# B-A IS50IN 72 <br> 1/4 as old as our country! 


$\rightarrow$ Burstein-Applebee Co.


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 representaive 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 Hot Buys. Look it over. If the items are not keen bargains tell Joe and Merl. If the prices are orDER.

Joe" and "Merl" work THIS way 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 sut the goods PRICE. And they are after choice Bankrupt stocks known merchandise in they buy must be GOOD. M

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 largeif the price is RIGHT. They are swift traders. Merch out-in-a-hurry-small margin stuff-but LOTS of volume

You can benefit big through these special buys. But you have to rder 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


## Technics Panasonic

UNCOMPROMISING STEREO RECEIVERS
 <br> \section*{- DIRECT COUPLED OCL <br> \section*{- DIRECT COUPLED OCL <br> - FET FRONT END <br> "FLAT GROUP DELAY" CERAMIC FILTERS <br> - PLL MULTIPLEX CIRCUITRY}

A true high-fidelity instrument despite its economical pricing. The SA-5060 features many design elements associated with much more expensive equipment.
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 harmonic 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 bass, treble, balance, volume, loudness, tape monitor and tuning knob. Function switch for AM, FM, phono and auxiliary. Specifications: Phono 2.5 $\mathrm{mV} / 47$ kilohms, Damping factor 40 ( 8 ohms). Tuner section: Sensitivity 2.0 $u \mathrm{~V}$, Signal-to-noise $F M 70 \mathrm{~dB}$, Capture ratio 1.5 dB . Dimensions: $51 / 2^{\prime \prime} \mathrm{H} \times 16$ $17 / 32^{\prime \prime} \mathrm{W} \times 12-13 / 32^{\prime \prime} \mathrm{D}$. Shpg. wt. 15.4 lbs .
50A1010-7. Model SA-5060. Each
$\$ 169.95$
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: $5-19 / 32^{\prime \prime} \mathrm{H}$. $\times 16-17 / 32^{\prime \prime} \mathrm{W} . \times 13-31 / 32^{\prime \prime} \mathrm{D}$. Shpg. wt. 18.5 lbs.
50A1011-5. Model SA-5160. Each
$\$ 229.95$

## MODEL SA-5360 AM/FM STEREO RECEIVER

- 7-STAGE IF SECTION
- 4-POLE DUAL GATE MOS FET
- CLICK-STOP TONE/BALANCE/VOL UME


## - HIGH DAMPING FACTOR

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 clickstop 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 $2.5 \mathrm{mV} / 47$ kilohms, Aux. 150 $\mathrm{mV} / 40$ kilohms, Tape playback $150 \mathrm{mV} / 40$ kilohms. FM sensitivity 1.9 uV , Capture Ratio 1.5 dB . FM signal to noise 73 dB . Dimensions: $5-19 / 32^{\prime \prime} \mathrm{H} \times$ $16-17 / 32^{\prime \prime} W \times 13-31 / 32^{\prime \prime} \mathrm{D}$.
50A1012-3. Model SA-5360. Shpg. wt. 21.8 lbs . Each
$\$ 299.95$
Technics Model SA- 5460 FM/AM Stereo Receiver offers 65 watts minimum RMS per channel at 8 ohms from 20 Hz to 20 KHz , with no more than $0.1 \%$ total harmonic distortion. Includes low and high filter. Dimensions: 5 $29 / 32^{\prime \prime} \mathrm{H} . \times 19-11 / 16^{\prime \prime} \mathrm{W} . \times 16-17 / 32^{\prime \prime} \mathrm{D}$. Shpg. wt. 32.9 lbs. 50A1013-1. Model SA-5460. Each $\$ 399.95$

## MODEL SA-5560 AM/FM STEREO RECEIVER

- hi/LOW FILTER SWITCHES
- FM MULTIPLEX HIGH BLEND SWITCH
- resettable 41-position ClickSTOP VOLUME CONTROL


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. Flat 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.
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 sateguard speakers.
Specifications: Power output 85 watts, minimum RMS per channel at 8 ohms from 20 Hz to 20 KHz with no more than $0.1 \%$ total harmonic distortion. Amplifier damping 55(8 ohms), Intermodulation distortion $0.1 \%$. Input sensitivity and impedance; Phono $2.5 \mathrm{mV} / 47$ kilohms, Aux. $150 \mathrm{mV} / 35$ kilohms. FM sensitivity 1.8 uV , Capture Ratio 1.5 dB . FM signal to Noise 75 dB . Stereo separation 1 KHz 45 dB . Dimensions: $5-29 / 32^{\prime} \mathrm{H} . \times 19-11 / 16^{\prime \prime} \mathrm{W}$. $\times 16$ 17/32"D. Shpg. wt. 37.3 lbs .
50A1014-9. Model SA-5560. Each
$\$ 499.95$


MODEL SA-5760 AM/FM STEREO RECEIVER

- INPUT IMPEDANCE SELECTOR


## - CLICK-STOP VOLUME LEVEL CONTROL <br> - TWO TAPE DECK CAPABILITY <br> - 44,000uf FILTERING CAPACItANCE

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 20 Hz to 20 KHz , 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: $10.3 \mathrm{~dB} f, 1.8 \mathrm{UV}$. Features loudness, muting, FM muting, delay time, high and low filter controls.

Beautiful and durable simulated wood cabinet. Dimensions: $6-7 / 8 \mathrm{H} \times 21-21 / 32 \mathrm{~W} \times 19$. 13/32"D. Shpg. wt. 52 lbs.
50A 1015-6. Model SA-5760. Each .............................. $\$ 799.95$

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. Specs: 20 to 18,000 $\mathrm{Hz},+0.2 \mathrm{db},-0.8 \mathrm{db}$, alt. channel selectivity 85 db . Sensitivity 1.9 UV. Capture Sensitivity 1.9 UV. Capture
ratio 1.0 db . Harmonic distortion mono $0.15 \%$, stereo $0.25 \%$. Stereo separation 1 KHz 45 db . Image rejection 95 db (at 98 MHz ). Dimensions: $7-3 / 32^{\prime \prime} \mathrm{H} . \times 19$. $9 / 32^{\prime \prime}$ W. $\times 13-29 / 32^{\prime \prime}$ D. Shpg. wt. 25 lbs.
Shpg. wt. 25
$50 A 1019-8$.
SOA1019-8.
Model ST-8600
Each
ch
....
\$329.95


COVER CONCEPT BY DON E. HATTER B-A EMPLOYEE SINCE 1933 ing switch, click-stop volume, balance, high/low filters, two tope monitor circuits with tape-to-tape dubbing in both directions, function selector for phono

## MODEL SU-7600 STEREO INTEGRATED AMPLIFIER

- AlL STAGE DIRECT COUPLED
- CIICK-STOP VOLUME CONTROL
- TWO TAPE MONITOR CIRCUITS


## s19995

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 $20,000 \mathrm{~Hz}$, with no more than $0.2 \%$ total harmonic distortion. Damping 40 at 8 ohms. Intermodulation distortion $0.2 \%$. Dimensions: $5-23 / 32^{\prime \prime} \mathrm{H} . \times 17-5 / 16^{\prime \prime} \mathrm{W} . \times 13^{\prime \prime} \mathrm{D}$.
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), mut-

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 $20,000 \mathrm{~Hz}$ with no 20 to $20,000 \mathrm{~Hz}$ with no
more than $0.08 \%$ total more than
harmonic distortion. Damp. ing 50 at 8 ohms. Residual hum and noise $0.3 \% \mathrm{mV}$. Intermodulation distortion $0.08 \%$.s N 115 db . Size: 7.3/32 $2^{\prime \prime}$ H.x $19.9 / 32^{\prime \prime} \times$ $13-3 / 8^{\prime \prime} D_{\text {. }}$ Wt. 34 lbs. 50A1018-0. SU-8600.
Each
$\$ 349.95$

## WHEN YOU WANT SOMETHING BETTER

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 receludes 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 150 mV 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 $20,000 \mathrm{~Hz}$ 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 $120 \mathrm{~V}, 60 \mathrm{~Hz}$. Size: $17-5 / 6^{\prime \prime} \mathrm{W} \times$ $5-9 / 16^{\prime \prime} \mathrm{H} \times 12-3 / 32^{\prime \prime}$ D. Shpg. wt. 21 lbs.
50A1035-4. Model SX-450.
Each
$\$ 200.00$

Super clean stereo is the result of P.C. construction that practically eliminates shielded wire connections in the pre-amp and funer sections of the SX-550. The elimination of these connections permits amazingly clean and crisp reproduction of the highest treble notes, greatly enhancing of the highest treble notes, ginclude 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 $20,000 \mathrm{~Hz}$ with no more than $0.3 \%$ total harmonic distortion. For $120 \mathrm{~V}, 60 \mathrm{~Hz}$. Size: $17-5 / 6^{\prime \prime} \mathrm{W} \times 5-9 / 16^{\prime \prime} \mathrm{H} \times$ 12-3/32" D. Shpg. wt. 23 lbs .
50A1020-6 Model SX-550.
Each
$\$ 250.00$

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 $15,000 \mathrm{~Hz}$. Continuous power output is 35 watts per channel, minimum RMS at 8 ohms from 20 to $20,000 \mathrm{~Hz}$, 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 click-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: $18-29 / 32^{\prime \prime} \mathrm{W} \times 5-7 / 8^{\prime \prime} \mathrm{H} \times 14-19 / 32^{\prime \prime} \mathrm{D}$. Shpg. wt. 31 lbs.
50A 1021-4. Model SX-650.
Each
\$300.00

(M PIONEER
MODEL SX-450 AM/FM STEREO RECEIVER

@ PIONEER
MODEL SX-550 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 $\pm 0.2 \mathrm{db}$; a unique twin tone control for both bass and treble; sharp loweut 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 allows 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 heavy inertia flywheel provides the smoothest heavy inertia llywheel provides the smoothest possible tuning. Switches provide for up to tividually or in any paired combination. Has jacks for $L$ 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 $20,000 \mathrm{~Hz}$ with no more than $0.1 \%$ total harmonic distortion. Aluminum finished front panel and walnut finished wooden case. Dimensions: 21-7/8" W x $7-3 / 8^{\prime \prime} \mathrm{H} \times 18^{3 / 4} 4^{\prime \prime}$ D. Shpg. wt. 68 lbs .
50A995-0 Model SX-1250. Ea $\$ 900.00$

## @) PIONEER

SX-1250 AM/FM STEREO RECEIVER s900


## 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 $20,000 \mathrm{~Hz}$ with no more than $0.1 \%$ total harmonic distortion. Dimensions: $20^{3 / 4} 4^{\prime \prime} \mathrm{W} \times 6-13 / 16^{\prime \prime} \mathrm{H} \times 17$ $7 / 8^{\prime \prime}$ D. Shpg. wt. 55 lbs.
50A994-3. Model SX-1050. Each
$\$ 700.00$
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 $20,000 \mathrm{~Hz}$ with no more than $0.1 \%$ total harmonic distortion. Dimensions: $203 / 4^{\prime \prime} \mathrm{W} \times 6-13 / 16^{\prime \prime} \mathrm{H} \times 16$ $3 / 16^{\prime \prime}$ D. Shpg. wt. 45 lbs.
50A993-5. Model SX-950. Each MODEL NOT SHOWN.
$\$ 600.00$
() PIONEER Sx--550 AM Fm STREEO RECEVER 5500

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 circuit permitting reproduction within $\pm 0.3 \mathrm{db}$ 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.
Continuous power output is 65 watts per channel, minimum RMS at 8 ohms, or 85 watts per channel at 4 ohms, from 20 to $20,000 \mathrm{~Hz}$ with no more than $0.1 \%$ total harmonic distortion. Dimensions: $20-23 / 32^{\prime \prime} \mathrm{W} \times 6-13 / 16^{\prime \prime} \mathrm{H} \times 16$ Dimensions: $20-23 / 32^{\prime \prime} \mathrm{W}$
$3 / 16^{\prime \prime} \mathrm{D}$. Shpg. wt. 44 lbs .
50A1022-2. Model SX-850.
Each
$\$ 500.00$

## SONY... PRECISION AUDIO COMPONENTS



## SOINT MODEL TA-2650 INTEGRATED STEREO AMPLIFIER

- 45 watts, $\min$. RMS at 8 ohms from 20 Hz to 20 KHz 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 20 Hz to 20 kHz 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-totape dubbing facility, In addition, this amplifier boasts studio-type attenuator volume control, and 20 dB 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 panel trim.
This amplifier, medium powered and in the budget price range, still offers the uncompromised performance for which Sony components are noted. For priceconscious audio connoisseurs, the TA-2650 means superior sound enjoyment, without an enormous expense.
Dimensions: $5 \frac{1}{4 \prime \prime} \mathrm{H} \times 15-3 / 8^{\prime \prime} \mathrm{W} \times 121 / 4^{\prime \prime} \mathrm{D}$. Shpg. Wt. 14 lbs .
50A1027-1. Model TA-2650. Each
$\$ 220.00$


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

\author{

- Built-in Dolby* decoder. <br> - 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 woodęn 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 $1: 0 \mathrm{~dB}$, and an $\mathrm{S} / \mathrm{N}$ ratio of almost 70 dB in stereo.
Dimensions: $5 \frac{3 / 4^{\prime \prime}}{} \mathrm{H} \times 15-3 / 8^{\prime \prime} \mathrm{W} \times 121 / 4^{\prime \prime} \mathrm{D}$. Shpg. 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, Dolb, *hoise-reduction system for decoding Dolbyized FM broadcasts, and Dolby indicator light.
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

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

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

5400
interstation muting, ultra low noise equalizer circuit, 20 dB 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.

50A1030-5. Model STR-4800SD. Each
$\$ 400.00$


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 20 Hz to 20 kHz 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


MODEL 2325 AM/FM STEREO RECEIVER

INCOMPARABLE TONAL QUALITY! $\$ 7995$

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 $\ldots$ 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 20 Hz to 20 kHz , with no more than $0.15 \%$ Total Harmonic

Distortion. Amplifier damping factor of 70. Its tuner section features sensitivity of 1.8 uV , with a capture ratio of 1.25 dB . 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 53/4" H. X 15-3/16" D.
50A955-4. Model 2325. Shpg. wt. 50 lbs. Each
$\$ 799.95$
50A839-0. WC-43. Walnut Wood Veneer Cabinet (as shown). Shpg. wt. 10 lbs.
Each
$\$ 42.50$

##  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 funer that doesn't look or perform like an economy tuner.
Specifications: FM Quieting Slope: RF input for 30 dB quieting 1.7 UV . Total harmonic distortion, Mono $0.3 \%$, Stereo $0.5 \%$. Capture ratio 1.5 dB . Stereo separation at 1 kHz 40 dB .
Dimensions: $141 / 2^{\prime \prime} \mathrm{W} \times 43 / 4^{\prime \prime} \mathrm{H} \times 12^{\prime \prime} \mathrm{D}$. 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 100 dB .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, 100 dB , maximum IM distortion (any combination of 2 frequencies between 20 Hz to 20 kHz ), $0.05 \%$.
Dimensions: $14 \frac{1}{4^{\prime \prime}} \mathrm{W} \times 4 \frac{3}{4 \prime \prime} \mathrm{H} \times 12^{\prime \prime} \mathrm{D}$. Shpg. Wt. 16 lbs .
50A991-9. Model 3200. Each
$\$ 249.95$

## menemmonn POWER STEREO AMPLIFIER

Small size, high power, low price ... that's the $140!75$ watts minimum RMS per channel, from 20 Hz to 20 kHz 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: $14 \frac{1}{4} 4^{\prime \prime} \mathrm{W} \times 43 / 4^{\prime \prime} \mathrm{H} \times 12^{\prime \prime} \mathrm{D}$. Shpg. Wt. 22 lbs .
50A989-3. Model 140. Each
\$349.95
Optional Walnut Cabinet for Models 112, 3200, and 140, as shown.
50A794-7. WC-10. Each
\$29.95

©KENWOOD

# MODEL KR-2600 AM/FM STEREO RECEIVER 

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 disfortion.

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, Tapé Monitor, FM Antenna (300-75 ohms). Outputs: Spkr. A, Spkr. B, Tape. Specifications: Tuner sensitivity (IHF) 2.5 uV (50 db at 50 uV ), $\mathrm{S} / \mathrm{N}$ 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 $20,000 \mathrm{~Hz}$ with no more than $0.8 \%$ total harmonic distortion. Damping factor at 8 ohms is 30 . Dimensions: $171 / 4^{\prime \prime} \times 5-5 / 16^{\prime \prime} \times 11-13 / 16^{\prime \prime}$. Shpg. wt. 17 lbs.
50A1023-0. Model KR-2600. Each
$\$ 189.95$

## - 300 AND 75 OHM ANTENNA INPUTS. <br> - FET FRONT END CIRCUITRY.

 DUAL IN-LINC IC's.

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 an tenna ( 300 \& 75 ohms). Outputs: Spkr. A, spkr. B, Tape. Specifications: Tuner sensitivity (IHF) $10.3 \mathrm{dbf}(1.8 \mathrm{uV}$ at 75 ohms), $\mathrm{S} / \mathrm{N}$ 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 $20,000 \mathrm{~Hz}$ with no more than $0.5 \%$ total harmonic distortion. Damping factor at 8 ohms is 40 . Dimensions: $19-11 / 16^{\prime \prime} \times$ $51 / 2^{\prime \prime} \times 13-1 / 16^{\prime \prime}$. Shpg. wt. 27 lbs .

50A1024-8. Model KR-4600. Each
$\$ 299.95$

# TUNERS AND AMPLIFIERS 

KT-5300 AM/FM STEREO TUNER


KT-7300 AM/FM STEREO TUNER


## 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 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 uV . Signal to Noise ratio 70 dB . Total Harmonic Distortion: $0.2 \%$ at $1,000 \mathrm{~Hz}$ (mono), $0.3 \%$ at 1000 Hz (stereo). Stereo Separation: 30 dB at 50 to $10,000 \mathrm{~Hz}$. Size: $14-31 / 32^{\prime \prime}$ W.x $51 / 2^{\prime \prime}$ H.x $11-5 / 8^{\prime \prime} \mathrm{D}$. 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 KA3500 as an exceptional value. Delivers 40 watts per channel minimum RMS at 8 ohms from 20 Hz to $20,000 \mathrm{~Hz}$ 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 $\mathrm{S} / \mathrm{N}$ 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 $\mathrm{A} / \mathrm{B}$ comparisons. High filter/Loudness control to adjust for any conditions. Size: 14 $31 / 32^{\prime \prime}$ W. x $51 / 2^{\prime \prime}$ H. x $10-1 / 32^{\prime \prime}$ 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 $20,000 \mathrm{~Hz}$ 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: $14-31 / 32^{\prime \prime} \mathrm{W} . \times 5 \frac{1 / 2 "}{} \mathrm{H}$. $\times 10-1 / 32^{\prime \prime} \mathrm{D}$. Shpg. Wt. 25 lbs .
50A1033-9. Model KA-5500. Each
\$249.95
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 funing 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 $65 \mathrm{dBf}: 0.1 \%$ at 1000 Hz (mono), $0.2 \%$ at 1000 Hz (stereo). Stereo Separation: 45 dB at 1000 Hz . Image Rejection: 85 dB . Size: $16-15 / 16^{\prime \prime} \mathrm{W} . \times 5-7 / 8^{\prime \prime} \mathrm{H} . \times 14-13 / 16^{\prime \prime} \mathrm{D}$. Shpg. Wt. 20 lbs.
50A1034-7. Model KT-7300. Each
\$259.95

## 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 $20,000 \mathrm{~Hz}$ with no more than $0.1 \%$ total harmonic distortion. Employs an attenvator type volume control to uniformly change the perceived sound 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 $18 \mathrm{~Hz}, 40 \mathrm{~Hz}$, and 8 KHz . Loudness control offers choice of three curves. Facilities for up to three different speaker systems. Size: 16 $15 / 16^{\prime \prime} \mathrm{W} . \times 5-7 / 8^{\prime \prime} \mathrm{H} . \times 14-13 / 16^{\prime \prime} \mathrm{D}$. Shpg. wt. 34 lbs
50A1041-2. Model KA-7300. Each
\$329.95

## Tomorrow's Turnitalles by

PERFORMANCE FEATURES FORMERLY UNHEARD OF FOR ONLY

INCLUDES CARTRIDGE, BASE AND DUST COVER

## B.HC MULTIPEP PLAY MARUAL TURNTHABLE

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.


## Silent, reliable Belt Drive!



## MODEL 980 '19995

less base and CARTRIDGE


NEW towmass mend sutil

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 repro duction. 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 $12^{\prime \prime}$ 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 $15^{\circ}$ cartridge angle adjustment. Attractive "open grillwork" low mass head shell. Tracking force: 0-4 grams. 2 speeds: $331 / 3$ 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 depth adjustment, single scale anti-skate and stylus force settings. Male/female cartridge head connector, plus stainless steel finger lift and $15^{\circ}$ cartridge angle adjustment. Handsome low mass head shell. Tracking force: 0-4 grams 2 speeds: $33^{1 / 3}$ 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 $12^{\prime \prime}$ belt-driven platter 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 furntable, play ing as many as 6 records. The low mass tonearm incorpo rates 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: $331 / 3$ and 45 RPM. Shpg. wt. 12 lbs.
52A964-4. Model 940. Each
$\$ 109.95$

NEW mimovau mictore SUPPORT POST


ACCESSORIES FOR B॰l.C MODELS 980, 960, 920 AND 940
52A1006-2. WB22. Hinged wood base with acces- 52A915-6. A-7. Elastomer Drive Belt. Each sory comportment for 980,960 and 940 . Ea. $\$ 29,95$ 52A916-4. A-2, 45 RPM Spindle. Each

## BSR <br> POPULAR AUTOMATIC TURNTABLES

MODEI 4800DY
CERAMIC AUTOMATIC TURNTABLE

## $\$ 49^{95}$

- 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 count er-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): $7 \frac{1 / 4^{\prime \prime}}{} \mathrm{H} \times 131 / 2^{\prime \prime} \mathrm{D} \times 15^{\prime \prime} \mathrm{W}$. Shpg. wt. 21 lbs.
52A990-9. Model 4800DX. Each
$\$ 49.95$

MODEL 2260BX
MAGIETIC AUTOMATIC TURNTABLE
564

- 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

52A989-1. Model 2260BX. Each
\$64.95

## MODEL 2320W DELUXE

 MAGNETIC AUTOMATIC TURNTABLE[^0]

> 57995
> - 4-CHANNEL CAPABILITY
> - DAMPED CUE/PAUSE
> - ADC K8E MAGNETIC CARTRIDGE
> - 3-SPEED: 33, 45 and 78 RPM

## Garrard

## MODEL GT-55 BELT-DRIVE AUTOMATIC TURNTABLE

 52695GARRARD 440M AUTOMATIC TURNTABLE
Designed for outstanding performance and versatility at a reasonable price, the Garrard 440 M 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 440 M features $331 / 3,45$ 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 .
52A969-3. Garrard 440M. Each
$\$ 79.95$

## 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 $90^{\circ}$ 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 horimagnesium, weighs on
zontal 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 $\pm 3 \%$ 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 ates by magnetic force. Calibrated for elliptical and CD-4 styl. Rueing rate is variable and damped in both directions. Wow and futter $15-5 / 16^{\prime \prime} \mathrm{W} \times 14^{1 / 8^{\prime \prime} \mathrm{D}}$ $\times 7^{\prime \prime} \mathrm{H}$. Shpg. wt. 17 lbs.
52A1002-2. Model GT-55. Each
\$269.95


## 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 $331 / 3$ 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 $5 / 16^{\prime \prime} \times 16-55 / 64^{\prime \prime} \times 13-45 / 64^{\prime \prime}$. Shpg. wt. 15 lbs .

## 52A986-7. Model SL-20. Each

$\$ 99.95$

## 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 $331 / 3$ and 45 RPM speeds. Highly sensitive, statically balanced S-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 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 appearance.
Wow and flutter $0.05 \%$ WRMS; rumble -40 dB (DINA), -65 dB (DINB). Size: 5 $5 / 16^{\prime \prime} \times 16-55 / 64^{\prime \prime} \times 13-45 / 64^{\prime \prime}$. Shpg. wt. 17 lbs.
52A987-5. Model SL-23. Each
$\$ 139.95$

## 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

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 - 50 dB (DINA) - 70dB (DINB) Adjustable tracking force 0.3 gram Dimensions: $173 / 4^{\prime \prime} \mathrm{W} \times 14-3 / 8^{\prime \prime} \mathrm{D} \times$ $51 / 2$ "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 $\mathrm{SL}-1500$ 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: $51 / 2^{\prime \prime} \times 173 / 4^{\prime \prime} \times 14-3 / 8^{\prime \prime}$. Shpg. wt. 20 lbs.
52A996-6. Model SL-1400. Each
\$249.95

## 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 ", $10^{\prime \prime}$ 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), 70 dB (DINB). Dimensions: $51 / 2^{\prime \prime} \mathrm{H} \times 17-13 / 16^{\prime \prime} \mathrm{W} \times 14-13 / 32^{\prime \prime} \mathrm{D}$. Shpg. Wt. 22 lbs.
No. 52A891-9. Model SL-1300. Each
\$299.95

## 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: $173 / 4^{\prime \prime} \times 14-3 / 8^{\prime \prime} \times 7-27 / 32^{\prime \prime}$. Shpg. wt. 23 lbs .
52A982-6. Model SL-1350. Each
\$349.95

## BELT DRIVEN 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 5 -shaped pipe arm for precision tracking capability and improved tone quality. Vibration-free 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 Balancer, arm elevation, direct-readout stylus pressure counterweight, low al Balancer, arm elevation, direct-readout stylus pressure counterweight, stray capacitance cord, plug-in type headshell, viscous-damped cueing device, and headshell stand convenient for cartridge replacement. The PL-112D's cabi-
net, designed for beauty and function, is finished in walnut grain. Surface panel net, designed for beauty and function, is finished in walnut grain. Surface panel vents induction hum. Speeds: $331 / 3$ and 45 rpm . Wow and Flutter: no more than $0.07 \%$ (WRMS). $\mathrm{S} / \mathrm{N}$ ratio: 50 dB .12 inch aluminum platter. For 120 V 60 Hz . Size: $17-5 / 16^{\prime \prime}$ W. $\times 61 / 4^{\prime \prime} \mathrm{H} . \times 14^{1 / 4^{\prime \prime}} \mathrm{D}$. Shpg. wt. 15 lbs .
52A1000-6. Model PL-112D. Each
$\$ 100.00$

- S-shaped pipe tone arm.
- 4-pole synchronous motor.
s100



## 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 resi eanothly even with a warped record. The precision 4 -pole synchronous motor free from fluctuation in line voltage and load drives the $12^{\prime \prime}$ aluminum turntable free from fluctuarion in line bilf 115 D offers a static-balance type S platter with a polyurethane belt. The PL-IISD 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: $331 / 3$ and 45 rpm . Wow and Flutter: $0.07 \%$ (WRMS). $\mathrm{S} / \mathrm{N}$ ratio: 50 dB . For 120 V .60 Hz . Size: $17-5 / 16^{\prime \prime} \mathrm{W} . \times 61 / 4 \mathrm{H} . \times$ $14^{1 / 4^{\prime \prime} \mathrm{D} \text {. }}$
52A1001-4. Model PL-115D. Shpg. wt. 20 lbs. Each
$\$ 125.00$

- Direct read-out stylus pressure counterweight.
- Viscousdamped cueing.


## - Plug-in head-

 shell.
## s125

# $@$ 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 manvally or automatically, touching the tonearm by hand has no adverse effects on other turntable mechanisms. The strong $12^{\prime \prime}$ 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. " 5 " 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. Plugin 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: $331 / 3$ and 45 rpm . Wow and Flutter: no more than $0.07 \%$ (WRMS). S $/ \mathrm{N}$ ratio: 50 dB . For 120 V .60 Hz . Size: $17-5 / 16^{\prime \prime}$ W. $\times 6^{1 / 4} 4^{\prime \prime} \mathrm{H} . \times 14^{1 / 4}{ }^{\prime \prime} \mathrm{D}$.
52A992-5. Model PL-117D. Shpg. wt. 17 lbs. Each.
\$175.00

- Belt drive.
- Wow and flutter $0.07 \%($ WRMS $)$ - $\mathrm{S} / \mathrm{N}$ ratio 50 dB .


# FINEST STEREO HIGH FIDELITY CARTRIDGES 



## MOST POPULAR SHURE STEREO CARTRIDGES

## 1 SHURE M24H STEREO/4-CHANNEL CARTRIDGE - FOR THE BEST OF

 TWO WORLDS. For the audiophile in transition from stereo to quadriphony, the M 24 H 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 M 24 H accommodates frequencies up to $45,000 \mathrm{~Hz}$, 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 $50,000 \mathrm{~Hz}$. Separation: 22 db at 1 KHz . Wt. 6 grams.
## 52A5139-8. M24H. Each

\$74.95
2. HIGH QUALITY SHURE DELUXE V15-111 CARTRIDGE

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 $3 / 4$ to $11 / 4$ grams. Freq. res. 10 to $25,000 \mathrm{~Hz}$. Separation 28 db at $1,000 \mathrm{~Hz}, 20 \mathrm{db}$ at $10,000 \mathrm{~Hz}$.

## 52A5093-7. V15-111. Each

$\$ 85.00$
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: $1 / 4 / 4$ to $11 / 2$ gram. Frequency response: 20 to $20,000 \mathrm{~Hz}$. Separation: 25 db at 1 KHz . Wt. 6 grams. Ale iliptical stylus. Wt. 6 grams. Eliph
52 A5116-6. Each
\$38.50
[3] SHURE M95EJ CUSTOM HIGH TRACKABILITY CARTRIDGE
Same features as M95ED except tracking force $1 / 2$ to 3 grams and separation 20 db at 1 KHz
52A5117-4. M95EJ. Each
\$28.95
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: $1 / 4$ to $11 / 2$ grams. Frequency response: 20 to $20,000 \mathrm{~Hz}$. Separation: 25 db at 1 4 KHz. 52 A5080-4. M91ED. Biradial $.0002^{\prime \prime}$ X. $0007^{\prime \prime}$. Each
$\$ 35.50$ 6 52A5082-0. M75ED Type 2. Similar to M91ED but offers a built-in snapdown stylus guard. Each
\$34.95

## 5 SHURE M9IE HI-TRACK ELIPTICAL CARTRIDGE

Excellent trackability in the $1 / 4$ to $11 / 2$ grams range. Designed for use in high quality manual and automatic turntables. Tracking force: $3 / 4$ to $11 / 2$ grams: Frequency response: $20-20,000 \mathrm{~Hz}$. 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 $11 / 2$ to 3 gram tracking force range, an outstanding performer in automatic or manual turntables. $20-20,000 \mathrm{~Hz}$. Separation 20 db © 1 KHz . Tracking force range $11 / 2$ to 3 $52 A 50$
2A5062-2. Wt. 6 oz. Each
\$23.50
6 SHURE M75 Type 2
Series of cartridges deliver excellent trackability at moderate tracking forces between $1 / 2$ and 3 grams. Ideal choices for moderately priced systems and for upgrading older systems. Features a built-in, snap-down stylus guard. Tracking force: $1^{1 / 2 / 2}$ to 3 grams. Frequency response: 20 to $20,000 \mathrm{~Hz}$. Separation: 20 db at 1 KHz .
52A5085-3. M75EJ. Type 2 Biradial, .0007" x .0004". Each ........ \$28.50
[1] SHURE M55E DYNETIC WITH ELLIPTICAL STYLUS
Developed for use in fine quality high fidelity systems with tone arms designed to track at $3 / 4$ to 2 grams. Diamond elliptical stylus retracts into cartridge when excessive force is applied. Tracking angle $15^{\circ}$, response $20-20,000 \mathrm{~Hz}$; Separation: 20 db at 1 KHz .
52A5004-4. Each
\$21.50

## B-A's TOP QUALITY CARTRI

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 car-
tridge. 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: $20-20,000 \mathrm{~Hz}$. Wt. 5.3 grams. Elliptical stylus.
52 A 109 -1. B-A Special Each
52A5126-5. Replacement Stylus for above cartridge. Each

## $\$ 49.95$

16


## THE CHOICE OF

## PROFESSIONALS

STANTON 681 TRIPLE-E

Recognized by the recording industry as the calibration standard. The 681 Triple-E offers improved tracking at all frequen-

cies. 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 $12 \mathrm{KHz} \pm 1 / 2 \mathrm{~dB}$ from 12 KHz to 22 KHz (individually calibrated at factory): output $0.7 \mathrm{mV} / \mathrm{cm} / \mathrm{sec} \pm 2 \mathrm{~dB}$; channel separation, nominal 35 dB , Stylus tip $0.2 \times 0.7$ mil elliptical diamond; Tracking force: Arm setting with brush 2 grams, $+1 / 2,-1 / 4$; resulting tracking force 1 gram, $+1 / 2,-1 / 4$; cartridge wt. 5.5 grams; load resistance 47,000 ohms.

## 52A5135-6. 681 Triple-E. Each .

$\$ 82.00$

## 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 $0.82 \mathrm{mV} / \mathrm{cm} / \mathrm{sec} \pm 2 \mathrm{db}$; channel separation, nominal, 35 db ; load capacitance 275 pF ; stylus tip 0.3 x 0.7 mil elliptical diamond; tracking force $3 / 4-11 / 2$ grams; cartridge wt. 5.5 grams.

52A5136-4. 680 EE. Each
\$62.50
52A5138-0. D680. Stylus for 680 EE. Each
. $\$ 30.00$

## REPLACEMENT STYLI FOR POPULAR MAGNETIC CARTRIDGES



## EA COAXIAL DIE-CAST SPEAKERS


$\$ 54.95$ EACH TWO FOR 555
$\$ 84.95$ EACH TWO FOR 585 ${ }^{95}$

## 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
- $8^{\prime \prime}$ 3-WAY CO-AXIAL FEATURES $31 / 2^{\prime \prime}$ CONE TYPE TWEETER.
- 12" 3 -WAY FEATURES A CO-AXIALLY MOUNTED COMPRESSION TWEETER.
- RIGID, DIE-CAST FRAME IS SHAPED FOR MAXIMUM STRUCTURAL STRENGTH.
- SPRING LOADED, FINGER-TIP TERMINALS ARE COLOR CODED FOR EASY PHASING IN STEREO SYSTEMS.
- "OPEN" FRAME DESIGN PERMITS MAXIMUM FREEDOM OF CONE TRAVEL.

| Stock No. | Size and Description | Magnet Wt. Ozs. | V.c. <br> Dia. | Peak Audio | Freq. Resp. Hz. | Resonant Freq. Hz. | $\begin{aligned} & \text { O.D. } \\ & \text { In. } \end{aligned}$ | Depth Inches | Mtg. Dia. | Shpg. Wt. Lhs. | Each | Two For |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $8^{\prime \prime}$, 2-Way Coax |  | 1 ' | 30 Watts |  |  |  |  |  | $43 / 4$ |  |  |
| 34A463-0 | $8^{\prime \prime \prime}$, 3-Way Coax | $12$ | $1^{\prime \prime}$ | 30 Watts | $32-20,000$ | 55 55 | $81 / 4$ | $35 / 8$ |  | $5$ | $\begin{array}{r} 54.95 \\ 84.95 \end{array}$ | $\begin{array}{r} 55.95 \\ 8595 \end{array}$ |
| 34A464-8 | 12', 3-Way Coax | 201 | $11 / 2^{\prime \prime}$ | 45 Watts | 23-20,000 | 25 | 121/4 | 57/8 | $11_{18 \prime \prime}$ | 13 | 84.95 | 85.95 |

GRILLE FABRICS BY ACOUSTONE
Patterns and colors to match every furniture style and color


1


7 Fig. Stk. No. 1 34A8074-7

Size Pattern S.3 Tahiti Cane - Natural cane stands out on a
$\begin{array}{llll}2 & 34 A 8018-4 & 36 \times 36^{\prime \prime} & \text { B-2412 }\end{array} \begin{aligned} & \text { Tahiti Cane - Natural cane stands out on a } \\ & \text { dark background. }\end{aligned}$ cane with mahogany tones.
4 34A8080-4 $36 \times 36^{\prime \prime}$ B-2162 Black Weave - Standard square weave used by speaker manufacturers.
5 34A8052-3 36 $\times 36^{\prime \prime}$ C-2440 Black Plaid - Soft jet-black yarn in plaid style.
6 34A8026-7 $36 \times 36^{\prime \prime}$ C-4542 Black Magic - Three dimensional black plastic allover for dramatic contrast.


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g


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6
 audlolex

## POLYCOUSTIC

 FOAM GRILLESFor a professionally finished speaker cabinet. Acoustically transparent, flexible, long life urethane foam is easy to trim to fit exact cabinet size. Deep, rich brown color, $3 / 4$ thick. 34A8090-3. $30-353.11^{1 / 2} 2^{\prime \prime} \times 171 / 2^{\prime \prime}$. Shpg wt. $11 / 2 \mathrm{lbs}$.
Each
3448091 30-354 17 $1_{2 \prime \prime}^{\prime \prime} 23 \%^{\prime \prime}$
wt. 2 lbs .
Each ..
$\$ 8.95$
(11)

Fig. Stk. No. Size Pattern Description
7 34A8032-5 36X36" C-6423 Eggshell Waffle - Pale ivory and white with 8 34A8036-6 $36 \times 36^{\prime \prime}$ D-6000 3D Modern - Walnut hexagonal with rust centers popping out from a black base.
9 34A8056-4 - $36 \times 36^{\prime \prime}$ C- 2675 Autumn - Hexagonal reddish-brown
and amber yarn over black background.
10 34A8054-9 $36 \times 36^{\prime \prime}$ B-2512 Jungle Reed - Olive cane look vs. brown
11 34A8066-3 36X36" D-3001 Casino Red - Tightly latticed crimson diamond design for subtle beauty.
12 34A8088-7 36 3 36" D.7301 Oriental Red - Red and gold woven with rich oriental design overlaid in black.

A new concept in speaker system design - a new standard in speaker performance.
 515100


## B.IC VENTURI

FORMULA 1
5744 uch
FORMULA 6
s295
부
FORMULA 2 S是 50

FORMULA 1 - Same main features as the larger models: BIC Venturi principle with $8^{\prime \prime}$ 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: $161 / 2 \times 10$ $7 / 8 \times 10^{\prime \prime}$ D. Shpg. wt. 23 lbs .
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 $8^{\prime \prime}$ 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: $193 / 4 \times 12 \times 111 / 2^{\prime \prime} \mathrm{D}$. Shpg. wt. 30 lbs .
51A2198-8. Formula 2. Each
$\$ 119.50$

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 $10^{\prime \prime}$ 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: $25 \times 131 / 4 \times 13^{\prime \prime}$ D. Shpg. wt. 47 lbs .
51 A2203-6. 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 $12^{\prime \prime}$ woofer for deep, rich bass, two $5^{\prime \prime}$ 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 reasonablé 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: $261 / 4$ $\times 153 / 4 \times 14^{3 / 4} 4^{\prime \prime} \mathrm{D}$. Shpg. wt. 64 lbs .
51A2208-5. Formula 6. Each
$\$ 295.00$

- Wider dynamic range.
- Accurate reproduction.


# BHCV=NTURI 

## introduces two new speaker systems

## that think!

## THE MONITOR SERIES



T-SLOT TRANSDUCER MEANS REMARKABLE SOUND DISPERSION


SPEAKER OVERIOAD INDICATORS CIRCUIT BREAKERS LET YOU
PIN-POINT SOURCE OF OVERLOAD


DYNAMIC BALANCE COMPENSATION INTERPRETS SOUND, ADJUSTS frequency

MIDRANGE/TRE日LE


MIDRANGE/TREBLE CONTROL
CALIBRATED IN DB's.


FORMULA 5 MONITOR SERIES


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 $96 \mathrm{~dB} / \mathrm{SPL}$ @ 1 watt, $1 \mathrm{me}-$ ter. Nominal impedance 6 ohms. Bass $10^{\prime \prime}$ 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: $26 \mathrm{H} \times 14^{1 / 4} \mathrm{~W} \times 121 / 4^{\prime \prime} \mathrm{D}$. Shpg. wt. 49 lbs.

$$
\begin{aligned}
& \text { 51A2298-6 } \\
& \text { Formula 5. Each } \ldots \ldots \ldots \ldots \ldots \ldots \text {. } . \ldots .{ }^{95}
\end{aligned}
$$



SOUND PRESSURE LEVEL INDICATORS BALANCE AMP TO ACOUSTICAL PROPERTIES OF ROOM

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.

