts. Size 4 x 5½", black enameled, gold lettering. Attached 3 ft. leads. "Wt. 1 lb. No. 34A539-7. \$8.95 Special Each

SMALL 2-COND. SPEAKER WIRE

Neat gray plastic insulated 2-wire parallel cable. Extra
flexible with size 24 stranded copper conductors. Perfect
for hi-fi and intercom installations. Easily concealed. Dia.
only .058 x .115". Wt. per 1000 ft. 6 lbs.

\$2.49 For ... Per 100' \$17.95 NORELCO 1" DOME TWEETER WITH 10 OZ. CERAMIC MAGNET



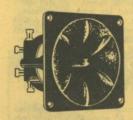


One of the finest tweeters we've ever seen! Reproduces 1500 Hz to over 20 KHz in 2 or 3-way systems. Handles 40 watts power. 8 ohm impedance. Mylar diaphraigh. Width 3-5/8". Requires 3" mounting hole. Shpg. wt. 2 lbs.

34A532-2. Each ..... \$10.95 Per Pair ..... \$19.95



#### PIEZO-ELECTRIC 31/2" HIGH IMPEDANCE TWEETER



Perfect for 2 or 3-way speaker systems. Has a frequency response from 1500 to 40,000 Hz. Tweeter is of such high impedance that the amplifier doesn't even recognize it as additional load. Impedance talls with increasing frequency but exceeds 8 ohms even at 100 KHz allowing the unit to reject low frequencies without the need for a crossover network. Handles a maximum driving voltage of 35 volts RMS continuously with no damage. Front is 3-3/8" square, 2<sup>34</sup>" deep. Shpa. wt. 1 lb. 34A546-2. Special Each ..... \$9.95

CROSSOVER NETWORK CAPACITORS

CALRAD

# ON COMPONENTS FOR 2, 3 AND 4-WAY SPEAKER SYSTEMS



2 THREE-WAY CROSSOVER NETWORK

3 UNIVERSAL DIVIDING 3-WAY NETWORK

Two built-in L-pad type adjustments for use in balancing speakers of different efficiencies. Crossover points are 500 and 3,300 Hz with attenuation of 6 db per octave. Wiring diagram and instructions included. Size: 534" long, 334" wide, 234" high.

34A540-5. Shpg. wt. 2 lbs. Not. Each.

Actually the price belies the quality. Here is an exceptional value! Same acoustic design as used with the more expensive speaker systems.

Long throat modified hyperbolic horn provides wide angle high frequency sound dispersion and is compression loaded to flatten the response curve. Handles 20 watts of power with a flat frequency response from 2000 to 20,000 Hz. 8 ohm. 3x714" flange requires 2x6" baffle cutout. 61%" deep. Low-lustre black and metallic gold.

21/2 lbs. American made. 9. Special Net Each 34A524-9.

\$11.95

#### 5 EXPONENTIAL HORN TYPE MID-RANGE TWEETER

#### BUILD 2 OR 3-WAY SPEAKER SYSTEMS WITH THESE B-A STEP-UP KITS



HIGH FREQUENCY STEP-UP KIT NO. 1

Extends the range of single voice-coil speakers to beyond the range of audibility. Consists of Tweeter, 2-Way Crossover, and L-Pad for tweeter volume control.

Wt. 31/2 lbs.

\$16.95

**REGULAR B-A** LOW COST \$48.85



COMBINATION MID-RANGE AND HIGH FREQUENCY STEP-UP KIT FOR 3-WAY SPEAKER SYSTEM

Consists of Tweeter, Mid-Range speaker and 3-way Crossover with 2 built-in L-Pads for mid-range and tweeter volume controls. Diagram included. Wt. 9 lbs. \$45.95 34A535-5.

31 INCH TWEETER



Heavy 4.8 oz. ceramic magnet. Extend range of your speaker system to 20,000 Hz. Mechanically damped to reproduce only the high frequencies. 11/4" deep, dia. including mounting flange 41/2". Wt. 11/2 lbs. American made.

\$5.95





WORLD **FAMOUS** NORELCO 8 INCH TWIN CONE HIGH **FIDELITY** SPEAKER

You would usually expect to pay 3 times as much for equal quality, Ideal replacement for older type speaker in record players, TV sets, radios, etc., or for hi-fi systems where space is limited. Handles up to 10 watts. Frequency response 60-18,000 Hz. Impedance 8 phms.

34A530-6. Special Each .. \$5.99

HIGH EFFICIENCY 8 INCH SPEAKER

Real good buy! Perfect for restaurants, doctors offices, business establishments, homes anywhere multiple speakers are used for background music, low level paging systems, etc. High efficiency design provides excellent response from even the lowest powered amplifiers. Shallow construction, 2 oz. ferrite magnet. Impedance 8 ohm. Shpg. wt. 1 ½ lbs.

34A401-0
Spec. Ea. . \$5.79 Each . . . . . \$5.39

#### INTERCOM - OUTDOOR THEATRE SPEAKERS



Weather resistant type. Alnico magnet. Correct impedance for many transistorized devices. 45 ohm. Perfect intercom or theatre replacement.

18A1369-8. 4-Inch. Wt. 1/2 lb. Special Special Each ...... \$4.29 Each ...... \$3.99

#### MULTIPLE IMPEDANCE **AUTOMOTIVE SPEAKERS**

For replacement or rear seat speaker installations. Readily adjusts for 10, 20 or 40 ohm impedance. 4x10". Heavy 2.15 oz. cup magnet. 3" deep. 1" voice coil. Average shpg. wt. 1 lb.

34A390-5. Each ..... \$7.99

 $6x9^{\prime\prime}.$  6 oz. ceramic magnet for 10 watts of power. Whizzer cone for extended range tone.  $34^{\prime\prime}$  V.C. Wt. 1  $1\!\!\!/\ \!\!\!/$  lb.

34C209-7. Each ..... \$9.95

#### **B-A's LOW PRICE**



## SUPER DELUXE 6X9 INCH SPEAKER

HEAVY 10 OZ. MAGNET

Massive 10 oz. magnet. Built to take the power and volume of today's 8 track and stereo radios. Use in pairs for stereo. 2 ½ " tweeter cone. 8 ohm. Shpg. wt. 2 lbs. 34A514-0. Each. \$7.95

**6X9 INCH SPEAKER** 

WITH DUAL VOICE COILS

Connect to tape players and radios without a speaker switch. Wide response with cloth roll edge. Massive 10 oz. magnet. \$9.95

#### REAR SEAT SPEAKER CONTROLS



For switching between dual speakers such as auto rear seat and front seat speakers; TV, radio, etc. Operates either speaker separately or both together.

Net Each ..... \$1.95

#### **DELUXE 8-INCH HIGH** FIDELITY SPEAKER

AMERICAN MADE

• 25 WATTS PEAK POWER • 40-20,000 Hz. FREQ. RESPONSE



Top quality by one of America's leading speaker makers. Exceptionally fine performance. Will provide much better sound quality than ordinarily found in record players, TV sets, radios, etc. Also exceptionally well suited for hi-fi and PA multiple speaker systems or for hi-fi component systems where space is limited. Heavy-duty10 oz. ferrite ceramic magnet produces 25 watts peak power. Freq. response 40-20,000 Hz. Full 1" V.C. Imp. 8 ohms. Only 3" deep, fine for in-wall installations. Shpg. wt. 2 lbs.

No. 34A465-5. \$7.99 10 Lots \$7.49 Each \$7.29



#### SAVE! NORELCO HIGH-FIDELITY **SPEAKERS**

#### **WORLD FAMOUS SUPER DELUXE 12-IN TWIN CONE SPEAKER**

Famous twin-cone design with heavy, powerful 40 oz. magnet. Extra high flux density for exceptional oz. magnet. Extra high that density for exceptional transient response, maximum efficiency and damping. Conservatively rated 35 to 18,000 Hz with power handling capacity also conservatively rated 30 watts peak. V.C. 8 ohms. Shpg. wt. 10 lbs.

34A204-8 34A204-8 Special Each . \$44.95 For .... \$79.95

#### NORELCO 5 INCH SPEAKER

One of the best 5" speakers you'll ever hear! Excellent for auto stereo, replacement in TV or recorders, or for building "sweet sixteens." 5 oz. Ferroxdure magnet. Response 80 to 20,000 Hz. 8 ohm impedance. Shpg. wt. 1 lb.

No. 34A531-4 \$3.99 6 Lots

COMPARE AT

\$70 to \$100!

\$3.59



## Norelco HIGH COMPLIANCE WOOFERS

WITH BUTYL-RUBBER ROLLED EDGE SUSPENSION

12 INCH \$1 95 EACH

The rolled rubber edge has to be one of the finest improvements ever made in woofer speakers. Outperforms speakers costing two or three times our low price!

12 INCH WOOFER. 1 lb. very sensitive ceramic magnet system. Bass response to 20 Hz. 30 watt power rating. 8 ohm impedance. Wt. 4½ lbs. 34A547-0 Pair For \$36.95

8 INCH WOOFER. 12 oz. very sensitive Ferroxdure magnet system. Bass response to 30 Hz. 20 watt power rating. 8 ohm impedance.  $3\frac{1}{2}$ " deep. Shpg. wt.  $2\frac{1}{4}$  lbs.

Shpg. wt. 21/4 | No. 34A533-0 Each

\$14.95 For

\$26.95



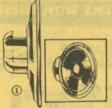
### **HUGE SPEAKER, HUGE SAVINGS** 15 INCH

"BIG MOTHER" SPEAKER

Huge 15" music speaker with 90 watts peak power. Heavy 27 oz. Ceramic magnet with sturdy cone material strong enough for any rock'n roll musician. 8 ohm impedance. Frequency response 30-10,000 Hz. 1½" voice coil. 45 watts music power.