Formula 7. Specifications: 125 watts maximum. Response 20 Hz to 30 KHz . Sensitivity $99 \mathrm{~dB} / \mathrm{SPL}$ @ 1 watt, 1 meter. Nominal impedance 6 ohms. Bass $12^{\prime \prime}$ Hi Flux, heavy duty. Mid-range and treble T-Slot Horn. Cabinet and front grille same as Formula 5. Size: $41 \mathrm{H} \times 16 \mathrm{~W} \times 13^{3 / 4} 4^{\prime \prime}$ D. Shpg. wt. 81 lbs .

51A2299-4.
Formula 7. Each
$5 / 4,500$

## 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 $10^{\prime \prime}$ long excursion woofer. Copper voice coil is $2^{\prime \prime}$ 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 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 direct radiator combines large voice coil interacting with a powertul magnetic potential tor efficiency a and ransient reproduction.
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 40 dB ; high frequency direct radiator sensitivity 41 dB . Encased in beautiful natural oak veneer cabinet with handrubbed oiled finish and stretch fabric grille.
 Blue available on special order at the same price.
51A2190-5. Brown Grille EACH
$\$ 168.00$


MODEL $\angle 36$ DECADE LOUDSPEAKER SYSTEM
${ }^{5} 225$
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 $12^{\prime \prime}$ 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 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: $231 / 2^{\prime \prime} \mathrm{H} \times 141 / 2^{\prime \prime} \mathrm{W} \times 13-5 / 8^{\prime \prime} \mathrm{D}$. Shpg, wt. 55 lbs . With brown grille.
51A2115-2. Model L-100. Each
$\$ 333.00$

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 $150^{\circ}$ at 20 Khz . Nominal impedance 8 ohms. Cross-



## JUBL <br> MODEL $\angle 166$ HORIZON LOUDSPEAKER SYSTEM $\$ 399$

# FLOOR STANDING LOUDSPEAKER SYSTEMS <br> JUBAL LOUDSPEAKER SYSTEM <br> MODEL 165 <br> Beautiful Decorator Styling <br> IJBL STUDIO MASTER LOUDSPEAKER SYSTEM MODEL L200b <br>  

## MODEL L300 SUMMIT LOUDSPEAKER SYSTEM

One of the most successful loudspeaker designs JBL has produced for the recording industry, the 1300 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 $13 / 4$-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 $120^{\circ}$ horizontal $\times 40^{\circ}$ 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 $31 / 4$-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 $130^{\circ}$ horizontal $\times 40^{\circ}$ 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 $15-\mathrm{ft}$. distance. Dimensions: $31-5 / 8^{\prime \prime} \mathrm{Hx}$ $23^{\prime \prime}$ W $\times 221 / 2^{\prime \prime}$ D. Shpg. wt. 145 lbs.
51A2281-2. Model L300. Brown Grille. Each
$\$ 960.00$

## MODEL L65 JUBAL LOUDSPEAKER SYSTEM

The Jubal 165 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 L 65 reproduces extremely lifelike vocals and clear, welldefined midrange tones even at loud listening levels.

The highest frequencies are handled with crystal-like clarity by an ultra' high frequency ring radiator. The 165 is a beautifully scaled floor system with a spar$k$ ling 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 $130^{\circ}$ degrees horizontal, $40^{\circ}$ vertical; crossover frequencies 1000 and 6500 Hz ; nominal impedance 8 ohms Dimensions: $241 / 2^{\prime \prime} \mathrm{H} \times 171 / 2^{\prime \prime} \mathrm{W} \times 131 / \mathbf{"}^{\prime \prime} \mathrm{D}$.
Shpg. wt. 67 lbs.
51A2256-4. Model L65. Brown Grille. Each
\$462.00

## 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 pertormance that is clean, crisp and effortless is provided by a 15 -inch low frequency loudspeaker driven by a 12 -pound, lowloss 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 $11 / 4$-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 $120^{\circ}$ horizontal arc, restricting vertical dispersion to $40^{\circ}$. 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 life time. 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 $120^{\circ}$ horizontal, $40^{\circ}$ vertical; crossover frequency 800 Hz . Dimensions: $323 / 4^{\prime \prime} \mathrm{H} \times 23-7 / 8^{\prime \prime} \mathrm{W} \times 211 / 4^{\prime \prime} \mathrm{D}$. Shpg. wt. 131 lbs .
51 A2280-4. Model L200B. Blue Grille. Each
$\$ 753.00$


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.

NETWORK SELECTION CHART. INPUT IMPEDANCE 8 OHMS ON ALL MODELS.

| Stock <br> No. | Network Model | System Power Capacity | Crossover Frequency | Low Frequency Loudspeaker | High Frequency transducer | Horn/Lens Assembly | Level Control Note | Shpg. <br> Wt. Lbs. | Network Only Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34A1032-2 | LX2 | 35 watts | 2500 Hz | D123, D208 | LE20 |  | A | 2 | \$33.00 |
| 34A1033-0 | LX5 | 100 watts( | 500 Hz | LE15A | LE175, LE85, 375(3) | HL91, HL93 | B | 6 | 90.00 |
| 34A1034-8 | Lx8 | 35 watts | 2000 Hz | LE14A | LE20 |  | B | 2 | 42.00 |
| 34A1035-5 | [x10 | 50 watts | 1500 Hz | LE14A | LE175, LE85 | HL87, HL91 | A | 2 | 39.00 |
| 34A1036-3 | [X1] | 35 watts | 2500 Hz | LEIOA | LE20 |  | B | 2 | 33.00 |
| 34A1045-4 | LX50 | 125 watts | 500 Hz | 136A | 375 | HL88, HL89, HL90 | 90 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, HL9O | 90 | 14 | 147.00 |
| 34A1041-3 | N802 | 125 watts | 800 Hz | 130A | 375 | HL88, HL89, HL9O | 90 C | 14 | 147.00 |
| 34A1037-1 | N1200 | 60 watts | 1200 Hz | D130,D131,130A | L175, LE85 | HL87, HL91 | B | 4 | 57.00 |
| 34A1038-9 | N2400 | 35 watts | 2500 Hz | D130,D131,D123 | 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 | 12 | 36.00 |

Level control Note A: Continuously Variable.
Level control Note B: 3 Position Switch. Level control Note C: 5 Position Strap.
(1) 125 watts when the 375 compression driver and the HL93 horn/lens are used.
(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.


## 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 $13-1 / 16^{\prime \prime}$ 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 $15^{\prime \prime}$ 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 $12^{\prime \prime}$ 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.
34A1044-7. Shpg. Wt. 1 lb . Each .
\$6.25

## () PIONEER BOOKSHELF SPEAKER SYSTEMS

HPM-40


## 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 $13 / 4$-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 $35-25,000 \mathrm{~Hz}$. Impedance 8 ohms. Dimenpower 40 watts. Frequency response $35-25,000 \mathrm{~Hz}$. impedance
sions: $12-13 / 16^{\prime \prime} \mathrm{W} \times 22-7 / 16^{\prime \prime} \mathrm{H} \times 121^{\prime \prime} \mathrm{D}$. Shpg. wt . 31 lbs .
51A2288-7. Model HPM-40. Each
$\$ 150.00$

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

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 $13 / 4$-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 frequencies assuring natural sound quality even at loud listening levels. Cabi-

HPM-60


HPM-100

netry 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 $35-25,000 \mathrm{~Hz}$. Impedance 8 ohms. Dimensions: 13 $25 / 32^{\prime \prime} \mathrm{W} \times 24^{\prime \prime} \mathrm{H} \times 12-5 / 8^{\prime \prime} \mathrm{D}$.
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 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 $13 / 4$-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 $25,000 \mathrm{~Hz}$. Impedance 8 ohms. Dimensions: $15-3 / 8^{\prime \prime} \mathrm{W} \times 26-3 / 8^{\prime \prime} \mathrm{H} \times 151 / 2^{\prime \prime} \mathrm{D}$. Shpg. wt. 61 lbs.
51A2290-3. Model HPM-100. Each
$\$ 300.00$

## 



## 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 woofer Virtually flat response curve demonstrates the quality and care which Marantz uses in building these speakers. $13 / 4^{\prime \prime}$ tweeter reproduces excellent crystal-clear highs for the best in home music enjoyment. The combination of these two speak. ers 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: $60-15,000 \mathrm{~Hz}$. Max. input power: 15 watts continuous. Nominal impedance: 8 ohms. Size: $191 / 8^{\prime \prime} \mathrm{H} . \mathrm{X} 111 / 4^{\prime \prime} \mathrm{W} . \mathrm{X} 81 / 2^{\prime \prime} \mathrm{D}$. Shpg. wt. 23 lbs.
51A2218-4. Imperial 4G. Each
$\$ 59.95$

## 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 $8^{\prime \prime}$ woofer assures you of topquality high efficiency bass for excellent results with even the lowest powered amplifier. $3^{1 / 2 \text { " }}$ 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: $45-16,000 \mathrm{~Hz}$. Power rating: 15 watts continuous. Nominal impedance: 8 ohms. Size: $23^{\prime \prime} \mathrm{H} . \mathrm{X}$ $12^{\prime \prime}$ W. X $91 / 2^{\prime \prime}$ D. Shpg. wt. 25 lbs .
51A2219-2. Imperial 5G. Each
$\$ 99.95$

## IMPERIAL 7 3-WAY BOOKSHELF SYSTEM

This bookshelf system fills even the largest room with full, natural sound. Heavyduty, $12^{\prime \prime}$ woofer with large voice coil and massive magnet provides full, rich bass with highest efficiency. $31 / 2^{\prime \prime}$ mid-range speaker permits a very smooth, natural transition from the woofer to the tweeter. $1^{3 / 4}$ " 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: $40-20,000 \mathrm{~Hz}$. Power rating: 50 watts continuous. Nominal impedance: 8 ohms. Size: $251 / 2^{\prime \prime}$ H. X $14^{1 / 4} 4^{\prime \prime}$ W. X $11^{1 / 2 "}$ D. Shpg. wt. 50 lbs .
51A2221-8. Imperial 7. Each
\$199.95


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 limits of perfect sound production.
The unmatched performance of the ESS Heil arir-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-of-the-art high fidelity as it now exists.

## amt 10b

$\$ 298$


## 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 funedport 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/briliance attenuator control affecting all frequencies from 1500 Hz up. Dimensions: $24^{\prime \prime} \mathrm{H}$ $\times 14^{\prime \prime} \mathrm{W} \times 14^{\prime \prime} \mathrm{D}$. Shpg. wt. 58 lbs .

## 51A2297-8. Model amt 10b. Each

$\$ 298.00$

## amt 1a

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: $351 / 4^{\prime \prime} \mathrm{H} \times 161 / 4^{\prime \prime} \mathrm{W} \times$ panel on the top of the wo
$161 / 4^{\prime \prime} \mathrm{D}$. Shpg. wt. 90 lbs .
51A2284-6. Model amt 1a. Each
$\$ 427.00$

## © tempest <br> HEIL AIR-MOTION TRANSFORMER LOUDSPEAKER SYSTEMS

## LAB SERIES 3 E

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 $3 E$ 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: $\mathbf{2 2 " H}^{\prime \prime}$ H. X $121 / 4^{\prime \prime}$ W. X 10-5/8" D. Shpg. wt. 35 lbs .
51A2274-7. Lab Series 3E. Each
$\$ 122.00$

## 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: $241 / 2^{\prime \prime}$ H. X $131 / 4^{\prime \prime}$ W. X $131 / 2^{\prime \prime}$ D. Shpg. wt. 45 lbs .
51A2273-9. Lab Series 2. Each
$\$ 186.00$

## LAB SERIES 1

Largest and most powerful of the line, the Tempest Lab Series 1 combines a massive $12^{\prime \prime}$ woofer with the most advanced tweeter ever developed - the Heil airmotion transformer.
The Lab Series I'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 grile 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 RMS output.
Dimensions: 27" H. X 15" W. X 13-7/8" D. Shpg. wt. 55 lbs.
51A2272-1. Lab Series 1. Each
$\$ 237.00$

# Technics <br> by 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.


## $\$ 199^{95}$

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 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 $14,000 \mathrm{~Hz}$, using Cr02 tape with $\mathrm{S} / \mathrm{N}$ ratio better than 55 db in Dolby operation. For 120 VAC, $50 / 60 \mathrm{~Hz}$. Size: $5^{\prime \prime} \mathrm{H} . \mathrm{X} 14^{\prime \prime}$ W. X $9-5 / 8^{\prime \prime}$ D. Shpg. wt. 12 lbs . Complete with 2 connection cords.

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 RS630US achieves new standards of excellence.
Features Dolby* Noise Reduction System for noisefree, professional quality recording. Unique level meters give you precise recording control. Combine exters give you precise $\times 1 / 2^{\prime \prime}$ ) with the ability to indicate
tra-large size $\left(11 / 2^{\prime \prime} \times 21{ }^{\prime \prime}\right.$. tra- either normal or "Peak Check" mode. In the "Peak in either normal or "Peak Cuneck mode. In 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/CrO2 tape switch, super alloy record/playback head, mic/line input selector switch, lockable pause control, threedigit tape counter and auto-stop mechanism.
Specifications: Freq. res. $30-16,000 \mathrm{~Hz}$ with CrO 2 tape, $30-14,000 \mathrm{~Hz}$ with high energy tape. $\mathrm{S} / \mathrm{N}$ ratio 63 dB with Dolby. Wow and flutter $0.09 \%$ WRMS. Dimensions: $5-5 / 8^{\prime \prime} \mathrm{H} \times 171 / 8^{\prime \prime} \mathrm{W} \times 12-5 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 20 lbs.
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.
Specifications: Freq. res. $30-17,000 \mathrm{~Hz}$ with CrO 2 tape, $30-15,000 \mathrm{~Hz}$ with high energy tape. $\mathrm{S} / \mathrm{N}$ ratio 65 dB with Dolby. Wow and Flutter $0.075 \%$ WRMS. Dimensions: $5-5 / 8^{\prime \prime} \mathrm{H} \times 171 / 4^{\prime \prime} \mathrm{W} \times 13^{\prime \prime} \mathrm{D}$. Shpg. wt. 25 lbs.
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 twomotor 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 Dol-by*-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 deck to your receiver, without recording, tor ordinary listening of Dolby FM broadcasts. Remote control unit
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 Mic amp and level control, Memory-Play for replaying an earlier selection, Auto-Stop mechanism.
Specifications: Freq. Res. $30-17,000 \mathrm{~Hz}$ with CrO 2 tape, 30-15,000 with high energy tape. $\mathrm{S} / \mathrm{N}$ ratio 65 dB with Dolby. Wow and Flutter $0.07 \%$ WRMS. Dimensions: $5-5 / 8^{\prime \prime} \mathrm{H} . \times 17^{1 / 4^{\prime \prime} \text { W. } \times 131 / 4^{\prime \prime} \text { D. Shpg. wt. } . \text {. }{ }^{2} \text {. }}$ 28 lbs.
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 WITH 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-ot-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 CrO2 tape selector switch, auto-stop, stereo headphone jack and comes complete with audio patch cables.
Specifications: Frequency response of $50-13,000 \mathrm{~Hz} ; \mathrm{S} / \mathrm{N}$ ratio Dolby ON 60 dB, Dolby OFF 53 dB ; Wow and flutter $0.2 \%$ RMS; Speed accuracy $+2.5 \%$. Power source $120 \mathrm{VAC}, 60 \mathrm{~Hz}$. Dimensions: $13 \frac{1 / 4}{}{ }^{\prime \prime} \mathrm{W} \times 10^{1 / 2}{ }^{\prime \prime} \mathrm{D} \times 4 \frac{112}{\prime \prime} \mathrm{H}$. Shpg. wt. 13 lbs .

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


RD5300 DELUXE VERTICAL DESIGN FRONT LOAD CASSETTE DECK WITH DOLBY-

## s17995

- 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 $\mathrm{CrO2} / \mathrm{FeCr} / \mathrm{Normal}$ 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 $30-14,000 \mathrm{~Hz}$. S/N ratio Dolby ON 63 dB, Dolby OFF 57 dB . Wow and flutter $0.10 \%$ RMS. Speed accuracy $+2.0 \%$. Power source $120 \mathrm{VAC}, 60 \mathrm{~Hz}$. Dimensions: $16 \frac{1}{2} 2^{\prime \prime} \mathrm{W} \times 101 / 2{ }^{\prime \prime} \mathrm{D} \times 6^{\prime \prime} \mathrm{H}$. Shpg. wt. 16 lbs .


# DOLBY* STEREO CASSETTE DECKS SONY 

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



## \$14995

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 noisé 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, 60 Hz , Recording System: Quarter-Track Stereo, Rewind and Fast-Forward Time: 90 sec./C-60, Frequency Response: Standard Tape: 40 Hz to $10 \mathrm{kHz}, \mathrm{FeCr}$ and $\mathrm{CrO} 2: 40 \mathrm{~Hz}$ to 13 kHz , Signal-to-Noise Ratio: Standard Tape: $44 \mathrm{~dB}, \mathrm{FeCr}$ and $\mathrm{CrO} 2: 46 \mathrm{~dB}$, Wow and Flutter: $0.2 \%$, Bias Frequency: 85 kHz , Head Configuration: 1 HalfTrack Erase, 1 Quarter-Track Record/Playback, Type of Motor: DC Servo Motor 1 Dimensions: $14-3 / 16^{\prime \prime} \mathrm{W} \times 4-1 / 16^{\prime \prime} \mathrm{H} \times 9-5 / 16^{\prime \prime} \mathrm{D}$. Shpg. wt. 7 lbs.
54A7643-5. Model TC-117. Each
$\$ 149.95$

- 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 cassette deck.
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 frequency response. Servo-control Motor keeps tape speed constant, despite fluctuations in current.
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 portability.
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 $\mathrm{sec} . / \mathrm{C}-60$, Frequency Response: Standard Tape: 30 Hz to $13 \mathrm{kHz}, \mathrm{FeCr}$ and $\mathrm{CrO} 2:(30 \mathrm{~Hz}$ to $15 \mathrm{kHz} \pm 3 \mathrm{~dB}$.), Signal-to-Noise Ratio: Dolby Off; Standard Tape: $53 \mathrm{~dB}, \mathrm{FeCr}$ and $\mathrm{CrO} 2: 55 \mathrm{~dB}$, (PBEQ Time Constant - 70 micro sec.), Dolby On: Increased by 5 dB or more (a) 1 kHz and 10 dB or more @ 5 kHz , Wow and Flutter: $0.15 \%$ RMS (NAB Weighted), Bias Frequency: 105 kHz , Head Configuration: 1 Half-Track Erase, 1 Quarter-Track Record/Playback, Type of Motor: DC Servo Motor x 1, Built-In Speaker: $4^{\prime \prime}$ Diameter
Dimensions: $14-7 / 8^{\prime \prime} \mathrm{W} \times 41 / 4^{\prime \prime} \mathrm{H} \times 9-3 / 8^{\prime \prime} \mathrm{D}$ Unit Weight: $11 \mathrm{lbs} ., 15$ ozs.
54A7644-3. Model TC-153SD. Each
\$369.95

## @) PIONEER

MODEL CT-F2 121

## 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 $\mathrm{CrO}_{2}$ 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-ife 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 $13,000 \mathrm{~Hz}(40$ to $11,000 \mathrm{~Hz} \pm 3 \mathrm{db})$; Chromium dioxide tape; 30 to $16,000 \mathrm{~Hz}$ ( 40 to $12,000 \mathrm{~Hz} \pm 3 \mathrm{db}$ ). 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-tonoise ratio is further improved by 4.5 db over 5 KHz . Power consumption: 13 watts (max). Heads: "Permalloy solid" recording/playback head X1. Ferrite erasing head X 1. Motor: electronically-controlled DC motor. Fast winding time: approximately 80 seconds (C-60 tape).
Dimensions: $133 / 4^{\prime \prime}$ W. X $5-5 / 8^{\prime \prime} \mathrm{H} . \times 111 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 18 lbs.
54A7649-2. Model CT-F2121.
Less walnut finished hardwood cabinet. Each . . . . . . . . . . . . . . . . \$200.00
54A7646-8. WC-2121. Walnut Finished Hardwood Cabinet for above. Each

## OPEN REEL



## MODEL A-2300SX STEREO TAPE DECK

## - SOUND-ON-SOUND CAPABIIITIES <br> - SEPARATE 2-POSITION BIAS AND Equalization

## \$57!50

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 $71 / 2$ ips and $33 / 4 \mathrm{ips}$. Reel size $7^{\prime \prime}$. Frequency Response $40-24,000 \mathrm{~Hz} \pm 3 \mathrm{~dB}(71 / 2 \mathrm{ips})$, $40-16,000 \mathrm{~Hz} \pm 3 \mathrm{~dB}(33 / 4 \mathrm{ips})$. $\mathrm{S} / \mathrm{N}$ ratio 58 db . Harmonic distortion less than $1 \%$ at 1 kHz . Wow \& flutter $0.08 \%$ ( $71 / 2 \mathrm{ips}$ ), $0.10 \%$ ( $33 / 4 \mathrm{ips}$ ). Dimensions: $17-5 / 16^{\prime \prime} \mathrm{W}$. $\times 15$ $7 / 16^{\prime \prime}$ H. x 8-5/16" D. Shpg. wt. $411 / 2 \mathrm{lbs}$.
54A5131-3. Model A-2300SX. Each
\$579.50

# - MICRO-SWITCH TRANSPORT CONTROLS SEPARATE MIC/LINE LEVEL CONTROLS <br> - UP TO 10 $1 / 2^{\prime \prime}$ REEL 



Ready for the active recordist, the A-3300SX takes up to $101 / 2^{\prime \prime}$ 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 $71 / 2$ and $33 / 4 \mathrm{ips}$; reel size up to $101 / 2{ }^{\prime \prime} ; 3$ motors, 1 dual speed hysteresis synchronous capstan motor, 2 eddy current induction reel motors. Wow and Flutter $0.06 \%(71 / 2 \mathrm{ips}), 0.09 \%$ ( $3^{3} 3 / 4 \mathrm{ips}$ ). Frequency response: $40-24,000 \mathrm{~Hz} \pm 3 \mathrm{~dB}$ @ $71 / 2$ ips, $40-16,000 \mathrm{~Hz} \pm 3 \mathrm{~dB}$ @ $33 / 4 \mathrm{ips}$. Signal-to-noise ratio 58 dB . Harmonic distortion less than $1 \%$ @ 1 kHz. Dimensions: $17-5 / 16^{\prime \prime}$ W. $\times 17-5 / 16^{\prime \prime} \mathrm{H} . \times 8-5 / 16^{\prime \prime}$ D. Shpg. wt. 46 lbs .
54A5132-1. Model A-3300SX. Each
$\$ 699.50$


QOTEAC.
MODEL A-4300SX AUTO-REVERSE STEREO TAPE DECK

## - AUTO-REVERSE HEAD <br> - auto repeat memory <br> - 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 $71 / 2$ and $33 / 4 \mathrm{ips}$. Wow \& flutter $0.06 \%$ ( $71 / 2 \mathrm{ips}$ ), $0.09 \%$ ( $33 / 4 \mathrm{ips}$ ). Frequency Response: $40-24,000 \mathrm{~Hz}$ $\pm 3 \mathrm{~dB}$ @ $7^{1 / 2}$ ips, $40-16,000 \pm 3 \mathrm{~dB}$ @ $3 \frac{1 / 4}{} \mathrm{ips}$. Signal-to-noise ratio 58 db . Harmonic Distortion less than $1 \%$ @ 1 kHz . Dimensions: $17-5 / 16^{\prime \prime}$ W. $\times 191 / 4^{\prime \prime} \mathrm{H} . \times 81 / 2^{\prime \prime} \mathrm{D}$. Shpg. wt. 53 lbs .
54A5133-9. Model A-4300SX. Each
$\$ 699.50$


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 imper－ vious to voltage fluctuations or temperature changes．Almost totally free of start－ ing 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 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＊
## $\$ 529^{50}$

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 the ilip of and two LED peak indicators． limiter are provided．Two VU－type loudness meters and two LED peak indicapers． Specifications：Wow \＆flutter $0.06 \%$ Frequency response：High energy tape 30 － $13,000 \mathrm{~Hz}, \mathrm{CrO}_{2}$ tape $30-16,000 \mathrm{~Hz}$ ．Outputs，line 0.3 V ／load impedance： 50 k ohms or more．Signal－to－noise ratio weighted with Dolby ${ }^{\circ} 67 \mathrm{db}$ ．Dimensions： $7^{\prime \prime}$ H．$\times 17-5 / 16^{\prime \prime}$ W．$\times 12-13 / 16^{\prime \prime}$ 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 as sures 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 you get the highest quality sound from any tape．．tors．Individual input and out－
 line input controls and a center mic function allow you to create the mix you

## TEAC <br> MAGNETIC TAPE SYSTEMS <br> MODEL A－420 STEREO CASSETTE DECK WITH DOLBY＊

 $\$ 349^{50}$want．Three－digit tape counter，reset button and timer control input．
Specifications：Wow and flutter $0.07 \%$ ．Frequency response：high energy tape Specifications：Wow and flitter 0.0 Hz ．Srequency reisponselto－noise ratio weighted with Dol－
$30-13,000 ~ H z, C r O 2 ~ t a p e ~$
$30-16,000$ $30-13,000 \mathrm{~Hz}, \mathrm{CrO} 2$ tape $30-10,000 \mathrm{~Hz}$ ．Signal－to－noise ratio weighted with
by $* 65 \mathrm{db}$ ．Outputs，line 0.775 V for load impedance of 50 K ohms or more．In－ by＊ 65 db ．Outputs，line 0.775 V for load impedance of 50 K ohms or more．In－
puts，line 60 mV ， 50 K ohms or more．Mic， $0.25 \mathrm{mV} / .72 \mathrm{db}$（ 600 ohms or more）． puts，line 60 mV ， 50 K ohms or more．Mic， $0.25 \mathrm{mV} /-72 \mathrm{db}$（bs．
Dimensions： $61 / 8^{\prime \prime} \mathrm{H} . \mathrm{x} 17-3 / 8^{\prime \prime} \mathrm{W} . \mathrm{x} 111 / 4^{\prime \prime} \mathrm{D}$ ．Shpg．wt． 16 lbs．
54A7671－6．
Model A－420．Each
$\$ 349.50$


Perfect for the recording enthusiast who wants many of the features and func－ tions of more expensive cassette decks，at a low price．Independent düal concen－ tric level controls allow you to mix line and mic signals．And a center mic func－ tion 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 meters to gand separate bias and equalization switches，memory stop，and con－ trol facilities make the A－150 an outstanding value．

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

 $\$ 249^{50}$Specifications：Frequency Response：high energy tape $30-12,000 \mathrm{~Hz}, \mathrm{CrO}_{2}$ tape $30-15,000 \mathrm{~Hz}$ ．Wow and Flutter $0.09 \%$ ．Signal－to－noise：weighted with Dolby＊ 60 db ．Outputs，line： 0.3 V for load impedance of 50 K ohms or more．Head－ phones 8 ohms．Power requirement 117 VAC 60 Hz ．Dimensions： $6-3 / 8^{\prime \prime} \mathrm{H} . \times 16^{1 / 8}{ }^{\prime \prime}$ phones 8 ohms．Power requireme
$W . x 11-7 / 8^{\prime \prime} \mathrm{D}$ ．Shpg．wt． 20 lbs．

54A7670－8．
Model A－150．Each
$\$ 249.50$

## SONY TAPE RECORDER SYSTEMS FROM

## SUPERSCOPE



## SONY

MODEL TC-377

## DEIUXE THREE HEAD STEREO

 TAPE DECKSophisticated 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 another extra that simplifies recording while vibratten-free mor flus 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. Servocontrolled 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 $25,000 \mathrm{~Hz}$, at $7-1 / 2 \mathrm{ips}, 30$ to 9,000 Hz . at $1-7 / 8 \mathrm{ips}$; wow and flutter $0.09 \% ; \mathrm{S} / \mathrm{N}$ ratio 55 dB .; bias frequency 160 KHz .; quarter-track stereo recording and playback systems; rewinds 1200 ft . of tape in 120 seconds; power requirements $120 \mathrm{VAC}, 30$ watts, 60 Hz . Low impedance mike inputs with -72 db sensitivity. Size: $16^{1 / 2}{ }^{\prime \prime} \times 8-5 / 16^{\prime \prime} \times 15-7 / 16^{\prime \prime}$. Shpg. Wt. 26 lbs .
No54A5094-3Model TC-377. Each
\$399.95

## SONY

MODEL TC-645

## 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 playback and record heads, plus one ferrite erase head, assure long-term, highquality 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-oftape 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 $20 \mathrm{KHz} \pm 3 \mathrm{~dB}$ @ $71 / 2 \mathrm{ips}, 20 \mathrm{~Hz}$ to 17 KHz @ $33 / 4 \mathrm{ips}$. Wow and flutter $0.07 \%$ @ $71 / 2 \mathrm{ips}, 0.11 \%$ @ $31 / 4 \mathrm{ips}$. S/N Ratio 53 dB . Bias frequency 160 KHz . Recording system quarter-track stereo. Rewind and fastforward at $1200 \mathrm{ft} . / 60 \mathrm{sec}$. Two low impedance mike inputs with -72 dB sensitivity. Takes up to 7 -inch reel. Outputs: 2 line load impedance greater than 10 K tivity. Takes up to ohms stereo headphone jack impedance 8 ohms. Size: $14-7 / 8^{\prime \prime} \mathrm{W} \times 14-5 / 8^{\prime \prime} \mathrm{H}$ $\times 8-7 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 45 lbs.
54A5130-5. Model TC-645. Each


- $71 / 2,33 / 4$ 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. by PIONEER

MODEL RH-60

## s16995

## 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 $70-13,000 \mathrm{~Hz}$.
For 120 V 60 Hz . Size. $14^{3 / 4^{\prime \prime}} \times 4^{\prime \prime} / /^{\prime \prime} \times 17^{\prime \prime} / 8^{\prime \prime}$ Stor For $120 \mathrm{~V}, 60 \mathrm{~Hz}$. Size: $14^{1 / 4^{\prime \prime}} \times 4 \frac{1 / 2^{\prime \prime}}{} \times 10-7 / 8^{\prime \prime}$. Shpg. wt. 14 lbs .
54A7657-5. Model RH-60. Each
$\$ 169.95$


> Panasonic 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: $31 / 4^{\prime \prime} \mathrm{H} \times 7314^{\prime \prime} \mathrm{W} \times 9-3 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 8 lbs.
No. 54A7613-8. Model RS801AUS. Each
$\$ 49.95$

## @) PIONEER

MODEL H-R100 8-TRACK HOME STEREO RECORDING DECK WITH DOLBY* SYSTEM

## 5219"5



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. Threeposition 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 slay all programs through repeatedly. Permalloy head and positive tape-tohead 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: $30-15,000 \mathrm{~Hz}$. Fits into any modern stereo system providing an exciting medium for 8 -track adventures in sound. Size: $11-5 / 8^{\prime \prime} \mathrm{W} \times 4-5 / 8^{\prime \prime} \mathrm{H} \times 10-7 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 15 lbs.
No. 54A7641-9. Model HR-100. Each
\$219.95

* A trademark of Dolby Laboratories, Inc.


## Panasonic

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: $4-3 / 8^{\prime \prime} \mathrm{H} . \mathrm{X}, 121 / 2^{\prime \prime} \mathrm{W} . \times 91 / 2^{\prime \prime} \mathrm{D}$. Shpg. wt. 15 lbs .
No. 54A7612-0. Model RS-805US. Each
$\$ 99.95$

## SONYY/」VE MIXERS, SELECTOR, S/E AMPLIFIER



## SONY

## MODEL MX-6S STEREO/MONO MIXER

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{ }^{5} 39^{95}
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## SONY MODEL MX-6S STEREO/MONO MIXER

The easy and inexpensive route to sophisticated recordings. The $M X-6 S$ is ideal ar mike tor sound-on-sound recording. Mixes 3 low imped ance mikes and 3 high impedance aux. inputs, output is low level, low impedance stereo or monaural. Size: $13-7 / 8^{\prime \prime} \mathrm{W} \times 2-7 / 8^{\prime \prime} \mathrm{H} \times 4-9 / 16^{\prime \prime} \mathrm{D}$. 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 .
54A5 116-4. Model MX-8. Each
\$69.95

JVC

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

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An advanced facility for adjusting the frequency response of an audio system Most tone control systems have only bass and treble controls and only contro 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 $60 \mathrm{~Hz}, 250 \mathrm{~Hz}$ $1,000 \mathrm{~Hz}, 5,000 \mathrm{~Hz}$ and 10,000 or $15,000 \mathrm{~Hz}$. Each has a slide control giving $\pm 12 \mathrm{~dB}$ control over its frequency range, the slide controls have click positions every 2 dB . 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


MODEL MX-8


SONY

## SB-300 <br> TAPE RECORDER SELECTOR

## $\$ 59^{95}$

## 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.
54 A5 100-8. Model SB-300. Each
\$59.95

voice is around $1,000 \mathrm{~Hz}$ - this control can emphasize or de-emphasize vocals. The $5,000 \mathrm{~Hz}$ 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 playback sources.
Specifications: Freq. res. $20-30,000 \mathrm{~Hz}+0 /-0.5 \mathrm{~dB}$. Total harmonic distortion at 1 V less than $0.1 \%$. $\mathrm{S} / \mathrm{N}$ ratio better than 70 dB . For $100 \mathrm{~V} / 120 \mathrm{~V} / 220 \mathrm{~V} / 240 \mathrm{~V}$ AC selectable $50 / 60 \mathrm{~Hz}$. Size: $5^{1 / 4^{\prime \prime}} \mathrm{H} \times 7{ }^{1 / 2^{\prime \prime}} \mathrm{W} \times 10^{\prime \prime} \mathrm{D}$. Shpg. wt. 7 lbs .
53A970-0. Model SEA-10. Each
$\$ 129.95$

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## STEREO HEADPHONES <br> 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 leaves you feeling surrounded by the musicians．Frequen－ cy response 10 ． $20,000 \mathrm{~Hz}$ ．
Shpg．wt． 2 lbs．
53A6733－6．
$575^{00}$

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

Oversize diaphragm 4－sq．inches radiat－ ing area．Freq．res． $10-22,000 \mathrm{~Hz}$ ．Shpg． wt． 2 lbs．

53A6649－4．
$\$ 65^{00}$

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 requency response
 of $20-20,000 \mathrm{~Hz}$ Hear lowest bass and highest highs with clarity and pre－ cision．Volume／ balance controls each earcup．Shpg． wt． 2 lbs．

53A6754－2．


Technician／VFR．Fine tune to suit your own lis－ tening．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，super comfortable．Fre－ quency response 10 － $22,000 \mathrm{~Hz}$
Shpg．wt． 2 lbs．

53A6747－6
\＄7500

Model HV／1A．Stereo Decilite，super comfort－ able，lightweight．Now hear all 10 audible oc－ taves．Weighs a scant 9.5 ozs ．High velocity princi－ ple utilizes low mass moving diaphragm to achieve brilliant highs and deep rich bass．So light，so com－ fortable you may even forget you
 have it on，yet pro－ duces sound matched only by ＂top－of－the line＂ phones．Freq．res． $5-30,000 \mathrm{~Hz}$ ．With $10-\mathrm{ft}$ ．coiled cord． Shpg．wt． 2 lbs．

5̈3A6734－4．
$\$ 49^{95}$

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． $31 / 2$－inch dynamic re－ producers with over 9 －sq．inches of ra－ diating surface．
Foam－filled ear cush－ ions and $10-\mathrm{ft}$ ．cord． Shpg．wt． 2 lbs ．

## 53A6670－0．

$\$ 29^{95}$

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 $15-30,000 \mathrm{~Hz}$ ．Soft acoustical sponge ear cushions，ex． tendable headband with pivoting，self adjusting yokes．Coil cord with $10^{\prime}$ exten－ sion．Shpg．wt． 2 lbs

53A6730－2．
$\$ 54^{95}$

Model K／135．Extended Bass Response．Dynamic stereophones give superb performance over a wide frequency response of 10 to $18,000 \mathrm{~Hz}$ ，extending bass response to below audibility．Lightweight con－ struction and extra－wide，glove－soft vinyl headband别 make them extreme－ ＂Slimline＂styling makes your stereo look as great as sounds．Comes with $10-\mathrm{ft}$ ．cord．Weighs 15 ozs．，shpg．wt． 2 lbs．

53A6753－4．
53500

Modal KO $/ 727 B$ ．Deluxe stereo．One of the worla＇s most popular stereophones，provides out－ standing realism to delight any discriminating music lover．Wide range，highly sensitive reproducers fea ture $31 / 2$－inch driver．Foam－filled ear cushions form
good seal for high ambient noise can ambient noise can cellation．Frequency response $10-18,000$
$\mathrm{~Hz} . \quad 10-\mathrm{ft}$ ．coiled $\begin{array}{lll}\mathrm{Hz} . & 10-\mathrm{ft} . & \text { coiled } \\ \text { cord．Shpg．wt．} 2\end{array}$ lbs．

53A6588－4．
53445


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（1）KロらS HEADPHONE ACCESSORIES


Model EC－25KK Coiled Extension Cord． $25^{\prime}$ 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 di－ rectly 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 for 1 pair
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 $31 / 2$－inch dynamic drivers have over 6 －sq．inches of radiating area．Soft vinyl－cov－ ered foam head cushion for comfortable listening．


Frequency response of $10.16,000 \mathrm{~Hz}$ for extended bass re－ sponse． $10-\mathrm{ft}$ ．coiled cord with standara jack plug．Shpg．wt． 2 lbs ．

53A6622－1．
$\$ 2250$

## GUSロロRF TV STANDS, AUDIO CARTS

## SWIVEL PEDESTAL TV STAND <br> MODEL 7140



Brilliant chrome with dramatic jet black accents. $273 / 4{ }^{\prime \prime}$ 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 furnished. Top is $233 / 4^{\prime \prime}$ wide $\times 11^{3 / 4^{\prime \prime}}$ deep. Stands $273 / 4^{\prime \prime}$ high from floor. Shpg. Wt. 15 lbs .
55A4110-7. Model 7140. Each
\$29.95

## AUDIO CART <br> MODEL 1225

53995


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 $28-7 / 8^{\prime \prime} \mathrm{H} \times 253^{\prime \prime} \mathrm{W} \times 16.13 / 16^{\prime \prime} \mathrm{D}$. Middle shelf $21-7 / 8^{\prime \prime} \mathrm{H} \times 253 / 4^{\prime \prime} \mathrm{W} \times 16.13 / 16^{\prime \prime} \mathrm{D}$. Bottom shelf $6.11 / 32^{\prime \prime} \mathrm{H} \times$ $53^{\prime \prime} \mathrm{W} \times 16-13 / 16^{\prime \prime} \mathrm{D}$, with record holder. Carton size: $18-3 / 8^{\prime \prime} \times 5-5 / 8^{\prime \prime} \times$ $291 / \mathbf{s}^{\prime \prime}$. Shpg. wt. 26 lbs.
$\$ 29.95$

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: $26^{\prime \prime} \times 15^{3 / 4} \times 18^{\prime \prime} \mathrm{H}$. Shpg. Wt. 23 lbs.
55A4080-2. Model 6300. Each
\$29.95


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. Retainers furnished to organize and conceal connecting wires and black trim. Finished in wipe-clean carefree simulated plank, walnut veneer with black trim.
Easy to assemble with tool furnished. Size $73^{\prime \prime}$ high $\times 15^{\prime \prime}$ deep, shelf width Easy to assemble with too
$291 / 8{ }^{\prime \prime}$. Shpg. wt. 87 lbs .
55A9526-9. Model 1520. Each
\$119.95

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: $29-7 / 8^{\prime \prime} \mathrm{W} \times 171 / 2^{\prime \prime} \mathrm{D} \times 181 / 4^{\prime \prime} \mathrm{H}$. Usable top shelf is $28^{\prime \prime} \mathrm{W} \times 15^{\prime \prime} \mathrm{D}$, and is $171 / 4^{\prime \prime}$ above floor. Bottom shelf is $6^{1 / 2^{\prime \prime}}$ from floor. Carton size is $161 / 22^{\prime \prime} \mathrm{L} \times 4^{\prime \prime} \mathrm{W} \times 311 / 2^{\prime \prime} \mathrm{D}$.
55A8532-8. Model 1975-2. Each
\$29.95

## Panasonic COMPONENT MUSIC SYSTEMS

## SE-2600 COMPONENT MUSIC SYSTEM

## AM/FM STEREO RECEIVER WITH AUTOMATIC RECORD CHANGEP AND PICKERING V-15 STEREO MAGNETIC CARTRIDGE

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


## ${ }^{5} 2799^{95}$

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-funed 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 $11^{\prime \prime}$ 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 $16-11 / 16^{\prime \prime}$ D. Speakers: 21-7/8" H. X $131 / 2^{\prime \prime}$ W. X $8^{\prime \prime}$ D. Shpg. wt. 60 lbs.