34A549-6. \$44.95 Per Pair .... \$79.95

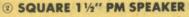
#### MINIATURE SPEAKERS FOR TRANSISTOR POCKET PORTABLES



# PERFECT FOR REPLACEMENT . . . BUILDERS AND EXPERIMENTERS TOO!

Discrete Placement for most pocket size portables. Also fine for all sorts of other miniature devices. Only 1 inch deep overall—frame and cone takes less than ½" behind panel. Mount by space saving clips. 8 ohm V.C. Top quality imports. Wt. 8 oz. 34A405-1. 2" Round 34A411-9. 2½" Round 34A407-7. 2¾" Round 34A406-9. 2¾" Round 34A406-9. 2¾" Round

Choice \$1.79 Each \$1.59





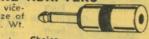


#### SHIELDED AUDIO ADAPTOR BARGAINS IMPORTED FOR BIG SAVINGS



SHIELDED MINIATURE ADAPTERS

Converts miniature to sub-miniature and viceversa. Allows earsets or mikes with one size of connector to plug into jacks of other size. Wt.





79° 1 Standard phone jack to RCA Phono 79° 12A6211-3. Each... Miniature phone jack to RCA Phono

12A6212-1. Each ...

3-PC. HANDY ADAPTER PLUG KIT



STEREO TO MONO ADAPTER



One end has 3½ mm miniature plug, other end has stereo jack to accept regular 3 conductor ¼" stereo plug. To connect stereo headphones to monaural radios, T.V., cassette recorders, etc. Shpg. wt. 3 oz. 12A6231-1.

#### ALL-SHIELDED PHONO CONNECTORS

Each



Mates with standard RCA pin plugs and receptacles. Completely shields circuit. Makes installation neat and easy. Cable plugs have shell 3%" circuit. Makes installation heat and easy. Cable plugs have shell  $3/e^{\prime\prime}$  dia. 1.1" long. Chassis type mounts in  $1/e^{\prime\prime}$  hole in panels up to  $1/e^{\prime\prime}$  thick. Highest quality brass nickel plated construction, Av. Wt. 2 oz.

.....\$1.99

59° 10 Ea... 59° 10 Ea...



"DIN" SERIES PLUGS FOR EUROPEAN EQUIPMENT

PAIR 5 PRONG MALE AND FEMALE CABLE PLUGS

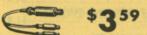
Handy for extending or adding to existing audio cables. Consists of 5 prong male cable plug above and mating female cable plug. plug above Pair For 12A6067-9. \$1.49



\$799

FULLY SHIELDED

Standard 1/4" phone plug with plastic finger grip and portable jack molded to flexible plastic silver-grey shielded mike cable. Wt. 1 lb. 2A233-5. Special Each... \$2.99



ADAPTOR CORD FOR EUROPEAN RECORDERS Fits 3 and 5 Pin "DIN" Style connectors

For Norelco, Wollensak, VM, Grundig, Telefunken, Ampex and Bell & Howell Cassette recorders. 12" long with 2 RCA jacks and 3-pin DIN plug. 32A4043-8. Special Each \$3.59

STEREO PATCH CORD FOR NORELCO, WOLLENSAK, AMPEX MICRO
Mates 5 pin European input-output socket on recorder. Provides 4 phono plugs on end of 36" shielded cables. Shpg. wt. 6 oz.
12A6321-0.



PRICED FOR LESS!

MIKE CONNECTORS 1 Wt. 2 oz. 1) Standard 5/8"-27 cable type with universal ring. Use as male or female. 12A6032-3. 79° .... 690 Each

③ Standard male chassis type. 12A6033-1. 69° 10 Each..... 69° Each..... (1) Miniature Type. Same as used on many imported mikes. 7/16" O.D. Wt. 1 oz. Cable type with universal ring. 12A6034-9:\$1.19 Eoch. \$1.09

WORTH AT





Tiny size, Measures only 1½" long overall x ½" dia. Solder type for ½" or smaller 2 cond. or shielded wire. Jack mounts in ¼" hole in panel up Jack mounts in 1/4" he to 1." thick. Wt. 2 oz.

12A6036-4. 99° 10 Sets, 90°

#### BIG SAVINGS ON 1/4" PHONE PLUGS



3-WAY FLAT PLUG Fits 1/4" jacks like 12A6027 below. 12A6068-7. 79° 10 " 72° Spec. Each..... 79° Each.... 72° Spec. Each.... PLUG AND JACK SET Latest style slim design, Standard  $\frac{1}{4}$  plug and jack combination only  $\frac{3}{2}$   $\frac{1}{2}$  vorall. Special import value, Wt.

12A6029-9. \$1.19 10 Sets Per Set .... \$1.19 Each ... 990

#### HIGH QUALITY 1/4 INCH PHONE PLUGS & JACKS

Per Set



① FLAT TYPE PLUG. Two conductor. Use where space is limited. Protrudes only 1/4". Bokelite shell screw connectors 10 Lots, 72° L2A6023-2. Eq. 79° Each... 72° 12A6023-2. Ea. 79° Each.

§ STANDARD TWO-CONDUCTOR PLUG. For 1 or 2 pairs of phones with either pin tip or lug type cords. 12A6024-0. 99° Each .... 89°

(a) ALL METAL SHIELDED PLUG. Another top quality import value. 1/2" x for phone or mike extension use. Fits 1/4" nickel plate brass shell. Two-way with solder lug connections. 12A6025-7. \$1.19 Each. \$1.09 Each. 69° Each. 63°

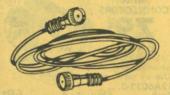
O SLIM DESIGN PHONE PLUG. Top quality import. ½" X 1-5/8" bakelite shell. Two-way with solder lug connections. Red and Black, please specify. 12A6026-5-002-6. Red 12A6026-5-010-9. Black Your Choice 69° 10 Each ... 59°

Each .... 07 TO EACH For stereo headsets, etc. Mates with 1/4" 3-way plug as above. 12A6027-3. 69° Each... 63° Each... 63°

MICROPHONES AND **ACCESSORIES** 

**BRAND NEW FULLY GUARANTEED** 

#### MIKE EXTENSION CABLE



8 ft. shielded cable with universal male/female connectors each end. Use as replacement cable or connect to-gether for any length extension. Top quality. Made in U.S.A.

18A1573-5 \$1.29 Each ... 99°

CRYSTAL LAPEL MIKE





① CRYSTAL LAPEL MIKE. A natural for experimenters. Non-directional and gives crisp, clear speech reproduction. Hi-impedance, hi-output type with spring clip for attaching. Weighs only 2 oz. Brushed bright metal case 15/8" dia., 3/4" thick with 55" cable. Shpg. wt. 8 oz. No. 29A610-3.

Special Each

\$2.39 Each **\$2.19** 

(2) SENSITIVE DYNAMIC MICROPHONE. B-A buyers are constantly on the alert for unusual "finds" priced right for the electronic hobbyist. Such an item is this dandy little microphone speaker. Has many uses, as a mike replacement cartridge, as an extra sensitive sound pickup device or miniature speaker.

18A1710-3 Each

..... \$1.29

10 Lots

Each ..... 99°



#### MINIATURE CRYSTAL MIKES

No. 29A3031-9.

Special Each.

As above 2" diameter.
29A3032-7. Special Each.

\$2.29



MICROPHONE EXTENSION CABLE KIT

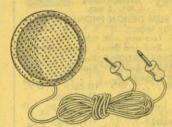
25 feet of heavy duty shielded microphone cable with standard microphone connectors on each end. Adaptors convert to 1/4" phone plug or 1/4" phone jack. Makes any PA system more flexible. Big Import Saving! Wt. 1 lb. \$3.99 12A6316-0. Special Each.



Each

#### MAGNETIC MOBILE MIKE HOLDER

\$1.09



#### SUPER VALUE! **PILLOW** SPEAKER

Fine sound quality for private listening. Metal case only 2 ¼" X ¾" thick. 5 ft. cord with attached miniature and sub-miniature plugs to fit practically all radios.

18A1673-3. Each ..... \$1.29

#### INDOOR OR OUTDOOR MUSIC SPEAKER

5 ½ " 5 watt weatherproof speaker. Brown woodgrain appearance. Response 300 to 10,000 Hz. Fine choice for intercom or mounting bracket. 8 ohm. Shpg. wt. 1 1/2 lbs. No. 34A7010-2.

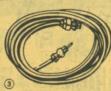




#### SAVE ON HIGH QUALITY HI-FI INTERCONNECTING CABLES







Finest quality featuring shielded silver-grey audio cable. Plugs and jacks molded directly with polyethylene for a more reliable trouble-free connection. Shpg. wt. 6 ozs. 30 ft. coils 1 lb.

(1) PHONO PIN PLUG ONE END, STRIPPED & TINNED OTHER END 12A6298-0. 36". Each 79" 12A6300-4. 15 Ft. Each \$1.79 12A6299-8. 72". Each \$1.29 12A6301-2. 30 Ft. Each \$2.99
(2) PHONO PIN PHIC POTH ENDS
(2) PHONO PIN PLUG BOTH ENDS
(2) PHONO PIN PLUG BOTH ENDS 12A6302-0. 36". Each 89° 12A6304-6. 10 Ft. Each \$1.89
12A6303-8. 72". Each \$1.39 12A6305-3. 30 Ft. Each \$3.49
(3) PHONO PIN PLUG ONE END, PHONO JACK OTHER END
12A6306-1. 72". Each \$1.39 12A6307-9. 30 Ft. Each \$3.49
PHONO PIN PLUG ONE END, PHONE PLUG OTHER (Not Illus.)
12A6308-7. 72". Each \$1.49 12A6309-5. 15 Ft. Each \$1.99
12A0000-7.72 . Eddi \$1.47 12A0007-5. 15 11. Eddi \$1.77

#### RIGHT ANGLE PLUG HI-FI CABLES









All top quality silver-grey audio cable with molded plugs. Used on music instruments, many amplifiers and speaker systems. ALL CABLES ARE 72"

① 12A6326-9. ② 12A6327-7. ③ 12A6328-5.		Plug to Plug to Plug to	Mike Connector. Net Each. \$1.39 Right Angle RCA Plug. Net Each. \$1.39 RCA Phono Jack. Net Each. \$1.39 Alligator Clips. Net Each. \$1.39	
12A6329-3	1/4" Phone	Plug to	Alligator Clips. Net Each	



#### COILED HI-FI CONNECTING CABLES

No more unsightly dangling cords. Coiled audio cables with RCA plugs each end. Quality import. Shpg. wt. 8 oz.

12A6314-5 -72" Long. Each ...... \$2.29

DUAL STEREO HI-FI CABLES





Neat single sheath encloses dual shielded cables. All cables have molded

RCA phono plugs attached.

12A6330-1. 36"—RCA plugs one end, stripped other end. Net Each. \$1.39
12A6331-9. 72"—RCA plugs one end, stripped other end. Net Each. \$1.49 2 12A6333-5. 72"—RCA plugs both ends. Net Each.









#### 72 INCH AUDIO HI-FI CONNECTING CABLES WITH MINIATURE PLUGS

Finest quality shielded silver-arev audio cables, plastic covered. All quality imports. Works with most Jopanese recorders and radios. Average shpa, wt. ½ lb.

① Miniature molded plug one end to molded RCA type jack other end.

12A6310-3. Each \$1.59 \$1.59 Miniature molded plug one end to RCA type pin plug other end. 12A6312-9. Each ...... \$1.59 \$1.89

#### PERSONAL PILLOW **SPEAKER**

Fine sound quality for private listening. Ceramic element and plastic dia-phragm fitted into 2½" diameter case. 60" cord, standard ½" plug. Fits most radios and recorders.

No. 53A6710-4 .....\$2.19



HEADPHONE JUNCTION BOX WITH SLIDE CONTROLS

Two headphone jacks to operate 2 pairs of headphones at the same time. 15-ft. coiled cord with plug. \$9.95

#### STEREO HEADPHONE **EXTENSION CORD**



25 Ft. 3-Cond. Coiled Cord. With 3 circuit plug and jack, Wt. 10 oz. 12A6360-8. Each . . . . . \$4.95

20 Ft. Gray Extension. With plug and jack but straight cord. Wt. 8 oz. 12A6322-8. Each ...... \$2.99



Ô

Connects to amplifier speaker terminals. Has change-over switch for speaker or phones, stereo phone jack, 36" leads. In gray plastic enclosure. Built-in attenuator prevents headphone overload. Finest import. 53A6508-2. Net Each.

REMOTE CONTROL STEREO LISTENING STATION

# Stereophone control center for stereo or most music

Stereophone control center for stereo or most music systems. Provides extra convenience of separate level control for each channel right at your easy chair. Has stereo jacks for two sets of stereophones and speaker off-on switch for private listening. In attractive walnut grain cabinet. Screw terminals for amplifier and speakers. Size 4¾ x 2-7/8 x 1-9/16" H. Wt. 2 lbs.

53A6615-5. Each \$10.95



LOW PRICES ON SPEAKER CONTROLS





① Level Controls (L-Pads). For adjusting and matching the listening levels of 2 or more speakers. Silver and black  $2\frac{1}{2} \times 2^w$  plate, with black plastic knob. Mounts in panels to  $\frac{3}{4}^w$ . Wt. 3 oz. \$2.69 (a.4.13) Almost planel. \$2.69 (b.4.13) Multiple Speaker Switch. For centralized "on-off" control of up to 6 remote speakers.  $\frac{3}{4}^w$  W x  $\frac{25}{6}^w$  H. gold tone mtg. plate with 6 SPDT slide switches. Requires  $\frac{3}{4}^w$  behind panel. Wt. 4 oz. \$2.99 (b.8.0) Multiple Special Each \$2.99

19A7183-6. Special Each \$2.99

3 8 Ohm L-Pad, Insert in line between amplifier and speaker to adjust speaker volume independently of other speakers in the system. Handles speaker power to 6 watts. 1/4" shaft, 3/8" long, 3/8" bushing. Shpg. wt. 6 ozs. 14A1136-5. Special Each \$2.19 4 For. \$7.80

AUTO STEREO SPEAKER CONTROL

Adjusts the output of the stereo system from the front to the rear speakers using the newest type slide controls. With mtg. hdwe. and instructions. No 19A7362-6.

Each ...... \$4.95



Y-CONNECTOR CORD FOR TWO STEREO PHONES

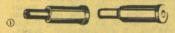
Use 2 pairs of stereo phones at the same time from a single amplifier output. High quality 3-way plug and two 3-way jacks, 36" overall. 12A6320-2. Special \$2.99 \$2.99



CLOSED CIRCUIT STEREO PHONE JACK ONLY

Fits 1/4" 2 or 3 circuit plug. Can be wired to disconnect speakers when plug is inserted. 89

#### POWER PLUGS AND ADAPTORS FOR IMPORTS





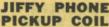
(1)12A6064-6 Coaxial Power Plug. Standard for many walkie-talkies, recorders, radios. 1 large 2.5MM and 1 small 2.1 MM plug. Easily attached to power supply leads. Wt. 3 oz. Special, Pair .....

#### INDOOR FM DIPOLE ANTENNA



Flat wire concealable FM antenna can be tacked to the back of set, put under rug, etc. Signal pickup better than most built-ins. Spade lugs to connect to set. Wt. 4 ozs.

18A1657-6. Each ...... \$1.79





Jiffy suction cup attaches to side of telephone or to back of handset. Does not interfere with telephone operation. With shielded cable. Giant import savings! No. 11A1057-6

Special Each

\$1.99





4-CHANNEL TRANSISTORIZED **Audio Mixer Amplifier** FOR RECORDING, \$1 995 EXPERIMENTING

STEREO VERSION OF ABOVE. Same basic principles as unit above but has dual stereo circuits. Adapts 2 separate sets of 2 high impedance sound sources, microphones, tuners, phono records, etc. into two single high impedance inputs at your stereo recorder or amplifier. Shpg. wt. 2 lbs. stereo recorder or amplifier. St 29A3027-7. Import Special \$20.95

#### FINE MICROPHONE ACCESSORIES

#### **B-A LEADER VALUE MIKE FLOOR STAND**

Full size brass tube stem is high-gloss double chrome plated. Easily adjustable from 35" to 64" in height by simple, damage-proof one-hand clutch, without mar or

without mar or scratch on the chrome tubes.

Weighted 10" dia. base is finished in baked wrinkle enamel, has pads to prevent floor mars. 5/8"-27 thread.

Shpa, wt. 9 lbs.

29A7008-3. Net Each \$11.99

Net Each ......\$11.99

DESK MIKE STAND

Beautifully made import with 5/8" x 27 thread to fit all standard mikes. Gray plastic 5 inch diameter base with chrome finished 3½" rod. Stays upright even with heavy mike. Shpg. wt.

29B228-4. Special Each ......\$2.99

**BOOM ATTACHMENT** Centers mike over pickup area. Attach to 5/8"-27 stand. For piano and similar uses where regular mike stand can't be used. 32 inch chrome plated boom. Wt. 3½ lbs. 29A7000-0. Net Each ...... \$8.99

#### SLIDE-IN MIKE STAND HOLDER

Fits threaded 5/8"-27 stand. Holds securely yellows quick removal of mike for hand held use. Wt. 2 ozs.

29A3028-5 —For 7/8" Mike 29A3029-3 —For 1" Mike Your Choice Each ......\$1.99



YOU CAN'T GET MORE

STAND FOR



#### **MURA TAPE RECORDER MICROPHONES**



DX-211B. High quality microphones at moderate cost. Black and chrome finish. Miniature plug with adapter to convert to standard ¼" phone plug. Has on-off switch. Impedance: 500 ohms. Sensitivity: -70dB @ 1KHz. Response: 60-12,000Hz. 5' cable. Shpg. wt. ½ lb.

29A761-4. Each ..... \$6.95



DX-118B. Dual plugs (audio and remote control) plus adaptor for recorders using coaxial remote control plug. Impedance: 500 ohms. Sensitivity: -70dB @ 1KHz. Response: 60-12,000 Hz. Remote switch and 5-foot cable. Shpg. wt. ½ lb.

29A762-2. Each ..... \$6.95

DX-109B For recorders that require a high impedance microphone. Has remote switch, plastic stand and 5 ft. cable. Sensitivity -61 db at 1 KHz. Response 50-10,000 Hz. 29A783-8. Each ..... \$6.95



**SWITCHCRAFT** MIKE STAND CONNECTOR



Model P3F. 3 contact. Simplify mounting of most mikes to gooseneck or stem. 5/8 X 27 female stand thread.

12A6196-6.

.....\$3.00



DYNAMIC DUAL IMPEDANCE

Beautiful and very practical. Combines good looks, excellent performance and fine quality. Built for general purpose work wherever appearance and sound both count. Response 50-15,000 Hz. output -55 db. impedance 600 or 50K ohms. Fits 5/8-27 stand. Has on-off switch and detachable 20 ft. cable. Size 8½ X 1½" max. dia. Brushed chrome with black perforated grille. Shpg. wt. 2 lbs. 

#### **PROFESSIONAL** DYNAMIC MICROPHONE

- High impedance: 50K ohms.
- Low impedance: 200 ohms. Response: 35-15,000 cps. Cardioid pattern.

\$29<sup>95</sup>

Designed with a spherical front filter for professional use Pickup pattern is highly unidirectional to reduce any chance of feedback.

Frequency response 35-15,000 Hz. Out-put level —53 db. Has a die cast case beautifully finished in satin chrome. Equipped with 4 prong detachable connector with cable 20 ft. long, and swivel mike stand holder tapped for 5/8-27 stands. Shpg. wt. 2 lbs.

No. 29A502-2

Special Each

OUR BEST \$29.95 SELLING IMPORT!