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


## SE-2650 COMPONENT MUSIC SYSTEM <br> 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 100 Hz to 20 kHz with no more than $5 \%$ total harmonic disfortion,
- Deluxe 11" automatic record changer, automatic


## ${ }^{5} 3499^{95}$

 shut-off.Here's a coordinated stereo system that has everything you've been looking for ... and more!
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 switch.
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 $\mathrm{CrO}_{2} /$ normal tape selector. Simulated wood cabinet, plastic dust cover. Microphone and Stand included.
Dimensions: Control center: $8-5 / 8^{\prime \prime} \mathrm{H} \times 21-7 / 8^{\prime \prime} \mathrm{W} \times 16-11 / 16^{\prime \prime} \mathrm{D}$. Speakers: $21-7 / 8^{\prime \prime} \mathrm{H}$ $\times 131 / 2^{\prime \prime} W \times 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 62 lbs.
30A5134-6. Model SE-2650. Each
\$349.95

## SE-2680 COMPONENT MUSIC SYSTEM

## DELUXE AM/FM STEREO RADIO WITH 8-TRACK <br> 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 100 Hz to 20 kHz with no more than $5 \%$ total harmonic distortion.


## s34995

Get the most fror. 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 $11^{\prime \prime}$ 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" Hx

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 bot-tled-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 "THRUS$\mathrm{TER}^{\prime \prime}$ (SB-250) Speakers for the greatest sound around. Each. SB-250 speaker contains a $61 / 2^{\prime \prime}$ woofer, a $61 / 2^{\prime \prime}$ passive radiator (vibra-cone) tuned to 40 Hz , and a $21 / 2^{\prime \prime}$ tweeter. The crossover frequency is 8 KHz , 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.

## PanasonicLID 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 52995

- AUTOMATIC RECORDING LEVEL CONTROL
- CUE/PAUSE CONTROL
- DIAMOND STYLUS
- AFC ON FM FOR DRIFTFREE 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 $11^{\prime \prime}$ platter with cueing/pause control and diamond stylus. Calibrated anti-skate adjustment. 3 -speed furntable, for $331 / 3,45$, 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 $61 / 2$ " high-efficiency woofer, $61 / 2$ " passive radiator ("Vibra-Cone"), and $21 / 2^{\prime \prime}$ tweeter. Passive radiator tuned frequency 40 Hz , crossover frequency 8 kHz . Handles up to 20 watts power input, impedance 8 ohms. Dimensions: Control center: $9-15 / 16^{\prime \prime} \mathrm{H} . \times 19$ $11 / 16^{\prime \prime} \mathrm{W} . \times 16-11 / 16^{\prime \prime} \mathrm{D}$. Speakers: $21-7 / 8^{\prime \prime} \mathrm{H} . \times 131^{\prime \prime}$ W. $\times 8^{\prime \prime}$ 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 <br> 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 control.

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5249^{95}
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Panasonic has combined space-age technology and years of experienced craftsmanship 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 $11^{\prime \prime}$ automatic record changer and anti-skating control. Cueing lever and stylus pressure matic record changer and anti-skating control. Cueing lever and stylus pressure ity, long-life performance. Automatic Recording Level control assures quality recordings every time. Locking fast forward allows easy access to any portion of
the tape. Auto-Stop in record mode prevents accidental tape erasures. Air Suspension Speaker systems include two Panasonic SB-200R "Thrusters", - $61 / 2$ " high efficiency full range speakers with wizzer cone and $61 / 2^{\prime \prime}$ passive radiator ("vibra-cone" tuned to 40 Hz frequency); maximum power input 12 watts, impedance 8 ohms. (See page 37 for complete information on "Thrusters.") Front pane includes two MIC and headphone jacks, rear panel FM external antenna and aux speakers jacks. Beautiful simulated wood cabinet comes with hinged detachable dust cover. Complete with 8 -track head cleaning bar. Dimensions: Control Center $9.15 / 16^{\prime \prime} \mathrm{H} \times 19-11 / 16^{\prime \prime} \mathrm{W} \times 16-11 / 16^{\prime \prime} \mathrm{D}$; Speakers $21-7 / 8^{\prime \prime} \mathrm{H} \times$ $131 / 2^{\prime \prime} \mathrm{W} \times 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 56 lbs
30A5131-2. Model SE-3190. EACH


For exciting live performance sound, the RE-8126 features two SB-180 "Thrusters" Speaker Systems. These are air-suspension, $61 / 2^{\prime \prime}$ high efficiency speakers with $61 / 2$ " 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 tor 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 antenno. Complete with one microphone. Dimensions:
 W $\times 8^{\prime \prime}$ D. Shpg. wt. 41 lbs .
30A5129-6. Model RE-8126. Each

## STEREO MUSIC SYSTEM

FEATURING "THRUSTER" SPEAKERS

## Panasonic <br> MODEL SE-1240

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



- "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 $61 / 2$ inch high efficiency full range speakers with whizzer cones, $61 / 2^{\prime \prime}$ passive radiators (Vibra-Cone) with a 40 Hz 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.
$11^{\prime \prime}$ deluxe automatic record changer, with anti-skating adjustment and cueing control, ceramic cartridge with diamond stylus. Has hinged, detachable dust cover. The stereo cassefte player/recorder has automatic recording level control, auto-stop and a 3 digit tape counter. Has headphone jack. Simulated wood cabinets. Dimensions: center unit $19-11 / 16^{\prime \prime} \mathrm{W} \times 9-15 / 16^{\prime \prime} \mathrm{H} \times 16-11 / 16^{\prime \prime} \mathrm{D}$; speakers each $131 / 2^{\prime \prime} \mathrm{W} \times 21-7 / 8^{\prime \prime} \mathrm{H} \times 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 56 lbs .
30A5132-0. Model SE-1240. Each
\$279.95

## STEREO MUSIC SYSTEM

FEATURING
"THRUSTER" SPEAKERS

## Panasonic LTD

MODEL RE-7810

## AM/FM STEREO RADIO WITH BUILT-IN CASSETTE PLAYER/RECORDER $5199^{95}$

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

Top quality Panasonic engineering and performance in a cassette player/recorder and AM/FM Stereo receiver. Has two "Thrusters" SB-180 speaker systems with $61 / 22^{\prime \prime}$ high efficiency full range speakers, $6^{1 / 2} 2^{\prime \prime}$ passive radiator (Vi-bra-Cone) with a tuned frequency of 40 Hz , maximum power inpút 10 watts, 8 ohms impedance. See complete "Thrusters" information on page 37.
The stereo radio has IC FM funer 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/recorver features automatic recording level control, auto-stop, level meter, 3 digit tape counter, fast forward and pause controls. Microphone is included.

Dimensions: center unit $21-13 / 16^{\prime \prime} \mathrm{W} \times 4-3 / 8^{\prime \prime} \mathrm{H} \times 91^{\prime \prime} \mathrm{I}^{\prime \prime} \mathrm{D}$; speakers each 11 . $7 / 16^{\prime \prime} \mathrm{W} \times 181 / \mathrm{s}^{\prime \prime} \mathrm{H} \times 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 41 lbs .
30A5125-4. Model RE-7810. Each
$\$ 199.95$

## Panasonic <br> MODEL RE-8176 HOME MUSIC CENTER <br> FEATURING "THRUSTERS" SPEAKER SYSTEMS AM/FM STEREO RADIO WITH BUILT-IN 8-TRACK PLAYER AND RECORD CHANGER <br> 

- TWO "THRUSTERS" SPEAKER SYSTEMS FEATURING VIBRA-CONE.
- 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 $61 / 2$-inch high efficiency full range speakers, $61 / 2$-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 $18^{\prime \prime} \mathrm{W} . \times 9.9 / 16^{\prime \prime} \mathrm{H} . \times 16$ -
 Shpg. wt. 50 lbs.
No. 30A5128-8. Model RE-8176. Each
$\$ 199.95$
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 17314 W. $\times 4-15 / 16 \mathrm{H} . \times 15-7 / 8^{\prime \prime} \mathrm{D}$. Speaker size $11-7 / 16 \mathrm{~W} . \times 181 / 8 \mathrm{H} . \times 6-5 / 16^{\prime \prime} \mathrm{D}$. Shpg. wt. 46 lbs.
No. 30A5 127-0. RE-7016. Each
$\$ 179.95$

## Panasonic model re-sol6

 STEREO MUSIC SYSTEMAM/FM STEREO RADIO WITH CASSETTE PLAYER/ RECORDER AND RECORD CHANGER

## $5229^{95}$



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 $61 / 2$-inch high efficiency full range speakers, $61 / 2$-inch passive radiators ( $V \mathbf{V}$ -bra-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 $17 \frac{134^{\prime \prime} \mathrm{W} . \times 66^{\prime \prime} \mathrm{H} . \times}{}$ $16 \frac{1 / 8 "}{}{ }^{\prime \prime}$.; speakers each $11-7 / 16 \mathrm{~W} . \times 18 \frac{1 / 8 ~ H . ~}{} \times 8^{\prime \prime}$ D. Shpg. wt. 42 lbs
No. 30A5130-4. Model RE-8016. Each
\$229.95

## HOME STEREO SYSTEMS



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 noisefree 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 $8^{\prime \prime}$ woofers and $2-5 / 8^{\prime \prime}$ tweeters to handle lows, mids and highs brilligntly. The KH-5151 comes in handsome walnut-grained laminated vinyl cabinets. Dimensions: Control Center $201 / 8^{\prime \prime} \times 9.7 / 8^{\prime \prime} \times 15^{\prime \prime}$. Speakers: $13^{\prime \prime} \times$ $221 / 2^{\prime \prime} \times 8^{\prime \prime}$. Shpg. wt. 67 lbs.
30A5116-3. Model KH-5151. Each .
\$349.95

## CENTREX

## by PIONEER moon кh.s.sis

## 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.


## 5349"5

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 $18^{1 / 2^{\prime \prime}} \times 9-7 / 8^{\prime \prime} \times 15^{\prime \prime}$, Speakers same as KH-5151. Shpg. wt. 67 lbs .
30A5115-5. 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 $181^{1 / 2} \times 5-3 / 8^{\prime \prime} \times 14-7 / 8^{\prime \prime}$. Speakers same as KH5151. 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 tound only on the highest priced component sterea systems. complement to any decor, with slim, sleek lines and is a perfect complement to any decor, with slim, sleek lines and ems have Sony sensi-bass speakers using a $61 / 2$-inch active wooter/midrange, a $61 / 2$-inch passive radiator for even greater response and bass range, and a $21 / 2$. inch tweeter for extended highs. Speaker Dimensions: $15-13 / 16^{\prime \prime} \mathrm{H} \times 11-7 / 8^{\prime \prime} \mathrm{W}$ $\times 51 / 2^{\prime \prime}$ D.

EX2 system receiver delivers 9 watts per channel, minimum RMS at 8 ohms from 50 Hz to 15 KHz 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 30 dB quieting and a signal/noise ratio of 70 dB on $\mathrm{FM}, 50 \mathrm{~dB}$ on AM . Slide rule dial has FM and AM indication lines that light up when either is in use. Dimensions: $5-3 / 8^{\prime \prime} \mathrm{H} \times 16^{1 / 2^{\prime \prime}} \mathrm{W} \times 16^{1 / 4^{\prime \prime}} \mathrm{D}$. tion for $331 / 3$ and 45 rpm . Magnetic cartridge has a diamond stylus. Has vis-cous-damped cueing and built-in 45 rmp adaptor. System shpg. wt. 35 lbs .
30A5121-3. Model EX2 System. Each
\$250.00

## Panasonic <br> $\square$ <br> MODEL RQ-312S

## 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; $3^{1 / 2} 2^{\prime \prime}$ PM dynamic speaker produces 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: $3^{\prime \prime} \mathrm{H} . \times 63 / 4$ " W. X $10-3 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 5 lbs .

No. 31A2704-8. Model RQ-312S. Each
$\$ 59.95$
31A2674-3. RP-092. Rechargeable Battery Pack for above. Each .. \$14.95


Goes anywhere! Operates on $A C$ or 4 " $C$ " batteries. Built-in condenser mike picks up sound from every part of room clearly. Keyboard control permits onehand, 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 satety 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: $2^{3 / 4^{\prime \prime}} \mathrm{H} \times 5^{33 / 4}{ }^{\prime \prime} \mathrm{W} \times 10-3 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 6 lbs .
AC power co
$31 \mathrm{~A} 2669-3$.
Model RQ-309AS. Each
Optional Car/Boat Cord for RQ $309 A S$ plugs into cigar lighter.
\$39.95
31 A2586-9. Model RP-915. Each
Remote Microphone for RQ-309AS $\$ 5.95$

## 31A2651-1. Model WM2264. Each



## CENTREX by PIONEER

## BATTERY/AC PORTABLE CASSETTE RECORDER

- 2-WAY RECORDING LEVEL CONTROL
- large record level BATTERY METER
- PAUSE CONTROL

MODEL KD-12

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: $6-1 / 8^{\prime \prime} \mathrm{W} \times 3^{\prime \prime} \mathrm{H} \times 11-1 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 5 lbs .
31A2760-0. Model KD-12. Each
\$69.95

## Panasonic

DELUXE PROFESSIONAL QUALITY BATTERY/AC PORTABLE CASSETTE

- Review
button.
- ONE-TOUCH recording.
- DIGITAL TAPE counter.
- easy-matic CIRCUITRY.


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 $2-7 / 8^{\prime \prime} \mathrm{H}$. X $61 / 4^{\prime \prime}$ W. X $10-7 / 8^{\prime \prime} \mathrm{D}$. 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

## $\$ 2995$

- buItt-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. $3^{\prime \prime}$ dynamic speaker for great sound reproduction. Available in three stylish colors. Size: $7-5 / 8^{\prime \prime} \mathrm{H} \times 71 / 2^{\prime \prime} \mathrm{W} \times 31 / 2{ }^{\prime \prime} \mathrm{D}$. Shpg. wt. 4 lbs . three stylish colors. 31 A2746-9. WHITE
31A2747-7. BLUE
YOUR
CHOICE
EACH .
\$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 $\pm 10 \% \ldots$ 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; $\mathrm{CrO}_{2} / \mathrm{Normal}$ 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: $3-3 / 8^{\prime \prime} \mathrm{H} \times 91 / 4^{\prime \prime} \mathrm{W} \times 10^{3 / 4} 4^{\prime \prime} \mathrm{D}$.
31A2755-0. Model RQ-324S. Shpg. wt. 8 lbs. Each
s1495

31A2674-3. RP092. Rechargeable Battery Pack for above. Each
\$149.95


PanaschiclTD Model RQ-317S

- MICROPHONE SENSITIVITY SELECTOR
- BUIIT-IN CONDENSER MIKE
- SPECIAL "QUICK-CHARGE" BATtERY SYStem
- EASY-MATIC CIRCUITRY


## $599^{95}$

Now a cassette recorder so small that you can take it anywhere with you and it can't be in the way! Designed 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 " $A A^{\prime \prime}$ cell batteries Size: $61 / 2^{\prime \prime} \mathrm{H} . \mathrm{X}^{\prime \prime} \mathrm{W}^{\prime} \times 13 / 4^{\prime \prime} \mathrm{D}$. Shpg. wt. 3 lbs . 31A2706-3. Model RQ-317S.
\$99.95
31A2692-5. RP9317. Rechargeable Battery Pack for above. Each


Panasonic model ro-212DAS

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


## $\$ 719^{95}$

This mini monaural cassette recorder will go with you anywhere and record anything you want. Antirolling 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 level control, digital counter, one touch 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 $4^{\prime \prime} \mathrm{H} . \times 61 / 2^{\prime \prime} \mathrm{W} \times 13 / 4^{\prime \prime} \mathrm{D}$. Shpg. wt. $3^{1 / 2} \mathrm{l}_{\mathrm{lbs}}$.
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


Panasonic model ro-314S

- AUTO-STOP SAFEGUARD
- $21 / 2{ }^{\prime \prime}$ PM DYNAMIC SPEAKER
- ANTI-ROLLING MECHANISM
- BUILT-IN CONDENSER MIKE


## s5995

Panasonic fine quality engineering all the way! This precision cassette recorder offers hand-held convenience and superior recording capability. Auto-Stop at end of tape safeguards tape and preserves bat tery 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 $21 / 2^{\prime \prime}$ dynamic speaker, remote mike jack, earphone jack, DC-in jack, AC-in jack. Includes AC adaptor/charger, 4 Panasonic "AA" batteries, shoulder strap. Size: $6-5 / 8^{\prime \prime} \mathrm{H} \times 4^{\prime \prime} \mathrm{W} \times 2^{\prime \prime} \mathrm{D}$. Shpg. wt. $2^{1 / 2} \mathrm{lbs}$.

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

## PROFESSIONAL QUALITY CASSETTE RECORDERS

SONY MODEL TC-150 MIIIATURE 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 companion.
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 Re cording 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 lighttouch 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 $120 \mathrm{~V} 60 \mathrm{~Hz} A C$ or use 4 " $A A^{\prime \prime}$ cell batteries listed. Dimensions: 1-3/16" H x 6-7/8" W. x $41 / 2^{\prime \prime} \mathrm{D}$. Shpg. wt. 2 lbs. 31A2741-0.
Model TC-150. Each
$\$ 190.00$
21A5002-6. "AA" Alkaline Batteries (4 Required). Each
PGIAESO NITC MODEL RQ-2 185
AC/BATTERY MINI-CASSETTE RECORDER


- One-touch recording.
- Lockable pause control.
- Anti-rolling mechanism.
- Digital tape counter.
- Auto-stop mechanism.
s15995
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 on-the-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: $5-5 / 8^{\prime \prime} \times 3^{1 / 2^{\prime \prime}} \times 11 / 2^{\prime \prime}$ Shpg. wt. $11 / 2 \mathrm{lbs}$.
31A2729-5. Model RQ-218S. Each
$\$ 159.95$
31A2713-9. Car Adaptor. RP911. Each
$\$ 9.95$
31 A2651-1. Remote Mike. WM2264. Each
$\$ 4.95$

## Panasonic MODEL RQ-548S PORTABLE CASSETTE RECORDER WITH FM/AM RADIO <br> - Big $7^{\prime \prime}$ dual cone speaker. <br> - Mike mixing capabilities. <br> - Automatic Stop at end of tape. <br> - Digital tape counter. <br> Super features, such as those found on much more expensive models, make the RQ5485 one of today's most outstanding portable buys. Large $7^{\prime \prime}$ 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 tape 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: $101 / /^{\prime \prime} \times 15 \frac{1}{4}$ " $\times 41 / 2^{\prime \prime}$. Shpg. wt. 9 lbs. <br> 31A2752-7. Model RQ-548S. Each <br> \$129.95 <br> 

Panasonic
MODEL RQ-5 125 PORTABLE CASSETTE RECORDER WITH AM/FM RADIO

Separate tone/volume controls.

- $4^{\prime \prime}$ 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 AutoStop 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 dynomic speaker produces quality sound reproduction. FM/AM slide-rule tuning dial for ease of selection. Earplug jack for personal listening. Other standara features include monitor on/off switch, erase plug, AC cord and four Panasonic " $D^{\prime \prime}$ size batteries. Size: $71 / 4^{\prime \prime} \mathrm{H} \times 12^{\prime \prime \prime} \mathrm{W} \times 31 / 4^{9 /} \mathrm{D}$. Shpg. wt. 6 lbs .
31A2730-3. Model RQ512S. Each
\$79.95

## Panasonic <br> MODEL RQ-460S STEREO CASSETTE RECORDER WITH AM/FM STEREO RADIO <br> 

- 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 $31 / 2^{\prime \prime}$ 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, two microphone inputs, headphone jack, AC cord and 4 Panasonic "D" size batteries. Size: $81 / 2^{\prime \prime} \mathrm{H} \times 13-3 / 8^{\prime \prime} \mathrm{W} \times 4^{\prime \prime} \mathrm{D}$. Shpg. wt. 8 lbs .
31A2709-7. Model RQ-460S. Each

\$149.95

## Panasonic <br> MODEL RQ-544S PORTABLE CASSETTE RECORDER WITH FM/AM RADIO

## $\$ 99^{95}$

- 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 mixiing, continuous tone and volume controls blend your voice or music with original program (external mike not included). Features a level/battery 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, $A C$ cord and 4 Panasonic " $D^{\prime \prime}$ batteries. Size: $8^{\prime \prime} \mathrm{H} \times 12-5 / 8^{\prime \prime} \mathrm{W} \times 4 \frac{1 / 8 "}{}$ D. Shpg. wt. 8 lbs.

31A2751-9. Model RQ-544S. Each .
\$99.95

## ERTESOMALTD MODEL RQ-4555 FM/AM/ VHF - PSB PORTABLE RADIO WITH BUILT-IN CASSETTE RECORDER <br> ${ }^{5179^{95}}$ <br> - PSB - ( 148 -174 MHz), ( $30-50 \mathrm{MHz}$ ). <br> - Built-in condenser mike. <br> - Mike mixing. <br> - 3-digit tape counter. <br> - AC/battery operation. <br> SA VE \$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-455S 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 $\mathrm{CrO2} / \mathrm{Normal}$ tape selector switch. $61 / 2^{\prime \prime} \mathrm{PM}$ dynamic speaker. With 6 " $\mathrm{D}^{\prime \prime}$ cell
 batteries, external microphone
$1 / 16^{\prime \prime} \mathrm{D}$. Shpg. Wt. 11 lbs.
31A2710-5. Model RQ 455S. Each
$\$ 179.95$
31A2713-9. Car Adaptor for RQ-455S (optional). Each
$\$ 9.95$

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

BRIR 2 Onic model RQ-835S
AC/BATTERY PORTABLE 8-TRACK PLAYER WITH
FM/AM RADIO

- MICROPHONE MIXING
- BIG $5^{\prime \prime}$ DYNAMIC SPEAKER
- BULI'S EYE PROGRAM INDICATOR


## 57995

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 operatape. Unusual sleek design includes a Bull's-eye program indicator. Complete with ${ }^{A C}$ cord and 6 Panasonic "C" size batteries. Size: $8-3 / 8^{\prime \prime} \mathrm{H} . \times 131 / 4^{\prime \prime} \mathrm{W} . \times 51 / 4$ " D. Shpg. wt. 7 lbs.

31A2753-5. Model RQ-835S. Each
$\$ 79.95$

## -ロIR DOUBLE DYNAMITE STEREO 8-TRACK PLAYER

- LEFT/RIGHT VOLUME CONTROLS
- BULL'S EYE

PROGRAM INDICATOR

- 2-31/2" DYNAMIC SPEAKERS

YOUR CHOICE OF COLOR
\$4995

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 $3^{\prime \prime}$ PM dynamic speakers give this portable an attractive modern look, with excellent sound. The RS8335 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 tope-running mechanism are standard features of program indicator ate smooth tape-running mechanism are standard teatures of
the RS833S. Operates by AC or battery. The Double Dynamite Stereo 8 track the RS833S. Operates by $A C$ or battery. The Double Dynamite Stereo 8 -track
player comes complete with $A C$ cord and 6 Panasonic " $C$ size batteries. Size: 7 . player comes complete with AC cord and 6 Pan
$5 / 8^{\prime \prime} \mathrm{H} . \times 12^{\prime \prime} \mathrm{W} . \times 4-5 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 6 lbs .

Your
31A2748-5. RS-833S-Red. Choice
31A2749-3. RS-833S - White.
Each

## - ARZSOMIC MODEL RF-7050 PORTABLE STEREO 8-TRACK PLAYER WITH AM/FM STEREO RADIO

- SIIDE RULE TUNING
- 2-STEP TONE CONTROL
- 2-4" DYNAMIC SPEAKERS


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 speat. 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: $6-7 / 8^{\prime \prime} \mathrm{H} . \times 12-7 / 16^{\prime \prime} \mathrm{W}$. $\times 4-7 / 16^{\prime \prime} \mathrm{D}$. Shpg. wt. 9 lbs.
31A2754-3. Model RF-7050. Each
$\$ 99.95$


- 2-Step Tone Control.
- Slide-Rule Tuning. 'Two 4" Speakers.

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 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 " $D^{\prime \prime}$ " batteries, $A C$ power cord, and gift box. Size: 7. $3 / 16 \times 12-15 / 16 \times 3-15 / 16^{\prime \prime}$. Shpg. W t . $10^{\mathrm{lbs} \text {. }}$
31A2672-7. Model RF-7100. Each
\$129.95

## NOW TAKE YOUR 8-TRACK MUSIC EVERYWHERE YOU GO! <br> PanasoniolTD

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


- TWO SEPARATE SPEAKERS.
- 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 $4^{\prime \prime}$ 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: $7-1 / 16^{\prime \prime} \mathrm{H} \times 13-3 / 8^{\prime \prime} \mathrm{W} \times 6-3 / 8^{\prime \prime} \mathrm{D}$. Shpg. Wt. 12 lbs.
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 R, external mic L and R, remote control and headphones. Has input selector
switch for mic/line, tape switch select regular/CrO2, stereo/mono mode switch. switch for mic/ine, tape switch select regular/Cr02, steree. mono mode switch. 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-
el/battery meter
Specifications: response $50-10,000 \mathrm{~Hz}(50-13,000 \mathrm{~Hz}$ with CrO 2 tape), $\mathrm{S} / \mathrm{N}$ ratio 45 db , wow and flutter $0.26 \%$ (WRMS), power output I watt per channel, 4 inch built-in speaker. Operates on 4 "D" cell batteries (not included) or 120 V 60 Hz AC
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 $5 / 8 \mathrm{H} . \times 111 / 8 \mathrm{~W} . \times 93 / 4^{1 /}$ D. Shpg. wt. 10 lbs .
No. 31A2739-4. Model TC-520CS. Each

## Panasonic

TECH 1006 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 $61 / 2$ 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, $A C$ power cord and detailed instructions. Size: $91 / 4^{\prime \prime} \times 9.11 / 16^{\prime \prime} \times$ 3-9/16". Shpg. wt. 7 lbs.
36A5071-4. Model RF-1150.
Each
$\$ 129.95$

INFORMATION BAND RADIOS

TECH 800 PSB/AM/FM PORTABLE RADIO

BATTERY/AC POWERED


Rugged design, high sensitivity and quality features combine to give you the most exciting radio available today. Features a big $61 / 2$ 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 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, earpower and external power. Complete with mike, earphorrying case for mike. Size: $7-9 / 16^{\prime \prime} \mathrm{H}$. X $9^{\prime \prime} \mathrm{W}$. X 2 carrying case for mike. Siz
$7 / 8^{\prime} \mathrm{D}$. Shpg. wt. 7 lbs .
No. 36A5063-1. Model RF-888.
Each
$\$ 99.95$

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


Handsome styling and quality performance make this the perfect portable radio for all activities. Sturdy construction and advanced circuitry guarantee years of listening enjoyment.
Receives AM/FM broadcasts plus PSB - high (148170 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 betweenstation noise. Continuous tone control permits you to adjust the tone for your preference. $4^{\text {I }}$ PM dynamic speaker produces quality sound.
Complete with 4 " C " cell batteries, AC power cord and earphone. Size: $7-1 / 16^{\prime \prime} \times 93 / 4^{\prime \prime} \times 23 / 4^{\prime \prime}$. Shpg. wt. $3^{1 / 2} \mathrm{lbs}$.
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., $23 / 4^{\prime \prime}$ $\mathrm{W}^{\prime \prime}$. $1-9 / 16^{\prime \prime} \mathrm{D}$. Features circular tuning dial, $21 / 4$ PM dynamic speaker, earphone and external speak er jack. In beautiful red, black, or white with metallic face cabinet. Complete with handstrap, 2 Panasonic "AA" batteries and earphone. Shpg. wt. $11 / 2$ lons.
36A3579-8, Black.
36A3580-6. Red.
36A3581-4. White
Your Choice Each

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 $2^{1 / 8} \mathrm{lbs}$., 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 rule dial, AFC on FM, earphone/external speaker
jack, AC/battery selector switch and built-in AC jack, $A C /$ battery selector switch and built-in $A C$
power cord are some of its features. Complete with batteries and earphone. Size 5-15/16" H. x 7-7/8" W. $\times 2 \frac{11 / 2 "}{}$ 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 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 $31 / 2$ 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: $6^{\prime \prime} \mathrm{H} . \times 101 / 8^{\prime \prime}$ W. $\times 2-7 / 8^{\prime \prime}$ D. Shpg. wt. 5 lbs.
36A3574-9. Model RF-915.
Each
$\$ 49.95$

## SONY PORTABLE RADIOS

## SOINT "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.


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 to sleep to music. And 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. Juning light allows the dial to be illuminated at night. Dipole telescopic antennas for sensitivity to weak or distant stations and a special direct-coupled $3^{\prime \prime}$ speaker gives high fidelity sound.
Power requirements are $4^{\prime \prime} \mathrm{AA}^{\prime \prime}$ cell batteries listed below, $120 \mathrm{~V} 60 \mathrm{~Hz} A C$ with optional adaptor, or 12 VDC with optional car/boat cord. Supplied with earphone. Handsome black and silver gray case measures only $33 / 4 \mathrm{H}, \times 5-3 / 8 \mathrm{~W} . \times$
 $13 / 4 \mathrm{lbs}$. with batteries. Shpg. Wt. $21 / 2 \mathrm{lbs}$.
36A5077-1. Model ICF-7800W. Each
$\$ 160.00$
ACCESSORIES FOR THE "SPECIALIST"
21A5002-6. Alkaline AA cells ( 4 required). Each . . . . . . . . . . . . . . . . . $80^{80}$ 31A2762-6. AC-9W 120 VAC Adaptor. Each ...................... $\$ 10.00$ 31A2763-4. DCC-127H Car/Boat Cord. Each ............................ . . . $\$ 25.00$

## SONY

FM/AM PORTABLE RADIO
BATTERY OR AC POWERED

## s40

This sleek model is engineered for dependability. Plug the cord in an AC socket and automatic switching disconnects the batteries. Has AFC for drift-free FM, a $3-5 / 8^{\prime \prime}$ speaker for big, attractive sound and a low/high tone control. Telescoping antenna receives FM and ferrite bar antenna gets nearby or distant AM stations. Uses 4 " AA " cell batteries listed below. Black and brushed metal case is $71 / 8 \mathrm{H} . \times 10 \mathrm{~W} . \times 3^{\prime \prime}$ D. Shpg. wt. $31 / 2 \mathrm{lbs}$.
36A3578-0. Model ICF-7270W. Each


21A313-2. "AA" Cell Batteries (4 required). Each

## SONY <br> FM/AM/PSB PORTABLE RADIO <br> BATTERY OR AC POWERED $\$ 50$



Features an FET RF amplifier. Built-in AFC for FM and sguelch 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 $7-7 / 8 \mathrm{H} . \times 101 / 8 \mathrm{~W} . \times 3-3 / 8^{\prime \prime} \mathrm{D}$. Operates on 4 "C" cell batteries listed below or 120 V 60 Hz AC . Shpg. wt. 4 lbs .
36A5075-5. Model ICF-7370W. Each
\$50.00
21A314-0. "C" Cell Batteries (4 required). Each

## SONY

## STURDY MINIPORTABLE AM RADIO

## s10



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: $4^{1 / 2^{\prime \prime}}$ H. X $23 / 4^{\prime \prime}$ W. X $1-5 / 16^{\prime \prime}$ D. Shpg. wt. 2 lbs .

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

## SONY <br> FM/AM PORTABLE RADIO



## SUPER VALUE!

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: $61 / 4^{\prime \prime}$ X. X $3-5 / 8^{\prime \prime}$ 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 多 Volt Battery.
Each
$89^{\circ}$


Full-bodied FM and AM sound. High sensitivity and selectivity assure reception under adverse conditions. Has ferrite AM antenna with telescopconditions. Has ferrite AM antenna with telescop-
ing antenna for FM. $21 / 4^{\prime \prime}$ PM speaker. Brushed aluminum.
Uses 9 V . battery (listed below). With carrying strap. Size: $3-7 / 8^{\prime \prime}$ H. X 3-7/8" W. X 1-7/8' D. Shpg. wt. $11 / 2 \mathrm{lbs}$.
36A3560-8. Model TFM-3750W. Ea \$25.00 21A305-8. 9 V. Battery. Each

## MULTI-BAND RADIOS AND SCANNERS

## 10 BAND PORTABLE RADIO

RECEIVES 23 CB CHANNELS! AC/DC OPERATION

## \$9995

- Monitors 23 CB channels.
- Public service bands - low, hi, UHF.
- Push-button controls.

- Memory Log.
- Bass and Treble boost switches.
- Large, durable $5^{\prime \prime}$ 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. Blark, rugged textured cabinet. Size: $9-3 / 8^{\prime \prime} \mathrm{X} 13^{\prime \prime} \mathrm{X}$ $4^{\prime \prime}$. Shpg. wt. 8 lbs.
36A5069-8. Model 7-2970. Each . . . . . . . . . . . . . . . . . . . . . \$99.95
32A4044-6. Earphone with 24 inch cord. Each ............... \$1.59
21A315-7. Battery for above ( 6 required) Each . . . . . . . . . . . . . . . . . 45 ${ }^{\text {c }}$

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 weather 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: $111 / 4^{\prime \prime} \mathrm{W}$. x $81 / 2^{\prime \prime} \mathrm{H} . \times 31 / 2^{\prime \prime}$ D. Shpg. wt. 5 lbs.
36A5080-5. Model 7-2963. Each
$\$ 69.95$


PRICE REDUCED $\$ 30$

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

Enjoy the entertainment of top-quality $A M / F M$ 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, manval 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. $4^{\prime \prime}$ ceramic magnet speaker. Swivel telescopic whip antenna for FM and speaker. Swivel (high). Powered by 6 "D" cell batteries (listed below) or AC house current. Complete with earphone jack and AC power cord. Size: $9^{\prime \prime}$ H. X $1331 / 4^{\prime \prime}$ W. X $11^{\prime \prime} \mathrm{D}$. Shpg, wt. 8 lbs .

36A5070-6. Model 7-2995
Special Each.
\$109.95
Special Each. . . . . . . . . . . . . . . 6 required).
Each 50


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



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. Mandsome black and gray high
 Shpg. wt. 3 lbs.
No. 36A5079-7. Model 7-2915. Each \$39.95 No. 21A313-2. AA cells (4 required). Each .. 35 ${ }^{\circ}$


## 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 $150-174 \mathrm{MHz}$. Light emitting diodes (LED's) show scan action. Manual/Scan control allows selection 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. $21 / 2$ inch dynamic speaker. Uses 6 AA cell batteries, listed below, or 115 VAC converter included. Size: $81 / 2^{\prime \prime}$ H. $\times 4^{1 / 2^{\prime \prime}} \mathrm{W} \times 21 / 4^{\prime \prime} \mathrm{D}$. Shpg. wt. $11 / \mathrm{lbs}^{\mathrm{lb}}$.

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

## TAKE ALONG PORTABLE RADIOS

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 $A M$ and FM radio broadcasts. Two-way power allows operation on 4 " $A A^{\prime \prime}$ " 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 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 $31 / 2$ " dynamic speaker. Complete with earphone. Black case with silver trim. Size: $6^{1 / 2} 2^{\prime \prime} \mathrm{H} . \mathrm{X} 10^{1 / 2}{ }^{\prime \prime} \mathrm{W}$. X $2-5 / 8^{\prime \prime}$ D. Shpg. wt. 4 lbs .

36A5056-5. Each
$\$ 44.95$
21A327-2. Batteries for above (4 required). Each
...... 30


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. Threeway power capabilities allow use with 4 " $C^{\prime \prime}$ 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): $11^{13 / 4^{\prime \prime}}$ W. $\times 8^{1 / 2^{\prime \prime}} \mathrm{H} . \times 31 / 2^{\prime \prime}$ D. Shpg. wt. $63 / 4$ 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 $2-5 / 8^{\prime \prime} \mathrm{W} \times 4^{\prime \prime} \mathrm{H} \times 11 / 4^{\prime \prime} \mathrm{D}$. so you can take it along anywhere. $21 / 4^{\prime \prime}$ 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

## 5695

## 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. $21 / 4^{\prime \prime}$ 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: $3^{1 / 4^{\prime \prime}} \mathrm{W} . \times 5^{\prime \prime} \mathrm{H} . \times 13 / 4^{\prime \prime}$ D. Shpg. wt. 1 lb .

36A2065-9. Each
\$14.95


## 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 $3^{\prime \prime}$ 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 hande. Size: 71/4" ${ }^{\prime \prime} \mathrm{W} \times 5118^{\prime \prime} \mathrm{H} \times 1-7 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt . $13 / 4 \mathrm{lbs}$.

## 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: $5-5 / 16^{\prime \prime} H \times 11-5 / 8^{\prime \prime} \mathrm{W}$ ish with black trim. Size: 5
$\times 41 / 4$ " D. Shpg. wt. 4 lbs .
36A6543-1. Model RE-6283.
Each
$\$ 29.95$

Panasonic
MODEL RE-65 16


FM/AM TABLE RADIO

## $\begin{aligned} & \text { WITH CONTINYOUS } \\ & \text { TONE CONTROL }\end{aligned} \$ / 1,95$

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 AFC gives drift-free FM reception. Has FM external antenna terminals. Size: 8-11/ $16^{\prime \prime} \mathrm{H} \times 14-9 / 16^{\prime \prime} \mathrm{W} \times 5^{\prime \prime} \mathrm{D}$. Shpg. wt. $5^{1 / 2}$ lbs. 36A6546-4. Model RE-6516. Each
$\$ 49.95$

SONY
MODEL ICF-9550W


FM/AM
TABLE
RADIO


An unusually powerful $61 / 2$-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 $120 \mathrm{~V}, 60 \mathrm{~Hz}, \mathrm{AC}$. Walnut grain color. Size: $14-3 / 8^{\prime \prime} W \times 8-7 / 8^{\prime \prime} H \times 61 / 4^{\prime \prime} \mathrm{D}$. Shpg, wt. 8 lbs.
36A6544-9. Model ICF-9550W.
Each
$\$ 60.00$

## Panasonic <br> MODEL R-77 <br> 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 $21 / 4^{\prime \prime}$ PM dynamic speaker. Day selector coordinates the calendar with the current month. Complete with two "AA" size batteries. Size: $3-11 / 16^{\prime \prime}$ square, $2^{\prime \prime}$ deep. Shpg. wt. 1 lb . 36A2066-7. Model R-77. Each $\qquad$ $\$ 9.88$


# HEADPHONE RADIOS 



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 those around you. Padded earphones have $21 / 4^{\prime \prime}$ dynamic speakers, volume and tuning knobs. 9 volt battery included. Shpg wt. 2 lbs.
No 36A2055-0.
Each
$\$ 19.95$

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

FM STEREO
HEADPHONE RADIO


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 $21 / 4^{\prime \prime}$ PM dynamic speaker. Battery powered. Complete with three "AA" size batteries and headphone cord. hree $A A$ size
Shpg. $21 / 2 \mathrm{lbs}$.
36A3561-6. RF-40. Each
$\$ 85.00$

MODEL 7-4660 FM/AM ELECTRONIC DIGITAL CLOCK RADIO


## $549^{95}$

## - ADJUSTABLE ALARM TONE <br> - SNOOZ-ALARM CONTROL <br> - 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-toAlarm" 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 day without resetting. 60 -minute sleep switch lets music lull you to sleep and then shuts off automatimully. Clock face brightness and tone alarm volume cally. Clock tace brightness and tone alarm volume 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 $4^{\prime \prime}$ dynamic speaker delivers quality sound. Built-in AM and FM antennas. Decorator styled simulated walnut grain finish. Size: $121 / 2^{\prime \prime}$ W. $\times 4^{\prime \prime}$ H. $\times 6^{1 / 4^{\prime \prime} \text { D. Shpg. wt. }}$ grain
6 lbs .
36A8115-6. Model 7-4660. Each
$\$ 49.95$


## - SLEEP TIMER

- 24-HOUR DIGITAL TIMER


## $\$ 29^{95}$

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 $3^{\prime \prime}$ 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/ $16^{\prime \prime} \mathrm{H} . \times 10-5 / 8^{\prime \prime} \mathrm{W} \times 6^{\prime \prime} \mathrm{D}$. Shpg. Wt. 4 lbs.
36A8110-7. Model RC-6030. Each. \$29.95

## Panasonic

RC-300 FM/AM ELECTRONIC DIGITAL READOUT CLOCK RADIO

REG.
$\$ 69.95$


- SILENT OPERA- - DOZE-CANCEL TION feature
- COMPLETELY SOLID STATE


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 fords precise accuracy, letting you set clock oo the exact hour, minute and secona. Alarm to the time that the alarm is set for, then returns to current time. Sleep timer lulls 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 musie. 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.
FM/AM radio section has illuminated tuning dial FM AM radio section has illuminated tuning dial
and large $31 / 2^{\prime \prime}$ PM dynamic speaker. Size: $3-11 /$ and large $3^{1 / 2}{ }^{\prime \prime}$ PM dynamic speaker. Size:
$16^{\prime \prime} \mathrm{H} . \times 10^{1 / 4^{\prime \prime} \mathrm{W} . \times 6-3 / 16^{\prime \prime} \mathrm{D} \text {. Shpg. } \mathrm{wt} \text {. } 5^{1 / 4} \mathrm{lbs} \text {. }} 8$.
36A8106-5. Model RC-300. Each .. $\$ 59.95$

## 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. Lighted clock face make numerals easy-to-read at night. Easy FM/AM tuning provided by slide-rule dial. Large $3^{\prime \prime}$ PM dynamic speaker gives you clear, full sound. Attractive simulated wood cabinet will complement any decor. Size: $41 / 4^{\prime \prime} H . \times 11^{1 / 8^{\prime \prime}} \mathrm{W} . \times 6^{1 / 2^{\prime \prime}}$ b. Shpg. Wt. 5 lbs .