CARDIOID

PATTERN

ON-OFF

SWITCH FREE FROM POP & BLAST





FCC approved. Transmits through any FM tuner or radio. Static-free performance. Solid state circuit. Fully shielded. Range 88 MHz to 106 MHz. Will not drift. Compact - 5 ½ X 7 / 8 X 1 ½". Lightweight, 5 ½ oz. net. Shpg. wt. 1 ½ lbs. Uses 9 volt transistor battery (included)

\$14.95

#### MINIATURE LAVALIER DYNAMIC MIKE

Very high quality — brushed chrome finished. Only 5%" dia., 31/4" long and weighs less than 2 oz. Frequency response 50-15,000 Hz. Output level —55 db, high impedance. Has detachable 10 ft. cable and lavalier neck cord. Mike slips out of clip for hand use if desired. Shpg. wt. 8 oz. 294504.8 29A504-8



# Communications Microphones



#### DYNAMIC MOBILE MICROPHONE

A quality dynamic microphone in shock-proof case. Well suited to mobile applications. Sensitivity: -62dB. Push-to-talk switch is provided to activate the relay or electronic circuitry in transmitter.

With 5 foot coil cord. Impedance: low. 29A746-5. Mura DX115D. Each . . . 29A747-3. Mura DX115C. Ceramic high impedance mike. Features like above.



#### NOISE CANCELLING MICROPHONE

This dynamic noise-cancelling microphone for use where background or overhead noises would mar normal speech transmission. Ideal for taxis and all CB and PA installations. Impedance-Low. Frequency response: 300-5000Hz; non-directional. Sensitivity: -65dB at 1 kHz, 5 foot 5-conductor coil cord for use with relay or electronic switching systems. 29A750-7. DX-119. Each . . . . . . . . . . . . \$14.95



#### **AMPLIFIED MICROPHONE** WITH GAIN CONTROL

This communication microphone is combined with a modern transistor amplifier to 100% modulate most transmitters. Maximum sensitivity: -42dB. Slidetype gain control to set modulation level 

VARIABLE GAIN **POWER MICROPHONE** 

Unmatched power, plus the flexibility needed to get that power to the transceiver. Variable gain setting is controlled by a slide switch on the mike. It belts out a signal that's as clear as it is powerful. Sensitivity: 50 db, gain 16 db. Relay or electronic switching. 5-wire shielded cord. With a detailed wiring guide, coil cord and 9 volt battery.

29A780-4. PRX100. Each ...... \$34.95



# SAVE! CERAMIC



BARGAIN SPECIAL

All the wanted features. Made to B-A specs by a leading American Microphone producer. Has coiled cord, press-to-talk relay switch, ceramic long-life cartridge Best ever for replacement on CB and ham equipment. Fine for all the new mobile rigs. Response 80-7,000 Hz. Output -54 db. 5 ft. coiled cord. Professional grey plastic case silver trim. Case only 35% x 2½ x 1½" T. With dash mtg. brocket.Wt. 1 lb.

Microphone and Dash Mounting Bracket. 29A277-1. Special......\$13.95

CERAMIC MOBILE MIKES

MORE TALK POWER FOR CB

AND OTHER 2-WAY RADIO

WITH TRANSISTOR AMPLIFIER AND VOLUME CONTROL. Up to 15 db. more gain compared to other
communications mikes. Provides exceptional speech
clarity and higher average percentage of modulation
for the utmost communications range. Rear mounted
gain control allows convenient single hand operation.
Has press-to-talk .three-pole double throw switch to
operate all CB equipment. Silicon transistors and
ceramic element provide temperature and humidity
protection. In tough molded case with 5 ft. retractable
cable and mounting clip. Wt. 1 lb.
No. 29A628-5
Top Quality Import. Special Each

Top Quality Import. Special Each....... \$19.95

# PROFESSIONAL ELECTRET CONDENSER MICROPHONES

Condenser mikes are the choice of sound studios and professional users. These high quality mikes are used by rock groups, entertainers, and public address. Considerably higher output than most dynamic mikes.



WITH

CARDIOID ELECTRET CONDENSER MICROPHONE

Cardioid polar pattern combines the ruggedness of a dynamic microphone with the new electret condenser generating element to form a reliable, high quality device at moderate cost. Output is considerably higher device at moderate cost. Output is considerably higher than most dynamic microphones. Unique generating element offers extremely high output for the highest possible signal-to-noise ratio. Frequency Response: 30-16,000Hz. S/N ratio: Greater than 44dB. With 15' cable and standard phone plug. Internal power: 1 "AA" pen cell. (supplied). Impedance: 600 ohms. Battery life: 7,000 hours in continuous operation. Output level: (1 kHz)-66 dB. With stand adapter. Shpg. wt. 2 lbs.

29A759-8. Each ......\$49.95

STAND ADAPTOR

UNIDIRECTIONAL PATTERN

A great versatile, high-quality micro-phone. Finished in brushed aluminum. Complete with a swivel mount stand adaptor, wind screen, and 15' 2-con-ductor shielded cable with a standard phone plug. Frequency Response: 50-14,000Hz. Unidirectional polar pattern. Complete with 1 "AA" pen cell battery. Impedance: 600 ohms. Output level: 68dB + 3dB at 1kHz. Battery life: 6000 hours in continuous operation. Shpg. wt. 1 lb.

29A760-6. Each ..... \$24.95

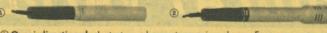
CARDIOID **PATTERN** 

Frequency response 30-14000 Hz. Uses 1 Penlight battery. 20 ft. cable. Output level -68 ±3 db. Impedance 600 ohms. with wind screen and stand holder to fit standard 5/8-27 stands.

No. 29A734-1 \$39.95

## SUPERSCOPE ..

#### **CONDENSER MICROPHONES**



① Omni-directional electret condenser type microphone. Frequency response 60 Hz to 13 KHz. Output -52dB. Uses AA battery. Complete with 10 feet of shielded cable with miniature phone plug and desk stand. Size: .693"D x 4"L. Shpg. wt. 2

29A781-2. Model EC-1. Each ...... \$14.95

② Cardioid pattern electret condenser microphone. Frequency response 50 Hz to 15 KHz. Output -52dB. Uses AA battery. Complete with 10 feet of shielded cable with miniature phone plug and slip-on type desk stand. Size: .866"D. x 7"L.



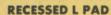
#### MURA ELECTRET CONDENSER LAPEL MICROPHONE

Omnidirectional. Slim, lightweight, anodized finish. Frequency response: 30-16,000Hz. Uses 1 E675 mercury battery (included) which gives approx. 600 hours in continuous operation. 10 ft. cable. Output level -72 dB (at 1 KHz). Impedance: 600 ohms.

29A735-8. Each ..... \$29.95

#### PHENOLIC RING TWEETER SPEAKER

Used by many complete system manufacturers. Frequency response 2000 to 18,000 Hz. power rating 20 watts above crossover frequency of 4000 Hz. Impedance 80 ohms. Size: 4 ¼ " dia., 1" deep. 34A550-4. Shpg. wt. 1 lb. Each ...... \$4.50



Flush mount, recesses in enclosure or control panel so no knob is projecting. 8 ohm, heavy-duty.

#### SAVE OVER 50%!

#### RECHARGEABLE NI-CAD PENLITE CELL



Standard AA penlite size .5 AH bat-tery. 1.2V replaces penlite cells in 1.5 volt applications. Usually sells for twice our price. Shpg. wt., 10 cells 1 lb.

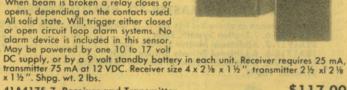
21A5106-5. \$1.49 Each \$1.29

# **MICROPHONES ALARM SENSORS**

**ACCESSORIES** 

#### PHOTOELECTRIC **OPTICAL SENSOR**

Invisible infra-red, pulse modulated beam operates with up to 150 ft. sepa-ration of transmitter and receiver. When beam is broken a relay closes or



41A4175-7. Receiver and Transmitter \$117.00 21A305-8. 9 volt battery (2 required) Each 89° 13A8041-1. 12 volt DC supply. Each 19.95

#### **FLUSH MOUNT ALARM SYSTEM**



Low cost, easy-to-install system for apartments, homes, affices, etc. All solid state. Operates on 12 VDC, either battery or power supply listed above. Works with normally closed or open alarm loops. Automatically shuts off after 3 minutes. Has 10 second entry delay or home/exit switch. Gives instantaneous triggering if desired. Has its own alarm tone and provision for external bell or siren connection. Size: 4-3/8 x 4½ x 2¾ "D. Shpg. wt. 2 lbs.

41A4176-5. Each ...... \$54.00

#### INFRARED DOOR ANNOUNCER

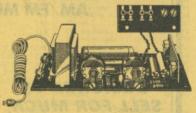
\$87.50

Solid state single point sensor detects movement up Solid state single point sensor detects movement up to 15 feet away with a beam width of approximately 2 ft. No reflector is required. When a person moves through the beam, a relay is energized for about ½ second providing switching for a bell or light indicator. For continuous alarm, external circuitry is required. Operates on 12 volts AC from transformer supplied for 115 VAC. Size: 3 x 3.2 x 1.6". Shpg. wt. 2 lbs.

41A4174-0. Each .....



SOLID STATE **2 WATT MONAURAL** AMPLIFIER



The perfect amplifier for a small, low-cost, high quality monaural sound system. Compatible with all 4 - 16 ohm speaker systems. RCA-type jacks mounted on separate terminal board for input and output connections. On/off volume control and tone control. Final stage mounted on large aluminum heat sink for cool continuous operation. Sensitivity 200mV. Frequency response 30 - 20,000 Hz  $\pm$ 3dB. Operates from 115 VAC. Has AC line cord and fused power supply. Size: 6 x 2-3/8 x 1%". Shpg. wt. 2 lbs.



ULTRASONIC TRANSDUCER \$ 5 25

For remote control of lights, bells, garage doors. Turns appliances and TV's on and off from a distance of 10 - 20 ft. Transmits or receives 40 KHz ultrasonic waves. Transmitter battery operated. Receiver power supply or battery operated. Practical circuit diagrams included. Use 9 volt transistor battery.

12A2879-1. Model J4-815. Each ..... \$5.25

# FANTASTIC INTERCOM SALE!

GENERAL DYNAMICS SIGNETTE
INTERCOM SYSTEMS
PRICES BELOW DISTRIBUTORS REGULAR COSTS!