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


## $\$ 80^{00}$

- LED DISPLAY
- 24-HOUR
- SNOOZE


## ALARM PRESET - SLEEP TIMER

 SYSTEMThis 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.
FM/AM radio combines superior station selectivity and rich, full sound from a $33 / 4^{\prime \prime}$ 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 $7 / 8^{\prime \prime}$ H.x9-7/8" W.x7 $1 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. $41 / 2 \mathrm{lbs}$.
36A8109-9. Model ICF-C800W. Each $\$ 80.00$

## Panasonic

## 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-foday 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 of music then will shut off automatically. Push doze
button after alarm sounds for a few extra minutes of button after alarm sounds for a few extra minutes of
restful sleep. Once-only awake set, music or chirp restful sleep. Once-only awake set, music or chirp
alarm. Lighted clock face for night viewing. Twostep tone control permits blending of bass and treble tones. Lighted slide-rule radio dial for quick easy location of stations. Large $4^{\prime \prime}$ PM dynamic speaker provides full, rich sound. Complete with FM external antenna terminals. Handsome simulated wood cabinet. Size: $4^{\prime \prime} H \times 12-7 / 16^{\prime \prime} \mathrm{W} \times 7-11 / 16^{\prime \prime} \mathrm{D}$. Shpg. wt. $51 / 2 \mathrm{lbs}$.
36A8112-3. Model RC-6236. Each . \$59.95

# Panasonic THE WORLD'S MOST ADVANCED PORTABLE RECEIVER 

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

- MOTOR DRIVEN 24-BUTTON BAND SELECTOR
- DOUBLE SUPERHETERODYNE SYSTEM BY CRYSTAL CONVERTER
- automatic nolse 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 ALI FM MODES OF VHF

Other features include narrow/wide bandwidth selector; ceramic filter for IF circuit; L.E.D. band indicator; battery check switch; funing/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 $360^{\circ}$ frame antenna; two $7^{\prime \prime} \times 4^{\prime \prime}$ speakers; earphone and headphone jacks; BFO switch for SSB and CW.
For 115 VAC or battery operation. Includes carrying handle, $A C$ power cord, 9 " $D$ " cell batteries ( 1 for clock), earphone. Comes in black leather-covered cabinet. Size: $14^{1 / 4} \mathbf{4}^{\prime \prime} \mathrm{H} \times 20-3 / 16^{\prime \prime} \mathrm{W} \times 8-3 / 8^{\prime \prime} \mathrm{D}$. 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.

## SONY BETAMAX

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: $8-1 / 16^{\prime \prime} \mathrm{H} \times 201 / 2^{\prime \prime} \mathrm{W} \times 161 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 45 lbs.


## SONY

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!

## W PORTABLETV WITH AM/FM/ PSB RADIO

- 3" DIAGONAL TV - CIEAR \& 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 $3^{\prime \prime}$ 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 $5^{\prime \prime}$ 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

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: $41 / 2^{\prime \prime} \mathrm{H} . \times 9-7 / 8^{\prime \prime}$ W. X 11 . 7/8" D. Shpg. wt. 8 lbs.
39A3091-1. Model 3050. Each
$\$ 199.95$

## ACCESSORIES FOR JVC 3050 ABOVE

## 39A495-7. TH-001 Sunscreen Hood. Each <br> $\$ 6.95$ <br> 39A496-5. BP-001 Rechargeable NiCad Battery Pack, Each . . . $\$ 59.95$

 39A497-3. TCB-001 Carrying Case. Each

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 $131 / 4^{\prime \prime} \mathrm{W} . \times 41 / 4^{\prime \prime} \mathrm{H} . \times 12 \frac{3 / 4}{}{ }^{\prime \prime} \mathrm{D}$., speakers $7^{\prime \prime}$ W. $\times 12^{\prime \prime} \mathrm{H} . \times 44^{1 / 4}{ }^{\prime \prime}$ D. Shpg. Wt. 15 lbs .
No. 30A5109-8. Model AS-115. Each
\$69.95

## 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 $13-7 / 8^{\prime \prime} \mathrm{W} . \times 4^{1 / 4^{\prime \prime}} \mathrm{H}, \times 99^{1 / 8^{\prime \prime}} \mathrm{D}$., speakers $8^{1 / 4}{ }^{\prime \prime} \mathrm{W} . \times 12 \frac{1 / 2}{}{ }^{\prime \prime} \mathrm{H}, \times 4 \frac{1 / 2}{}$ D. each. Shpg. wt. 15 lbs .

30A5118-9. Model L-6600. Each
\$69.95

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 adiustment
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.

## MODEL KV-5 100

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. 50 detent UHF channel selection. Charcoal cabinet with chrome trim, $31 / 4{ }^{\text {in }}$ 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: $6-11 / 16^{\prime \prime} \mathrm{H} . \times 8-7 / 8^{\prime \prime} \mathrm{W} . \times 12-3 / 8^{\prime \prime} \mathrm{D}$. Shpg. Wt. 14 lbs .
39A4136-3. Model KV-5100. Each
$\$ 460.00$
39A3081-2. DCC12 Car/Boat cord. Each. .
$\$ 12.00$

## 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 $3^{\prime \prime}$ speaker. Charcoal cabinet has brushed chrome trim and porta-grip

No. 39A4090-2. Model KV-9200. Each
$\$ 430.00$ 39A4121-5. Model KV-1204. Similar but 12" diagonal, has channel selectors and speaker at right side of picture. Size: $13^{1 / 2 "} \mathrm{H} . \times 17-5 / 8^{\prime \prime}$ W. x $143 / 4^{\prime \prime} \mathrm{D}$. Shpg. Wt. 32 lbs. Each . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 400.00$ 39A4122-3. Model KV-1215. Similar to KV-1204, but with vinyl walnut veneer on wood cabinet. $13-5 / 8^{\prime \prime} \times 18-5 / 8^{\prime \prime} \times 14^{3 / 4} 4^{\prime \prime}$. Each .............. $\$ 420.00$ 39A4123-1. Model KV-1512. Similar to KV-1215, but $15^{\prime \prime}$ diagonal. 14-5/8 x $241 / 4 \times 16-5 / 8^{\prime \prime}$ cabinet has recessed side grips. Shpg. wt. 44 lbs . Each $\$ 460.00$ 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. $4^{\prime \prime}$ speaker. For 120 V 60 Hz AC except Remote Commander uses 2 AA penlite cells (supplied). Size: $15-5 / 8^{\prime \prime}$ H. x 22-5/8" W. x $161 / 2^{\prime \prime}$ D. Shpg. wt. 50 lbs .
39A4124-9. Model KV-1541R. Each
$\$ 530.00$
39A4126-4. Model KV-1741R. Similar to abo...................... $17^{\prime \prime}$ diagonal. $171_{1 / 4^{\prime \prime}} \mathrm{x}$ 24-7/8 $8^{\prime \prime} \times 15^{\prime \prime}$. Shpg. wt. 67 lbs. Each . . . . . . . . . . . . . . . . . . . . . . . . $\$ 620.00$ 39A4129-8. Model KV-1941R. Similar, but $19^{\prime \prime}$ diagonal. Size: $18^{3 / 4} \times 27 \times$ $153 / 4^{\prime \prime}$. Shpg. Wt. 75 lbs .
$\$ 700.00$


## MODEL KV-1723D

The longing tor 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 $6^{\prime \prime} \times 4^{\prime \prime}$ speaker. Dimensions: $20-9 / 16^{\prime \prime}$ H. x 19-3/8" W. x $14-$ 7/8" D. Shpg. wt. 64 lbs.
39A4125-6. Model KV-1723D.
$\$ 540.00$
39A4130-6. Model KV-2101. Similar, but $21^{\prime \prime}$ diagonal, has channel selectors and speakers at right side of picture. Size: $20^{\prime \prime} \mathrm{H} . \times 27-5 / 8^{\prime \prime} \mathrm{W} . \times 151 / 4^{\prime \prime} \mathrm{D}$. Shpg. Wt. 82 lbs . Each
$\$ 700.00$

## 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 sharptent UHF channel selector has illuminated channel indicators. Continuous sharp120 V 60 Hz AC. Dimensions: $17-5 / 8^{\prime \prime} \mathrm{H} \times 26-1 / 16^{\prime \prime} \mathrm{W} \times 16^{1 / 4}{ }^{\prime \prime} \mathrm{D}$. 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 antennas make a separate UHF an-

## Panasonic 9" DIAGOMAL BEW TV. AC DC/BATTERY PORTABLE. MODEL TR-739

 ORTABLE B\&W TELEVISION
## MODEL TR-739

Exciting 3 way powered TV loaded with features: Panalloid batteries give up to $21 / 2$ 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. $31 / 2$ " speaker. With Panalloid batteries and personal earphone. Size: $101 / 4 \mathrm{H} . \times 131 / 2 \mathrm{~W} . \times 10^{\prime \prime}$ D. Shpg. wt. 19 lbs .
39A3090-3. Model TR-739. Each
$\$ 169.95$
39A491-6. TY-173P car/boat cord
$\$ 7.95$
39A3098-6. Model TR-759 similar to TR-739, but operates on 120 VAC or c a r /boat battery only. Includes car/boat cord. Has silver color cabinet Shpg, wt. 15 lbs . Each

## MODEL TR-5 15

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. $31 / 2^{\prime \prime}$ speaker. With AC adaptor cord, car/boat cord and Panasonic " D " size Alkaline.batteries. Size: 6 H. x $131 / 4$ W. x $101 / 22^{\prime \prime}$ 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. $3^{1 / 21}$ speaker. With car/boat adaptor cord. Size: $113 / 4$ H. x $161 / 2$ W. x $111 / 2$ D. Shpg. wt. 19 lbs.
39A3099-4. Model TR-882. Each
$\$ 129.95$

## 12" DIAGOMAL BEW <br> AC/DC PORTABLE TV. MODEL TR-882

5" DIACOMAL BEW PORTABLE TV. MODEL TR-515

## 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 Bipole and UHF loop antenna.


## Panasonic <br> MODEL CT-216 $12^{\prime \prime}$ DIAG. PORTABLE COLOR TV

## MODEL CT-216

Compact design and light weight, only $271 / 2 \mathrm{lbs}$., 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 $121 / 2^{\prime \prime} \mathrm{H} . \times 18^{\prime \prime} \mathrm{W} . \times 14^{\prime \prime} \mathrm{D}$. 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

adiustment. Has $31 / 2^{\prime \prime}$ speaker and is supplied with privacy earphone. Simulated walnut grain polystyrene cabinet is $13^{\prime \prime}$ H.x $183 / 4^{\prime \prime}$ W.x $15^{\prime \prime}$ D. Shpg. wt. 35 lbs .
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. $4^{\prime \prime}$ speaker. Simulated walnut grain polystyrene cabinet measures $16^{1 / 2^{\prime \prime}} \mathrm{H} . \times 241 / 2^{\prime \prime} \mathrm{W} . \times 191 / 4^{\prime \prime} \mathrm{D}$. For 120 VAC. Shpg. Wt. 60 lbs.
39A4135-5. Model CT-916. Each
$\$ 429.95$

## B \& W Television

## PanascnicLTD <br> MO'DEL TR-802 12" DIAG. B \& W PORTABLE TV

## MODEL TR-802

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, $31 / 2^{\prime \prime}$ speaker. Comes with personal earphone. For 120 VAC. Size $11 \frac{1}{2 \prime}$ H.x $16 \frac{1}{2} 2^{\prime \prime}$ W.x $113 / 4^{\prime \prime}$ D. Shpg. Wt. 18 lbs . 39A3095-2. Antique White. YOUR CHOICE 39A3096-0. Yellow. EACH
$\$ 99.95$

## 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
-anseonqe TD
MODEL TR-852 $12^{\prime \prime}$ DIAG. B \& W PORTABLE TV


Panasonic mode tr-s42 $12^{\prime \prime}$ DIAG. B \& W PORTABLE TV
fading, shrinkage and distortion due to power fluctuations. Has detachable VHF UHF unipotential antenna. With earphone. $31 / 2{ }^{\prime \prime}$ speaker. For 120 VAC. Size: $10^{3 / 4^{\prime \prime}}$ H.x $16^{1 / 4^{\prime \prime}}$ W. $\times 12^{1 / 4^{\prime \prime}}$ D. Shpg. wt. 18 Ibs.
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$3 / 8 \times 3-1 / 8^{\prime \prime}$ dynamic speaker. VHF monopole and UHF bowtie antennas. Size $12-3 / 16^{\prime \prime} \mathrm{H} . \times 163 / 4^{\prime \prime}$ W. X $12-3 / 16^{\prime \prime}$ D. For 120 VAC. With earphone. Shpg. wt. 21 lbs .
39A3018-4. Antique White
39A3056-4. Yellow
YOUR CHOICE
EACH..
$\$ 129.95$

An economical slide-rule calculator specifically designed for high school students. Features 48 functions plus TI's unique Algebraic Operating System (AOS) with 15 sets of parentheses. Combines high versatility with memory - 4 basic functions, constant, roots - 4 basic unctions, consticn, rook, powers, reciprocals, scientific notation, common and natural logarithums, trig onometry, degree/radian mode, mem ory for store and recall of numbers sum to memory, memory/display exchange, automatic power down. Sim
ple operation featuring $A O S$ 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 9 V battery (listed below). Shpg. wt. 1 lb .
46A7589-1. Model TI-30. Each
$\$ 24.95$
21A305-8. 9V Transistor battery for above. Each
$89^{\circ}$


## litronix model 2200

## 8-DIGIT MEMORY CALCULATOR

 WITH METRIC CONVERSION
## AUTOMATICALIY 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.


## $\$ 29^{95}$

- 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: $31 / 22^{\prime \prime} \mathrm{W} . \times 61 / 2^{\prime \prime}$ L. X $1^{\prime \prime} \mathrm{H}$. Shpg. wt. 1 lb .
46A7575-0. Model 2200. Each
\$29.95

# Mirroma DIGITAL CHRONOGRAPH 

## 4-FUNCTION STOPWATCH

 IT's A WATCHIIT's A STOPWATCH!This magnificently styled digital watch is the most sophisticated in the world. In addition to its contimuous 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 used to time individual aps a 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. Stainless steel case and bracelet. Each
$\$ 79.95$
45A314-2. Microma M-501. Gold tone case and bracelet. Each ... \$89.95 45A313-4. Microma M-502. Black case and bracelet. Each ...... $\$ 79.95$

- 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, Goldfone and Black


## Mirromri

 WOMEN'S CONTINUOUS TIME DISPLAY DIGITAL WATCHBeautifully 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 LIO1 same as above except in Goldtone. Each . \$69.95


## 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. I' lb. 45A321-7. Model 6220 in Silvertone finish.
Each
\$34.95
45A322-5. Model 6240. As above in Goldtone finish.
Each . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$39.95

## litronix <br> 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 .
45A323-3. Model 7120 in Silvertone finish.
Each
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 39.95$
45A324-1. Model 7130. As above except in Goldtone
finish. Each $\qquad$


Jovus
MEN'S LED

$\$ 24.95$

- 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 lb.
45A328-2. EP 1. 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 tope 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 dustdoor keeps internal mechanisms clean. Frequency range $70-10,000 \mathrm{~Hz}$. Impedance $4-8$ ohms. 12 VDC neg. ground only. Size: $2^{\prime \prime}$ H. X $43 / 4^{\prime \prime}$ W. X $6-3 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 7 lbs.
38A3028-4. (less speakers). Each
$\$ 49.99$

## CRAIG

## COMPACT QUICK-MOUNT 8-TRACK AUTO STEREO PLAYER <br> MODEL 3144A <br> \$4995

- 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

## $\square \int \mathrm{Al}$ COMPACT <br> 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 incorporates automatic frequency control with a vernier - action dial for easy, precise 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 pushbutton. Wow and flutter better than $0.3 \%$. Frequency response $40-10,000 \mathrm{~Hz}$. Signal/Noise ratio better than 50 dB . Audio output 14 W peak total, 3.5 W continuous per channel. Size: $7-3 / 8^{\prime \prime} \mathrm{W} \times 21 / 4^{\prime \prime} \mathrm{H} \times 71 / 4^{\prime \prime} \mathrm{D}$. Shpg. wt. $4^{1 / 2} \mathrm{lbs}$. 38A3059-9. Model 3153. Each (less speakers)
\$69.95

## AUTOMOTIVE TAPE PLAYERS



## MotroSound MINI-CASSETTE TAPE PLAYER

## B-A's LOW PRICE

## $\$ 39^{95}$

COMPACT SIZE - ONLY


## 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 $50-9,000 \mathrm{~Hz}$. Size: $4^{1 / 2 "}$ W. X $1-7 / 8^{\prime \prime} \mathrm{H} . \times 6^{\prime \prime}$ D. Shpg. wt. 6 lbs.
38A3067-2. Model MS308. Each
\$39.95

## MODEL C-988

## AUDIOVOX

## SUPER-SMALL CASSETTE AUTO STEREO PLAYER

## IDEAL FOR UNDER DASH OR GLOVE BOX

## $\$ 59^{95}$

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 stiding 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: $5^{\prime \prime} \mathrm{W} \times 61 / 4^{\prime \prime}[\mathrm{X} 1$ 7/8" H .
38A3087-0. Model C-988. Shpg. wt. $51 / 2 \mathrm{lbs}$. Each
\$59.95

## () PIONEER Moos 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 cassefte 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 $40-10,000 \mathrm{~Hz}$. Output impedance 4 ohms. Output power 8 watts RMS. Size: $5-7 / 8^{\prime \prime} \mathrm{W} \times 2^{\prime \prime} \mathrm{H} \times 6314^{\prime \prime} \mathrm{D}$.
\$79.95
38A3103-5. Model KP-212. Shpg. wt. $31 / 2 \mathrm{lbs}$. Each

## 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: $71 / 4^{\prime \prime} \mathrm{W} \times 1-7 / 8^{\prime \prime} \mathrm{H} \times 63 / 4^{\prime \prime} \mathrm{D}$. Shpg. wt. 3 lbs .
38A3061-5. Model 3517. Each
\$79.95

## 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 watts RMS power rating, frequency response $40-10,000$ antenna for reception. 8 watts Hz . Separate balance, tone, tuning power volume controls for ease of operation. Size: Hz . Separate balance, tone, tuning
$61 / 8^{\prime \prime} \times 2^{\prime \prime} \times 63 / 4^{\prime \prime}$. Shpg. wt. 4 lbs.
38A3083-9. KP-250 only (less speakers) .................. \$119.95

## $\$$ <br>  <br> $129^{95}$




## MODEL 65-496 <br> 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: $7^{\prime \prime} \mathrm{W} \times 1-7 / 8^{\prime \prime} \mathrm{H} \times 5$ $7 / 8^{\prime \prime}$ D. Shpg. wt. $5^{1 / 2}$ lbs.
38A3107-6. Model 65-496. Each
$\$ 129.95$

## 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 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: $7^{\prime \prime} \mathrm{W} \times 2^{\prime \prime} \mathrm{H} \times 6^{1 / 14^{\prime \prime} \mathrm{D} . \text { Shpg. }}$ wt. 5 lbs.
38A3082-1. Model 3513. Each
$\$ 129.95$



## CలAIG

## MODEL S600

## IN-DASH 8-TRACK STEREO TAPE PLAYER WITH AM/FM STEREO RADIO


#### Abstract

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: $7 / \mathrm{m}^{\prime \prime} \mathrm{W} \times 1$. $15 / 16^{\prime \prime} \mathrm{H} \times 51 / \mathrm{m}^{\prime \prime}$ D. Shpg. wt. 4 lbs . 38A3104-3. Model S600. Each $\$ 109.75$


## AUTO TAPE PLAYERS AND RADIOS

## MedeliO) $65-554$ IN-DASH 8-TRACK

## PLAYER AND AM/FM STEREO RADIO 5999

This 3 -way car system features $A M / F M$ stereo radio and 8 -track tape player Dial in the door design, tuning 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 $51 / s^{\prime \prime}$ to $61 / 2^{\prime \prime}$. All solid state design for increased stability and reception. 4 watts RMS per channel with a frequency response of $50-10,000 \mathrm{~Hz}$. Size: $7-3 / 8^{\prime \prime}$ W. X 1-7/8" H. X 5-3/8" D. Shpg. wt. 6 lbs.
38A3055-7. Less Speakers Each
\$99.95


## () PIONEER Kp-4000 <br> CASSETTE CAR STEREO PLAYER WITH AM/FM STEREO RADIO



- IN-DASH MOUNTING
- ULTRA-FAST REWIND.
- PADDED KNOBS.
- TILTED DIAL.


## $\$ 149^{95}$

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 10 KHz , Output 8 watts RMS. Size: $71 / \mathbf{s}^{\prime \prime} \mathrm{W} \times 2^{\prime \prime} \mathrm{H} \times 61 / 4^{\prime \prime} \mathrm{D}$. Shpg. wt. 5 lbs.
\$149.95
38A3077-1. Model KP-4000. Each


## - 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.


## EfA -5630 IN-DASH STEREO-

 MATRIX 8-TRACK TAPE PLAYER WITH AM/FM STEREO WB RADIO- Dial in the door. - Stereo indicator light.
- Local/distant switch. - Only $51 / 2^{\prime \prime}$ deep.

- WEATHER BAND.
- DIAL DIMS WITH CAR LIGHTS.
- PUSHBUTTON RADIO
- HIGH SENSITIVITY/LOW NOISE.

$$
{ }^{5} 189^{95}
$$

The adjustable control mounting centers and the compact size of the S630 make it readily adaptable to foreign and domestic cars. The highly sensitive radio, with FEI, enables you to listen to your favorite AM or FM broadcasts, and the AFC (Automatic Frequency Control) assures dritt-free reception. The large tuning dial makes tuning easier and conceals the tape cartridge opening. Other features of the S 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 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: $7^{\prime \prime} \mathrm{W} \times 23 / 4^{\prime \prime} \mathrm{H} \times 51 / 8^{\prime \prime} \mathrm{D}$.
38A3098-7. Model S630. Shpg. wt. $51 / 2 \mathrm{lbs}$. Each
$\$ 189.95$

## PA -3516 IN-DASH STEREO MATRIX CASSETTE WITH AM/FM STEREO RADIO AND WEATHER BAND \$7 995

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.
Specifications: Fast forward C60-80 sec.; wow and flutter - less than $0.3 \%$ RMS. Frequency response: 40 to $10,000 \mathrm{~Hz}$. Signal to noise: better than 40 db

 38A3063-1. Model 3516. Shpg. wt. 5 lbs. Each
$\$ 169.95$

## AUTO TAPE PLAYERS AND RADIOS

## AUDIOWOX

## 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 FOLIOW 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 inno vations 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: $7^{\prime \prime} \mathrm{W} X 21 / 2^{\prime \prime}$ H $\times 6 / 1 /{ }^{\prime \prime}$ " D. 12 volt negative ground.
$\$ 129.95$

## ${ }^{5} 129{ }^{95}$



## $@$ 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 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 tuningbalance control. Size: $71 / 4^{\prime \prime}$ W. X $2^{\prime \prime}$ H. X $51 / s^{\prime \prime}$ D. Shpg. wt. 4 lbs .
38G242-4 GX-2020. Each
$\$ 99.95$

TOP-OF-THE-LINE PUSHBUTTON AM/FM STEREO RADIO

## $\$ 1995$



- SHORT $41 / 2^{\prime \prime}$ DEEP CHASSIS FITS MOST AMERICAN AND FOREIGN CARS.
- SPECIAL TRIM PACKAGE FOR PROFESSIONAL FINISHED INSTALLATIONS.
- SIDE-TO-SIDE AND FRONT-TO-REAR INFINITELY VARIABLE BALANCE.
- 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 $41 / 2^{\prime \prime}$ deep $\times 71 / \mathbf{c}^{\prime \prime}$ Wide $\times 2^{\prime \prime}$ high. Shpg. wt. 4 lbs .
tions. For
hin
38A246-5. Model 65-416. Each
$\$ 99.95$
112 - 7 TRANSISTOR AM RADIO
$\square$ AUTOMOTIVE PRODUCTS


PRICED WAY BELOW THE MARKET!


- HEAVY DUTY 4" FULL RANGE SPEAKER


Most Exciting universal auto radio bargain anywhere! Modern all solidstate 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 $61 / 2^{\prime \prime} \times 1^{3 / 4^{\prime \prime}} \times$ $5-3 / 8^{\prime \prime}$. Has fine tone from built-in $4^{\prime \prime}$ full range speaker. Ideal for car, truck and boat installation. Operates with minimum battery drain from 12 volts negative ground. Shpg. wt. 5 lbs. 38A208-5. Each
\$24.95

# FINE AUTO RADIOS/ TAPE PLAYERS 

## Panasonic morice. 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; it 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 $50.10,000 \mathrm{~Hz}$, Wow Flutter less than $0.3 \%$ (WRMS), output 3.5 watts per channel (at $400 \mathrm{~Hz}, 10 \%$ total harmonic distortion with 4 ohm load). Size: $71 / 2^{\prime \prime} W . \times 5^{\prime \prime} \mathrm{D} . \times 2^{3 / 4} / 4^{\prime \prime} \mathrm{H}$. Shpg. wt . 8 lbs . 38A3070-6. Each
$\$ 199.95$

$\$ 199^{95}$

## PIONEER modi kp-soo 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 reble controls and a loudness contour switch. 8 watts per channel (RMS), frequency response $30-12,000 \mathrm{~Hz}$, Wow and flutter no more than $0.25 \%$ (WRMS) Size: $7.5 / 8^{\prime \prime}$ W. $\times 3^{\prime \prime} \mathrm{H}^{\prime} \times 71 / 2^{\prime \prime} \mathrm{D}$. Shpg. Wt. 7 lbs .
38A3100-1. Each
$\$ 159.95$


UNDER-DASH CASSETTE PLAYER AND AM/FM STEREO RADIO
s159"s

# SONY 

 MODEL TC-24FA
## IN-DASH STEREO CASSETTE TAPE PLAYER WITH AM/FM RADIO

 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 func- tion selection, stereo indicator light. Fast forward and easy eject controls. Traditional Sony quality means mile after mile of unsurpassed listening pleasure. Size: $7^{\prime \prime}$ W. $\times 2^{\prime \prime} H . \times 5-7 / 8^{\prime \prime} D$. Shpg. wt. 6 lbs.
38A3102-7. Each
$\$ 159.95$

## P)OMEER 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 forprogram change, light-up program indicator, manual eject, repeat and fast for-
ward. Custom-tailor your music to the acoustics of your car. Wow and flutter no ward. 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 $12,000 \mathrm{~Hz}(-3 \mathrm{db})$. Size: $7-5 / 8^{\prime \prime} \mathrm{W} \times 3^{\prime \prime} \mathrm{H} \times 7 \mathrm{I}_{2}{ }^{\prime \prime} \mathrm{D}$. Shpg. wt. 7 lbs .
38A3101-9. Each
\$149.95


## UNDER-DASH 8-TRACK TAPE PLAYER AND AM/FM STEREO RADIO

$\$ 149^{95}$


## 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 $50-10,000 \mathrm{~Hz}$ ．Converts from flush to surface mount by simple removal of mid－housing．Inpedance 3.2 ohms．Cabinet size： $61 / 4 \times$ $61 / 2 \times 41 / 2 \prime$ ．Speaker size $53 / 41$ ．Shpg．Wt． 12 lbs
$38 A 2097-0$ ．RCA Model 12 R400．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． $51 / 4^{\prime \prime}$ speakers $61 / 2^{\prime \prime}$ square grilles．
38A6041－4．Craig 9420．Pair
\＄32．95
（3）Acoustic Lens Design $5 \frac{1}{4 \prime}$＂Flush Mount Speakers．Acoustic foam lens for improved sound transpar－ ency， 10 watt power capacity black grille．
38A6055－4．Craig 9427.
Pair
$\$ 23.95$
（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.


（2）


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： $50-10,000 \mathrm{~Hz}$ ．Signal to noise ratio： 50 dB, Crosstalk：-70 dB ，Input： 4 ohms，Output： 4 ohms，Gain 10 dB ，Power requirements： 12 v nominal DC； 0.2 A to 5 A depending on sound level．
Size： $63 / 4^{\prime \prime} \mathrm{W} \times 1-7 / 8^{\prime \prime} \mathrm{H} \times 5^{\prime \prime} \mathrm{D}$ ．Shpg．Wt． $3^{1 / 2} \mathrm{lbs}$ ．
No．38A3054－0．Craig 9230A．Each ．

## Panesonic $\mathrm{CJ}-155$ ZEU 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 $70-10,000 \mathrm{~Hz}$ ．Output Impedance 4 to 8 ohms．For 12VDC negative ground．Size $3-13 / 32 \mathrm{~W} \times 5-11 / 16 \mathrm{D} \times 1-11 / 16 \mathrm{H}$ ．Shpg． wt ． 3 lbs ．With all wiring and Instructions．
38A3075－5．Model CJ－155ZEU．Each
\＄34．95


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 $2^{\prime \prime} \times 11 / 2^{\prime \prime} \times 3 / 8^{\prime \prime}$ ．Shpg．wt． $1 / 2 \mathrm{lb}$ ．
38D8123－8．Model ASC－100．Each
$\$ 19.95$

## 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－to－ car，car－to－boat，etc．
\＄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． $11 / 2 \mathrm{oz}$ ．


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
\＄2．33


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． $21 / 2^{\prime \prime}$ W．X $1^{\prime \prime} \mathrm{D}, \times 7 / 8^{\prime \prime} \mathrm{H}$ ． 6 or 12 VDC．Wt． 2 oz ．
$\$ 4.95$

\＄6．40
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．
38A8136－0．Model AB－50 Each ．．．．．．．．．．．．．．．．．．．．．．．．．．
$\$ 19.95$

## 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 sec－ onds．No wires to connect．No batter－ ies needed．Shpg．wt． 2 lbs．$\$ 3905$ UNIVERSAL MOUNTING KIT


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．
38A4007－7．Each
$\$ 4.99$

## AUTO SECURITY SYSTEMS

## AUTOMOBILE SIREN BURGLAR ALARM KIT

11月18


${ }^{\mathrm{H}} \mathrm{OO}_{\mathrm{O}}$


DOORS

## 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 $5^{\prime \prime}$ dede of highly polished die-cast metal and spun aluminum. Size $63 / 4^{\prime \prime}$ high, wire, fuse. Full instructions for do-it-yourself installation. For 12 V . DC only.
47A5518-1. Shpg. wt. 6 lbs. Net Each.
47A5567-8. Additional Pin Switch for Hood G Trunk. Each.....................99e
47A5568-6. Additional Pin Switch for Doors. Each..........................99e
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

$$
\$ 34^{95}
$$

Loud, piercing yelp siren aftracts 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 $51 / 8^{\prime \prime}$ diameter and $6^{\prime \prime}$ long. All angle mounting bracket for either horizontal or vertical mounting, trumpet may be adjusted to $90^{\circ}$ from mounting plane.
Specifications: Rated operating voltage 6 to 12 VDC, minimum 5 VDC, operating current .9 amp at 12 VDC, sound volume 105 db with sound pressure meter 10 feet away. Instructions and schematic diagram furnished. Shpg. wt. $21 / 2 \mathrm{lbs}$. A top quality import.
47A5654-4. Each
\$34.95
HIGH POWER YELP SIREN MODULE

## USE FOR HOME OR AUTO BURGLAR ALARMS!



[^1]

Devil Dog Alarm guards against theft of vehicle or contents by sounding car horn or siren (purchase siren obove) 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


$\$ 29^{95}$

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, siren driver, electrical switch lock, hardware and instructions for 12 volt negative ground. Shpg. wt. 3 lbs.
47A5656-9. Each
$\$ 29.95$


## - 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: $21 / 2^{\prime \prime} \times 21 / 8^{\prime \prime} \times 13 / 4^{\prime \prime}$. Shpg. wt. 2 lbs .
47A5664-3. Each
\$29.95

## 8 OHM TRUMPET

Wide angle $90^{\circ}$ spread for maximum penetration. Weatherproof re-entrant type, for indoor or outdoor use. $180^{\circ}$ swivel mount with screw flange. 5 watt power rating. 8 ohms. 5 inch horn opening. $5 \cdot 3 / 8^{\prime \prime}$ long. With wire lead. Shpg. wt. 2 lbs .
49A4008-2. Import Special
$\$ 13.95$
$\begin{array}{ll}\text { 19A7210-7. } & \text { SPST Push-Button Switch. Each ....... } 99^{\circ} \\ 21 \text { A319-9. } & 6 \text { Volt Lantern Battery. Each....... } \$ 2.48\end{array}$


## 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-tomount 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: $2^{\prime \prime} \times 3^{\prime \prime} \times 6^{\prime \prime}$. Speaker size: $8^{1 / 2}{ }^{\prime \prime} \times 81 / 2 " \times 81 / 2 "$
Shpg. wt. 7 lbs
47A5651-0.
Model ES-4. Each
$\$ 109.95$

## TRIPP LITE

## PORTABLE <br> WARNING FLASHER <br> 

- For dashboard, rear deck, roof top.
- Plug into cigar lighter.
- For official needs of Auxiliary Police, Volunteer Firemen and Municipal Officials.
$360^{\circ}$ 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: $4 \frac{1 / 2^{\prime \prime}}{} \times 53 / 4^{\prime \prime} \times 7 \frac{1}{4}{ }^{\prime \prime}$. Shpg. wt. $21 / 4 \mathrm{lbs}$. 47A5673-4. Model MR-3. Red.
47A5674-2. Model MR-3. Amber.
47A5675-7. Model MR-3. Blue.
Your Choice
Each



## 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 cohtrolled transmitter with channel 14

$\$ 14^{95}$crystal, $42^{\prime \prime} 9$-section telescoping an-
tenna and standard 9 V . battery. Voice communication or code signal. Morse code alphabet on unit. Carrying strap. Size: $3^{\prime \prime}$ W. X $51 / 4^{\prime \prime}$ H. X $11 / 4^{\prime \prime}$ D. Shpg. wt . 2 lbs .
10A242-6. Per Pair
$\$ 14.95$


- Inflate low tires.
- 60 P.S.I. max. pressure.

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 plug cable, 10 foot air hose, inflator accessories, oil-less piston design hard chrome cylinder wall and teflon piston ring, Factory sealed bearings never require lubrication. Size $61 / 2^{\prime \prime} \mathrm{L} \times 43 / 4^{\prime \prime} \mathrm{H} \times 43 / 4^{\prime \prime} \mathrm{W}$. Shpg. Wt. 7 lbs .
No. 47A5661-9. Each
$\$ 35.95$
 ILLUMINATED AUTO COMPASS
Precision compass movement. Pushbutton self-contained tighting. Powerful Alnico $V$. directional magnets with aircraft type cunife compensators. Versatile quick-sticking self-adhesive mount. Height $33 / 6^{\prime \prime} 0^{\prime}$ width $21 / 2^{\prime \prime}$. Wt.
8 oz . Mfg. List $\$ 10^{\circ} .00$.
47A5530-6.
Model ${ }^{-1601 . ~ E a c h ~}$
$\$ 8.75$

## B-A HOBBYIST'S

 ROCK TUMBLER SET
## SMOOTHES AND

 POLISHES: Rocks, Class $G$ Stones, Coins, Shell Casings, Fishing Spoons $G$ Many Other ItemsDOES THE
WORK OF
HIGH COST
MACHINES

## ONLY <br> $\$ 30^{95}$



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
\$30.95
47A8504-8. Tumbling Manual. Gives all necessary information on polishing all types of material.
Each
$\$ 2.00$
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
47A8509-7. 2 Oz. Brass Polishing Reactivating Cream. To renew life of brass polishing media.
Each
$\$ 1.29$

## ACCESSORIES \& EXTRA ABRASIVES FOR ABOVE

47A8510-5.1 Lb. Coarse Grit \$2.15 47A8514-7. Extra Quart Cans . 69 47A8511-3.1 Lb. Fine Grit. \$2.15 47A8515-4. Extra Belts ........ $85^{\circ}$ 47A8512-1.
1Lb. Prepolish Grit ........ \$2.15 47A8516-2.
47A85 13-9. $1 / 2$ Lb. Polish Grit $\$ 2.15$ Rubber Can Liners. Pr. ...... . $\$ 1.59$

## AUTO SECURITY SYSTEMS



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 $63 / 4^{\prime \prime}$ high, $5^{\text {" }}$ 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
47A5558\%. Shop w. 6 los. Net Each
$\$ 24.95$
$47 A 5567-8$.
$\$ 24.95$
47A556. Additional Pin Switch for Hood $G$ 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

$$
\$ 34^{95}
$$

Loud, piercing yelp siren attracts immediate aftention, 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 $51 / \mathrm{s}^{\prime \prime}$ diameter and $6^{\prime \prime}$ long. All angle mounting bracket for either horizontal or vertical mounting, trumpet may be adjusted to $90^{\circ}$ from mounting plane.
Specifications: Rated operating voltage 6 to 12 VDC, minimum 5 VDC, operating current .9 amp at 12 VDC, sound volume 105 db with sound pressure meter 10 feet away. Instructions and schematic diagram furnished. Shpg. wt. $21 / 2$ lbs. A top quality import.
\$34.95
HIGH POWER YELP SIREN MODULE


## 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 $3^{1 / 2} \times 13 / 4 \times 1 / 2^{\prime \prime}$. Requires any 8 ohm 5 inch or larger trumpet speaker. (shown at right) and SPST switch. Only 4 eads to connect. Shpg. wt. 1 lb.
No. 20A1312-4.
Each
\$8.95


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
$\$ 14.95$


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, siren driver, electrical switch lock, hardware and instructions for 12 volt negative ground. Shpg. wt. 3 lbs.
47A5656-9. Each
\$29.95


## - 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: $21 / 2^{\prime \prime} \times 21 / 8^{\prime \prime} \times 1 \frac{1144^{\prime \prime}}{}$. Shpg. wt. 2 lbs .
47A5664-3. Each
\$29.95

## 8 OHM TRUMPET

Wide angle $90^{\circ}$ spread for maximum penetration. Weatherproof re-entrant type, for indoor or outdoor use. $180^{\circ}$ swivel mount with screw flange. 5 watt power rating. 8 ohms. 5 inch horn opening. $5 \cdot 3 / 8^{\prime \prime}$ long. With wire lead. Shpg. wt. 2 lbs.
49A4008-2. Import Special . . . . . . . . . . . ... \$13.95 19A7210-7. SPST Push-Button Switch. Each ....... $99^{\circ}$
21 A319-9. 6 Volt Lantern Battery. Each ....... $\$ 2.48$


## 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-tomount 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: $2^{\prime \prime} \times 3^{\prime \prime} \times 6^{\prime \prime}$. Speaker size: $8^{1 / 2}{ }^{\prime \prime} \times 81 / 2{ }^{\prime \prime} \times 81 / 2$ "
Shpg. wt. 7 lbs
47A5651-0.
Model ES-4. Each
$\$ 109.95$

## TRIPP LITE

## PORTABLE <br> WARNING FLASHER <br> $\$ 29^{95}$

- For dashboard, rear deck, roof top.
- Plug into cigar lighter.
- For official needs of Auxiliary Police, Volunteer Firemen and Municipal Officials.
$360^{\circ}$ 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: $41 / 2^{\prime \prime} \times 5 \frac{1 / 4 " 1}{} \times 71 / 4^{\prime \prime}$. Shpg. wt. $21 / 4$ lbs. 47A5673-4. Model MR-3. Red.
47A5674-2. Model MR-3. Amber. 47A5675-7. Model MR-3. Blue.

Your Choice
Each
\$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 14Four 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: $3^{\prime \prime}$ W. X $51 / 4^{\prime \prime}$ H. X $11 / 4^{\prime \prime}$ D. Shpg. wt. 2 lbs .
10A242-6. Per Pair
$\$ 14.95$


- Inflate low tires.
- 60 P.S.I. max. pressure.

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 plug cable, 10 foot air hose, inflator accessories, oil-less piston design hard chrome cylinder wall and teflon piston ring. Factory sealed bearings never require lubri-

No. 47A5661-9. Each
$\$ 35.95$


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 $333^{\prime \prime}$, width $21 / 2^{\prime \prime}$. Wt. 8 oz . Mfg. List $\$ 10.00$.
47A5530-6.
Model-1601. Each
\$8.75
 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 $33 / \mathrm{s}^{\prime \prime}$. Wt. 12 oz . Mfg. 47 A5531. 47A5531-4 Model 1608. Each
$\$ 10.95$

## B-A HOBBYIST'S

## ROCK TUMBLER SET

## SMOOTHES AND

POLISHES: Rocks,
Class $\&$ Stones,
Coins, Shell Casings, Fishing Spoons $G$ Many Other Items

DOES THE
WORK OF
HIGH COST
MACHINES

## ONLY $\$ 3095$



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.
47 A8502-2. Shpg. wt. 9 lbs. Net Each
\$30.95
47A8504-8. Tumbling Manual. Gives all necessary information on polishing all types of material.
Each
$\$ 2.00$
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
47A8509-7. 2 Oz. Brass Polishing Reactivating Cream. To renew life of brass polishing media.
Each
\$1.29

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47A8510-5.1 lb. Coarse Grit \$2.15 47A8514-7. Extra Quart Cans. 69 47A8511-3.1 Lb. Fine Grit. \$2.15 47A8515-4. Extra Belts ........ 85 47A8512-1.
1Lb. Prepolish Grit ........ \$2.15 47A8516-2.
47A85 13-9. $1 / 2 \mathrm{Lb}$. Polish Grit $\$ 2.15$ Rubber Can Liners. Pr. . . . . . . $\$ 1.59$

## POPULAR B-A SPECIALTIES



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 .6 n Hz . With lona power cord. 90 day quarantee.
47A317-3. Shpg. wt. $1 \frac{1}{4}$ lbs.
Special Each
$\$ 15.95$
$\$ 20^{95}$


## 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 $5^{3 / 4^{\prime \prime}}$ L. X $2^{3 / 4^{\prime \prime}} \mathrm{H} . \times 3-3 / 8^{\prime \prime}$ D. Shpg. wt.
$11 / 2 \mathrm{lbs}$
47A322-3. Each
\$20.95

## COPAL 801 DIGITAL CLOCK



- STANDS $81 / 4^{\prime \prime}$ HIGH.
- $2^{\prime \prime}$ NUMERALS.
- military style 24 HR. READOUT
Features big, bold $2^{\prime \prime}$ numerals - can be seen by everyone in a large room. Idea 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. Oper ates on 110 VAC. Size: $111 / 4^{\prime \prime}$ W. X $5^{\prime \prime}$ D. X $61 / 2^{\prime \prime} \mathrm{H}$. Shpg. wt. 6 lbs .
47A323-1. Model 801 - White
47A324-9. Model 801 - Red
47A325-6. Model 801 - Yellow


## YOUR CHOICE <br> EACH

$\$ 59.95$

## THE EXELAR SOLID STATE DIGITAL ALARM CLOCK

## Manufactured by

 National Semiconductor
## - $1 / 2^{\prime \prime}$ L.E.D. Readout.

- Snooze Switch.

This compact, smartly styled clock features a power failure indicator that tells you when it's wrong. Digital readout in bright red is tilted for greater readability. Has automatic brightness readability. Has automatic brightness
control. Pin-point alarm setting over 24 hour range


47A327-2 - Brown
47A328-2 - White 47A328-2 - White
72


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
$\$ 19.95$


## JETSET ELECTRIC

 DIGITAL ALARM CLOCKThe 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 117 V 60 Hz . Comes in black.
47A319-9. Each
$\$ 14.88$

## 回

## 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 $A M$ 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 friands or to listen to music, sports and news. No license is required for the operarion 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
No. 10A3087-2. Crystal Certificate. Order i certificate for each channel wanted. Mail certificate to crystal manufacturer. Each
$\$ 4.95$

RECORD CARE ACCESSORIES


## LEARN A FOREIGN LANGUAGE



- Available on Cassette or Long Playing Records.
- Comprehensive Conversation Manual.
- Common Usage Dictionary.


## CHOICE OF

 LANGUAGE COURSES
## $\$ 11^{95}$

(1)STYLUS MICROSCOPE. Precision ground lenses for clear mognification of stylus, slot at end of scope for holding stylus steady. Pen type pocket clip. 24A6001-4. Wt. 3 ozs.
\$5.95
Tyde PM-1. Eoch.
(2) KLEENEEDLE BR
(2) 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 automaticallv after every record. Wt. 2 ozs.
24A6002-2.. PB-3. Each ..........................
$\$ 1.45$
(3) PHONO STROBE AND LIGHT KIT. Checks speed of turntable
$\$ 3.85$
(1) PACKAGE OF 50 SNAP INSERTS FOR 45 RPM RECORDS. Snops in lorge hole of record for use on stondord spindles of changers or ployers.
24A6008-9. Type PRA-50. Wt. 6 oz. Package For............. $\mathbf{\$ 1 . 3 9}$
(3) RECORD SAVERS. Heovy, cleor plostic envelopes to protect records from scratches, dust oil and dirt. For $1{ }^{12 \prime \prime}$ records.
$24 \mathrm{~A} 6010-5$. Type PJ-18. Pkg. of 18 For.
$\$ 1.25$
(5) RECORD CLEANINC KIT. Actually cleans the groves as well as the surface. Features a non-gumming, anti-static liquid detergent in a plastic squeeze bottle, special fine-grain cleaning puff which goos clown into the record grooves so clean out abrasive dust, as well as remove static. Annoy-
ing hisses and crackles disappear like magic, music sparkles wish new clarity. ing hisses and crackles disappear like magic, music sparkles with $n \in w$ clarity.
Adds new life and brilliance.
$\$ 1.50$
24A6030-3. Each.
ds
(1) RECORD BRUSH AND TONE ARM LIFT

A unique combination of a fine record brush that sweeps records clean in front of needle, plus a tone arm lift for easy handling of tone arm. Clips on any arm. Wt. $10 z$.
$24 \mathrm{~A} 299-0$. Net Each.
$\$ 1.25$
(8) ELECTRO-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 and static. Keeps grooves clean for true, clear fidelity, longer record life. Used by many broadcast stations and recording companies. Wt. 2 ozs
24A6003.0. W. W. 2 or. Each
$\$ 1.00$
(9) ANTI-STATIC RECORD CLEANER

Spray can. Special rapid cleaning formula. Eliminates static and keeps records clean. Includes cloth.
24A6004-8. 5 Oz. Can. Each.
$\$ 1.50$
SHURE M64 STEREO PREAMPLIFIER
For Phonographs, Tape Decks, Microphones. 10 Converts phonos to accept magnetic cartridges, boosts microphone ourpur, equares 20 to $20,000 \mathrm{~Hz} .1 \%$ distortion at 1,000 Hz . Separation 50 db . Size $55 /{ }^{\prime \prime} \times 233 / 8^{\prime \prime} \times$ $41 / 2^{\prime \prime}$ Shpr. wt. 2 ibs .115 VAC .
Model M64. Each
$\$ 57.50$

## SWITCHCRAFT DOLBY* FM COMPENSATOR

Model 621P1. If your receiver is not equipped to deemphasize 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* (" $25^{\prime \prime}$ switch). Size: $2^{\prime \prime} \times 2^{\prime \prime} \times 1^{\prime \prime}$. Shpg. wt. 2 lbs
53A971-8. Model 621-P1. Each
$\$ 12.95$

* A Trodemark of Dolby lobs. 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, $6^{\prime}$ 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

$\$ 15.41$

Complete courses based on proven U. S. Govt. methods. Just relax and learn! Words, phrases, sentences are clearly spoken in faultless accents by expert instruc-tors-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 dictionary.

LIVING LANGUAGE RECORD COURSES

| 23A162-1 | - French | 23A160-5 | - German |
| :--- | :--- | :--- | :--- |
| 23A159-7 | - Spanish | $23 A 165-4$ | - Portuguese for South America |
| 23A256-1 | - Japanese |  |  | 23A256-1 - Japanese

$\$ 11.95$

## LIVING LANGUAGE CASSETTE COURSES

## 23A257-9 - French 23A259-5 - German 23A258-7 Spanish 23A260-3 - Japanese YOUR CHOICE EACH <br> $\$ 13.95$

## 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 pronunciation, 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 sudervisjon of M. L. Gurren, Ph.D.
\$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 $16^{2}$ chat RPM on $7^{\prime \prime}$, unbreakable vinyl$16^{2 / 3}$ RPM on $7^{\prime \prime}$ unbreakable vinylite records - each record plays for
nearly an hour. A special adaptor is nearly an hour. A special adaptor is available ${ }^{*}$ for playing them on any $331 / 3$ RPM or they can be used with $331 / 3$ RPM, of 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
iacketed in simulated black leather iacketed in simulated black leather with gold lettering.
NEW TESTAMENT-King James version. Complete and unabridged-all 27 books 260 chapters. Mfg. List $\$ 39.50$
23A20-1. Per Album (26 Records) ............................ \$31.95 23A20-1. Per Album ( 26 Records)

OLD TESTAMENT-9 books: complete and unabridged, Genesis, Judges, Esther, Ruth 23A8-6. Mfg. List \$39.50. Per Album ( 26 Records)
$\$ 31.95$

## BIBLE STORIES FOR YOUNG PEOPLE

STORIES FROM THE OLD TESTAMENT. 21 complete stories, including Noah and the Ark. David and Goliath, Daniel in the Lion's Den, etc. Plavs 2 hours
23A23-5. Mfg. list $\$ 4.95$. Per Album ( 2 Records) 23A23-5. Mfg. list $\$ 4.95$. Per Album (2 Records)
\$4.76
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 $331 / 3 \mathrm{rpm}$ furntable. Each
$\$ 4.95$

## NEW TESTAMENT ON CASSETTES

King James version. Narrated by Marvin Miller. 21 hours on 12 cassettes. Comes in a storage album.
23A261-1. Each
$\$ 99.95$

$1 / 2$ inch high numerals show room temperatures from $66^{\circ}$ to $86^{\circ} \mathrm{F}$ in 2 degree increments. Space age technology has created specially formulated liquid crystals which activate at indicated temperatures and reflect light. $8^{\prime \prime}$ long natural aluminum case. Shpg. wt. 1 lb
47A2011-0. Each

SAOY
8 TRACK CARTRIDGE CARRYING CASE


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
EACH
$\$ 9.95$
HOLDS 24 CARTRIDGES
23A249-6. Brown
23A250-2 Burquady
23A250-2. Burgundy YOUR CHOICE
23A251-2. Black
23A299-1. As above but in simulated tan suede. Each
$\$ 12.95$


## CASSETTE CARRYING CASE

HOLDS 30 CASSETTES. Sturdy wood construction covered in durable black alligator grained vinyl with attractive red plush interior. Cassettes stack horizontally.
23A301-5. Brown YOUR CHOICE
23A302-3. Black EACH
$\$ 12.95$
FOR A FINE QUALITY 8 TRACK CARRY CASE


COMPARE WITH SIMILAR CASES AT \$9.95!!


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
$\$ 6.95$
 $23^{\prime \prime} \mathrm{X} 15^{\prime \prime}$. Shpg. wt. 15 lbs.
23A284-3. Each
\$29.95


## DELUXE TAPE STORAGE CABINETS $\$ 1995$

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 .
23A243-9. Holds 248 track tapes. Size: $13^{\prime \prime} \times 9^{\prime \prime} \times 6^{\prime \prime}$.
23A244-7. Holds 26 cassette tapes. Size: $13^{\prime \prime} \times 9^{\prime \prime} \times 5^{1 / 4^{\prime \prime \prime}}$
CHOICE EACH . . ...................................................
$\$ 19.95$

## 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.

FOR 4 \& 8 TRACK TAPE CAR-
TRIDCES, Dimensions $91 / 2^{\prime \prime} \times 91 / 2^{\prime \prime}$
$\times 121 / 2^{\prime \prime}$ high. Capacity: 48 cartridges.
23A179-5.
23A179-5.
Model 82TC. Each............. $\$ 10.95$
FOR CASSETTES. Dimensions: $8 \times 8$ $\times 10^{\prime \prime}$ high. Capacity 48 cassettes.

23A180-3.
Model 84TC. Each
$\$ 10.95$


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 $20 / 20$ studio cartridges with premium quality professional mastering tape. Captures all the sound, just the way its happening . . . every beat, note 11 A1250-7. Ampex 388-90
Each.
\$3.69
12 Each
\$3.39


## 4-40 MINUTE BLANK 8-TRACK TAPES <br> 8-TRACK TAPES

## SAVE OVER <br> 50\% ON TOP QUALITY 8-TRACK <br> RECORDING TAPE!



[^2]

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 wafer shield, precision assembly techniques and in addition ... top quality lubricated recording tape.


## B-A CASSETTE HEAD CLEANER TAPE

Quickly removes accumulated tape oxide from recorder head restoring original



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. $\$ 4.20$ Special Each.

# 3 SM 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
Fact No Recording Time Each 10 Each Sik. No.
1A1210-1 11 A1212-7

## Fact. No. SC- 60 SC -90 SC- 90 SC -120

## Recording Time 60 minutes 90 Minutes

 $\begin{array}{lrr}\mathbf{~ M i n u t e s} & \$ 2.19 & \$ 1.97 \\ & 3.19 & 2.87\end{array}$ CHROME CASSETTESPosi-Trak Backing. Individually album packaged. Average wt. 2 oz.

| Stk. No. | Factory No. | Recording Time | Each | 10 Each |
| :--- | :--- | :--- | ---: | ---: |
| $11 A 1252$ | SC-60CR | 60 Minutes | $\$ 2.59$ | $\$ 2.33$ |
| $11 A 1253$ | SC-90CR | 90 Minutes | 3.59 | 3.23 |
| $11 A 1254$ | SC-120CR | 120 Minutes | 4.99 | 4.49 |

11 A1253
MASTER SERIES
Master cassettes, developed by 3 M , are designed specifically for music recording and affords premium frequency response and sound fidelity. All feature Positrack backing for improved mechanical performance.


## SCOTCH BLANK 8-TRACK CARTRIDGES

Precision tape inside is the one used by professionals for critical continuous loop recording. High output characteristics pro vides 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


SCOTCH CLASSIC RECORDING TAPE
Classic combines full-spectrum sensitivity and output of the highest order. Meticulously dispersed oxide together with its ultra highly polished surface 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 capstan operation and providing uniform winding.


Stk. No.
$11.1330-7$
$11-1331-5$

> CLASSIC CASSETTE TAPE
> Factory No.

11A1260-6
$\begin{array}{ll}\text { CLC-60CB } & 60 \text { Minutes } \\ \text { CLC-90CB } & 90 \text { Minutes }\end{array}$
CLASSIC 8 TRACK TAPE
1A1261-6
CL-8T-45 45 Minutes
90 Minutes
CLASSIC OPEN REEL TAPE


| $1200^{\prime}-7^{\prime \prime}$ Reel | $\$ 6.99$ | $\$ 6.29$ |
| :--- | ---: | ---: |
| $1800^{\prime}-7^{\prime \prime}$ Reel | 8.49 | 7.64 |
| $2400^{\prime}-7^{\prime \prime}$ Reel | 10.99 | 9.89 |
| $2400^{\prime}-10^{\prime \prime}$ Reel | 17.99 | 16.19 |
| $3600^{\prime}-10^{\prime \prime}$ Reel | 20.99 | 18.89 |
| $4800^{\prime}-10^{\prime \prime}$ Reel | 27.99 | $\mathbf{2 5 . 1 9}$ |

## SCOTCH OPEN REEL TAPES

Most widely used of all magnetic recording tapes ... flawless sound reproduction. Tape lengths are shown in minutes, both direction at $71 / 2$ ips. All tapes come with heavy duty cardboard storage box except 206-1/4-R60 and 207-1/4-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. <br> Fact. No. Reel Length <br> $\begin{array}{lllll}11 A 1204-4 & 206-1 / 4-R 120101 / 2^{\prime \prime} & +2400 \mathrm{Ft} & 10.89 & 9.80\end{array}$ <br> RO-10 $1^{1 / 2}$ " aluminum reel with $3^{\prime \prime}$ (NAB) center hole. <br> TYPE 207 PROFESSIONAL MASTERING TAPE <br> Same as Type 206 above, but 1 mil thick allows $50 \%$ more tape on each reel. Has leader tape attached. <br> $\begin{array}{ll}11 A 1203-6 & 207-1 / 4-\text { R90 } \\ 11 A 1205-1 & 207-1 / 4-R 180\end{array}$ <br> 7" <br> 90 Min . <br> $\$ 7.49 \quad \$ 6.74$

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. 11A1242-4 211-1/4-R30 $\quad 5^{\prime \prime} \quad 30 \mathrm{~min}$.

\$2.99 \$2.69 | $11 A 1243-2$ | $211-1 / 4-R 60$ | $7^{\prime \prime}$ | 60 min. | 4.49 |
| :--- | :--- | :--- | :--- | :--- |
| 1.09 |  |  |  |  | TYPE 212 LOW NOISE/DYNARANGE 1 MIL POLYESTER

Same standard as 211 above but with 1 Mil backing permits $50 \%$ more tape per reel.
$\begin{array}{lllll}11 A 1244-0 & 212-1 / 4-R 90 & 7^{\prime \prime} \quad 90 \mathrm{~min} . & \$ 5.99 & \$ 5.39\end{array}$
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

| leader tape | attached. |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- |
| $11 A 1245-7$ | $213-1 / 4-R 120$ | $7^{\prime \prime}$ | 120 min. | $\$ 8.99$ | $\$ 8.19$ |
| $11 A 1246-5$ | $214-1 / 4-$ R180 | $7^{\prime \prime}$ | 3 Hr | 11.99 | 10.79 |

TYPE 228 HIGHLANDER/LOW NOISE 1.5 MIL POLYESTER Low cost high quality tape, where economy is a factor. |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 11 A1247-3 | $228-1 / 4-R 60$ | $7^{\prime \prime}$ | 60 min. | $\$ 3.99$ |
| 102.60 |  |  |  |  |

## TYPE 229 HIGHLANDER/LOW NOISE 1.0 MIL POLYESTER

 Same as type 228 but permits $50 \%$ more time on a reel. 11A1248-1 229-1/4-R90 $\quad 7^{\prime \prime} \quad 90 \mathrm{~min}$.$\$ 5.49 \quad \$ 4.94$
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. 156-1/4-1800. Reel. Each . . . . . . \$6.39 10 Each
$\$ 5.79$
SCOTCH EMPTY REELS̃ ÁÑD̄ BOXES
 Plastic reels. Capacity is for standard $11 / 2$ mil base tape.

Stk. No. Size Capacity Wt. Each 10 Each $\begin{array}{llllll}11 A 572-5 & 5^{\prime \prime} & 600^{\prime} & 4 \mathrm{Oz} & \$ 0.79 & \$ 0.71 \\ 11 A 573-3 & 7^{\prime \prime} & 1200^{\prime} & 5 \mathrm{Oz} & 109 & 98\end{array}$ 11A573-3 $7^{\prime \prime} \quad 1200^{\prime} 5 \mathrm{Oz}$. $1.09 \quad .98$ PRST-7 SELF-THREADING PLASTIC REEL $\$ 1.75$ $\begin{array}{rlrl}118728-3 & 7^{\prime \prime} \quad 1200 & 5 \mathrm{Oz} \text {, } \$ 1.99 \quad \$ 1.75 \\ \text { RB } 1 / 4-7 \mathrm{M} \text { METAL REEL }\end{array}$ | $11 A 7658-5$ | $5^{\prime \prime}$ | $1200^{\prime}$ | 5 Oz . |
| :--- | :--- | :--- | :--- |
| $1 / 4.99 \quad \$ 4.49$ |  |  |  | TRUE-RUNNING $101 / 4$ " REELS WITH BOXES Aluminum NAB type with tlanges. Wt. . $\$ 6.59$ Ib Each $\$ 5.93$




# 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 SNR, greater sensitivity and improved high frequency saturation.
Stk. No.
11A1351-3
11A1352-1
11A1353-9

## Memorex Type <br> Quantum 90

Quantum 180
$7^{\prime \prime}$ plastic, $96 \mathrm{~min} .-1800 \mathrm{ft}$.
$\mathbf{7}^{\prime \prime}$ plastic, $128 \mathrm{~min} .-2400 \mathrm{ft}$.
$101 / 2^{\prime \prime}$ alum., 192 min . 3600 ft .
Each
$\$ 8.59$
11.39
21.49


## 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. <br> 11A1274-7 <br> 11A1275-4 | BASF No. LP35LHS DP26LHS | $\begin{gathered} \text { Description } \\ 7^{\prime \prime}-1800^{\prime} 1.0 \mathrm{Mil} \\ 7^{\prime \prime}-2400^{\prime} 3 / 4 \mathrm{Mil} \end{gathered}$ | Wt. Ozs. 18 18 | $\begin{array}{r} 1.9 \\ \text { Each } \\ \$ 9.69 \\ 12.89 \end{array}$ | 10 Up Each $\$ 8.69$ $11.59$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BASF REGULAR LOW NOISE - HIGH OUTPUT TAPE |  |  |  |  |  |
| 11A1177-2 | LP35LH | $7^{\prime \prime}-1800 ' 1.0 \mathrm{Mil}$ | 18 | \$7.49 | \$6.69 |
| 11A1179-8 | DP26LH | $7{ }^{\prime \prime}-2400^{\prime 3} / 4 . \mathrm{Mil}$ | 18 | 9.99 | 8.99 |
| 11A1181-4 | TP18LH | 7"-3600' 1/2 Mil | 16 | 14.99 | 13.49 |
| BASF PLASTIC RECORDING TAPE BOX |  |  |  |  |  |
| 11A7548-8. <br> Empty 7" Pla | stic Swivel Box. | ch ..... \$2.09 | Each |  | \$189 |



TERRIFIC PRICE SAVINGS!

Money saving prices on top quality tapes! Every reel guaranteed to satisfy or your money back. May be assorted for quantity prices.

| $1 / 2$ MIL POLYESTER BASE. $600^{\prime}$ on $31 / 4^{\prime \prime}$ reel 11A1100-4. Each | $99^{\circ}$ | 10 at Each . | c |
| :---: | :---: | :---: | :---: |
| 11/2 MIL ACETATE BASE, $600^{\prime}$ on $5^{\prime \prime}$ reel 11A455-3. Each | \$1.49 | 10 at Each |  |



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. $\$ 5.29$ Each $10604-9$. Cartridge type ( 4 \& 8 track) 56.69
 I.P.S. $5^{\prime \prime}$ reel) Each............................ $\$ 5.39$


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 results. A real time saver 11A7644-5. Each
\$2.95
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
## ${ }^{5} 2^{99}$

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 heads.
$\$ 2.99$

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 tape library. Sits on a shelf like a book. Perfect to carry with you. Molded plastic interior holds cassettes firm
23A183-7. Special Each.
\$2.95
Holds Eight 8-Track Tape Cartridges. Similar to Cassette Album above. Size: $123 / 4^{\prime \prime} \times 101 / 2^{\prime \prime} \times 21 / 8^{\prime \prime}$. Wt. 2 lbs.
\$3.98


## TAPE STORAGE CASES

Beautifully molded cases to hold your cassettes or 8 -track tapes in perfect order. Molded inserts to hold tapes upright. Black with white top. Top has vinyl wood grain insert.
23A247-0. Holds 15 cassettes. Size: $31 / 2$ $\times 4 \frac{1}{2} \times 12 \frac{1 / 4}{}{ }^{\prime \prime}$. Shpg. wt. 1 lb .

23A246-2. Holds 128 -tracks. Size: $5 \frac{1}{4} \times$ $4^{1 / 4} \times 12^{1 / 2}$ ". Shpg. wt. $1^{1 / 2} \mathrm{lbs}$.
YOUR CHOICE
EACH
$\$ 2.79$


8-TRACK STACK CASE
Each case holds 108 -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 $4^{3 / 4} \times 5-58 \times 8-58^{\prime \prime}$. Shpg. wt. $1 \frac{1}{4} \mathrm{lbs}$.

23A245-4. $\$ 2.79^{4}$ or
Each .... \$2.79 More Each
$\$ 2.49$


1 CASSETTE PLAYER/RECORDER HEAD DEMAGNETIZER Deluxe cassette size device simply plugs into machine like a regular carDeluxe cassette size device simply plugs into machine inke a regular car-
tridge. Removes all tape head magnetic build-up, restoring original fidelity of recorder. For 110 V .60 Hz .
11A7532-2. Net Each
$\$ 7.59$
2) 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 overation.
$\$ 9.95$
2) 8 TRACK CARTRIDGE TEST STROBE

Check your recorder/player for speed accuracy. Has built-in strobe tape and light. Operation: $110 \mathrm{~V}, 60 \mathrm{~Hz} . \mathrm{AC}$.
$\$ 8.75$
 INSTALLATION ACCESSORIES

FIBERGLAS ACOUSTIC INSULATION. Spun fiberglas material I" thick eliminates standing waves and controls reverberation inside speaker baffles. Ideal for any acoustic insulation application. $24 \times 60^{\prime \prime}$ size in plastic bag.
\$2.25 17A1439-0. Type 30-356. Each (2) 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. Overail length ${ }^{\prime \prime}$. Travel Igth. $9^{\prime \prime}$. Load capacity 50 lbs . Silencer spring eliminates vibration. Shpg. wt.
37A5604-1. Per Pair.
$\$ 4.95$

## 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. track configuration of your recorder.
Nortronics replacement guide. Tape head specifications and conversion information.

Record Playback replacement heads for practically all 8 -track and cassette plavers. Shipping weight: 3 oz
11 A7579-3. 5800 for 8 -
11A7579-3. 5800 for 8-Track. Each.
$\$ 8.00$
Al 5130 for $1 / 2$-Track Mono Cassette. Each $\$ 23.15$
11A7634-6. 5230A for Stereo Cassette. Each


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 1006 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 surfaces.
11A7654-4. Model QM-9. Each
$\$ 3.35$

## LIQUID HEAD CLEANERS

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.
11A7642-9. QM-102 2 oz . can.

11A7655-1. QM-108 8 oz. can.
Each . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
$\$ 3.75$
11A7643-7 QM-104 Tape/Head Lubricant 2 oz.
$\$ 2.10$


Each

SPRAY HEAD CLEANER
For use on all tape recorders and players. Powerful spray literally blasts free oxide and dust deposits which cause distortion and loss of output. $5^{\prime \prime}$ extension tube provided to reach recessed heads in auto players. 3 oz . can. 11A7656-9. QM-103. Each
$\$ 2.75$


## NORTRONICS

PROFESSIONAL ALIGNMENT TAPES
High quality professional alignment tapes for test and alignment plus NAB frequency response checks. Shpg. Wt. trequenc
12 oz.
9.60

11A7635-3. AT820 8-Track Tape. Each

11A7642-9. QM-102 Tape/Head Cleaner with orifice reducer. 2 oz .
Each
QM-102 Tape/Head Cleaner with orifice reducer. $\$$ oz.
11A7643-7. QM-104 Tape/Head Lubricant 2 oz. Each
\$2.10


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 .
\$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 , AC
11A1052-7. Import Special
\$5.99

## CARTRIDGE PLAYER/RECORDER HEAD

 12 VOLT DC DEMAGNETIZERQuickly eliminates residual magnetism in record and playback heads, the common cause of high noise level in tape recordings. Long slim $71 / 2^{\prime \prime}$ body permits easy access to deep recessed heads in all recorder-player units. permits easy access to deep recessed heads in all recorder-player
Full instructions for use by anyone. Wt. I lb. Top quality import. For 12 V . DC Transistorized. HAT503-3. Special Each.
$\$ 6.95$

## SAVE ON THESE TAPE RECORDER AIDS!



## TELEPHONE PICKUP COIL



JIFFY PHONE PICKUP COIL


B-A TAPE
SPLICER BARGAIN

For recording conversa- Jiffy suction cup attaches Cuts, trims, splices in sections 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, withused with a standard re- interfere with telephone out losing a significant corder or mike amplifier, operation. part of the recorded Installs by slipping under With shielded cable. sound. phone or laying on ringer Ciant import savings. Well made import. $56^{\prime \prime}{ }^{\prime \prime}$ cable. Wt. 6 oz . W. Wt. 6 oz . 32A4000-8. \$1.69 11A1057-6. \$1.99 11A7501-7. Special …........ \$1.69 Special .......... \$1.99 Special Each
$\$ 5.99$


## PROFESSIONAL CASSETTE

 BULK ERASERRemoves recorded sounds from entire cas sette 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


$\longrightarrow$

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 - Ut 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 "See thru" windows indicate "Cut and rem secure tape. Easy threading, integral tape dispenser with 100 ' roll of $1 / 2$ " splicing tape. With instructions. Wt. 1 lb.
11A704-4. Robins R26045 Each
$\$ 12.50$
(2) Standard $1 / 4$ " 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.
11 A7501-7. Shpg. wt. 1 lb . Each
$\$ 5.99$

## SEE PAGE 76 FOR COMPLETE SELECTION OF SCOTCH SPLICING TAPE

## (3) PROFESSIONAL SPLICING BLOCKS

Precision machined of non-magnetic,gold anodized duraluminum, firmly holds tape. Cutting blade and ten splicing tabs are included. Made by Nortronics. 11A7637-9.. QM311 for $1 / 4^{\prime \prime}$ tape. Each
$\$ 12.00$
11A7638-7.. QM312 for $150^{\prime \prime}$ cassette tape, each
$\$ 12.00$
ROBINS PROFESSIONAL BULK TAPE ERASERS. Better erasure without using recorder. Reduces tape background noise. Takes only seconds to erase entire reel.
(4) R24018. Erasure 3 to 6 db below normal erase head level. Handles reels up to $10^{1 / 2^{\prime \prime}}$ dia. $x^{1 / 2^{\prime \prime}}$ wide. Size $3^{3 / 4^{\prime \prime}} \times 5^{1 / 4^{\prime \prime}} \times 6^{3 / 4^{\prime \prime}} .110 \mathrm{~V} .60 \mathrm{~Hz}$. AC. UL listed. Wt. $81 / 2 \mathrm{lbs}$.
11A409-0. Each
\$57.50

(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 $110 \mathrm{v}, 60 \mathrm{~Hz}$ AC.
R25009 Professional Model. U/L listed. 4-5/8 $8^{\prime \prime} \times 1 \frac{1}{2} 2^{\prime \prime}$ dia.
11A794-5. Wt. 1 lb . Net Each
$\$ 9.99$
R25006 Economy Model. $3^{1 / 2} \times 1^{1 / 4^{\prime \prime}}$ dia.
11 A998-2. Wt. 8 oz . Net Each
\$6.19
(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
$\$ 9.97$
11B154-2. TAPE HEAD CLEANER AND LUBE KIT. 2 oz, bottles Head Cleaner and Head and Guide Lubricant. Wt. 6 oz .
\$1.99 Robins R32027. Net Each

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. $11 / 2 \mathrm{lbs}$.
Robins R32030. Net Each
\$3.95
(7) HEAD CLEANING TAPE. Chemically treated. Just run through recorder to clean recording heads, tape guides, etc. Wt. 6 oz
11A404-1. R39111. 3" Reel. Net Each
$\$ 1.89$
(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)

(1) EMPTY TAPE REELS. Perfectly molded of clear plastic. Standard hub. Average wt. 8 oz .

| Stk. No. | Size | Net Price | Stk. No. | Size | Net Price |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 11A975-0 | $3^{\prime \prime}$ | 6 For $\$ 1.25$ | 11 A978-4 | $5^{\prime \prime}$ | 2 For $\$ 1.10$ |
| 11 A976-8 | $3^{\prime \prime} 14^{\prime \prime}$ | 4 For $\$ 1.25$ | 11 A979-2 | $7^{\prime \prime}$ | 2 For $\$ 1.49$ |

(2) LOW TORQUE $7^{\prime \prime}$ REEL. Larger hub reduces the effect of variable pull on tope caused by recorder take-up drive. Reduces wow and flutter, winds tape evenly. Copocity 1600 ft . $1 / 2 \mathrm{mil}$ tape, 1200 ft . $1 \mathrm{mil}, 800 \mathrm{ft}$. $11 / 2 \mathrm{mil}$. 11A980-0.
Package of 2 For
\$2.19
(3) 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, $2^{\prime \prime} \times 1 / 2^{\prime \prime}$ imprinted title, date and number. GC 30-118. <br> 11A984-2. Package of 36 Labels. Per Package <br> 59 ${ }^{\text {c }}$

## CASSETTE TAPE RECORDING ACCESSORIES




4



Cassette Tape Mailers. Package of 18 convenient cardboard cassette mailers. Unique design protects cassette for safe mailing 11A7521-5. R33016. Package of 15 For
(2) C-0 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
99
Cassette Tape Tension Winders. Inserts in holes of cassette to wind tape in either direction and take up slack. Wind tape for easy editing and tape in
11A7542-1. R33012. Pair
$\$ 1.49$
(7) 3-Way Combination Test-N-Clean Cassette. Cleans recorder player heads. Test head for correct alianment to assure full fidelity playback without annoying "crosstalk" between channels. Tests stereo balance equalization between channels.
11A7646-0. Robins R35002. Each . . . . . . . . . . . . . . . . . . . . . . . . . . \$2.19
(9) Cassette Tape Splicer. Especially for editing and repairing i50" wide tapes. Cuts tape at $45^{\circ}$ angle. Includes 25 splicing patches.
IIA7528-0. R33032. Net Each
$\$ 3.95$
11A7529-8. R33035. Extra splicing patches. Pkg. 100 ............. $\$ 1.49$
(5) Cassette Replacement Title Labels. Package of 20 self-stick die-cut labels. Replace worn labels. Title and identify recordings.
11A7630-4. R33018. Each
$\$ 1.39$

## PHONO AND RECORD CARE ACCESSORIES

## CECIL E. WATTS RECORD CARE EQUIPMENT

The only positive way to clean, maintain and protect records.

(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 24A6037-8. Watts No. PR. Each
records
(2) Hi-Fi Parastat. Designed and intended for use on new records or records in like-new condition, which are to be played with pickup cartridges requiring very low tracking pressures of 2 grams. or iless. Record groove is thoroughly and completely explored right down to the bottom, so every trace of foreign matter is removed. Kit contains: brush, stylus cleaner, distilled water, antistatic fluid. Humidor case.
24A6038-6. Watts No. MK4, each
$\$ 16.50$
(3) Manual Parastat. Will revitalize your old records by lifting built-up dust, dirt and grit from the grooves. Uniquely designed brush with nylon bristles pointed down to $.00025^{\prime \prime}$ provide deep down penetration for tough cleaning jobs. Especially valuable where elliptical styli are used. Complete with new formula anti-static fluid.
24A6031-1. Watts No. PA-MK-11A. Each
$\$ 19.95$
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 droos is all that is required to control static charge.
24A6032-9. Watts No. NF.
$\$ 3.00$
Each
(5) Humid Mop. Designed to clean and maintain the Hreener, 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 sponges and instructions.
$\$ 4.50$
24A6040-2. Watts No. HM. Each
(6) Dust Bug. Keeps record clean as it plays. Gentle in action, it cleans the immediate area of the record a split second before the stylus tracks the groove. Suction cup makes it simple to attach to any turntable.
$\$ 7.95$
24A6033-7. Watts No. TDB. Each
$\$ 3.50$
24A6034-5. Replacement Pad and Bristles. Watts No. PPB. Each
Stylus Cleaner (not illustrated). Removes accumulation from stylus.
$\$ 2.00$
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.
$\$ 5.50$
Watts Record Maintenance Kit. Comes complete with Preener, stylus cleaner, and Dust Bug.
Shpg. Wt. 1 lb .
24A6035-2. Watts No. RMK. Each
$\$ 15.50$
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.
$\$ 24.95$
24A6039-4. Watts No. RCK. Each
$\$ 2.95$
Watts Record Care Book
16A1284-1. Just for The Record. Each
$\$ 1.00$


## BRINGS RENEWED <br> PEAFORMANCE TO OLO RECORDS <br> RETAINS THE LIFE OF NEW ONES! <br> DISC CARE RECORD CLEANING KIT <br> $$
{ }^{5} 8^{95}
$$

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.