#### TWO STATION SYSTEM

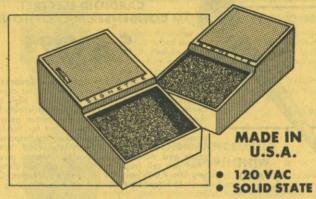
American made. All solid state circuitry and throughly modern in every design detail. Both remote and master stations are 8" L. X 4 ¼" W. X 2-5/8" H. with beige plastic volume control. Operates from 120 V. 60 Hz. Remote station may be connected for either privacy or hands-free operation. Installation and operation manual included. Less cable. Shpg. wt. 5 lbs.

#### 3-STATION MASTER-TO-REMOTE SYSTEM

#### 7-STATION MASTER-TO- REMOTE SYSTEM

Same operation as above but has 200 ft. of cable included. Shpg. wt. 25 lbs.
18A1723-6. 7-Station System. Each
18A1717-8. Additional Master Station. Each \$12.95
18A1718-6. Additional Remote Station. Each
18A1699-8. Additional Cable for Master-To-Remote
Systems. 100 Ft





\$1495

#### **3 STATION MASTER-TO-MASTER SYSTEM**

#### 4-STATION MASTER-TO-MASTER SYSTEM

#### 5-STATION MASTER-TO-MASTER SYSTEM

# GREAT SOUND-GREAT VALUE

AM/FM MULTIPLEX RECEIVER WITH 8-TRACK STEREO PLAYER

DESIGNED TO SELL FOR MUCH, MUCH MORE!

\$4995



• THE PERFECT HEART FOR A HOME MUSIC SYSTEM.

FUNCTIONAL, ATTRACTIVE FRONT PANEL FITS ANY DECOR.

• PLAYS ALL 8-TRACK TAPES.

A truly excellent receiver/8 track player designed to sell for a great deal more! Deluxe jet black front panel has brushed aluminum trim. Illuminated FM/AM slide-rule dial, stereo indicator light and channel number indicators for cartridge playing. Dial blacksout when power is off. Controls for loudness, balance, bass, treble and function (AM, FM, FM stereo, Aux, phono and tape). Push-buttons turn power on/off and allow selection of cartridge channel. Tape cartridge insertion turns the motor on and channels change automatically when each has finished playing. Stereo headphone jack for private listening is on the front panel. Jackterminal strip on back has terminals for built-in antenna or external FM antenna

and ground. AM antenna is built-in ferrite rod. Speaker connections are RCA type pin jacks. Pin jacks are also provided for aux. or external tape recorder. Amplock connector and 3 foot lead attached for connecting stereo phono turntable or changer. 110 VAC socket on back. Jack strip panel detaches with 2 screws and allows locating 2 feet away from chassis. Power cord is attached for 115 VAC 60 Hz. Schematic and wiring diagrams are furnished. Overall size: 4" H. X 22" W. X 9¾ "D.

### CAT Y ITEM

	CA
Δ	Cartridge Tape Players 46,60,62-65
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- 5. The cash sale price is as stated on the sales ticket attached to the merchandise. For the quantities purchased discounts from these prices are not given to any consumer.
- 6. The undersigned promises and agrees to pay to Burstein-Applebee Co., or assigns, the cash price of all merchandise purchased hereunder together with all FINANCE CHARGES, if any, as set out above. The undersigned grants Burstein-Applebee Co., or assigns, a security interest in all merchandise purchased until fully paid for.
- 7. Default in any monthly payment may accelerate the unpaid balance at the option of holder.

FOR THOSE WHO PREFER, B-A CONTINUES TO OFFER THE B-A REVOLVING CHARGE ACCOUNT (SEE PAGE 257), BANK AMERICARD, MASTERCHARGE AND AMERICAN EXPRESS

# **EQUAL CREDIT OPPORTUNITY ACT NOTICE**

This notice has been supplied by Burstein-Applebee Co. Please Keep this notice: The Federal Equal Credit Opportunity Act Prohibits Creditors from discriminating against credit applications on the basis of sex or marital status. The Federal agency which adminsters compliance with this law concerning Burstein-Applebee Co. is Federal Trade Commission, Washington, D.C. 20580.

Under the Equal Credit Opportunity Act, if a married person applies for credit on the basis of individual credit-worthiness,

the creditor may be prohibited from either requiring or even inquiring about certain information related to sex or marital status. This application was designed to comply with the ECOA in relation to such applications, as well as all others. Be sure to follow the instructions on this form, which differ according to the manner in which you are applying for credit. Supply the appropriate information as accurately and truthfully as you can. If the creditor wants or needs additional information, please supply it promptly and cooperatively.

# YOU SHOP EASIER...FASTER...BETTER WITH A B-A E-Z PAY CHARGE ACCOUNT

IT'S SO EASY TO OPEN YOUR NEW ACCOUNT . . . Just fill in the application on the back of the B-A Order blank. Be sure to sign the application and check the RC box at the top of the application. Then make out your first order, there's no need to figure shipping costs, B-A prepays the shipment, adds the charges to your account. Your reserve buying power will be set up in your name allowing you to spend up to a definite amount. All or any part may be used as you like.

### TO "ADD ON" AN ORDER AT ANY TIME

Here's continuous buying power to bring you year around elec-tronic enjoyment. Use the handy B-A Order Blank, fill in your Revolving Charge Account Number and sign in the space provid-

You pay the same monthly payment on "Add-Ons" if your new purchase does not exceed the difference between your balance and the original purchase. To illustrate: on \$80 balance on a \$240 purchase permits you to buy up to \$160 more for the same monthly payment of \$25. Or if you order more or less than \$160, your payments will be adjusted according to the payment table.

FOR THOSE WHO PREFER. **B-A CONTINUES TO OFFER** THE FOUR-PAY (NO FINANCE CHARGE) ACCOUNT - SEE PAGE 256. BANK AMERICARD. MASTERCHARGE AND AMERICAN EXPRESS

In accordance with the requirements of the Fair Credit Act, Burstein-Applebee wishes to advise

### In case of errors or inquiries about your bill

- ith property or service purchased with a credit card, you may have the right rount due on them, if you first try in good faith to return them or give Burst orrect the problem.

# DISCLOSURE OF CREDIT COST For Burstein-Applebee Co. Revolving Charge Account

- 1. If full cash price is paid within 30 days of shipment of merchandise or within 30 days of first billing date, whichever is later, NO FINANCE CHARGE will be im-
- 2. The FINANCE CHARGE will be imposed initially on the outstanding balance of the account 30 days after shipment of the merchandise or 30 days after the first billing date, whichever is later. Any subsequent FINANCE CHARGE will be imposed on the outstanding balance of the account as of the last previous billing date after deducting current payments and/or credits.
- 3. The FINANCE CHARGE will be determined by multiplying the balance due at the last billing date, after deducting current payments and/or credits, by 1-1/2% on all sums to \$500.00 and 3/4% on all sums in excess of \$500.00. A minimum FINANCE CHARGE of 50c per cycle will be charged.
- 4. A periodic rate of 1-1/2% will be charged on all balances to \$500.00, vielding an ANNUAL PERCENTAGE RATE of 18%.
- 5. A periodic rate of 3/4% will be charged on all balances over \$500.00, yielding an ANNUAL PERCENTAGE RATE of 9%.
- 6. Burstein-Applebee Co. retains title and a security interest in all merchandise purchased on the Revolving Charge Plan until the entire balance, including FINANCE CHARGES, is paid in full. Any items fully paid for will not be subject to a security interest. The first item purchased will be construed as paid off first.
- 7. The minimum monthly payment is \$10.00 (or the balance if it is under \$10.00) on the highest original unpaid balance of \$100.00 or less. The amount of any greater minimum required payment may be determined from the Revolving Charge Account Payment Table below.
- 8. The cash price of each item is as listed on the sales ticket attached to the merchandise. For the quantities purchased, discounts from these prices are not given to any consumer. Twelve payments per year, payable monthly, are required.
- 9. The undersigned promises and agrees to pay to Burstein-Applebee Co., or assigns, the cash price of all merchandise purchased hereunder together with all FINANCE CHARGES as set out above. The undersigned grants Burstein-Applebee Co., or assigns, a security interest in all merchandise purchased until fully paid for.
- 10. Default in any monthly payment may accelerate the unpaid balance at the option of holder.

Revolving Charge Account Payments Adjust to Unpaid Balance of Your Account only when You Make Additional Purchases

R	<b>EVOLVING CHARGE AC</b>	COUNT PAYME	NT TABLE
MONTHLY PAYMENT	HIGHEST ORIGINAL UNPAID BALANCE	MONTHLY PAYMENT	HIGHEST ORIGINAL UNPAID BALANCE
\$10.00 15.00 20.00 25.00	\$.01- 10.00 10.01-100.00 100.01-150.00 150.01-200.00 200.01-250.00	\$30.00 35.00 40.00 45.00	\$250.01-300.00 300.01-350.00 350.01-400.00 400.01-450.00 450.01-500.00

OVER \$500 Monthly Payments are 1/10 of balance, rounded to the nearest dollar.

If at any time you should have any questions regarding your account please contact the ... CREDIT DEPARTMENT

**BURSTEIN-APPLEBEE** 3199 MERCIER

KANSAS CITY, MO. 64111

Phone 816-756-2525 - Monday thru Friday 8:30 AM to 4:30 PM

# YOU'LL LIKE BA'S MAIL ORDER SERVICE!

OUR MODERN KANSAS CITY DISTRIBUTION CENTER SPEEDS YOUR SHIPMENT ANYWHERE!

# HOW TO ORDER

### PARCEL POST ZIP/ZONE GUIDE

Find the First three digits of your Zip Code and your Parcel Post Zone from Kansas City in the table below. Then refer to the Parcel Post Rates below for Postage on your order.