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 today years from now.
24A6054-3. Each
\$6.99
discwasher

## \$14 ${ }^{95}$ SUPERIOR RECORD CLEANER <br> \$



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 .
24A6043-6. Discwasher System. Each
$\$ 14.95$
24A6044-4. 1 oz . refill bottle of Discwasher fluid. Each
$\$ 1.95$


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 handle.
24A6053-5. Each
\$6.95

## CLEAN SWEEP RECORD CLEANER

## $\$ 349$

$\$ 6.95$

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 everyone 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 record cleaner.
24A6048-5. Each

## DIAMOND PHONO NEEDLES




SET SCREW TYPE ALL GROOVE NEEDLES


Sapphire tip needle. Truncated for both microgroove and standard records. Plays all types of records with-
out changing needless.
69c

## PHONO ARM WITH

## TURNOVER CARTRIDGE

Smooth gray plastic arm with monaur al turnover cartridge. Arm is $8^{1 / 2}$ ong, plays all records $12^{\prime \prime}$ or smaller 24A4049-5.
Each
\$3.59

## STEREO ARM AND TURNOVER CARTRIDGE

For playing all records. monaural and stereo. Output . 3 V . Gray plastic $8^{1 / 2}$ arm plays all records $12^{\prime \prime}$ or smaller. Complete with mounting hardware. Wi 10 oz
24A4050-3. Each
$\$ 3.99$


Used by phonograph manufacturers as original equipment. All have diamond stylus. All cartridges have crystal elements except * which have ceramic elements.

| Fig | Stock | Cartridge No. | Type | Volts | Color | Mfg List | Each | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 24A4065-1 | CN65D | Mono | 2.8 V | Black | \$8.50 | \$6.80 | \$5.10 |
| 1 | 24A4068-5 | CN75D | Stereo | 2.0 V | Black | 8.50 | 6.80 | 5.10 |
| 2 | 24A4069-3 | SS4D | Stereo | 2.0 V | Black | 8.00 | 6.40 | 4.80 |
| 3 | 24A4070-1 | TO45LD | Mono | 9 V | 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 | 1.0 V | Grey/Red | 9.00 | 7.20 | 5.40 |
| 5 | 24A4078-4 | ST4XD | Stereo | 2.5 V | Red/Black | 9.00 | 7.20 | 5.40 |
|  | * 24A4080-0 | TN02HD | Ster | 57 V | Black | 12.00 | 9.60 | 7.20 |
|  | * 24A4081-8 | TN4AD | Stereo | 4 V | Black | 12.75 | 10.20 | 7.65 |
|  | * 24A4082-6 | TN4BD | Stereo | 5 V | Black | 12.75 | 10.20 | . 65 |

## ASTATIC PLUG-IN CARTRIDGES



Popular plug-in type cartridges used as original equipment in thousands of phonographs Highly sen sitive ceramic element for clear wide range response * 13 AT is same as 13 T except has wider range and highet compliance 93 is replacement for Electio Voice $56 \quad 105$ is replacement for Electro Voice 66 Avg shpg wi 30 l

| F | Stk. | Astatic | Type | Output | Needle | Mig. | Each | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fig. | No. |  | Type |  |  |  | Each | Each |
| 1 | 24A4014-9 | 13T | Stereo | 0.65 | 7S.3S | \$6.95 | \$5.56 | \$4.17 |
| 1 | 24A4015-6 | 13TX | Stereo | 0.65 | 70.3S | 9.95 | 7.96 | 5.97 |
| 1 | 24A4017-2 | * 13ATX | Stereo | 0.35 | 70.3S | 10.95 | 8.76 | 6.57 |
| 2 | 24A4018-0 | 81 T | Mono | 10 | 1S.3S | 4.95 | 3.96 | 2.97 |
| 2 | 24A4019-8 | 817 X | Mono | 1.0 | 10.3S | 7.95 | 6.36 | 4.77 |
| 2 | 24A4059-4 | 89T | Mono | 1.3 | 1S.3S | 5.95 | 4.76 | 3.57 |
| 2 | 24A4060-2 | 89TX | Mono | 1.3 | 10.3S | 8.95 | 7.16 | 5.37 |
| 3 | 24A4004-0 | 93 T | Mono | 1.5 | 1S.3S | 5.95 | 4.76 | 3.57 |
| 3 | 24A4005-7 | 931X | Mono | 1.5 | 10.3S | 8.95 | 7.16 | 5.37 |
| 3 | 24A4007-3 | 1050 | Stereo | 10 | 70.3S | 8.95 | 7.96 | 5.97 |
| 4 | 24A4106-3 | MB2 | Mountı | acket for | 13TX. 13 | T. 13ATX | $\times 1.00$ | 75 |
| 5 | 24A4107-1 | MB3 | Mountin | acket for | 81 TX .89 | . 891X | 1.00 | 75 |

## ASTATIC STEREO REPLACEMENT

## CARTRIDGES



[10]



| Fig. | Stk. No. | Astatic No. |
| :---: | :---: | :---: |
| 1 | 24A4026-3 | 17 |
| 1 | 24A4027-1 | 170 |
| 2 | 24A4020-6 | 701S |
| 2 | 24A4025-5 | 74TS |
| 3 | 24A4021-4 | 76TSB |
| 2 | 24A4022-2 | 80TS |
| 3 | 24A4023-0 | 86TSB |
| 4 | 24A4061-0 | 133 |
| 4 | 24A4087-5 | 1330 |
| 1 | 24A4088-3 | 140 |
| 1 | 24A4024-8 | 142 |
| 5 | 24A4092-5 | 1420 |
| 6 | 24A4095-8 | 1950 |
| 6 | 24A4091-7 | 1970 |
| 8 | 24A4096-6 | 348 |
| 9 | 24A4097-4 | 3510 |
| 10 | 24A4099-0 | 3530 |
| 11 | 24A4100-6 | 4610 |
| 12 | 24A4010-7 | 475 |
| 5 | 24A4101-4 | 612 |
| 13 | 24A4090-9 | 6550 |
| 7 | 24A4089-1 | 6750 |
| 14 | 24A4102-2 | 710 |
| 14 | 24A4103-0 | 7100 |
| 15 | 24A4038-8 | 754 |
| 15 | 24A4040-4 | 7540 |
| 16 | 24A4042-0 | 7600 |

Replacement For Adm. G E, VM Adm., GE, VM, Zen. VM Airl, GE
Airl., Phil.
Arv., Phonola, VM Adm. Magn. Adm. Arv, Zen Adm. Airl., Phil Adm. to Zen Adm. to Zen. Adm. to Zen Magn 560345-1 Magn 560347-1 RCA 115059 GE. C650 RCA 115277 Magn. 560216.1 RCA 108213 B SR SX5H. TC8 EV5015, Garrard 30 Gart. X10. EV5080D Eup. U1. Adm. Moto Eup U2. Aill. VM Sono. 8TA4-S. Sono. 8TA4.SO. Sono. 16 TAF-SD. Phil.


Tip Voits List Each 6 Each $\begin{array}{lllll}7 \mathrm{~S}-3 \mathrm{~S} & 0.8 & \$ 11.75 & \$ 9.40 & \$ 7.05\end{array}$ $\begin{array}{llll}70.3 S & 0.8 & 15.75 & 12.60\end{array}$ \begin{tabular}{lllrr}
$7 S$ \& 3 S \& 2.0 \& $\$ 7.95$ \& $\mathbf{6 . 3 6}$ <br>
\hline .3 S \& 20 \& $\mathbf{4 . 7 7}$

 $\begin{array}{lrrrr}7 \mathrm{~S}-3 \mathrm{~S} & 2.0 & 57.95 & \mathbf{6 . 3 6} & \mathbf{4 . 7 7} \\ 7 \mathrm{~S}-3 \mathrm{~S} & 20 & 7.95 & \mathbf{6 . 3 6} & \mathbf{4 . 7 7}\end{array}$ 

$7 S-3 S$ \& 20 \& 7.95 \& 6.36 \& 4.77 <br>
$7 S$ \& $3 S$ \& 20 \& 8.95 \& $\mathbf{7 . 1 6}$ <br>
\hline
\end{tabular} $7 \mathrm{~S}-3 \mathrm{~S}$

7 S .3 S 7 S .3 S

$$
\begin{aligned}
& 899 \\
& 9.95
\end{aligned}
$$

$\begin{array}{lll}8.95 & 7.16 & 5.37 \\ 9.95 & 7.96 & 5.97\end{array}$
$\begin{array}{lll}8.75 & 6.99 & 5.25\end{array}$
$\begin{array}{rrr}8.75 & 6.99 & 5.25 \\ 12.25 & 9.79 & 7.35\end{array}$
$\begin{array}{lll}7.95 & 6.36 & 4.77\end{array}$
$\begin{array}{lll}7.95 & 6.36 & 4.77\end{array}$

| 10.95 | 8.76 | $\mathbf{8 . 7 7}$ |
| :--- | :--- | :--- |

$\begin{array}{lll}12.50 & 10.00 & 7.50\end{array}$
$\begin{array}{lll}1250 & 10.00 & 7.50\end{array}$
$\begin{array}{rrr}1250 & 10.00 & 7.50 \\ 8.95 & 7.16 & 5.37\end{array}$
$\begin{array}{lll}8.95 & 7.16 & 5.37\end{array}$
$\begin{array}{rrr}15.95 & 12.76 & 9.57 \\ 14.95 & 11.96 & 8.97\end{array}$
$\begin{array}{lll}14.50 & 11.60 & 8.70\end{array}$
$\begin{array}{lll}11.95 & 9.56 & 7.17 \\ 7.95 & 6.36 & 4.77\end{array}$
$\begin{array}{lll}7.95 & 6.36 & 4.77 \\ 1150 & 9.20 & 6.90\end{array}$
$\begin{array}{lll}11.50 & 9.20 & 6.90 \\ 11.75 & 9.39 & 7.05\end{array}$
$\begin{array}{lll}11.75 & 9.39 & 7.05 \\ 10.95 & 8.76 & 6.57\end{array}$
$\begin{array}{rrr}10.95 & 8.76 & 6.57 \\ 1650 & 13.20 & 9.90\end{array}$
$\begin{array}{lll}11.50 & 9.20 & 6.90\end{array}$
$\begin{array}{llll}14.50 & 11.60 & 8.70\end{array}$

## ASTATIC MONAURAL

REPLACEMENT CARTRIDGES


|  | Stk. | Astatic |  | Needle | Output | Mig. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fig. | No. | No. | Replacement For | Tip | Volts | List | Each | 6 Each |
| 1 | 24A4029-7 | $66 T Y$ | Phil., RCA | 3 S | 30 | \$9.95 | \$7.97 | \$5.97 |
| 2 | 24A4030-5 | 120 | Phil, VM | 1S.3S | 30 | 7.45 | 5.96 | 4.47 |
| 3 | 24A4086-7 | 146 | Adm. to Zen | 1S.3S | 30 | 6.95 | 5.56 | 4.17 |
| 4 | 24A4031-3 | 314 TS | Airl, RCA | 15.35 | 30 | 6.45 | 5.16 | 3.87 |
| 5 | 24A4032-1 | 420 | Adm. Sears | 15.35 | 30 | 7.25 | 5.80 | 4.35 |
| 6 | 24A4035-4 | 751 | Sono 2TA.S Adm | 1S.3S | 10 | 8.45 | 6.76 | 5.07 |
| 6 | 24A4036-2 | 7510 | Sono 2TA SD. Phil | 10.3 S | 10 | 11.45 | 9.16 | 6.87 |

# BUILD YOUR OWN SECURITY PROTECTION SYSTEM 



## PHOTO-ELECTRIC WARNING SYSTEM

INCLUDES LIGHT SOURCE WITH INFRA RED FILTER \& RELAY CONTROL FOR 117 VAC DEVICE
Interrupting light beam causes fast acting relay control to operate. For indoor warning or automatic counting system. Consists of two 117 VAC powered units, the light source and the photo cell receiver which can be separated 15 ft . or less day or night, when using the infra red filter, and up to 50 ft . at night or 15 ft . during day withouts the filter. Internal relay controlled outlet supolies 117 VAC at 0.3 A . to your choice of alarm or counting device Receiver and light source are both housed in all metal enclosures $43 / 4 \times 4 \times$ $23 / 4^{\prime \prime}$ wide. Shpg, wt. 6 lbs.
$\$ 39.95$


## 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 Special Each
$\$ 14.95$

## 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. $6^{\prime \prime}$ " leads. Made in U.S.A. Size approximately $6^{\prime \prime}$ long $x 5^{\prime \prime}$ dia. With mounting bracket. Shpg. wt. $41 / 2 \mathrm{lbs}$.
$\$ 22^{95} \begin{aligned} & \text { No. } \\ & \text { Noch. } \\ & \text { LiAS555-3. }\end{aligned} \quad \$ 22.95$


## HEAVY DUTY HORN

Penetrating power - comparable to a car horn. Excellent, low cost alarm and signaling device. Sound output: 98 db .6 to 9 volts DC - 1 amp.
For Indoor Mounting
41A4109-6. Each
\$4.95

## 2-CONDUCTOR

 CONNECTING WIREFlexible stranded 20 gauge wire for connecting switches, window foil etc. to your alarm system. Plastic insulation. Grey or dear 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 connect 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 WITCHING FOR ALARMS,

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 $30^{\prime \prime}$ but can be cut to any size. 41A4147-6. Each
$\$ 16.95$
WINDOW SILL RIBBON SWITCH. Sensitive burglar alarm switch. White, completely sealed ribbon $24^{\prime \prime}$ long. Responds to light pressure, closing circuit momentarily. Wt. 6 oz.
41A4146-8. Each
$\$ 12.95$


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. Switch and Magnet
19A7219-8. -Normally Open. Closes when magnet is brought 'near.
19A7272-7. -Normally Closed. Opens when
19A7272-7. -Normally Closed. Opens when magnet is brought near
Your Choice
Per Pair.... $\$ 3.75{ }^{25}{ }^{25}$ Per Pr. $\$ 3.00 \begin{aligned} & 50 \text { Prs. } \\ & \text { Per Pr. }\end{aligned} \$ 2.70 \begin{aligned} & 100 \text { Prs. } \\ & \text { Per Pr. }\end{aligned} \$ 2.16$


## 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 ." (II 2 amps. Key removeable in "on" and "off" positions. 41A4127-8. Each
\$3.95


## SELF-STICK FOIL

For window and door protection. No adhesive or varnish needed. 1 lb . roll approx. 300 ft .
 41 A4070-0.

10 Rolls $\$ 595$ Each $\quad$.i... $\$ 5.95$ Each ...... $\$ 5$
41 A407i-8. Foil Connector-Single.
Self-Sticking.
Each 10 41 A4072-6. Foil Connector-Double ${ }^{42}$ Self-sticking. 10 Each ........ 79. Each $69^{\circ}$

## FOIL PROTECTION VARNISH AND ADHESIVE

Protects foil against scratching and window cleaning. Helps make foil adhere to window. Clear. 2 oz, bottle with applicator brush.
41A4140-1. Each
$\$ 2.45$


## 3-INCH 117 V. AC ALARM BELL

Produces loud, clear ring. Overcomes high back$\$ 799$ ground 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.
With the information in this book anyone can install and maintain a fire and security system. Size: $81 / 2^{\prime \prime} \times$
 16A1213-0. TAB Books. No. 556. Each.

# The Professional Home Protection everyone 

 can Install and Afford, EIED:

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 "sys tem-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 Switch. Handeork es: 6 A-105 Home Protected decals and
remote stations, entrance key switches. olarm bells, signol horns os well as fire. remote stations, entrance key switches, olarm bells, signal horns as well as fire
smoke, intruder detectors are optional. Size: $12^{\prime} 2 \times 12^{1}+\times 12^{\frac{1}{4}} 4$. Shpa. wt smoke.
17 lbs.
41A4079-1. Model SS-500. Each.
$\$ 159.95$

# EICO BURGLAR/HOLD-UP FIRE ALARM SYSTEM <br> \$2.95 TAMPER SWITCH 

## 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.

## EICO FC-100 SECURITY CONTROL CENTER

## Start your custom Burglar Hold-up Fire Alarm Sys

tem with the FC-100.

- Add on Sensors, Alarm and Accessories to suit your own needs.
- 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 wires. Fire alarm circuits are always on and cannot be furned off accidentally. Powered by 117 VAC which supplies 6 volts DC for operating the system. Optional 6 volt lantern battery for standby emergency operation. Installers handbook included. Size: $7^{1 / 4} \times 10^{3 / 4} \times$ 4 $1 / 4$ ". Shpg, wt. 6 lbs .

BELI IN BELL BOX
WITh
TAM

## 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 $135^{\circ} \mathrm{F}$. Size: $1-7 / 8^{\prime \prime}$ dia. Shpg wt 5
41A4091-6. Packaqe of 3
$\$ 9.95$
(1) SD-24 Furnace Attic Heat Sensors. Open when the temperature reaches $190^{\circ} \mathrm{F}$ 41A4083-3. Package of 2
$\$ 6.95$
(2) SD-40 Door Cords 12 Inch, 2 Wire. Withstand many years of flexing without damage. Shpg. wt. 2 lbs. 41 A4081-7. Package of $2 \ldots . . . . . . . . .$. (1) SD-50 Tamper Switches. Prevents an intruder from aeactivating the alarm system
$\$ 4.95$

## 41A4082-5. Package of 2

(4) A-35 Emergency Button. Overrides all other sensing devices, and can only be turned off by pushing the same button a second time. 41 A4087-4. Package of 2
\$3.95 (5) 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 $\mathrm{On}^{\prime \prime}$ light. The momentary switch łurns the burglar alarm ON and OFF. The white light indicates that all intruderdetecting 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: $2^{3 / 4} \times 4^{1 / 2}$ 41A4086-6. Each
$\$ 4.95$
(5) Protective Circuit Hook-Up Wire - 100 Ft. Two clear plastic covered 22 gauge conductors. Used for burglar and fire alarm circuits. Shpg, wt. $11 / 2 \mathrm{lbs}$. 2M16-4. Specify Clear. 100 Ft. For.
\$5.10
(1)SD-16 Vibration Contact Protect walls, ceilings. large glass windows, skylights, safes and virtually any area vulnerable to forced entry. Closed circuit. 41A4120-3. Each
$\$ 7.95$
(1)SD-18 "Door Jamb" Contact Switches. Multipur pose, bullet nose, closed circuit contact switch. Easily conceals directly in door jamb. Ideal for protecting doors. windows, etc. Closed circuit.
$\$ 5.95$
 1441-1. Each
(1) 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
$\$ 8.95$

(1) 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: $1 / 2 \times 1 / 2 \times 21 / 4{ }^{\prime \prime}$. Shpg, wt. 2 lbs . 41 A4080-9. Pkg. of 4 Pairs
$\$ 9.95$
(11) SD-14 Multi-Purpose Foil Contact Switches. For protecting double hung, sliding, filting and swinging windows, as well as patio and glass doors.
41 A4 145-0. Package of 2
$\$ 7.95$
(17) 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) 5A-27 Steel Bell Box. Includes internally mounted safety plate with drilled and tapped mounting holes for Eico SA-25 $8^{\prime \prime}$ underdome alarm bell (not supplied) and Eico SD-50 tamper switches (not supplied). Size: $12^{\prime \prime} \mathrm{H} . \mathrm{X}$ $9^{\prime \prime}$ W. $\times 4^{\prime \prime}$ D.
41A4085-8.
Shpg. wf. $8^{1 / 2} \mathrm{lbs}$. Each
. $\$ 17.95$
(11) A-45 Momentary Entrance Key Switch with Signal Light. This switch enables you to get into your home without setting off the alarm.
41A4088-2. Each . . . . . . . . . . . . . . . . . . . . . . $\$ 13.95$
(B) A-105 Warning Decals.

41A4089-0. Package of 6
$\$ 1.95$
(15)
(16) Alarm Bell Wire. Two 18 gauge conductors. Wt. 3 2A28-9. 100 Ft. For
$\$ 7.90$
(II) SA-15 Indoor Twin Klaxon Horn Alarm 6 VDC. Give loud ear-piercing sound. Size: $6 \times 83 \times 3-5 / 8^{\prime \prime}$ Shpg. wt. 1/1/4 lbs.
41A4090-8. Each
\$10.95
(II) A-85 "Open-To-Closed" Circuit Coupler.Enables you to connect any "open circuit" type sensor ifloor 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" sensor to the coupler.
41A4124-5. Each
$\$ 6.95$

(IB) 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 $5^{\circ} \mathrm{F}$ in 20 seconds or if factory preset temperature of $135^{\circ} \mathrm{F}$ is exceeded. Only $2-3 / 16^{\prime \prime}$ high $\times 3-3 / 16^{\prime \prime}$ diameter.
41A4136-9. Each
\$10.95



## HOME SECURITY DEVICES

FirstAlert
SMOKE AND FIRE ALARM


- LOUD 85 DB. HORN.
- DUAL CHAMBER DESIGN.


## 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 year. Built-in test switch checks the detection circuirry and the horn. Sensitivity 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: $6^{\prime \prime}$ dia. X 1-5/8" D. Battery included. Shpg. wt. 2 lbs. U.L. approved. 41A4156-7.
With battery. Each
$\$ 49.95$
21A5098-4. 12.6 V. Replacement Battery for above. Each

GAS AND SMOKE SENTRY Instant warning from lethal gas or smoke buildup! Internal $84-89 \mathrm{db}$ horn 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 hydro-carbons, propane, butane, paint Unit features solid state circuitry, sensifivity control, automatic reset or continuous operation switch, operational indication pilot lamp, spare bulb and 9 ft . cord. Easily installed - hangs on wall! $117 \mathrm{VAC}, 60 \mathrm{~Hz}$. operation. Draws less power on stand-by than 5 watt nightlite.
41A4138-5. $\quad 30-9040$.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 -


## 41A4051-O. Model 10400

Complete Ready to use. Each
$\$ 89.00$
12 Volt Deltalert. Like unit described above except operates on 12 volt DC. Ultrasonic frequency $32-38 \mathrm{KHz}, 7$ 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.
41A4149-2. Model 10412 . Each
$\$ 93.00$
41A4150-0. Model 13100 Power Converter. Operates 12 volt Deltalert from 110 volts AC. Each
$\$ 12.95$
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
41 . $4148-4$. Model 12312. For 12 V . DC.
41A4151-8. B1390. Mounting Bracket. Mounts Deltalert on wall, either vertically or horizontally. Each
$\$ 7.50$
by Gillette
1.


(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.
41A4172-4. Model 9410. AC operated. Each
$\$ 39.95$
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 $5 \mathrm{~B}: \mathrm{C}$, contains non-toxic materials. UL listed.
41A4170-8. Model 9380. Each
$\$ 13.99$
(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
$\$ 17.99$
IIIUFIFif:IL SMOKE SIGNAL

## BATTERY OPERATED <br> SMOKE DETECTOR <br> 

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 (included) 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!

## साजत

SS-200
SOLID STATE TIME DELAY BURGLAR ALARM SYSTEM

59995
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: $8^{\prime \prime}$ 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: $13^{\prime \prime} \mathrm{X}$ $10^{\prime \prime} \times 4-5 / 8^{\prime \prime}$. Shpg. wt. 12 lbs .
41A4137-7. Each
$\$ 89.95$
21A323-1. 6 volt battery. Each
$\$ 5.25$

# Futomatio Ralaphone Finswamig Eystams 

## All systems are approved to plug into your 4-prong telephone extension jack, no connection or monthly charges.

## TELETスNDR



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
$\$ 149.50$
Cassetfes for outgoing messages:
32A4079-2. 30 . . . . .
$\$ 5.95$
32A4079-2. 30 seconds. Each.
$\$ 5.95$

## star困touch <br> by phone-mate <br> PUSH BUTTON PHONE WITH MEMORY

## s 14950



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 fouch the star again and again until you get an answer. Ivory color. Shpg. wt. fouch
32A4070-1. Each
\$149.50

## Recorda.Call

SET THE DIAL AND YOUR
PHONE IS ANSWERED IN 24 HOURS A DAY


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 cassetfes 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 $9^{\prime \prime} \times 11$. $7 / 8^{\prime \prime} \times 3-7 / 8^{\prime \prime}$.
Warranty - One year parts excluding cassettes and accessories, 90 days labor. Return pre-paid to BA or factory. 117 Volt ac powered.
32A4090-9. Model 60 Auto. Each
$\$ 169.95$
Model 70 VOX. All the Features of Model 60 PLUS Vox (Voice Actuation). Voice Actuation permits the caller 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.
32A4091-7. Model 80 Remote. Each
\$299.95
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.
32A4101-4. 20 second . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 4.50$
32A4102-2. 30 second
32A4102-2. 30 second
$\$ 4.95$

## $\because: \quad$ TWO-WAY TELEPHONE VOICE AMPLIFIER



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.
Styling is black and brushed chrome, with woodgrained plastic end panels. Dimensions: $9^{\prime \prime} \mathrm{D} \times 111 / 4^{\prime \prime} \mathrm{W} \times 3-3 / 8^{\prime \prime} \mathrm{H}$. Shpg. Wt. 5 lbs .
No, 32A4100-6. Each.
$\$ 97.95$

## B-A SUPER BARGAIN SPECIAL!

REGULAR DIAL TELEPHONES


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 Shro wt. 7 lbs .
18A1417-5. Black Desk Style. Each $\qquad$
$\$ 14.95$

## SILENT KNIGHT

Disconnect only the bell on your telephone. Re mote on off switch, $10^{\prime}$ 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. Each
\$3.95


DOUBLE JACK
Four pronged, two-way telephone jock. Simply insert into any convenient telephone wall jack
\$ $\$ 49$ transforms the wall jack into two jacks 32A4073-5. Each
$\$ 2.49$

EVERYBODY'S USING THEM STANDARD TELEPHONE PLUGS AND JACKS
Patterned like popular "telephone plugs" 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 lack, for concealed wiring. has fittings and wall plate for standard electrical outlet box. (Box not supplied)
Soecify lvory or Brown
Soecify lvory or Brown.
(1) 32 A4003-2. Portable Plug.
(2) $32 \AA 4004-0$. Surface Jack.

Ea.
$\$ 1.29$
(3) 32A4005-7, Flush Jack.
lvory Only. Each
$\$ 1.49$
$\$ 2.99$

## TELEPHONE

"JACK-IN-A-PLUG"
Unique telephone plug also contains built-in jack. Connect 2 or more phones from I existing jack. Easy to install. No loss of audio signal. Instructions included. Ivory color. No. 32A4033-9
\$2.49

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 function box cover (one screw) and replace with "Instant Jack"
32A4034-7. Each
\$2.99

## TELEPHONE ACCESSORIES

WONDERLOOP TELEPHONE PICKUP
FOR RECORDING PHONE CALLS


New design, extremely sensitive loop slips over listening piece of Bell system handset. Requires no special installation. Hum cancelling design for perfec operation. Makes phone recording quick and easy. With shielded cord and miniature plug to fit most recorders.
\$6.95
32A4014-9. Special Each.

## JIFFY PHONE PICKUP COIL



Jiffy suction cup attaches to side of telephone or to back of handset. operation. With shielded cable. Ciant import savings! \$1.99 I1A1057-6. Special ......\$1.99


18 FT COILED TELEPHONE EXTENSION CABLE
 ack assembled on a handy coiled
\$5.95


SOUND POWERED COMMUNICATIONS TELEPHONE HANDSET
Two to 12 may be used in or outdoors. No fire or shock hazards. No batteries used! 2way 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.
No. 32A4006-5
$\$ 24.00 \quad$ Each
$\$ 21.40$
Model SPT102. Each
High Level Mandset SPT-150: Transmitter has a special mouthpiece designed to improve acoustic coupling and reduce interterence of surrounding noise. Retractile-type $8^{\prime \prime}$ to $48^{\prime \prime}$ cord with rubber insulated clips.
32A4024-8. Each ......... \$27.90 6 Each . . . . . . . $\$ 24.70$
32A4076-8. Wall Hangers for sound powered phones.
$\$ 1.95$ 2A9933-1. 2-Conductor wire. 100 Ft .......... $\$ 1.99^{(1000} \mathrm{Ft} . . . . . . \quad \$ 16.90$


## B-A's NEW PERSONAL TELEPHONE AMPLIFIER

 INCREASES VOLUME 5 TIMES HELPS HARD OF HEARINGB-A LOW PRICE
s1495


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 .a.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. I Ib. Less battery.
32A4013-1. High Quality Import.
Each 21 A5000-0.
Battery for above. Net Each
$\$ 14.95$


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.
32A4064-4. Each
21A305-8. 9 Volt Battery for above. Each

RECORD
ALL TELEPHONE
CONVERSATIONS

- Solid State
- Easy Hook-Up


## MADE IN U.S.A.

## AUTOMATIC TELEPHONE MONITOR

## $\$ 29^{95}$

FUNCTIONS AS VOICE OPERATED SWITCH FOR

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, outomatically furns 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 $1 / 2 \times 1 \mathrm{H}_{2} \times 2 \mathrm{~K}$ No. 11A7540-5.
Each
\$29.95

## HANDSET TYPE

 TELEPHONE INTERCOMAmazing 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 when in standby, wall hanger supplied dapan import. Shpg. wt. 2 lbs .
32A469-9
Per Pair
\$48.95
21 A328-0. Battery (requires 2) Each
2A9889-5. 2-Conductor Cable
Per Ft........ 9c 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 YOUR CHOICE EACH 32A4037-0. White
32 A4094-1. Beige

# :\%: LOW COST INTERCOMS FOR EVERY NEED Classic Series 

## FANON

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 permits wider use with less rom-to-room or between buildings on the on the same line. Units have pilot ight, on/orfission and channel selector switch with lock position for con siol extra single stations. Ivory switch. System can be expanded by adding several extra
and brown with wood grain accents. 117 V AC. $7 \times 31 / 2 \times 2^{\prime \prime}$. Shpg. wt. and brown with wood grain accents. $31 / 4 \mathrm{lbs}$.
\$54.95
32A455-8. IN-505 System.
.... $\$ 29.95$
32A456-6. IN-500 Single Wireless Station. $13 / 4 \mathrm{lbs}$. Each....


MASTER-TO-MASTER SXSTEM
Exclusive design feafures 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 simultaneously. Two 50 ft . Multi-conductor cables with plugs included. Anyone can hook-up entire system in minutes. No tools required. Powerful IC circuitry allows distances of 500 ft . between first and last master station. Press-to-talk switch has lock position for continuous transmission. Pilot light. Ivory/brown with wood grain accents. Expandable to 5 stations
$7 \times 31 / 2 \times 2^{\prime \prime}$. Wt. 11 lbs. 117 VAC.
32A470-7. IN-603 3-Station System. Each
32A457-4. IN-600 Additional Master Stations
With 50 ft . plug-in cable. Each
$\$ 39.95$
Additional 50 Ft. Cable with Plugs. Used optionally with IN-600. Several Additional 50 Ft. Cable with Plugs. Used optionally
32A460-8. 6C-50. Wt. $11 / 2 \mathrm{lbs}$. Each.


HI-OUTPUT 2-STATION SYSTEM
Features IC circuit for greater output and sensitivity. Decorator styled with unique press-to-talk bar. Master has lock for continuous talk, on/off switch, volume control, pilot light. Remotes can signal master even when system is "off." Accepts one additional indoor or outdoor remote station (order below). 50 ft . cable supplied. Ivory/brown with wood grain accents. $117 \mathrm{~V} \mathrm{AC.7"X}$ $31 / 2^{\prime \prime} \times 2^{\prime \prime}$. Shpg. wt. $3^{1 / 4} \mathrm{lbs}$.
32A458-2. NN-302 2-Station System ..................... $\mathbf{\$ 3 4 . 5 0}$

"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. $7 \times 31 / 2 \times 2^{\prime \prime} .117 \mathrm{VAC}$. Shpg. wt. $43 / 4 \mathrm{lbs}$.
32A459-0. IN-404 3-Station Intercom System
ACCESSORIES FOR IN-302 \& IN-404
Indoor Remote Station with $50^{\prime}$ cable. $\mathrm{W}+\mathrm{t}^{13 / 4} \mathrm{lbs}$.
32A461-6. IN-2. Each
$\$ 49.95$

Outdoor Remote Station with $50^{\prime}$ cable. Wt. $11 / 4 \mathrm{lbs}$,
32A462-4. IN-1. Each
$\$ 11.95$
32A463-2. 2C-100. 100 Ft . Cable with Plugs. Wt. $1 / 2 \mathrm{lb}$. Each \$6.95


Ultra-sensitive 3 -transistor system installs in minutes for 2-way conversation. office, camper. Fine voice clarity. Wip 50 ft
 Shpg. wt $21 / 2$ Br
AC Operated Intercom
32A405-3. AC-3. Per Set
Battery Operated (9 V. Battery)
$\$ 22.50$
32A418-6. DC-2. Per Set
\$15.95
21A305-8. 9 V. Battery. Each
Entry Sentry Door Intercom. Like AC. 3 above ex-
cept 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, onoff volume control and pilot light. Brown styrene 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 1400 Hz (adjustable 1200 to 1650 Hz ) up to approximately 200 feet away. Use for security and protection in the home or office, too. Antenna wire and 115 VAC power supply included. Size: $3-5 / 8^{\prime \prime} \mathrm{W} \times 13 / 4^{\prime \prime} \mathrm{H} \times 5$ 5/8" D. Shpg. Wt. 2 lbs.
32A510-0. BC-1 Baby-Com. Each .... \$15.95 21A305-8. 9 Volt battery for Baby-Com. Each $89^{\circ}$


IS-25


- Automatic AFC
- Remotes can control operation.
- AM/FM radio plus auxiliary input jack.


## ADD UP TO A TOTAL 8 REMOTES

- Richly finished in dark walnut.

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. Shpg. wt. 16 lbs .
32A507-6. IM-203DK Each
$\$ 159.95$
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 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 20.89$

| 32A509-2.Model IS-25 5 Inch Inside Speaker.Eggshell-white finish. Shpg. wt. |
| :--- |
| $5 \mathrm{lbs} . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ |
| 111.99 |

32A503-5. IR-5. Rough-In Housing for IS-25. Shpg wt. 11/2 lbs. ....... \$1.49
3-Conductor Flat Cable. Use from each remote to master
2A223-6. Per Ft.
$9 \mathrm{c} \quad 100 \mathrm{Ft}$. For
$\$ 4.75$


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.
Has press-to-talk panel with lock switch for continuous talking, monitoring or "baby-sitting", combination speaker-microphone, "ready" light and onoff/volume control. Instant operation with no warm up. Charcoal brown and black with woodgrained accents. Size: $7^{\prime \prime} \mathrm{W} \times 13 / 4^{\prime \prime} \mathrm{H} \times 31 / 4^{\prime \prime} \mathrm{D}$. Shpg. Wt. 4 lbs .
No. 32A511-8. FMW-2, Two Station System. Each . . . . . . . . \$109.95 No. 32A5 12-6. FMW, Single Wireless Station. Each . . . . . . . . . . . . . . . $\$ 55.50$


ISA-35
IS-79

IS-6 1



IS-38D

IS-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 stafion control switch. Shpg. wt. 9 lbs.
$\begin{array}{ll}\text { 32A492-1. IM-303D. Dark Walnut Finished Master. } & \begin{array}{l}\text { Choice } \\ \text { 32A493-9. IM-303L. Golden Elm Finished Master. }\end{array} \quad \begin{array}{l}\text { Each } \\ \text { Ea4.9 }\end{array} 184.9\end{array}$
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
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. $11 / 2 \mathrm{lb}$.

Wide-Range 5 Inch Inside Speaker. Includes the same controls as the IS-38D. Eggshell-white finish. Shpg. wt. 5 lbs .
32A502-7. ISA-35. Each.
$\$ 14.00$
32A503-5. IR-5. Rough-In Housing for is-35. Wt. $11 / 2 \mathrm{ibs}$. Ea. ..... . . . $\$ 1.49$
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
32A499-6. IR-9. Rough-In Housing for IS-79. Wt. $21 / 2 \mathrm{lbs}$. Ea. ....... . $\$ 4.29$
Remote Control. Rotary volume control plus push-button controls. Bezel frame for indoor installation in standard 3-gang wall box. Use with IA-19. 32A500-1. IC-31. Shpg. wt. I lbs. Each

Surface Mounted Weather Shield for outside control. Shpg. wt. 1 lb.
32A501-9. IA-19. Each
$\$ 9.49$
Built-In Door Speaker. Controlled from inside speaker or remote control to allow callers to answer "hands free". Weather-resistant black finish with gold anodized trim.
32A504-3. IS-61. Shpg. wt. 2 lbs . Each
$\$ 15.89$
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. $11 / 2 \mathrm{lbs}$. 32A506-8. IS-63. Each
$\$ 12.99$
3-Conductor Flat Cable. Use from each remote to master.
2A223-6. Per Ft. ............. 8c 100 Ft . For

## 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 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 $91 / 2 \times 63 / 4{ }^{\prime \prime} \times 31 / 2^{\prime \prime}$. 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. Seven Station Master.

\$57.95

32A473-1. Model Director i Remote. Shpg. wt. 2 ibs. 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. i lb. Each .. \$32.95



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 remotes at same
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 $101 / 2^{\prime \prime} \mathrm{W}$. $\times 83 / 4^{\prime \prime} \mathrm{D}$. $\times 31 / 8^{\prime \prime} \mathrm{H}$. Wt.
7 Ibs. Case is grey vinyl clad and brushed chrome. Remotes size $71 / 2^{\prime \prime} \mathrm{W}$. $\times 83 / 4^{\prime \prime} \mathrm{D} . \times 21 / 8^{\prime \prime} \mathrm{H}$. Wt. $41 / 2 \mathrm{lbs}$. Finished in grained baked enamel and brushed chrome. Wall mounting remote model K-LR-3R is $61 / 2 \times 41 / 8 \times 2^{\prime \prime}$ 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 5 remotes.
32A426-9. Mig. List \$115.00. Net Each.
$\$ 67.60$
K-ML-10 NORMAL POWER MASTER for up to 10 remotes.
32A428-5. Mfg. List \$142.00. Net Each
$\$ 83.80$
K-AC-5406 HI-VOLUME MASTER for up to 5 remotes.
32A427-7. Mfg. List \$142.00. Net Each
$\$ 83.80$
K-AC-5411 HI-VOLUME MASTER for up to 10 remotes.
32A429-3. Mfg. List $\$ 168.00$. Net Each
$\$ 98.80$
K-LR-3M DESK STYLE REMOTE.
$32 \mathrm{~A} 430-1$. Mfg. List $\$ 39.50$. Net Each
$\$ 23.20$
K-LR-3R FLUSH WALL MOUNTING REMOTE,
\$23.20
32A431-9. Mfg. List $\$ 39.50$ Net Each
Order cable
For cable requirements measure from maste
5303 listed with two station system at right.
ACCESSORIES
FOR
TALK-A-PHONE
INTERCOMS


(4)
(1) K-W1 Wall Mounting Brackets for Models K-LC-2, K-LR-3, K-LR-3M, K-LR-2. Wt. 1 oz, per pair.
32A445-9. Mfg. List \$1.00 Per Pair. Net Per Pair . . . . . . . . . . . . . . . . . . . 60 $\mathbf{6 0}^{\text {c }}$ (2) K-HP-3 Hi-Power Remotes. With $8^{\prime \prime}$ speaker and 5 -watt handling capacity. Charcoal gray metal cabinet. $12^{\prime \prime}$ W. $\times 8^{\prime \prime} \mathrm{D} . \times 12^{\prime \prime} \mathrm{H}$. Wt. 9 lbs...... $\$ 31.75$ 32A442-6. Mfg. List $\$ 54.00$ Net
(3) K-C-20 Hi-Power Re-entrant Horn. 15 watt capacity. For indoor and outdoor use. Charcoal gray $9^{\prime \prime}$. Wt. 5 lbs.
32A443-4. Mfg. list $\$ 8200$
$\$ 48.00$
32A443-4. Mfg. list $\$ 82.00$ Net .................................... $\$ 48.00$
(4) K-S-100 Wall Switch for originating calls through K-HP-3 Hi-Power Remote


All master systems in either 5 or 10 station capacity. Available in normal All master systems in either 5 or 10 station capacity. Available in 10 times volpower models for average rit) for noisy and larger areas. Each master can call and converse with other masters, selectively and privately, (cannot be eavesand converse with other masters, selecld 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 Grey vinyl and brushed chrome. Normal 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 $101 / 8^{\prime \prime}$ W. $\times 83 / 4^{\prime \prime} \mathrm{D} . \times 31 / 8^{\prime \prime} \mathrm{H}$.
K-LS-5 5-STATION NORMAL POWER MASTER. Wt. 7 lbs.
32A432-7. Mfg. List \$115.00 Net Each
$\$ 67.60$
K-LS-10 10-STATION NORMAL POWER MASTER. W\%. 7 l lbs .
32A434-3. Mto list $\$ 142.00$ Net Each
$\$ 83.30$
K-AC-505 HI-VOLUME 5-STATION MASTER. Wt. 7 ibs.
32A433-5. Mfg. List \$142.00. Net Each ........ . . . . .
$\$ 83.30$
K-AC-510 HI-VOLUME 10-STATION MASTER. Wt. 7 ibs.
32A435-0. Mfg. List $\$ 168.00$. Net Each
$\$ 98.80$

## 6 CONDUCTOR CABLE (5506) for connecting K-LS5 or K-AC-505 Master,

 For indoor and outdoor use. Approx. O.D. $1 / 4^{\prime \prime}$. Wt. per 100 ft .3 lbs.2A9937-2. Net Per Ft. 17 11 CONDUCTOR CABLE (9911) for connecting K-LS10 or K-AC-510 Master. 11 CONDUCTOR CABLE

## 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 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
K-LC-2 COMPLETE 2 -STATION SYSTEM with 50 ft . of cable. Shpg. wt. 32A423-6. Mfg. List $\$ 119.00$ Net.
$\$ 69.95$
32A476-4. Master only. Each
$\$ 61.00$
5303. 3-CONDUCTOR INDOOR CABLE. Wt. per 100 ft .1 lb . $\mathbf{6}^{\mathrm{c}}$
2A9939-8. 2A9939-8.

## 

TALK-A-PHONE COMBINATION SYSTEMS

000000000060


K-AC-605 Hi-Volume 5-Station Master. Wt. 7 lbs .
32A480-6. Mfg. List $\$ 167.00$ Net Each

K-LR-2M Grained baked enamel finished remote.
32A483-0. Mfg. List $\$ 39.50^{\circ}$ Net Each
K-LR-2R Flush wall mounted remote.
32A484-8. Mfg. List $\$ 39.50$. Net Each

## K-SM Surface Mounting Accessory for K-LR-2R. W. 1 lb. <br> 32A485-5. Mfg. List \$10.20 Net Each

 Approx. O.D. $5 / 16^{\prime \prime}$. Wt. per $100^{\prime} 5 \mathrm{lbs}$.A system combining one or more master stations with one to ten remole-stadistance but station capacity, operates on 120 VAC or DC. Masters can call and carry on a conversation wim 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 privale or "non-private" at at and remain in position desired. Persons ar "non privale masters can Maply 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 adiustable 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 - $101 / 2 \times 8^{3 / 4} \times 3^{1 / 8^{11}}$. Remotes $-71 / 2 \times 8^{3 / 4} \times 2$. K-CL-5 5-Station Master. Wt. 7 Ibs

32A479-8. Mfg. List $\$ 167.00$. Net Each Burstein-Applebee Co., 3199 Mercier, Kansas City, Mo. 64111 - Phone (816) 756-2525

# PAGING, PA, INTERCOM PHONES 

## MULTI-CHANNEL SYSTEM WITH OPTIONAL VERSATILE REMOTES



- Selective ringing.
- 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.

. . . . . . . . . . . . . . . \$62.85
TSL-8X has paging button, ring button, and seven station selector buttons. Size: $9^{1 / 22^{\prime \prime}}$ W., $3^{1 / 4 / 4}$ D. $^{3} 3^{3 / 4}{ }^{\prime \prime} \mathrm{H}$. Shpg. wt. 4 lbs .
TSL-1X Remote has paging button, ring button, and "master/common" selec. tor switch. It may be wired: (1) to reply to or call a master, or (2) as a secretary's station to intercept calls and ring for the master to pick up if desired, or (3) for common-line reply - any, number of TSL-1X phones can reply to the paging party. Size: $9^{1 / 2} \mathrm{~N}^{\prime \prime} \mathrm{W}, 3^{1 / 4} 4^{\prime} \mathrm{D} .3^{3 / 4}{ }^{\prime \prime} \mathrm{H}$. Shpg. wt. 4 lbs . 32A4058-6. TSL-1X. Each
$\$ 29.15$
PRS-16A Power Supply for TSL-X. One PRS-16A is required for each system. Connect to any junction box. For 120 VAC. Size: $6^{\prime \prime}$ W., $4^{1 / 2}{ }^{\prime \prime} \mathrm{D}$., $2^{\prime \prime} \mathrm{H}$. Shpg. wt. 5 lbs
32A4063-6. PRS-16A. Each
32A4063-6. PRS-16A. Each. ................................... $\$ 43.65$
TRD Phone-Page Adaptor connects between the TSL-X phone and your PA
system. Plant wide paging over the PA system. Size: $4^{\prime \prime} \times 4^{\prime \prime} \times 2^{\prime \prime}$. system. Plant wide paging over the PA system. Size: $4^{\prime \prime} \times 4^{\prime \prime} \times 2^{\prime \prime}$
32A4062-8. Shpg. wt. 2 lbs Each
CABLE REQUIREMENTS FOR TSL- $X$ SYSTEMS.
\$31.00
(1) TSL-16X all master system requires 20 conductors common to all masters.
(3) To include common-line paging in 12 conductors common to all masters.
(3) 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 Remotes use 7 conductors from the master to each remote.
(5) Intermix systems use (1) or (2) and (3).
(1) 2A9880-4. 20SC 20 Conductor Cable. 9 lbs . per 100 ft . Per Ft
(2) $2 \mathrm{~A} 9874-5,12 \mathrm{SC}$ i2-C.... $544^{\mathrm{c}} \quad 100 \mathrm{Ft}$.
(2) $2 A 98744-5$. 125 C . i2-Conductor Cable. 13 lbs . per 100 ft .
\$33.75
Per Ft. . .................... 30 $\mathbf{0}^{\mathrm{c}} 100 \mathrm{Ft}$.
$\$ 19.10$
(3) 2A9873-7. 7SC. 7-Conductor Cable. $81 / 2 \mathrm{lbs}$. per 100 ft .

Per Ft.
$28^{\mathrm{c}} 100 \mathrm{Ft}$.
\$16.50


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 $\mathrm{Hi}-\mathrm{Z}$ 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 50 Hz to 15 KHz mikes Output Impedance 4 ohms, 8 ohms, 25 and 70 volt line. Hum and $\mathrm{Noise} \pm 2 \mathrm{~dB}$. 65 dB , Aux -70 dB . AC power 120 volts 60 Hz . Size: $131 / 2^{\prime \prime} \times 10-7 / 8^{\prime \prime} \times 3-9 / 16^{\prime \prime}$.
49A259-5. Model 800-35. Shpg. wt. 14 lbs . Each
\$149.95


## © RAYMER MODEL 822 SOLID STATE AM/FM TUNER

Sensitive FM no-drift tuning, dependable AM reception. Designed and constructed to provide continuous operation around the clock at temperatures from $-20^{\circ} \mathrm{C}$ $\left(-4^{\circ} \mathrm{F}\right)$ to $+65^{\circ} \mathrm{C}\left(+149^{\circ} \mathrm{F}\right)$. 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 - 55 dB . Frequency response $A M, 20 \mathrm{~Hz}$ to $5 \mathrm{KHz} \pm 3 \mathrm{~dB} ; F M 20 \mathrm{~Hz}$ to 20 KHz . Sensitivity: AM 10 UV , FM 2 uV . Power Consumption: 5 watts. Has built-in Hi-Q ferrite loopstick AM antenna. Size: $91 / 2^{\prime \prime} \times$ $7^{\prime \prime} \times 31 / 8^{\prime \prime}$. AC power 120 volts Shpg. wt. 5 lbs .
49A260-3. Model 822. Each
$\$ 109.95$

## 35 WATTS RMS 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 a djustable gooseneck holder.
The two full fidelity high efficiency 10 oz . magnet $6 \times 9^{\prime \prime}$ 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 .
49A255-3. Model S-122. Each
$\$ 274.50$
49A258-7. AC Power Adaptor for S-122. Each
\$37.95


## 35 WATT RMS HALF-MILE MEGAPHONE

This sturdy megaphone is weatherprool, 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, funer 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 ff . coil cord, push-to-talk switch. Has gripper with shoulder strap included. Shpg. wt. 15 lbs .
49A256-1. Model S-610. Shpg. wt. 15 lbs . Each
$\$ 159.95$
49A257-9. AC Power Adaptor for S- 610. Each
\$37.95


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. $6^{1 / 4^{\prime \prime}} \mathrm{X} 13^{\prime \prime \prime}$ overall. Shpg. wt. 5 lbs.
49A215-7. MV-5S. Each
$\$ 89.95$
21A314-0. "C" Batterjes for above. Each
(1)RAYMER MODEL 872-35 PA AMPLIFIER WITH

AM/FM


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 4 ohms , $80 \mathrm{mms}, 25$ and 70 volt line. Amplifier Frequency Response 50 Hz to 20 KHz . Audio inputs: $1 \mathrm{Mic} \mathrm{Hi}-\mathrm{Z}$ or Lo-Z unbalanced, 1 phono/aux $\mathrm{Hi}-\mathrm{Z}$. Tuner Sensitivity FM 2 LV , AM 10 JV . AC power 120 VAC 60 Hz . Size: $131^{1 / 2^{\prime \prime}} \mathrm{x}$ $10-7 / 8^{\prime \prime} \times 3-9 / 16^{\prime \prime}$. Shpg. wt. 15 lbs.
49A261-1. Model 872-35 Each
\$229.95

# BOGEN SOLID STATE P.A. AMPLIFIERS <br> BOGEN SERIES "C" SOLID STATE PA AMPLIFIERS <br> BOGEN SERIES "C" <br> <br> SOLID STATE PA AMPLIFIERS 

 <br> <br> SOLID STATE PA AMPLIFIERS}


## 10 WATT PA AMPLIFIER

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 $-11 \mathrm{db}(10$ KHz ). Semiconductors: 7 transistors, 4 diodes. Power consumption 46 watts, 120 KHz ). Semiconuctors: 60 Hz . Size: $11-3 / 8^{\prime \prime} \mathrm{W} . \mathrm{X}^{2} 2-7 / 8^{\prime \prime} \mathrm{H} . \times 7 / 4^{\prime \prime} \mathrm{D}$. 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 My, Aux. 0.3 volt. Tone control: Treble $-11 \mathrm{db}(10 \mathrm{KHz})$. Semiconductors: 7 transistors and 4 diodes. Power consumption 60 watts, $120 \mathrm{VAC}, 60 \mathrm{~Hz}$. Size: $11-3 / 8^{\prime \prime} \mathrm{W}$. X $7-3 / 4^{\prime \prime} \mathrm{D} . \times 2-7 / 8^{\prime \prime}$ 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. 3 MV , aux. 5 volts. Tone control action: Treble $\pm 11 \mathrm{db}(10 \mathrm{KHz})$, Bass $\pm 11 \mathrm{db}(100 \mathrm{~Hz})$ Semi-

 Mfg. list \$217.25. Each
$\$ 130.35$


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 $\pm 2 \mathrm{db}$ 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, 65 V . Hum and noise; MIC- 60 db ; AUX- 70 db below rated output. Inputs: $2 \mathrm{HI}-\mathrm{Z}$ MIC inputs, each convertible to to 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 $500 / 600 \mathrm{ohm}$ line by using optional WMT-1 transformer. Outputs 8,16 ohm ( 4,16 on CHS100A) 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 transtormer. 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 diodes, 6 silicon diodes. Size $16-3 / 8^{\prime \prime} \mathrm{W}$ X $133 / 4^{\prime \prime}$ D. X $43 / 4^{\prime \prime} \mathrm{H}$. Shpg. wt. 20 lbs. Mfg. suggested list $\$ 262.30$ -
$\$ 157.35$

## 60 WATT PA AMPLIFIER

Model CHS-60A. 60 watts RMS at $1 \mathrm{KHz}, 14$ silicon transistors, 2 zener diodes, 6 silicon diodes. Size $16-3 / 8^{\prime \prime} \mathrm{W}$. X $13^{3 / 4^{\prime \prime}}$ D. X $4^{3 / 4^{\prime \prime}} \mathrm{H}$. Shpg. wt. 23 lbs. Mfg. suggested list $\$ 312.30$.
49A249-6. Each
$\$ 187.35$

## 100 WATT PA AMPLIFIER

Model CHS-100A. 100 watts RMS at 1 KHz . 16 silicon transistors, 2 zener diodes, 6 silicon diodes. Size: $16-3 / 8^{\prime \prime}$ W. X $13 \frac{1 / 4^{\prime \prime} \text { D. X } 43 / 4^{\prime \prime} \mathrm{H} \text {. Shpg. wt. } 26}{}$ lbs. Mfg. suggested list $\$ 362.30$ -
49A250-4. Each
\$217.35

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 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 Amphenol 75 MCIF to connect microphone.

## 60 WATT PA AMPLIFIER

Handles large areas with ease. Plenty of power for large multiple speaker Handles. large areas with ease. Plenty of power
systems. Hum and noise Mic. -60 db , aux. -70 db . Sensitivity: Mic. 3 MV , systems. Hum and noise Mic. - 5 volt. Tone control action: Treble $\pm 11 \mathrm{db}(10 \mathrm{KHz})$, Bass $\pm 11 \mathrm{db}$ Aux. ${ }^{100} \mathrm{~Hz}$ ). Semiconductors; 12 transistors, 6 diodes. Power consumption 100
 Whpg. wt. 16 lbs. Model C60
$49 \mathrm{~A} 236-3$. Mfg. suggested list $\$ 249.75$ Each
\$149.85
100 WATT PA AMPLIFIER
Best choice for large installations both indoors and outdoors. Hum and noise Mic. -60 db , aux. -70 db . Sensitivity: Mic. 3 MV aux. 5 volts. Tone control action: Treble $\pm 11 \mathrm{db}$, $(10 \mathrm{KHz})$. Bass $\pm 11 \mathrm{db}(100 \mathrm{~Hz})$, Semiconductors: 14 transistors, 6 diodes. Power consumption 300 watts $105-125$ Volts AC, $50-60 \mathrm{~Hz}$. Size: $145 / 8^{\prime \prime} \mathrm{W}, \times 133 / 4^{\prime \prime} \mathrm{D} . \times 33 / 4^{\prime \prime} \mathrm{H}$. Shpg. wt. 18 lbs . 49A237-1. Model C 100
Mfg. suggested list $\$ 299.80$ Each
$\$ 179.85$

## 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 120 V . $50 / 60 \mathrm{~Hz}$. Quick-disconnect plugs provided for speaker outputs. Use Switchcraft A3F to connect microphone.
Specifications: Frequency response: $\pm 2 \mathrm{db}$ from 50 Hz to 15 KHz . Sensitivity: HI-Z MIC. 3 mV ; LO-Z MIC. 3 mV ; Bridging Input, 30 mV ; AUX. 0.3 V . 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: $4 \mathrm{HI}-\mathrm{Z}$ MIC. induts, each convertible to LO-Z MIC. 2 AUX. inputs with fader control; briaging input; $500 / 600$ ohm telephone line with optional WMaccessory; 3 inputs for remote volume control. (Special order option. puts: 4, 8, 16 -ohm speaker taps; 25 -volt CT and 70 V balanced lines. Tape, booster and bridging outputs; 500 Filter control action: $\pm 10 \mathrm{db}$ at following frequencies: $80,300,1 \mathrm{~K}, 5 \mathrm{~K}, 10 \mathrm{KHz}$.

## 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: $16-3 / 8^{\prime \prime}$ W. X $12 \frac{3 / 4}{}{ }^{\prime \prime}$ D. X $4^{3 / 4^{\prime \prime}}$ H. Shpg. wt. 19 lbs. 49A239-7.
4fg. suggested list $\$ 374.80$. Each
$\$ 224.90$

## 60 WATT PA AMPLIFIER

Model CT-60. 60 watts at less than $2 \%$ distortion. Gain 115 db . Semiconductors: 20 silicon transistors, 2 zener diodes, 6 silicon diodes. Size: $16-3 / 8^{\prime \prime}$ W. X $13^{3 / 4^{\prime \prime}}$ D. X $4^{3 / 4^{\prime \prime}} \mathrm{H}$. Shpg. wt. 22 lbs .
49A240-5. Mig. suggested list $\$ 424.90$. Each.
$\$ 254.90$

## 100 WATT PA AMPLIFIER

Model CT-100. 100 watts at less than $2 \%$ distortion. Gain 118 db . Semiconductors: 22 silicon transistors, 2 zener diodes, 6 silicon diodes. Size: $16-3 / 8^{\prime \prime}$ W. X $13^{3 / 4^{\prime \prime}}$ D. X $4^{3 / 4^{\prime \prime}} \mathrm{H}$. Shpg. wt. 26 lbs.

49A241-3.
Mfg . suggested list $\$ 499.80$. Each
$\$ 299.90$

## ACCESSORIES FOR SOLID STATE AMPLIFIERS


 49A4037-1 Mfg. suggested list $\$ 23.75$. Each $\ldots . . . . . . . . . . . .$. Model TM-500. Low Impedance transformer, 500 ohms. Shpg. wt. 1 lb. 49A4038-9. Mfg. suggested list $\$ 27.00$ Each $\ldots \ldots \ldots . . . .$. Model WMT-1. Telephone line transformer. $500 / 600$ ohms. Shpg. wt. 1 ib. 49A4035-5. Mfg. suggested list \$21.90. Each

# 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 continuous, heavy duty operation Output impedances 4,8 and 16 ohms, 25 V . line, 70 V . line. Connect microphones with Amphenol 75MCIF connectors.

# B-A COMPLETE P.A. SYSTEMS <br> 35-WATT PA SYSTEM WITH COLUMNS 



## - Bogen C35 Amplifier.

- Argos SD1064 Sound Columns.
- Shure 545 SD Microphone.
- Atlas MSIOC Floor Stand

Ideal combination for semi-permanent Sor permanent installations. 2-Argos SD1064 Sound Columns, Bogen 35 Watt Amplifier, Atlas MSIOC Mike Stand and Shure 545SD Mike which can be removed from stand for handheld operation. Complete system, everything included and ready to hook-up for operation. Shpg. wt. 65 lbs .
No. 49A8008-8.
Complete PA System
$\$ 319.95$
35-WATT PORTABLE PA SYSTEM


Features Bogen C-35 Amplifier, two 6.8 oz . $12^{\prime \prime}$ Speakers, each with $35^{\prime}$ cable and plug, split type carrying case, size $15 \times 17 \times 24^{\prime \prime}$, 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 $15^{\prime}$ detachable cable and plug and Atlas MSIOC floor stand, adjustable from $35^{\prime \prime}$ to $63^{\prime \prime}$. moplitier and plug and 117 V .60 Hz . AC. Shpg, wt 60 tbs less phono top. mmplitier operates trom 49A8009-6. Complete PA System
\$288.95
49A207-4. 4-Speed Phono fop for C33 Amplifier. Each
$\$ 40.45$

## 15 WATT MOBILE

## PA AMPLIFIER

Small size, $2^{\prime \prime}$ H. X $4^{\prime \prime}$ W. X $41 / 4^{\prime \prime} \mathrm{D}$ : 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 . 49A209-0.
Import Special Each
$\$ 44.95$


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.
49A8011-2. Shpg. wt. 60 lbs. Complefe
$\$ 329.95$



## PORTABLE SPEAKER CASE

## 

Dual Speaker - Amplifier Case. For TWO ${ }^{12 \prime \prime}$
speakers. Inside dimensions $24 / 4 / 4$ "H. $\times 17^{\prime \prime}$ W. $\times$

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 vehicle or boat.

WRITE DEPT. CS-PA FOR SPECIAL QUOTATIONS

# SPEAKERS \&BAFFLES TOFILL 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 oh output. Completely of Genuine Redwood for years of use.

No. 34A478-8
Special Each
$\$ 27.85$

## ARCOS

WALL SPEAKER SYSTEMS


THINLINE AND PRESTIGE


(1) ARGOS THINLINE BAFFLES

Good looking, excellent quality. Easy to instail with the exclusive Argos speedy mounting clip. Has quality $8^{\prime \prime}$ speaker with 1 oz . magnet that handles all lowlevel 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 wal$43 / 8$ " ${ }^{\text {D D }}$. Shpg. wt. $41 / 2 \mathrm{lbs}$. Specify color.
34A95-0-001-8. WB-108CS. Blonde 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
Baffle with Speaker, Volume Control and 70.7 Transformer for use in multiple speaker installations. Shpg. wt. 5 lbs .
34A98-4-001-8. WB-108CSVI. Blonde Your Choice
34A98-4-002-6. WB-108CSVI. Wainut
Each
$\$ 21.25$

## (3) ARGOS PRESTIGE BAFFLES

The finest you can buy. New heavy duty $8^{\prime \prime}$ 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. $93 / 4^{\prime \prime} \mathrm{H} . \times 11^{\prime \prime} \mathrm{W} . \times 5-3 / 8^{\prime \prime}$ D. Shpg. wt $53 / 4 \mathrm{lbs}$. Specify color.

34A99-2-001-8. TPB508CS. Birch Baffle
Your Choice
34A99-2-002-6. TPB508CS. Walnut Baffle
Each
$\$ 19.95$
Baffle and Speaker and Volume Control.
34A104-0-001-8. TPB508CSV. Birch Baffle Your Choice 34A104-0-002-6. TPB508CSV. Walnut Baffle Each
$\$ 22.50$
Baffle, Speaker, Volume Control and 70.7 Volt Transformer for use in multiple speaker installations. Shpg. wt. $61 / 4 \mathrm{lbs}$.
34A105-7-001-8. TPB508CSVT. Birch Baffle Your Choice
34A105-7-002-6. TPB508CSVT. Walnut Baffle Each
\$25.97
(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 $8^{\prime \prime}$ Jensen speaker with 6 oz , ceramic magnet, handles 15 wotts. 8 ohms impedance. Vinyl clad, in choice of walnut or blond finish. $18^{\prime \prime} \mathrm{H} . \times 121 / 2^{\prime \prime} \mathrm{W}$. and $63 / 4^{\prime \prime} \mathrm{D}$. at top. Shpg. wt. 6 lbs.
34A7004-5-001-8. SCB-208S. Blonde Baffle Your Choice
34A7004-5-002-6. SCB-208S. Walnut Baffle Each
\$24.45


## 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 $8^{\prime \prime}$ wide range speaker. Built-in volume control. Comes with connectors attached to 20 ft . wire. 10 -watt power capacity. 8 ohm impedance. Size $12^{1 / 4^{\prime \prime}} \times 9^{3 / 4^{\prime \prime}} \times$
34A499-4. Model ESP-800. Each

## FLUSH MOUNTING WALL

 AND CEILING BAFFLES
## Lowsll


$\$ 2.39$

IN PLASTIC OR METAL

$\$ 4.19$

$\$ 4.09$
(1) Beautiful Functional Design. Excellent dispersion of sound. Mounts standard round $8^{\prime \prime}$ speakers. Self-tapping screws furnished for speaker mounting. No drilling necessary. Baffle size $12-58^{\prime \prime}$ O.D. $58^{\prime \prime} \mathrm{D}$. White color may be painted to match surroundings.
34A7009-4. White recessed baffle. Net Each
\$2.39
(2) Beautiful Aluminum Ceiling Baffle. 8-inch speaker mounts to baffle by four screws supplied. Four holes in $1 / 2^{\prime \prime}$ flange area permit mounting baffle to ceiling with wood screws, mollys or toggle bolts. $125 / 8^{\prime \prime}$ diameter, ceiling hole size $81 / 2^{\prime \prime}$ diameter. Weight 1 lb .
34A75-2. White Enamel Your Choice 4 (a) 10 (a)
34A227-9. Brushed Aluminum. Ea. . $\$ 4.19$ Ea. $\$ 3.79$ Ea... $\$ 3.39$ Same as above except

4 (a) 10 (a)
$\begin{array}{llll} & 4 \text { ® } & 10 \text { @ } \\ \text { for } 12 \text {-inch speaker. } \\ 344228-7 & \text { Brushed Aluminum. Ea. . . } \$ 6.19 & \text { Ea. } \$ 5.69 \text { Ea.... } \$ 5.19\end{array}$
(3)Round $10^{\prime \prime}$ Diameter Spun-Aluminum Baffle takes $8^{\prime \prime}$ speaker. Mounts directly to ceiling or wall by wood screws, toggle bolts or mollys. Edge has slight bevel. Shpg. wt. 1 lb .
34A76-0. Net Each.
$\$ 4.094$ @ Each . .
\$3.6910@ Each
\$3.29

(4)

(6)
(1) Flush Mounting Wall or Ceiling Baffle. $10^{\prime \prime}$ square, mounts $8^{\prime \prime}$ 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 (a) Each .. \$3.99 10 @ Each . . \$3.59

Similar in appearance to above Grille except is $12^{\prime \prime}$ Square and has $9 / 16^{\prime \prime}$ 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 $8^{\prime \prime}$ speaker. remove block of acoustical tile and
Brushed aluminum. Shpg, wt. 1 lb .
34A78-6. Net Each .... \$7.79 4 @ Each .. $\$ 7.0910$ @ Each .. \$6.39 (5) NEW 12-5/8" Round White High Impact Styrene Grille. Mounts any $8^{\prime \prime}$ 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. Shpg. wood screws, 34C96-8. Net Each .... \$2.99 4 @ Each .. \$2.69 10@ Each .. \$2.39 (6) $10^{\prime \prime}$ Square White Plastic Grille with Concentric Spirals. Designed to add beauty as well as camouflage the speaker. Mounts any $8^{\prime \prime}$ 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
\$4.3910@Each
$\$ 3.99$

## 2-WIRE SPEAKER CABLE

Bare copper, flexible stranded size 24 parallel conductors; chrome vinyl plastic insulation. Cable diameter $.058 \times .115^{\prime \prime}: 7 / 32$ stranding. 2C33-9. 100 Ft .
$\$ 2.49 \quad 1000 \mathrm{Ft}$.
$\$ 17.95$

 fect woofer for tiny bookshelf systems or other special speaker systems.
Has enormous power handling capacity of 18 watts with its extra-heavy 10 Has enormous power handling capacity of 18 watts with its extra-heavy 10
oz. Ceramic magnet. Frequency response $65-17,000 \mathrm{~Hz}$. Complete with design
 34A493-7. Each

## (3) $8^{\prime \prime}, \mathbf{2}$-WAY, HICH COMPLIANCE SPEAKER

Full size $8^{\prime \prime}$ 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 $30-20,000 \mathrm{~Hz}$. All this yet only $3^{3 \prime \prime}$ deep (Dia. $81 / 8^{\prime \prime}$ ). Shpg. wt. $23 / 4 \mathrm{lbs}$.
34A495-2. Each
$\$ 14.95$


## 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 magplus nets.

| Stock No. |  | Size | Mag. Wt.Oz. | Power Watts | Range Freq. | Spk. Depth |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34A482-0 | PA8JC | $8^{\prime \prime}$ | 10 | 30 | 32-15M |  | 23/4 | \$11.99 |
| 34A483-8 | PA8JC.W | $8{ }^{\prime \prime}$ | 10 | 30 | $32-19 \mathrm{M}$ | 3 | 23/4 | 12.49 |
| 34A484-6 | PA8JC-WCR | $8^{\prime \prime}$ | 10 | 30 | 30-20M | 3 | 21/4 | 15.59 |
| 3 | PA12JC | 12" | 10 | 36 | 30-12M | 4-7/16 | $33 / 4$ | 21.29 |
| A48 | CS12JC.W | $12^{\prime}$ | 10 | 32 | 28-18.5M | 4.7/16 | $33 / 4$ | 21.29 |



(1)
 Includes sizes and magnet weight to provide a complete (4)nge of service with $\%$ which are 8 ohms.


## 5-WATT 70 AND 25 V. LINE TRANSFORMERS

MATCHES 4 TO 8 OHM VOICE COILS IN MUITIPLE SPEAKER SYSTEMS
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 watts.
13A955-0. 70 V . Choice
$\begin{array}{lll}\text { 13A955-0. } & 70 \text { V. Choice } \\ 13 A 954-3 . & 25 \mathrm{~V} \text {. Each }\end{array}$
13A954-3
V. Each
$\$ 2.5925$ Each ......... $\$ 2.99$
$\$ 2.39$
$\$ 2^{99}$ HEAVY DUTY 10 WATI (a 70 V
Tapped for $10,5,2.5,1.25,0.625$ watts. Secondary 4 or 8 ohms. Size 2 X $11 / 2 \times 1-5 / 8^{\prime \prime} \mathrm{H}$. Wt. $13 / 4 \mathrm{lbs}$. Imported at big savings. 13A953-5. Each. $\$ 3.4910$ Lots Ea ..... $\$ 2.9925$ Lots Ea

# UNIVERSITY PH TRUMPET AND 30-WATT DRIVER 



PH TRUMPEI . . . 543.80 ID30 DRIVER . . $\$ 29.40$ PURCHASED SEPARATELY
WOULD COST
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 $150 \mathrm{~Hz}, 41^{\prime \prime}$ air column length. $85^{\circ}$ dispersion. $20-3 / 8^{\prime \prime}$ bell dia. $15^{3 / 4^{\prime \prime}}$ long less driver. Overall response $85-7,500 \mathrm{~Hz} .16$ ohm impedance
49A144-9. Shpg. wt. 16 lbs. Special
\$65.65
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.


Same as the ID-30, but contains an integrated line-matching fransformer. 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 eas ily made with slide-on push clips. $85-7500 \mathrm{~Hz}$. frequency response. 30 watts I,P.M $41 / 8^{\prime \prime}$ dia. $\times 6^{\prime \prime}$ d. Shpg. wt. 4 lbs .
49A4043-9. Model ID-30T. Each
$\$ 39.00$


1B-A8 MIL-A8
CFID32-8

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 $260-14,500 \mathrm{~Hz} ; 120^{\circ}$ dispersion. $9^{\prime \prime}$ dia. X $81 / 2$ " L. Shpg, wt. $3^{3 / 4}$ lbs.

## 49A4050-4. Model FID-15T. Each

$\$ 38.40$
Model IB-A8. World's most widely used medium power speaker, with full 30 watts continuous duty power copacity and improved lower frequency operation. 105 degree. Tropicalized, weatherproof for trouble-free lifetime Hz . Universal swivel mtg . bracket. Size $101 / 4^{1 / 2}$ dia. $\times 91 / 4^{\prime \prime}$ deep. Shpg.
wt

## 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 350 Hz . Excellent for limited areas and filling in "dead" spots. Tropigree dispersion. Has universal swivel mtg bracket.
 $49 \mathrm{~A} 4016-5$. Model MIL-A8 8 -ohm voice coil. Net Each....
3.00

Model CFID32-8. 32 WATT FULI RANGE. Wide angle $80 \times 120$ dispersion speaker with built-in hermetically sealed driver. Delivers high output with intelligibility and noise penetration. Exclusive cobra flare insures uniform 220 Hz . 14.5 KHz response. Excellent "Talk-back" characteristics. Steel reinforced fiberglass/polyester horn gives superior acoustic qualities and resistance to physical abuse. Omni-Lok swivel bracket directs sound where desired. Size $7-3 / 8^{\prime \prime} \mathrm{H} \times$ $14^{\prime \prime} \mathrm{W} \times 12^{\prime \prime} \mathrm{L}$. Shpg. wt. 6 lbs.

# POPULAR SPEAKERS AT MONEY SAVING PRICES! 



## ARGOS SOUND COLUMNS

greatiy minimize fetdback probiems
Argos Sound Columns actually "focus" sound so one column can cover an entire audience even ly. No loud spots or unintelligible areas. Idea for churches, auditoriums, meeting rooms, out doors, wherever sound is required Provide vertical dispersion from 15 to 22 de 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. $6 \quad 51 / 2^{\prime \prime}$ speakers. Frequency response $200-10,000 \mathrm{~Hz}$. Clad in walnut wood grained vinyl with attractive cane grill. Size $30^{1 / 4} \mathbf{4}^{\prime \prime} \times 7^{\prime \prime} \times 3^{1 / 8 " D}$. Shpg. wt. 9 lbs.
49A4033-0.
Net Each
$\$ 49.95$
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 $10,000 \mathrm{~Hz}$. response. 10 pecially desianed $51 / 2^{\prime \prime}$ speakers are balanced and acoustically damped. Size $49 \frac{1 / 2}{}{ }^{\prime \prime} \times 7^{\prime \prime} \times 6^{\prime \prime}$ D. Shpg. wt. 22 lbs.
49A4032-2. Net Each
$\$ 87.50$
Model MSD-1060. Six heavy magnet $8^{\prime \prime}$ speakers handle 60 watts of power. Uniform sound level of voice and music under auditorium conditions. Two wiincover large indor 16 ohms. Size $10^{3 / 4} 4^{\prime \prime} \times 50^{1 / 2^{\prime \prime}} \times 8^{1 / 4^{\prime \prime}}$ Shpg $^{2} 10$ baffles, h

## 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 $17,000 \mathrm{~Hz}$ reproduction at 30 watts power. Impedance 16 ohms. Hand-rubb finish with cane grille. Size: $141 / 2^{\prime \prime} \times 42^{\prime \prime} \times 5^{\prime \prime} \mathrm{D}$. Shpg. wt. 43 lbs .
49A4053-8. Each

## MINI-SOUND COLUMN

Model MIN-1. Only $17^{\prime \prime}$ high, Mini-Column is a true sound column with six $21 / 2^{\prime \prime}$ speakers that focus sound exactly like Argos full size columns. Will outperform regular single cone loudspeaker in small listening area. Frequency response 200 to $3,000 \mathrm{~Hz}$. Power rating 10 watts. Impedance 8 ohms. Size: $17^{\prime \prime} \times 3^{1 / 2^{\prime \prime} \times}$ $2^{33 / 4} 4^{\prime \prime} \mathrm{D}$. 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 trame of compatible plastic material to reproduce a wide range of frequencies. Due to the high acoustic efficiency, there is also a minimum of piston motion resulting in low distortion. The unique construction of this electromagnetic loudspeaker provides a combination of physical and electrical characteristics not available (1) from conventional cone speaker designs. All are 8 ohm impedance.
(1) Model RP-8. 10 Watts RMS. Frequency range $40-20 \mathrm{KHz}$, Size $8^{\prime \prime}$ diameter, $1^{\prime \prime}$ depth. Wt. 11 ozs.
$\$ 10.50$
34A469-7. Each
$13 / 16^{\prime \prime} \times$
(3) Model P-5B. 10 Watts RMS. Frequency range $60-20 \mathrm{KHz}$. Size $\$ 9.50$
49A4024-9. Each
(4) Model P-40. 25 Watts RMS. Frequency range $30-20 \mathrm{KHz}$. Size $1-7 / 16^{\prime \prime} \mathrm{X}$ $113 / 4^{\prime \prime} \times 14-11 / 16^{\prime \prime}$. Wt. 19 ozs.

## 34A542-1. Each

$\$ 15.95$

## POLY-PLANAR SPEAKERS WITH GRILLES

(2) Model G81-P. 10 Watts RMS. $8^{\prime \prime}$ speaker Model RP-8 above mounted on $123 / 4^{\prime \prime}$ white grille. Has facility for transformer mounting.
34A479-6. Wt. 17 ozs. Each
$\$ 14.50$
(5) Model G401-P. 25 Watts RMS. Frequency range $30-20 \mathrm{KHz}$. Size $1-9 / 16^{\prime \prime}$ X $131 / 4^{\prime \prime} \times 16^{1 / 4^{\prime \prime}}$. Wt. 31 ozs .
34A543-9. Each
\$20.95
(6) Model G5IP - 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 $7 / 8^{\prime \prime} \times 6^{\prime \prime} \times 10^{\prime \prime} \mathrm{Wt}$. 14 ozs.
34A467-1. Each
$\$ 11.50$

ALL PURPOSE SPEAKERS
FOR INDOORS, OUTDOORS, PAGING, PA AND MUSIC

(3)

(2)


## PAGINC SPEAKER

Natural tone paging speaker for universal application. Wide angle $90^{\circ}$ spread. Smooth frequency range, free of peaks, cuts out unintelligible lows and highs Smooth trequency spange, free of peatration. Weatherproof re-entrant type, for indoor or for maximum speech penetration. weatherproof flange. 5 watt power rating. 8 ohms. 5 inch horn opening. $53 / 8 /{ }^{\prime \prime}$ long. With wire lead. 49A4008-2. Shpg. wt. 2 lbs. Import Special

## With

$\$ 13.95$
(2) COMPACT PAGING PA SPEAKER

Wide $120^{\circ}$ dispersion angle, compact size with full power driver unit reflex construction. Excellent for high power paging or medium power public address applications. Provides high sound penetration with exceptional brilliance and clarity. Leave outdoors in any weather, or use indoors. Response Hz . Swivel U-bracket mtg., $28^{\prime \prime}$ wire lead. 8 watts. 8 ohms. $6^{\prime \prime}$ bell, $6^{\prime \prime}$ D. Shpg. wt. 5 lbs.
49A4007-4. Import Special.
\$24.95
(3) HI-POWER OUTDOOR REFLEX SPEAKER

Rugged, high power trumpet speaker for ourdoor public address. ConservaRugged, rated 12 watts. Will handle up to 20 watts of power. Waterproof, tively rated rustoroof, shockproof. Driver is completely enclosed. Cives crisp, clear, widerustproof, shockproof. in high noise level areas. $340-7000 \mathrm{~Hz} .5 \times 8^{\prime \prime}$ horn $8^{\prime \prime} \mathrm{L}$. 8 ohms. Grey hammertone. U-bracket and wire lead. Shpg. wt. 5 lbs 49A4006-6.
\$34.95

## Import Specia

(4) $5^{3} / 4$-INCH WEATHERPROOF PAGING SPEAKER

Perfect for Compact speaker with wide frequency range, 300 to $12,000 \mathrm{~Hz}$. Perfect for Public Address, Citizens Band or music. Will fit behind grilie on mosedance. Has adjustable mounting bracket, power
49A4001-7. Net Each.
$\$ 14.95$
(5) MINIATURE WATERPROOF REFLEX SPEAKER

Unlimited in applications. Penetrating quality makes 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 $31 / 4^{\prime \prime}$ dia. and $2^{\prime \prime}$ deep. Yoke type mounting bracket mounts by two holes, allows over $180^{\circ}$ vertical movement deal for mounting under dash, or under hood for listening outside of car. requency range $400-6500 \mathrm{~Hz}$., handles 3 watts, impedance 8 ohms Shpg. wt. 1 lb.
49A4009-0. Import Special.
$\$ 9.95$

## WEATHERPROOF PATIO SPEAKERS

Enjoy your favorite program outdoors. A chemically treated, $8^{\prime \prime}$ 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. $107 / 8 \times 107 / 8 \times$
$53 / \mathrm{m}^{\prime \prime}, 40 / 15,000 \mathrm{~Hz} .20$ watts peak; impedance, 8 ohms. Shpg. wt. $61 / 4 \mathrm{lbs}$. 34A476-2
$\$ 19.95$

## EXTENSION SPEAKER

Compact enough to use almost anywhere, the MOD-4 measures only 4 Ko $\times 5 \mathrm{~K}_{6} \times$ $23 / 8{ }^{\prime \prime}$. The $4^{\prime \prime}$ speaker is treated for moisture resistance and has an Alnico $V$ magnet. Screw terminals for easy wiring, keyhole slots for easy mounting, will stand on shelf. Strong, steel case has baked-on finish. Impedance, 8 ohms; power, $41 / 2$ watts program. Shpg, wt. $11 / 4 \mathrm{lbs}$.
$34 \mathrm{~A} 475-4$ Each 34A475-4. Each

## POLY-PLANAR AUTO

## STEREO SPEAKER SET

## Waterproof-Flat

Design fits anywhere
Unique flat speakers designed to fit anywhere - only $7 / 8^{\prime \prime}$ mounting depth. A pair of heavy, duty air-suspension, 10 Watts RMS $51 / 4$, speakers, black soft padded vinyl snap-on grille, and all necessary wire, hardware, and instructions. Shpg. wt. 6 lbs.

38A6061-2. Model A2000V
Pair
\$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 $5 / 8^{\prime \prime}-27$ threads for microphone or microphone holder. Famous wear--proof clutches for positive locking control. Anti-tip stabilizers added between self-leveling shock absarbing pads to protect desk, table or floor. Made in U.S.A.