Zip Code Prefixes Zone	Zip Code Prefixes Zone	Zip Code Prefixes Zone	Zip Code Zone Prefixes	Zip Code Prefixes . Zone	Zip Code Prefixes Zone
006-009 8	308-326 5	498-499 4	620-623 3	725-731 3	850-853 6
010-046 6	327-339 6	Charles and the same	624 4	734-736 4	855-863 5
047 7	350-359 4	500-507 3	625-634 3	737-738 3	864 6
048-098 6	360-368 5	508 2	635 2	739 4	865-880 5
040-070	369-374 4	510-514 3	636-639 3	740-746 3	881 4
100-129 6	376-379 5	515-516 2	640-641 1	747 4	882-883 5
	380-394 4	520-528 3	644-645 1	748-749 3	884 4
130-132 5		530-537 4	646	750-768 4	890-898 6
133-136 6	395 5	538 3	647 1	769-777 5	HERE AN EXCENSES
137-179 5	396-397 4	539-560 4	648-653 2	778 4	900-933 6
180-181 6	A STATE OF THE PARTY OF	561	654-655 3	779-789 5	934 7
182 5	400-410 4	THE RESERVE OF THE PARTY OF THE	656-658 2	790-796 4	935-937 6
183 6	411-412 5	562-566 4	660-6621	797-799 5	939-955 7
184-188 5	413-414 4	567 5			956-958 6
189-194 6	415-418 5	570-582 4		800-812 4	959-960 7
195-199 5	420-432 4	583 5	675-676 3	813-816 5	961 6
	433 5	584-585 4	677 4		962-966 7
200-217 5	434-436 4	586-595 5	678 3	820-822 4	967-969 8
218 6	437-449 5	596-599 6	679 4	823-826 5	
219-278 5	450-455 4	100 9 54	680-685 2	827 4	970-976 7
279 6	456-457 5	600-611 4	686-689 3	828-832 5	977-979 6
280-299 5	458-479 4	612 3	690-693 4	833 6	980-987 7
CALL DO NOT	480-487 5	613 4	Ed Allian Miles S.	834 5	988-994 6
300-306 5	488-496 4	614-616 3	700-708 5	835-838 6	995-999 8
307 4	497 5	617-619 4	710-724 4	840-847 5	150 pg pg

# PARCEL POST RATES AND SIZE LIMITS

The table below and the chart above will help you estimate parcel post charges. Weight and size limits: Size limits below are maximum combined length and girth. 40 lbs, 84 inches to any 1st class Post Office in Zones 1 to 8. 70 lbs, 100 inches to any 2nd, 3rd, 4th class P.O., RFD, APO or FPO.

Alaska, Hawaii and Puerto Rico is 70 lbs, 100 inches for any 1st class Post Office.

Air Parcel Post rates vary per pound as distance increases. Please check with your Pastractor for rate to your city.

Postmaster for rate to your city.

Safe Delivery Fees: 40° for values to \$15.00, 60° for values \$15.01 to \$50.00, 80° for values \$50.01 to \$100.00, \$1.00 for values \$100.01 to \$150.00, \$1.20 for values \$150.01 to \$200.00.

Weight in Lbs.	Local Zone	Zone 1 & 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8
	\$0.77	\$0.90	\$0.93	\$1.04	\$1.15	\$1.28	\$1.40	\$1.48
3 100 00	.82	.97	1.02	1.15	1.29	1.46	1.62	1.74
4	.86	1.04	1.10	1.25	1.42	1.63	1.84	2.00
5	.91	1.11	1.19	1.36	1.56	1.81	2.06	2.26
6	.95	1.18	1.27	1.46	1.69	1.98	2.28	2.52
6 7	1.00	1.25	1.36	1.57	1.83	2.16	2.50	2.78
8	1.04	1.32	1.44	1.67	1.96	2.33	2.72	3.04
9	1.09	1.39	1.53	1.78	2.10	2.51	2.94	3.30
10	1.13	1.46	1.61	1.88	2.23	2.68	3.16	3.56
	1.18	1.53	1.70	1.99	2.37	2.86	3.38	3.82
11	1.22	1.60	1.78	2.09	2.50	3.03	3.60	4.08
12	1.27	1.67	1.87	2.20	2.64	3.21	3.82	4.34
13	1.31	1.74	1.95	2.30	2.77	3.38	4.04	4.60
14	1.36	1.81	2.04	2.41	2.91	3.56	4.26	4.86
15 16	1.40	1.88	2.12	2.51	3.04	3.73	4,48	5.12
17	1.45	1.95	2.21	2.62	3.18	3.91	4,70	5.38
	1.49	2.02	2.29	2.72	3.31	4.08	4.92	5.64
18	1.54	2.09	2.38	2.83	3.45	4.26	5.14	5.90
19	1.54	2.16	2.46	2.93	3.58	4.43	5.36	6.16
20	1.63	2.23	2.55	3.04	3.72	4.61	5.58	6.42
21	1.67	2.30	2.63	3.14	3.85	4.78	5.80	6.68
22	1.72	2.37	2.72	3.25	3.99	4.96	6.02	6.94
23	1.76	2.44	2.80	3.35	4.12	5.13	6.24	7.20
	1.81	2.51	2.89	3.46	4.26	5.31	6.46	7.46
25 00.08	1.85	2.58	2.97	3.56	4.39	5.48	6.68	7.72
26 00.00	1.90	2.65	3.06	3.67	4.53	5.66	6.90	7.98
27	1.94	2.72	3.14	3.77	4.66	5.83	7.12	8.24
28	1.99	2.79	3.23	3.88	4.80	6.01	7.34	8.50
29	2.03	2.86	3.31	3.98	4.93	6.18	7.56	8.76

Parcel Post COD Fees (in addition to charges above): 85° from .01 to \$10.00, \$1.05 from \$10.01 to \$25.00, \$1.25 from \$25.01 to \$50.00, \$1.45 from \$50.01 to \$100.00, \$1.65 from \$100.01 to \$200.00, \$1.85 from \$200.01 to \$300.00.

If there is a question on Postal Rates please contact your local Postmaster.

U.P.S. SHIPMENTS

Shipments can be made via UPS to all states except Alaska, Arkansas, Hawaii, Kansas, Nebraska, Oklahoma and Texas. Shipping costs are similar to Parcel Post. UPS accepts packages up to 50 lbs. and 108" combined length and girth. Include shipping costs with your order. U.P.S. cannot deliver to a P.O. Box number. Full address is required.

MOTOR FREIGHT SHIPMENTS

Large or heavy shipments exceeding limits for parcel post or UPS and some fragile goods must be sent Motor Freight. Shipping costs are collected at time of delivery. Do not add these charges to your remittance. Check with your local agent for rate and to see if home delivery service is available.

Use The Handy B-A Order Blank .

It is designed for your convenience and it helps us speed your order through our plant for shipment as soon as possible.

Tell Us How You Want Shipment Made. Indicate your choice. Regular Parcel Post, U.P.S. Freight . . . or by Air . . . or simply depend on B-A to choose an economical shipping method.

When You Send Money . . . Best way is to use money order, bank draft or check. Many B-A Customers ask us to fill in the exact amount on their signed blank check . . a most convenient and safe way to send remittance. Please do not use universal checks or "scratched" checks where the bank name has been deleted and/or written in. (Federal Reserve Bank Ruling). Avoid sending coins or currency, but when necessary, register your letter. Stamps are not acceptable payment for merchandise.

Include Postage and Safe Delivery Fee. Our Catalog gives shipping weights for almost all items. Where not shown, you can estimate weights. Total these weights to the next full pound, then check the parcel post rate table for your zone and rate. The Safe Delivery Fee is your protection against inancial loss after your shipment leaves our plant, 8-A refunds all excess remittance immediately by bank

Do Not Include Freight Charges in your remittance. These charges will be collected upon delivery.

C.O.D. Orders . . . for economy's sake we suggest you send money order, check, use B-A Revolving charge, B-A 4-payment Credit Plan, Master Charge, BankAmericard or American Express Card. This will avoid your payment of post office, COD and money order fees. If COD is unavoidable, your order should be for a minimum of \$20.00 with at least 20% deposit accompanying your order.

When you order on B-A's Revolving Charge Account or 4-Payment Credit Plan please see pages 256 and 257.

See instructions on B-A's Order Blank when using your Master Charge, BankAmericand or American Express cards.

Open Accounts or Commercial Accounts are extended to well rated companies, schools, institutions and government agencies. If your company does not have a published Dun & Bradstreet rating of EE2 or better, please submit trade and bank references when you apply for a commercial account. Terms are net 30 days from date of invoice. Use your purchase order form or the handy B-A order blank.

# B-A'S CATALOG PRICES

Our Catalog Prices . . . are net FOB Kansas City. All trade and cash discounts have been deducted. B-A reserves the right to add any Federal, State or local taxes now in effect or which may be levied after this catalog is printed.

Missouri, Kansas, Colorado, Oklahoma, Ohio, and

Texas Customers add State Sales Tax.

Each item on your order will be priced at the current price on date of shipment. All prices are subject to change without notice. At B-A you always have immediate benefit of

price reductions.

Manufacturers List Prices Shown . . are suggested by our suppliers and are intended only as information for those purchasing for resale, not to indicate price savings.

## WHEN YOU WRITE . .

If Necessary to Write B-A Concerning Your Order . . . Please state whether the original order was Cash, C.O.D., B-A Revolving Charge, B-A 4-Payment Credit Plan, Credit Card, or Open Account. Return order papers and correspondence with your letter. If you do not yet have order papers, give stock numbers and descriptions of items ordered and the name and address exactly as used on the original order. On open accounts refer to your purchase order number and our invoice number.

### **HOW TO RETURN MERCHANDISE**

All shipping damage should be reported directly to our Customer Service Dept. Truck shipments must have an inspection report included with your letter. We will advise you on how to return the damaged shipment. If for any other reason you do not wish to keep the merchandise you have received, and if you have not abused or changed it in any way, you may return it to us within 10 days of original delivery date. Pack well, enclosing your order papers and complete explanation. Place an additional first class postage stamp on the package and mark "First Class Mail En-closed". Fully insure for safe arrival. Send to

Burstein-Applebee Co., Dept. ADJ. 3199 Mercier Kansas City, Missouri 64111 ALWAYS RETURN THE ORIGINAL ORDER PAPERS
WHEN WRITING ABOUT A SHIPMENT

MINIMUM ORDER SIZE

Since it is not economical to process many small orders, a \$1.00 service charge is necessary for any order under \$10.00. You avoid this charge entirely on orders

The minimum C.O.D. order is \$20.00, with 20% deposit.

# mail 10... order blank

# burstein-applebee

3199 Mercier St. Kansas City. Mo. 64111

TO PLACE TELEPHONE ORDERS OR FOR CUSTOMER SERVICE CALL 816-756-2525

# HOW WE SHIP . . .

We ship by Parcel Post or U.P.S. where practical. Express or Truck are used for special handling or large orders. Depend on us to ship the best way.

(YOUR CHOICE, IF DESIRED)

THIS ORDER SELECTED FROM CATALOG NO.

# PLEASE SIGN HERE

If order is to be charged on your B-A Revolving Charge, Four Payment Plan, Master Charge, BankAmericard or American Express.

DATE CARD EXPIRES

FILL IN BELOW AND SIGN NAME AT LEFT
CASH ORDER
FOUR PAY (NO FINANCE CHARGE) (25% Required on Four Pay Accounts)
B-A REVOLVING CHARGE ACCT. #
MASTER CHARGE ACCT. #
BANK AMERICARD ACCT. #
AMERICAN EXPRESS ACCT. #
C.O.D. ORDER
(20% Deposit Required)
DO NOT USE THIS SPACE

PLEASE PRINT OR WRITE PLAINLY: DATE				IF YOU HAVE MOVED SINCE LAST ORDER, GIVE OLD ADDRESS:								
NAME					ADDRESS		January 1					
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CITY			PHONE		ALL ITEMS POSSIBLE ARE SHIPPED IMMEDIATELY, B-A				LY.			
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IF SHIP TO ANOTHER ADDRESS, PLEASE GIVE DETAIL				B.O. Backordered		T.O. Temporary Out — Ple Reorder in 2 or 3 Wee						
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# IT'S EASY TO OPEN A BA CHARGE ACCOUNT

APPLICATION FOR THOSE WHO DO NOT HAVE A B-A CHARGE ACCOUNT THIS APPLICATION IS FOR A R.C., 4-PAY ACCOUNT (CHECK ONE)

PRINT FULL NAME	BUSINESS MOSS PHONE		LONG AT	Lab Laborate	Z RENT OR MORTGAGE PMT. HOW	DAY'S  IP ODE PER \$ MONTH CONG AT CONG AT
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BANK ACCOUNT WITH NAME HOME MORTGAGE OR RENT NAME	THE SAN SERIEGA PHO	STREET	CITY	STA	OPEN CLOSED	CHECKING SAVING LOAN
NAME	ADDRESS	HAD CREDIT: STORE, BAI	ACCT. =	OPEN	CLOSED	TOTAL OF ALL MONTHLY PAY- MENTS INCLUD- ING CAR AND MORTGAGE PAYMENTS
NAME OF RELATIVE NOT LIVING WITH YOU  PERSONAL REFERENCE	NAME	GLOWN SWELL ALL SHIP	ADDRESS		RELATIONSH	IIP
PLEASE COMPLETE THIS SECT (1) Your spouse will use any cr (2) You are relying on jointly-cr (3) Your spouse will be contract SPOUSE'S	redit granted as a result o	spouse's income to qua dit granted as a result of BUS	alify for this extension of	credit, or		
SPOUSE'S EMPLOYER  PREVIOUS EMPLOYER			POSITION		OW LONG	SALARY
NOTICE: BURSTEIN-APPLEBLAND OTHER SOUR WRITTEN REQUES SCOPE OF AN INVE	ion is accurate and comp and the Disclosure of Cr	plete, and also certify edit Cost Statement.	that I have received a co	py of the Equ	al Credit Oppo	RTING AGENCIES, IIGHT TO MAKE A HE NATURE AND Intunity Act Notice, ACCOUNT
XNOTICE: Any holder of this	414	x _				

NOTICE: Any holder of this consumer credit contract is subject to all claims and defenses which the debtor could assert against the seller of goods or services obtained pursuant hereto or with the proceeds hereof. Recovery hereunder by the debtor shall not exceed amounts paid by the debtor hereunder.

DO NOT SIGN THIS AGREEMENT BEFORE YOU READ IT OR IF IT CONTAINS BLANK SPACES. YOU ARE ENTITLED TO A COPY OF THE AGREEMENT YOU SIGN. KEEP A COPY OF THIS AGREEMENT TO PROTECT YOUR LEGAL RIGHT.

# mail to... order blank

# burstein-applebee

3199 Mercier St. Kansas City. Mo. 64111

TO PLACE TELEPHONE ORDERS OR FOR CUSTOMER SERVICE CALL 816-756-2525

# HOW WE SHIP ...

We ship by Parcel Post or U.P.S. where practical. Express or Truck are used for special handling or large orders. Depend on us to ship the best way.

(YOUR CHOICE, IF DESIRED)

THIS ORDER SELECTED FROM CATALOG NO.

# PLEASE SIGN HERE

If order is to be charged on your B-A Revolving Charge, Four Payment Plan, Master Charge, BankAmericard or American Express.

DATE CARD EXPIRES

# FILL IN BELOW AND SIGN NAME AT LEFT CASH ORDER

B-A REVOLVING CHARGE ACCT. #

FOUR PAY (NO FINANCE CHARGE)
(25% Required on Four Pay Accounts)

MASTER CHARGE ACCT. #

BANK AMERICARD ACCT. #

AMERICAN EXPRESS ACCT. #

C.O.D. ORDER (20% Deposit Required)

DO NOT USE THIS SPACE

-					EXPIRES		Sept of		A STATE OF THE PARTY OF THE PAR	a series	
PLEASE PRINT OR WRITE PLAINLY: DATE  NAME  (First Name) (Middle Initial) (Last Name)						IF YOU HAVE MOV	ED SINC	E LAST ORDE	R, GIVE OLD A	DDRES	is:
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NOTE: MAIL ONDERIO ONDERIO OTOTO

PLEASE DO NOT USE THIS SPACE

AMOUNT FOR GOODS

AMOUNT ALLOWED FOR POSTAGE

Mo., Kans., Colo., Okla., Ohio & Tex.
CUSTOMERS ADD STATE SALES TAX

AMOUNT DUE B-A ON PREVIOUS ORDER

TOTAL AMOUNT OF ABOVE

TOTAL AMOUNT ENCLOSED
(25% Required on Four Pay Accounts)

☐ TRANSFERRED TO BACK ORDER CREDIT

B-A OWES YOU (REFUND ENCLOSED)
YOU OWE B-A (DEBIT ATTACHED)

Please remit sufficient postage. Any excess is returned.

TOTAL WT.

TOTAL

LBS. | OZS.

B.B.

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# IT'S EASY TO OPEN A BA CHARGE ACCOUNT

APPLICATION FOR THOSE WHO DO NOT HAVE A B-A CHARGE ACCOUNT THIS APPLICATION IS FOR A 
R.C., 4-PAY ACCOUNT (CHECK ONE)

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OWNED	MAKE	FINANCED BY		ADDRESS	MONTHL PAYMEN			
BANK ACCOUNT WITH						CHECKING SAVING		
HOME MORTGAGE	NAME	STREET	CITY	5	TATE  OPEN CLOSED	LOAN		
OR RENT	NAME	STREET	CITY	S	TATE CLOSED			
NAME OF RELATIVE NOT LIVING WITH YOU	NAME		ADDRESS	THE RESERVE	RELATIONSH	PAYMENTS  \$		
PERSONAL REFERENCE	NAME		ADDRESS		RELATIONSHIP			
(1) Your spouse will (2) You are relying o	HIS SECTION ONLY IF: use any credit granted as a result n jointly-owned property or you be contractually liable for any cr	r spouse's income to edit granted as a res	qualify for this extens	ion of credit, or				
SPOUSE'S EMPLOYER								
PREVIOUS EMPLOYER			POSITIO	N	HOW LONG	SALARY		
CALL TO SERVICE AND ADDRESS OF THE PARTY OF			POSITIO		HOW LONG	SALARY		
	APPLEBEE MAY CAUSE A C R SOURCES, AND SUCH WIL REQUEST FOR A COMPLETE AN INVESTIGATIVE REPORT							
he Fair Credit Billing A	information is accurate and cor ct Notice and the Disclosure of (	redit Cost Statemer	ıt.			rtunity Act Notice		
THE UNDERSIGNED JO	DINTLY AND SEVERALLY AGREE	TO PAY ALL CHARC	SES MADE BY AUTHOR	IZED USERS OF TH	(R.C. OR 4-P	ACCOUNT AY)		
x			x					
				DATE				
OTICE: Any holder	r of this consumer credit co	ntract is subject	to all claims and de	fenses which the	debtor could	assert against the		

NOTICE: Any holder of this consumer credit contract is subject to all claims and defenses which the debtor could assert against the seller of goods or services obtained pursuant hereto or with the proceeds hereof. Recovery hereunder by the debtor shall not exceed amounts paid by the debtor hereunder.

DO NOT SIGN THIS AGREEMENT BEFORE YOU READ IT OR IF IT CONTAINS BLANK SPACES. YOU ARE ENTITLED TO A COPY OF THE AGREEMENT YOU SIGN. KEEP A COPY OF THIS AGREEMENT TO PROTECT YOUR LEGAL RIGHT.

# B-A IS 50 IN 777-1/4 as old as our countr

Journey with us through 50 eventful years . . . share highlights of the past, as B-A plays an integral role in the advancement of the Electronics Industry





# BURSTEIN-APPLEBEE Co.

BROKERS - DISTRIBUTORS Electrical Supplies -- Radio Automotive Specialties Hardware Specialties

511 EAST 14TH ST.

PHONE VICTOR 7998

KANSAS CITY

MISSOURI

To Keen Operators In The Electrical and Radio Trade

This will introduce "Joe" Burstein and "Merl" Applebee.

Both experienced, shrewd, former "managers," "buyers" and "head salesmen." They know Electrical Goods, Radio and Automotive lines' upwise—downwise—sidewise—and across.

They've engineered the success of several of America's representative wholesale concerns—but they took a notion to go it alone—in a different, newer, snappier business—and here they are.

"Joe" and "Merl" present this Cut Price List. It's plumb full of Hot Buys. Look it over. If the items are not keen bargains tell Joe and Merl. If the prices ARE winningly low signify your approval by saying "Aye" and sending an ORDER.

"Joe" and "Merl" work THIS way. They watch for SNAPS. They have lookouts East-West-North and South. If a factory has a surplus Joe and Merl are after it—if they can buy at Joe and Merl's ideas of PRICE. And they are after choice Bankrupt stocks too. But the goods they buy must be GOOD. Must be fresh, nationally known merchandise in original factory cartons.

And Joe and Merl BUY the same way as they SELL—for CASH. They have the money (or can swing it) for ANY deal no matter HOW large—if the price is RIGHT. They are swift traders. Merchandise in—then out—in-a-hurry—small margin stuff—but LOTS of volume.

You can benefit big through these special buys. But you have to order at once when you read these lists for the goods are here today and there tomorrow—offered subject to prior sale.

Today is always a better day than tomorrow when prices touch bottom like they do in this Price List.

Thanks for the order you send—if you send one. And in the near future you'll get ANOTHER Price List from,

Yours very truly,

BURSTEIN-APPLEBEE CO "Joe" and "Merl."

Service That Will Save You Money

\*These copies of B-A's first recorded mailing pieces are dated Nov. 30, 1927

# Keen Prices Make Interesting Reading LOUD SPEAKERS AND UNITS Utah, Thorola Baldwin, O'Niel, Temple, Cannon Ball, Magnavoz, Acme, B. T. Quantity buyers who are in a position to buy. eakers of any make in one shipment please cial prices. Special Leaders Brandes "Superior" Attachment Strandes —Music Master VI —Hart & Heeman Horn Style, at —Magnavox "Stanford" Cone Style, no Corda for Speakers—20-foot leng 40% and 5% from List tity buyers please write for specia Dubilier Micadons age Calvin Coolidge is President of the United States Charles Lindbergh flies the Atlantic Ocean to Paris Gene Tunney defeats Jack Dempsey 10,000,000 radio receivers are in use Al Jolson stars in the first "talkie" movie — "The Jazz Singer" The Modern Way EANS CUT PRICES

BURSTEIN & ATT





45 RPM Record Changer developed, 1951 • UHF Television begins, 1952 • Cinerama movies first shown — 1952. • Compatible Color TV developed — 1953. • The Great Stereo Debate — 1957. • Four Channel Sound Recording and Playback Heads announced — 1958.

It is the era before the "shopping center." B-A mail order business grows steadily and rapidly.

hallicrafters s-300

for skill in ENGINEERING

in ENGINEERING
vion in CONSTRUCTION
ndability in PERFORMANCE

17995

5450

DEALERS, SERVICEMEN, SCHOOLS, BROADCASTERS, UTILITIES, LABORATORIES, ENGINEES, HAMS, EXPER EYERYWHERE AGREE . . . . . B-A is a good outfit to

do business with!" READ what they write us — - the many different reasons why B-A service is considered "Tops" all along the line. Just read:

use it at times most convenient to you .

use it at times most convenient to you .

no waiting for salesmen . . no pres

ANNUAL CATALOG NUMBER 561 SINGE, 19

A Complete Buying Guide for Everything w

Guarantee



DEALERS, SERVICEMEN, SCHOOLS, BROADCASTERS, INDUSTRIALS, THEATRES, MANUFACTURERS, CHURCHES, HOTELS, PUBLIC UTILITIES, LABORATORIES, ENGINEERS, EXPERIMENTERS, AMATEURS



INDEX PAGE 170...PHONE BAltimore 1-1155











Many items listed are your own selections - the very ones you have asked for most often, Our buyers have worked hard to provide the very nevest items too.

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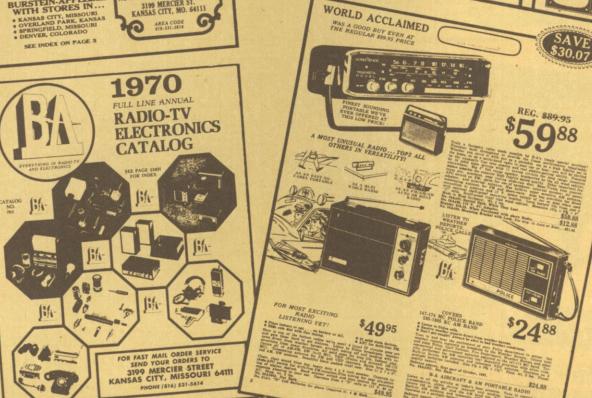


B-A expanded beyond the capabilities of the buildings in use in 1968, when the move to a building complex designed specifically for B-A's increasing volume, located at the present address, was completed.

Richard Nixon, President: 1969 - 1974.



& Burten J. E. Burstein President



B-A SPECIAL PURCHASE! SUPER POWERFUL 6-BAND PORTABLE RADIO AMPHALORO WAVE - 1 BRORTWAVE \$6995

# burstein



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- 9797 West Colfax (303) 238-1369

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• Cinderella City Shpg. Ctr. (303) 789-4401

## LITTLETON, COLORADO

 Southglenn Shpg. Center (303) 795-0941

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- 3190 Mercier (816) 756-2596 Pro-Industrial
- 3188 Mercier (816) 756-2525
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# **NORMAN, OKLAHOMA**

 1337 E. Lindsey (405) 364-5335

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Since 1971, another expanded store /warehouse building has been added to the Mercier Complex. These vast warehousing and service facilities provide quick access to B-A stocks for all the B-A stores as well as for B-A's mail order department. Gerald Ford, President: 1974 —







# STEREO RECEIVERS

\$329<sup>95</sup>

MERCHANDEL 2220B



\$44995



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KANSAS CITY, MO.



BREAKS AND BEL 2250B

\$549<sup>95</sup>

## MODEL 2220B AM/FM STEREO RECEIVER

Power, performance and precision. The 2220B has it all! Professional features are a perfect match for professional specs. Like Detented Bass, Mid and Treble controls . . . and Horizontal Slide Balance Control that puts your music right where you want it. Low and Hi filters remove unwanted noise from program material. Loudness Control switch boosts frequencies when listening at low volume levels. The 2220B features Phase Locked Loop FM Decoder for maximum separation and minimum distortion on FM stereo broadcasts . . . enhanced by advanced FET's and IC's throughout as well as full Complementary Direct-Coupled Output circuitry for superior dependability and performance.

Controls: Selector AM, FM, Phono, Tape 2, Aux; Bass, Mid, Treble tone controls; Spkr. (main, remote); FM muting and loudness; slide bar balance; Hi-Low filter; Mono; Tape 1 monitor; Gyro-touch tuning.

Specifications: 20 watts per channel minimum RMS at 8 ohms from 20 Hz to 20 KHz with no more than 0.5% total harmonic distortion. Amplifier damping factor 45. Tuner sensitivity of 2.0uV with a Capture Ratio of 2.5dB. Pre-amp sensitivity: Phono 1.8mV, Aux 180mV.

Dimensions: 17-5/16" W x 5-3/8" H x 14-3/8" D. Shpg. wt. 28 lbs

# MODEL 2235B AM/FM STEREO RECEIVER

Versatility and performance plus! The 2235B delivers precision performance every time with professional versatility. The sensitive tuner section features a Phase Locked Loop Multiplex Demodulator that gives you maximum stereo separation and minimum distortion. Only Marantz has the Gyro-Touch Tuning wheel to give you the easiest, most precise tuning available. The 2235B also features a 25uS de-emphasis switch for the ultimate in noise-free FM Dolby\* broadcasts. FET's and IC's throughout . . . Direct Coupled Output circuitry. The front panel features two tape jacks for dubbing capability. Also Hi-filter, FM muting, loudness switch, separate bass, mid-range and treble controls, and horizontal slide bar balance.

Controls: Selector AM, FM, Phono, Tape 2, Aux; Bass, Mid, Treble tone controls; Spkr. (main, remote); FM muting, loudness, slide bar balance, hi-filter, mono, tape 1 monitor, Dolby\* 25uS switch.

Specifications: 35 watts minimum RMS per channel at 8 ohms from 20 Hz to 20KHz with no more than 0.25% total harmonic distortion. Amplifier damping factor 55. Tuner sensitivity of 1.9 uV with a capture ratio of 1.5dB. Pre-amp sensitivity: Phono 1.8mV, Aux 180mV.

Dimensions: 17-5/16" W x 5-3/8" H x 14-3/8" D. Shpg. wt. 28 lbs

# MODEL 2250B AM/FM STEREO RECEIVER

A superbly engineered receiver with excellent sensitivity and selectivity. In addition to the regular Marantz features such as Full Complementary Symmetry output, Direct Coupled Power output and PLL FM Demodulator, the 22508 features superbly flexible tone controls. A 5-position tone turnover/mode switch permits much more versatility in controlling bass, midrange and treble. Two tape inputs and two outputs facilitate copying from one tape deck to another. Front panel dubbing jacks allow you to add a third deck if desired. Has pre-amp out/main-in jacks in rear to enable independent use of pre-amp and amplifier sections. Dolby\* de-emphasis switch for Dolby\* FM broadcasting.

Controls: Selector AM, FM, Phono, Aux, Tape 1, Tape 2; 5-position Tone Mode switch; Bass, Midrange, Treble controls; Spkr. (main, remote); Hi/Low Filters; Loudness; Slide-Bar Balance; Tape Source, Tape Monitor; FM Muting; Mono; Dolby\* 25uS Switch; Gyro-Touch Tuning wheel.

Specifications: 50 watts minimum RMS per channel at 8 ohms from 20 Hz to 20 KHz with no more than 0.25% total harmonic distortion. Amplifier Damping Factor 55. Tuner sensitivity of 1.9uV with Cupture Ratio of 1.5dB, Pre-amp sensitivity: Phono 1.8mV, Aux 180mV.

Dimensions: 17-5/16" W x 5-3/8" H x 14-3/8" D. Shpg. wt. 37 lbs.

\* A Trademark of Dolby Labs., Inc.