MS10C and MSIIC use $7 / 8^{\prime \prime}$ and $5 / 8^{\prime \prime}$ tube, MS-20 and MS-25, $11 / 8^{\prime \prime}$ and $7 / 8^{\prime \prime}$ 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. Model Height Weight Base Each 3 Each


 4 29A7002-6 MS-25 $38^{\prime \prime}$ to $67^{\prime \prime}$ 22 lbs. $17^{\prime \prime}$ Wrinkle $39.99 \quad 33.25$
(4) DELUXE "THREE-LEGGED" FLOOR STAND. Heavy cast iron base padded on each leg. $15^{\prime \prime}$ "dia. Very stable and more convenient to use since base allows "toe room". Demountable 2 -section aun metal grey wrinkle base, full chrome stem, $34^{\prime \prime}$ to $62^{\prime \prime}$ 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. Scuff resistant steel base with protective pads. Upper tube chrome plated, lower tube and stand base in gloamed black. Height $35^{\prime \prime}$ to $63^{\prime \prime}$, Base $14^{1 / 2^{\prime \prime}}$. Wt. $61 / 2 \mathrm{lbs}$.
29A7016-6. Model MS-50. Each
$\$ 12.593$ Each
$\$ 10.50$
(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 $5 / 8^{\prime \prime}-27$ threaded adjustable microphone stand. Chrome tube 31 1" long, tapered gloamed black counterweight. Recessed cable guide for professional appearance. Wt. $3^{1 / 2} \mathrm{lbs}$.
29A7017-4. Model BB-44. Each ...... $\$ 10.993$ Each
$\$ 9.25$

(7) VALUE! CHROME TUBE DESK STAND. Stem $4^{\prime \prime}$ high, base $6^{\prime \prime}$ dia., padded feet, charcoal finish, $5 / 8^{\prime \prime}-27$ thread. Wt. 2 lbs . Mfa. Suggested List $\$ 6.10$ 29A7011-7. Atlas DS-5. Each ......... $\$ 5.59$ Each .......... $\$ 4.40$
(8) ADJUSTABLE DESK STAND. Grip action clutch adiusts. Height $8^{\prime \prime}$ to $13^{\prime \prime}$. Chrome tube. $5 / 8^{\prime \prime}-27$ thread. $6^{\prime \prime}$ charcoal base. Wt. 3 lbs . Mfg. Suggested List $\$ 9.75$
29A7012-5. Atlas DS-7. Each
$\$ 7.99$ Each
$\$ 6.60$
(9) "STREAMLINED" DESK STAND. Features concealed rear cable exit and functional design. Perfect for any mike. Charcoal enamel and chrome with rubber bumpers. $5 / 8^{\prime \prime}-27$ thread. Wt. 2 libs. Mfg. Suggested tist $\$ 11.10$.
29A7014-1. Atlas DS-10. Each $\qquad$ $\$ 9.993$ Each $\qquad$ $\$ 8.25$ (10) CLAMP-ON BRACKET. Holds securely on flat surface $2^{\prime \prime}$ thick or less. Chrome $6^{\prime \prime}$ lona tube, $5 / 8^{\prime \prime}-27$ thread. Wt. 2 lbs. Mfg. Suggested List $\$ 7.35$. 29A3018-6. Atlas BC-1. Each .......... $\$ 6.59$ 3 Each ........ $\$ 5.10$ (11) DEIUXE BANQUET STAND. Adjustable height $14^{1 / 2} 2^{\prime \prime}$ to $26^{\prime \prime}$. Chrome tube $5 / 8^{\prime \prime}-27$ thread. Chrome low silhovette base of trim modern design. Wt. $51 / 2 \mathrm{lbs}$. Mfg. Suggested List $\$ 18.35$.
29A7005-9. Atlas TS-8. Each
$\$ 14.59$ 3 Each
$\$ 12.15$

## SWITCHCRAFT 4-CHANNEL MIXMASTER <br> MIXER/AMPLIFIER

## all CHROME PLATED

| Fig. | Stock No. | Description | E | 3 Each |
| :---: | :---: | :---: | :---: | :---: |
|  | 29A3004-6 | $6^{\prime \prime}$ Flexible Coose Neck- |  | \$2.40 |
|  |  | 13" Flexible Coose Neck |  |  |
|  | A3006-1 | 19" Flexible Coose Neck | 5.3 |  |
| $8$ | 29A3007-9 | $41 / 2^{\prime \prime}$ Swivel Adaptor | 6.9 | 6.00 |
|  | 29A3008-7 | Snap-on Mike to Stand Adaptor | 4.59 | 3.90 |
|  |  | thumb release <br> -to-stand Adaptor | 4.99 | 4.25 |
|  |  |  |  | 3.40 |
|  | $\begin{aligned} & \text { 29A3010-3 } \\ & 29 A 3011-1 \end{aligned}$ | Cable Hanger <br> Male Flange $11 / 4^{\prime \prime}$ diameter |  |  |
|  | 29A3012-9 | Female Flange $11 / 4$ " ${ }^{\text {" }}$ diameter | . 39 |  |
|  | 29A3013-7 | Threaded Nipple $3 / 44^{\prime \prime}$ |  |  |
| 9 | 29A301 | Fermale Threaded Coupling |  |  |
|  | A30 | Extension |  |  |
| (11) | 2943016 | ${ }^{\prime \prime}$ 'L. Extension Tube | 45 |  |
|  | 29A3017-8 | Right Angle Bend | 2.45 |  |

## CRYSTAL CONTACT MIKE

Provides brilliant tone. For guitars, pianos, etc. Hi-impedance type. Has $6^{\prime}$ shielded cable, brass phone plug. $W t .1 \mathrm{lb}$. 29A740-8. Special Each


## 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. A6IWS-BL. Blue 29A3068-1. A6IWS-OR. Orange
29A3069-9. A6IWS-BR. Brown 29A3065-1. A6IWS-RD. Red 29A3066-5. A61WS-GN. Green 29A3067-3. A6IWS-YL. Yellow 29A3080-6. A6IWS-BK. Black 29A3081-4. A6IWS-WH. White.
YOUR CHOICE EACH $\$ 4.95$


515SA-SB

UNIDYNE
55SW

## HIGH PERFORMANCE UNIDYNE CARDIOID DYNAMIC MICROPHONES

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

The ultimate for PA entertainment. For hand or stand usage. Now teaturing a long life magnetic reed "On-Off" switch incorporated into the microphone case. An ulfra high quality, super rugged microphone with an unusually effective cardioid pickup pattern. Response: $40 \cdot 15,000 \mathrm{~Hz}$. Dual impedance, high and low. Hi-Z output - 55 db ; Lo-Z -57 db . With 15 ft . 2 -conductor shielded ca ble. Includes swivel adapter. Shpg. wt. 3 lbs.
29A672-3. Model 548SD. Net Each
$\$ 85.80$
29A705-1. Model 548SD-CN. Same as above with prewired male threepin audio connector at amplifier end. Net Each

## MODEL 545SD UNIDYNE III

Approaches the theoretical ideal cardioid pickup pattern at all frequencies, providing extended range music and speech pickup for highest quality professional PA and recording. It now features a long life reed "On-Off" switch incorporated into the microphone case. Response $50-15,000 \mathrm{~Hz}$ : Dual high or low impedance. High impedance output - $55 \cdot \mathrm{db}$; low impedance Swivel stand adapter Shable cable
Swivel stand adapter. Shpg. wt. 3 lbs.
29A673-1. Net Each
$\$ 73.20$
29A704-4. Model 545SD-CN. Same as above with prewired male three pin audio connection at amplifier end. Net Each
$\$ 76.80$
29A758-0 Model 545D. Same as above but with no on-off switch.
$\$ 72.00$ Each
$\$ 7.00$
29B235-9. Model 545 S . On-off switch is built into swivel mount and uses Amphenol type connectors.
tach
$\$ 73.20$
29A366-2. S33B, Black Desk Stand. Each
$\$ 12.90$


585

## MODEL 565 SD UNISPHERE I

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-Otf switch incorporated into whe microphone case, $5,000 \mathrm{~Hz}$. Outputs: $50-250$ ohms. -57 db . Hi-Z -54.5 db .15 ft . detachable cable. Swivel stand adapter. Chrome and black. $6 \times 2^{\prime \prime}$. Shpg. wt. $2^{1 / 2}$ lbs.

29A674-9 Net Each
$\$ 81.00$

## 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 $5 / 8^{\prime \prime}-27$ stand adapter. Low impedance recommended where long microphone cables are to be used. Average size $6^{1 / 2} 2^{\prime \prime}$, approximately $2^{\prime \prime}$ dia. Wt. 2 lbs.

|  | Shure | Pick | Impedanc | Response | Output |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Srock } \\ \text { No. } \end{gathered}$ | Type | Pattern | Ohms | \%. | Level |  |
| 29B217-7 | 585SA | Cardioid | High | $50.13,00$ |  | \$54.45 |
| 29B218-5 | 585 S | id | Low | 50 |  | 45 |

## SHURE TRANSFORMERS



A95U

Match impedance of $\mathbf{2 5 - 5 0}$ ohm or $\mathbf{1 5 0 - 2 5 0}$ 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: $21 / 2^{\prime \prime}$.
29A3070-7. Model A95U. Shpg. wt. 1 lb. Each
$\$ 16.50$
Model A95UF. Single contact high impedance screw terminal (MCIM) to low impedance 3 -pin female audio connector (A3F). Adaptors: 1 MCIF to phone plug; I MCIF to phone jack. Transformer length: $31 / 2{ }^{\prime \prime}$
29A3071-5. Model A95UF. Shpg. wt. 1 lb . Each
\$18.75

Perfect for PA entertainment for indoor or outdoor service. Features dual impedance, excellent "pop" protection, plus a rugged grill assembly. Response 90 $13,000 \mathrm{~Hz}$. Hi-Z output -63 db ; Low-Z, -61 db . Silver metallic finish. Size: $7^{\prime \prime}$ long, $3 / 4^{\prime \prime}$ barrel, $1-9 / 16^{\prime \prime}$ head. With swivel adaptor for floor stand. 15 ft . cable. Shpg. wt. 2 lbs.
29A738-2. Model 589S. Each
\$54.45
MODEL 580SA UNIDYNE
For better PA entertainment and improved home recording. Slips out of stand swivel mount for hand-held use. Response $50-11,000 \mathrm{~Hz}$. Hi-Z output, -56.5 db . Satin chrome. Size: $6-5 / 8 \times 13 / 4^{\prime \prime}$ 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" 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: $67^{7} \times 1 \frac{1}{2 \prime \prime}$ dia. With 15 ft , attached cable, built-in switch and swivel adapter. Response $-80-13,000 \mathrm{~Hz}$. Hi-Z output - 58 db .
Lo-Z -59.5 db . Shpg. wt. 2 lbs .
$\begin{array}{ll}\text { 29A6 } \\ \text { 29A6-2. } & \text { Model } 515 \mathrm{SA} \text {. High Impedance. Net Each }\end{array}$
\$32.40
29A616-0. Model 515SB. Low Impedance. Net Each....................... \$32.40 29A675-6. Same as 515 SB above with integral $18^{\prime \prime}$ gooseneck and mounting flange. Grip-to-talk relay controlling leaf switch. For permanent mounting.
Wt. 3 lbs. Model $515 S B-G 18$. Net Each................................ $\mathbf{\$ 3 8 . 1 0}$ 55 SERIES UNIDYNE II
Famous for dependable indoor and outdoor service in regular or rugged duty. Response $50-15,000 \mathrm{~Hz}$. Output -55 db . Selectable $35-50,150-250$ or high impedance. Tilt head, detachable 18 ft . cable. Size: $73 / 8 \times 2,3,3 \times 3,1^{\prime \prime \prime} \mathrm{D}$ Wt. 3 lbs.
$29 A 241-7$


## SHURE BALL-TYPE MICROPHONES

588 Series. Feedback-free cardioid pickup pattern, shock-mounted cartridge, wind, pop and blast filters, lockable On-Off switch, 15 ft . single conductor detachable cable. Includes swivel stand adaptor. $61 / 2 \times 2^{\prime \prime}$ dia. Wt. $11 / 2 \mathrm{lbs}$. *588SAC has prewired MCIF microphone connector with $1 / 4^{\text {" }}$ phone plug adapter; others, less plug.
579 SB. Extremely rugged. Ideal choice for high quality FA, entertaining, rec ording and studio applications. 20 ft .2 -cond. detachable cable, lockable OnOff switch.
516 EQ . 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 transformerx for high impedance inputs, phone plug adaptor, 20 ft . cable, swivel adap or und carrying case.
516EQ-PR. Same as above. Two mikes for superb stereo recording. 75.00

|  |  |  |  |  | 59 dB | 75.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29A784-6 | 516EQ | Cardioid | Low $\times$ | 15,000 | 59 dB |  |
| 29A785-3 | 516EQ- | Cardioid | Low x | 50-15,000 | 59 dB | 135.00 |
| Stock No. | Shure Type | Pickup Pattern | Imped. Ohms | Hz | Outp Leve |  |
| A633-5 |  | Cardioid | High | 80-13.000 | 59.5 db . | \$46.65 |
| 29A634-3 | 5885AC | Cardioid | High | 80-13,000 | 59.5 db | 47.85 |
| 29A636-8 | 579SB | $\mathrm{O}_{\mathrm{r}}$ |  |  |  | 54.45 |

## (2)

## SHURE LAV ALIER MICROPHONES

Rugged dynamic mikes having frequency response specially engineered for lovalier use 560 size 3 ":" " $\times 11 / 3^{\prime \prime}$ D. high or low imped. 5705 size $3 / 4^{4}$ dio., hos on-off switch, response $50-12,000 \mathrm{~Hz}$. $50-250$ 'ohm imped. Attached light weight cables.'Shpg. wt. $1 \frac{1 / 2}{} \mathrm{lbs}$.

| Stock <br> No. | Shure <br> No. | Output <br> Level | Cable <br> Length | Net <br> Each |
| :---: | :---: | :---: | :---: | :---: |
| $29 A 268-0$ | 560 | -56.5 db | 188 ft | $\$ 35.10$ |
| 29A269-8 | 570 A | -59 db. | 30 Ft. | $\mathbf{8 5 . 8 0}$ |

## SHURE SM1 1 LAVALIER

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 $50-15,000 \mathrm{~Hz}$, low impedance, power level -64dB. Only $9 / 16^{\prime \prime}$ dia., $1-5 / 16^{\prime \prime}$ long. Net wt. 0.28 oz .
29A786-1. Each
$\$ 57.00$

## shual MIKE MIXERS, ACCESSORIES

## SHURE <br> 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: $2-23 / 32 \times 11-15 / 16 \times 6.31 / 32^{\prime \prime}$. Wt. 2 lbs
29A3057-4.
M610. Each
$\$ 134.40$

## 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 you to drive any high impedance amp. mixer or recorder requiring one volt or ess (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 $6^{\prime \prime}, 12^{\prime \prime}$ or $18^{\prime \prime}$ for best pickup area to the ear regardless of shouting or overly close talking Battery operated ( 9 V . battery included). Frequency response 20 to $20,000 \mathrm{~Hz}$ Requires one each Switchcraft A3F and A3M. Size $2^{1 / 2^{\prime \prime}} \times 11-3 / 8^{\prime \prime} \times 5^{1 / 4^{\prime \prime}}$ Wt . $23 / 4 \mathrm{lbs}$.
29A3034-3. Net Each
$\$ 72.00$

## SHURE <br> 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 mating connector.
Features: ballistically correct VU meter, 5 outputs, 600 ohm balanced line, $\mathrm{Hi}-\mathrm{Z}$ 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 octave Hi -Pass and Lo-Pass filters. Bass and treble tone controls. Either 30 V.D.C. power. Size: $21 / 2 \times 11-3 / 8 \times 6^{\prime \prime}$. Shpg. wt. 4 lbs.
$50 / 60 \mathrm{~Hz}$ or 30 V.
29A3050-9. Net Each
$\$ 115.20$

## SHURE 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 $\mathrm{Hi} / \mathrm{Lo}$ output impedance. Frequency response flat $\pm 2 \mathrm{~dB}$ from 30 Hz to 20 KHz . Size: $11-3^{\prime} / 8^{\prime \prime} \times 7^{\prime \prime} \times 21 / 2^{\prime \prime}$. Shpg. wf. 5 lbs .
29A3079-8. Model M677. Each
$\$ 181.20$

## SHURE

MODEL SE30
GATED
COMPRESSOR

## MIXER

The SE30 is a self-contained, portable, 3 -input mixer and remote amplifier combined with high quality compressor. The compressor feature automatically "rides gain," thereby limiting output at a desired level despite sharp increases in the amount of input, or increases the output level when the input level decreases. Incorporated in this compression system is a gated memory, a feature that minimizes "pumping" (the effect of compression recovery during program pauses). For 120 volts AC or 30 volts DC operation. Size: $3-15 / 16 \times 15 \times$ $10^{\prime \prime} \mathrm{Wt} .9 \mathrm{lbs}$.
29A3058-2. SE30. Each
\$355.20

## SHURE MICROPHONE MIXERS



## M68 SERIES MICROPHONE MIXERS

General specifications: 5 channel, completely transistorized, portable microphone mixer for use with public address, and tape recorders. Total harmonic distortion less than $1 \%$. Accommodates up to 4 high or low impedance microphones in any combination. Does not require line transformers. Has 1 high phones in any combination. Does not require line transformers. Has high level, high impedance input for tape, tuner or accessories. Individual volume ontrol on each channel plus master gain control. Output is either high or ow impedance. Low impedance output may be balanced or unbalanced permitting long cable to power amplifier input. Also has high impedance auxiliary output for tape recorder. Two or more mixers may be interconnected. For example two will provide inputs for eight microphones and one auxiliary. 943033-5. Model M68, With male Cannon-type inputs. 993033-5. Model M68. With male Cannon-type inputs. 29 A3037-6. Model M68FC. With Female Cannon-type inputs $\$ 108.00$
(Use XLR-3-12C/A3M Mating Connector). Net Each............... $\$ 108.0$
$\$ 100.20$ MODEL M68P MIKE MIXER With standard $1 / 4$ " 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 $40-20,000 \mathrm{~Hz}$. Four inputs and jack for remote reverb. $\$ 139.80$ 29A3039-2. Each
$\$ 139.80$

## MODEL M688 STEREO MIKE MIXER



Designed to be used with stereo tape recorders and sound reinforcemen systems. It has four dual impedance microphone inputs: three switchable o either left or right channel and the fourth with a pan control (any position between L and R). Two aux. inputs. Individual volume controls pius 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. 120 V . AC or craft A AM matin
Shpg. wt .7 tbs .
29A3054-1. Each
$\$ 136.80$

## SHURE M67 PROFESSIONAL MICROPHONE MIXER



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 osciltator for ring ing up line. Response $\pm 2 \mathrm{db}$ from 20 to $20,000 \mathrm{~Hz}$. Gain 90 db . 150 ohm mi crophone 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 $11-3 / 8 \times 7-1 / 2 \times 2-1 / 2^{\prime \prime} . W_{t} .5-1 / 2 \mathrm{lbs}$. Use XL-3-12C or Switcheraft A3M for mic. inputs; and XL-3-11C or Switeheraft A3F for mic. output.
29A3040-0. Net Each
$\$ 193.80$

## 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 Switcheraft A3M mating connectors). Battery or M67 powered. Stacking hardware included. Frequency response: 30 to $20,000 \mathrm{~Hz} \pm 2 \mathrm{db}$. Distortion: less than $1 \%$ THD. Size $2-1 / 2^{\prime \prime} \times 11-3 / 8^{\prime \prime} \times 7.1^{\prime \prime} 2^{\prime \prime}$.wt. 8 lbs. $\$ 179.40$
29A3055-8. Each ......................................... 29A3055-8. Each

## 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 danger, and without a sound engineer to monitor and control mic gain. For 120 VAC or 30 VDC. Size: $4-7 / 32 \times 3-11 / 32 \times 10-15 / 32^{\prime \prime}$. Shpg. wt. $41 / 2 \mathrm{lbs}$.

## 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
$\$ 116.20$


## SM6 1 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. $40-15,000 \mathrm{~Hz}$. frequency response. Omnidirectional pickup. 150 ohm impedance. With 20 ft . cable. Non-reflecting matte metallic finish. $71 / \mathrm{m}^{\prime \prime}$ 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.

## 29A757-2. Each

$\$ 82.80$

## 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. $100-10 \mathrm{kHz}$. frequency response. 150 ahms impedance. With 20 feet cable. Non-reflecting matte metallic finish. $4-29 / 32^{\prime \prime}$ 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 and a variety of broadcast shage, must be used outdoors or close to the mouth. 50 to $15,000 \mathrm{~Hz}$ frequency response. Unidirectional pickup. 150 ohm impedance. With 20 ft . cable.


## 29A733-3

$\$ 115.20$
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. $70-16,000 \mathrm{~Hz}$. frequency response. Matches any input from 50 to 150 ohms impedance. Output leve -58.5 db .
 With 20 ft . cable. Non-glare matte metalic tinish
long X $11 / 2^{\prime \prime}$ dia. Ne: wt. 8 oz . Shpg. wt. 2 lbs .
29A699-6. Each
$\$ 183.00$
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 $5 / 8^{\prime \prime}-27$ stand. Impedance: 150 ohms. $16.000^{\circ} \mathrm{Hz}$. Size: $71 / 2 \times 2.7 / 16^{\prime \prime}$ diameter. Shpg. wt. $4^{1 / 2} \mathrm{lbs}$. 29A739-0. Model SM7. Each

Response 40 -
$\$ 274.80$

## SHURE COMMUNICATIONS MICROPHONES



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. Operated transmitters. Sturdy, high-impac
Uses standard 9 V battery (not included).
29A787-9. Each
$\$ 42.00$
Problem-solving paging and communications microphone. Cardioid pickup pattern, dynamic element. Reduces noise pick-up. Provides utmost voice intelligibility. Adjustable $93 / 4^{\prime \prime}$ to $121 / 2^{\prime \prime} \mathrm{H}$. Tough Armo-Dur base and case. Dual high or low impedance. Locking or non-locking push bar for relay and microphone. 7 ft . push bar for relay and micr
cord cable. Shpg. wt. 2 lbs .
29A618-6.
Model 522. Each


SHURE PROFESSIONAL VOCAL MASTER MODEL VA302


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 individval settings. These include a master volume control, 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 $\pm 2 \mathrm{db} 40 \mathrm{~Hz}$ to $20,000 \mathrm{~Hz}$, speaker columns 50 Hz to $10,000 \mathrm{~Hz}$. Distortion: $5 \%$ maximum at rated output. Power consumpfion 400 watts maximum. Power requirements: 120 VAC, 60 Hz . Console wt. 41 lbs . Console size: $8-3 / 8^{\prime \prime}$ H. X $25^{\prime \prime}$ W. X $14^{3 / 4^{\prime \prime}}$ D. Speaker column: Freq. range 50 Hz . to $10,000 \mathrm{~Hz}$. Speaker column wt. 70 lbs . (including cable).
Speaker size: $62^{3 / 4^{\prime \prime}}$ H. X $153 / 4^{\prime \prime}$ W. X $8^{3 / 4^{\prime \prime}}$ D.
29A3059-0. Each
$\$ 1272.00$


MICROPHONES FOR EVERY PURPOSE


## MODEL $627 C$ 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 $60-13,000 \mathrm{~Hz}$. Output - 58 db . Size $61 / 8^{\prime \prime}, 1-5 / 8^{\prime \prime}$ dia. $3 / 4^{\prime \prime}$ shank. Net Wt. $71 / 2$ ozs. Shpg. wt. 3 lbs. Complete with 16 ft . detachable cable, no plug.
29A203-7. Dual Impedance Model 627C. Each
$\$ 54.00$

## MODEL 635A BROADCAST DYNAMIC MIKE

Omnidirectional pickup. Perfect for hand and stand use. Effective four stage pop and blast filter. Response 80 to $13,000 \mathrm{~Hz}$. Output -55 db . Low impedance. 18 ft . cable and stand adaptor supplied. $6^{\prime \prime}$ long X $1-3 / 8^{\prime \prime}$ dia. with $3 / 4^{\prime \prime}$ shank. Net wt. 6 ozs. Shpg. wt. $2^{1 / 2}$ lbs.
29A641-8. Each
$\$ 63.00$

## 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 $60-15,000 \mathrm{~Hz}-58 \mathrm{db}$ output. Has on-off switch 15 ft . detachable cable. High impedance or 150 ohm low impedance by moving one wire in connector. $17 / 8^{\prime \prime} \mathrm{max}$. dia. $7^{7} \mathrm{y}^{3 \prime \prime} \mathrm{lg}$. Net Wt. 26 ozs . Shpg wt. 4 lbs.
29A200-3. Satin Chrome Each
$\$ 78.00$
Matching Desk Stands Model 418 for 664, 644, 623
29A408-2. Model 418. Grey. Net Each
$\$ 15.00$

## MODEL 644 SOUND SPOT DYNAMIC

Mast 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. ${ }^{3 / 4}$ " dia., $16^{\prime \prime}$ long extension tube. Rear dia. $2-5 / 16^{\prime \prime}$. 15 ft . detachable cable. Off-on switch, swivel stand mounting. Net wt. 41 ots. Shpg. wt. 5 lbs. Desk stand Model 418 above
29A198-9. Net Each
$\$ 120.00$


## TURNER EXPAMDER 500 PRE-AMPLIFIED BASE STATIOW MICROPHONE

MODEL S-500 CARDIOID. Outstanding performer everywhere because of technical uniformity, near perfect cardioid pickup and requency response. "Live" at front, "dead" to sounds from rear, allows close up or moving about with great freedom. Cures feedback problems
Response $40-15,000 \mathrm{~Hz}$. High or low impedance selection. Output, high - 55 $\mathrm{db} ; 150$ 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 $5 / 8^{\prime \prime}-27$ tilt stand adaptor for hand held use. Satin chrome, 1-17/32 dia., 6-13/16" L . Stand adaptor is supplied. Shpg. wt. 3 lbs .
29A319-1. Mfg. suggested list $\$ 125.00$
Model S-500 with On Off Switch. Net Each
$\$ 75.00$
29B300-1. Chrome C-7 Stand. Net Each
$\$ 14.40$

## 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: $60-10,000 \mathrm{~Hz}$. Wide range dynamic, has satin chrome finish and rubber feet. $73 / 4 \times 51 / 2^{\prime \prime}$. Shpg. wt. 4 lbs . Mfg. List \$70.00.
29A736-6. Model 252. High Impedance. Output level: -52 db .7 ft .3 -conductor (one shielded) cable.
Each
$\$ 42.00$
29A737-4. Model 253. Low Impedance. Output level: -52 db .7 ft .4 -conductor (two shielded) cable. Each
$\$ 42.00$

## TURNER BALLADIER MUSICIAN'S CARDIOID DYNAMIC MICROPHONES WITH CARRYING <br> CASES <br> MODEL 866H. MODEL 766H.

$20-\mathrm{ft}$. 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 866 H . Cardioid performance at a low price. Ball screen styling. $100-13,000 \mathrm{~Hz}$ frequency response. Permanently attached cable. No on-off switch. Mfg. suggested list $\$ 45.00$
$\$ 27.00$
Model 766 H Ball screen styling, excellent cardioid performance. $40-15,000$ Hz trequency range. Heavy duty chrome finish. Removable 20 ft . cable, on-off switch. Mig. suggested list $\$ 95.00$.
29A668-1.

## 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, compensating for wide variations in mouth-to-mike distances and speech characteristics. 6 -wire cable provides wiring for aH transceivers (relay or electronic switching). Output impedance 5000 ohms. Frequency response 300 to 3500 Hz . Maximum output level 42 dB adjustable. Black Cycolac case accented by simulated brushed aluminum grille. Includes 9 volt battery. Shpg. wt. 2 lbs.
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. Each
$\$ 47.00$
Road-King 70. High output compression amplifier has capacity to fully modulate any transceiver. Frequency response: $300-5000 \mathrm{~Hz}$. 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

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 -30 dB adjustable. 9 volt battery included. Dynamic cartridge. Die-cast metal base and neck with chrome finish and black trim.
29A776-2. Model EX500. Shpg. wt. 5 lbs . Each
$\$ 65.00$
SUPER SIDEKICK. Designed to work with almost any transceiver, transistorized 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

$\$ 55.00$
" +3 " TRANSISTOR AMPLIFIED BASE STATION MICROPHONE. Bold new styling, new compression amplitier circult and exclusive new ceramic microphone offered. Allows user to talk close up or far from mike without microphone offered. Allows user to talk close up or far from mike without
varying output signal. Response $300-3,000 \mathrm{~Hz}$, 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 libs.
29A645-9. Model +3 . Mfg. +2 TRANSISTOR AMPLIFIED BASE STATION MICROPHONE WITH
VARIABLE OUTPUT LEVEL. Puts the zip back into your CB set and keeps 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 con-trol-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 $300-3500 \mathrm{~Hz}$., 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. $31 / 2 \mathrm{lbs}$. 29A295-3. Mfg. List $\$ 70.00$.
Net Each
$\$ 45.00$

## 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. $73 /^{\prime \prime} \mathrm{H}$, $51 / 2 \times 5^{\prime \prime}$ base Hz . Deluxe light grey hammertone and chrome finish. $73 / 4$
$298286-2$${ }^{2}$. Model 254 HC . Ceramic. Output - 50 db . Net Each $\$ \mathbf{3 0 . 0 0}$ Turner Mike Cartridges. Fits 350 and 254 mikes. 29A293-8. Mode! B0-1115-2. Ceramic 1-29/32"D $\times 1 / 2^{\prime \prime}$. Each
"SINGLE SIDEBAND" DESK MIKE
Specially tailored voice response for maximum communications intelligibility. Response $300-3,000 \mathrm{~Hz}$. 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 $\mathbf{4} 54 \mathrm{HC}$. 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 built-in 2 transistor pre-amp with volume control that lets you adjust your modulation for the best performance. Has
tailored frequency response, $350-3500 \mathrm{~Hz}$ press-to-talk switch tailored frequency response, $350-3500 \mathrm{~Hz}$, press-to-talk switch,
5 ft . coiled cord. Internal transistor amplifier takes 5 ft . coiled cord. Internal transistor amplifier takes power from
internal battery. Mfg. sug. .ist $\$ 60.00$. Wt. I lb. Choice Each internal battery. Mfg. sug. list $\$ 60.00$. Wt. 1 lb . Choice Each
$298276-3$. Model M $+\mathbf{2 U}$. relay switching. 29 2607-9. Model J $-M+2$. relay 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, $300-3500 \mathrm{~Hz}$ freq. resp. Push-to-talk switch. Uses TR175, 7 V. battery included. White and blue case with blue rubber cord. (3 29A683- Mied Mi M 3 for29A683-0. Model M+3 for
29A684-8. . Model JM +3 for Electronic 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, $3^{\prime \prime}$ " dia., $3^{\prime \prime}$ lorig. Wt. 12 oz. with attached 25 ft . 3: conductor cable. High or 150 ohm low impedance selected at end of cable. Response: $70.10,000 \mathrm{~Hz}$. Output -61 db. Desert Gold finished. With Lavalier Neck Cord. Shpg. wt. $11 / 2 \mathrm{lbs}$. 29A626-9. Mfg. suggested list $\$ 85.00$.
Each
$\$ 51.00$

## PRO-AUDIO DIVISION

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 requirements.

The needs of today's audio user are infinitely varied, whether they be insti tutional background and paging systems, sound reinforcement, professional or semi-professional recording, educational, or broadcast.
If your requirements call for audio . . . call for us.

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RADIO CONTROL EQUIPMENT


AUDIO RECORDERS AND DUPLICATING EQUIPMENT

## Audio Magnetics

aUDIO CASSETTES

## ElectroVoics

MICROPHONES AND ACCESSORIES
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TEAC PROFESSIONAL PRODUCTS PROFESSIONAL RECORDERS AND MIXERS

IBL
PROFESSIONAL SPEAKERS AND COMPONENTS

Electro Sound, Inc.
POWER AMPLIFERS
Lowrell
SOUND REINFORCEMENT EQUIPMENT

## AMPLIVOX

PORTABLE PA EQUIPMENT
AIPHONE
INTERCOM EQUIPMENT


CASSETTE RECORDERS


PACKAGE SOUND SYSTEMS

SमயロЕ MICROPHONES AND RELATED EQUIPMENT


AUDIO ACCESSORIES
soundolier
SOUND REINFORCEMENT EQUIPMENT


WIRELESS MICROPHONE EQUIPMENT


MICROPHONES AND ACCESSORIES
educational cassette RECORDERS

## PRO-VIDEO DIVISION

Reproducing images as close to actual visual perceptions as possible is the result of a highly concentrated technical effort. Occasionally, the accuracy of the reproduction falls short of what the human eye should actually perceive. The Pro-Video Division at Burstein-Applebee understands the need to capture every element of an image and will assist in every way while catering to your video needs.
By treating each individual video application with special attention and
employing only the most professional engineering methods, we will find the proper solution.
Whether your video requirements are educational, professional, semi-professional, or for home, Burstein-Applebee will design a system tailored tc your specifications - efficiently and accurately.
If your needs call for video . . . call for us.
$1 / 2$ inch Helical Scan Video Tape

HWC<br>H. WILSON CORPORATION CARTS AND ACCESSORIES

LAIRD TELEMEDIA INC. MUITIPLEX EQUIPMENT


CCTV SYSTEMS

VIDEO COLOR CAMERAS
AND MONITORS
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RВВ THE MOST TRUSTED NAME IN ELECTRONICS!

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more you save at B-A!

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When ordered separately, Each $\ldots . . . . . . . .$.

| Stock No. | Tube Type | Optional List | Net 1.5 | Net 6.49 | 50 or <br> Over |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26-01790-5 | 6AX4GTB | 5.05 | 3.39 | 3.09 | 2.59 |
| 26-01800-2 | 6AX5GT | 7.30 | 4.89 | 4.39 | 3.69 |
| 26-01810-1 | $\mathrm{6AY}^{\text {b }}$ B | 5.05 | 3.39 | 3.09 | 2.59 |
| 26-01820-0 | 6A28 | 9.60 | 6.29 | 5.79 | 4.79 |
| 26-01830-9 | 6810 | 6.10 | 4.09 | 3.69 | 3.09 |
| 26-01850-7 | 6BA6/EF93 | 4.45 | 2.99 | 2.69 | 2.29 |
| 26-01860-6 | 6BA7 | 12.05 | 7.99 | 7.19 | 5.99 |
| 26-01880-4 | 6BA11 | 6.50 | 4.39 | 3.89 | 3.29 |
| 26-01890-3 | 6BC5/ ${ }^{\text {CCES }}$ | 4.45 | 2.99 | 2.69 | 2.29 |
| 26-01910.9 | 6BC8/8878 | 7.35 | 4.89 | 4.39 | 3.69 |
| 26-01930-7 | 6BE3/6823 | 7.00 | 4.69 | 4.19 | 3.49 |
| 26-01940-6 | 6BES | 4.90 | 3.29 | 2.99 | 2.49 |
| 26-01960-4 | 68F6 | 3.45 | 2.29 | 2.09 | 1.79 |
| 26-01980-2 | ${ }^{68 \mathrm{H} 6}$ | 5.05 | 3.39 | 3.09 | 2.59 |
| 26-02000-8 | 68 HII | 5.90 | 3.99 | 3.59 | 2.99 |
| 26-02010-7 | 6816 | 5.50 | 3.69 | 3.29 | 2.79 |
| 26-02030-5 | 6838 | 5.75 | 3.89 | 3.49 | 2.89 |
| 26-02040-4 | 68K4C | 9.95 | 6.59 | 5.99 | 99 |
| 26-02070-1 | 6817 GTA | 9.10 | 5.99 | 5.49 | 4.59 |
| 26-02080-0 | 6B18/ECF80 | 3.65 | 2.49 | 2.19 | 1.89 |
| 26-02090.9 | 68M8/ECL82 | 3.45 | 2.29 | 2.09 | 1.79 |
| 26-02100-6 | OBNAA | 6.70 | 4.49 | 3.99 | 3.39 |
| 26-02110-5 | 6BN6/6KS6 | 6.55 | 4.39 | 3.99 | 3.29 |
| 26-02120-4 | 68 NB 8 | 5.20 | 3.49 | 3.09 | 2.59 |
| 26-02130-3 | 68N11 | 8.20 | 5.49 | 4.89 | 4.09 |
| $26-02140-2$ $26-02150-1$ | 6805/EI84 | 5.20 | 3.49 | 3.09 | 2.59 |
|  | /6CU6 | 9.60 | 6.29 | 5.79 | 79 |
| 26-02160-0 | 6B67A/6827 |  |  |  | 49 |
| 26-02170.9 | OBR88 | 6.95 | 4.69 | 4.19 | 3.49 |
|  | /6FVBA | 7.05 | 4.69 | 4.29 | 3.59 |
| $\begin{aligned} & 26-02200-4 \\ & 26-02210-3 \end{aligned}$ | ceve | 6.90 5.45 | 4.59 3.69 | 4.19 | 3.49 $\mathbf{2 . 7 9}$ |


| Stock No. | Tube Type | Optional List | Net 1.5 | $\begin{aligned} & \text { Net } \\ & 6-49 \end{aligned}$ | $\begin{aligned} & 50 \text { or } \\ & \text { Over } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26-03240-9 | 6FQ7/6CG7 | 4.05 | 2.69 | 2.49 | 2.09 |
| 26-03250-8 | 6FSS | 6.95 | 4.69 | 4.19 | . 49 |
| 26-03260-7 | 6FV6 | 5.45 | 3.69 | 3.29 | 2.79 |
| 26-03280-5 | 6fY5/EC97 | 3.55 | 2.39 | 2.19 | 1.77 |
| $\begin{aligned} & 20-03290-4 \\ & 26-03300-1 \end{aligned}$ | 6 FY 7 | 4.75 | 3.19 | 2.89 | 2.39 |
|  | 6GB5/ EL500 | 5.05 | 3.39 | 3.09 | 2.59 |
| 26-03310-0 | 6GCs | 8.65 | 5.69 | 5.19 | 4.29 |
| 26-03320-9 | 6GES | 7.20 | 4.79 | 4.29 | 3.5 |
| 26-03340-7 | 6GF7A | 7.05 | 4.69 | 4.29 | 3.59 |
| 26-03350-6 | $6 \mathrm{GH8A}$ | 4.20 | 2.79 | 2.49 | 2.09 |
| 26-03370-4 | 6GJ5A | 8.95 | 5.89 | 5.39 | 4.4 |
|  |  | 3.70 | 2.49 | 2.19 | 1.89 |
| 26-03380-3 | 6GK5/ |  |  |  |  |
| 26-03390-2 | 6FOSA | 6.20 4.70 | 4.19 | 3.79 2.79 | 3.09 2.39 |
| 26-03420-7 | 6GM6 | 5.55 | 3.69 | 3.39 | 2.79 |
| 26-03430-6 | 6GN8 | 8.00 | 5.39 | 4.79 | 3.99 |
| 26-03440-5 | 6GTSA | 9.95 | 6.59 | 5.99 | 4.99 |
| 26-03450-4 | 6 GU7 | 5.55 | 3.69 | 3.39 | 2.79 |
| 26-03480-1 | $\begin{aligned} & \text { 6GWb/ } \\ & \text { SOQBB } \end{aligned}$ | 7.15 | 4.79 | 4.29 | 3.59 |
|  |  | 3.25 | 2.1 |  |  |
| 26-03500-6 | 6 6x7 | 6.10 | 4.09 | 3.69 | 3.09 |
| 26-03510-5 | 6GYs | 6.25 | 4.19 | 3.79 | 3.19 |
| 26-03520-4 | 6GY6/6G | 4.60 | 3.09 | 2.79 | 2.29 |
| 26-03530-3 | 6GY8 | 8.85 | 5.89 | 5.29 | 4.49 |
| 26-03540-2 | $6^{6} \mathrm{H} 6$ | 9.05 | 5.99 | 5.39 | 4.49 |
| 26-03560-0 | 6H87 | 5.15 | 3.49 | 3.99 | 2.59 |
| 26-03580-8 | 6HF5 | 12.50 | 8.39 | 7.59 | 6.29 |
| 26-03590.7 | ${ }^{6} \mathrm{HF} \mathrm{H}_{6}$ | 8.65 | 5.69 | 5.19 | 4.29 |
| 26-03600-4 | OHGS | 4.25 | 2.89 | 2.59 3 | 2.19 2.59 |
| 26-03650-9 | 6HMS/6H | 5.10 | 3.39 | 3.09 | 2.59 |
| 26-03660-8 | 6HQS | 6.75 | 4.49 | 4.0 | 3.39 |
| 26-03670-7 | 6H5S | 9.80 | 6.59 | 5.89 |  |
| ${ }^{260036800-6}$ | 6H56 | 8.85 | 5.89 | 5.29 | 4.39 |
| 26-03690-5 | 6H58 | 6.35 | 4.29 | 3.79 | 3.19 |
|  | 6HZ6 | 4.25 | 2.89 | 2.59 | 2.19 |
| 26-03730-9 | 615 | 7.05 | 4.69 | 4.29 | 3.59 |
|  | 6164 | 7.35 | 4.89 | 4.39 | 3.69 |
| $26-03760-6$ | 617 | 11.80 | 7.79 | 7.09 | 5. |
|  | OJBS/6HES | 6.35 | 4.29 | 3.79 | 3.19 |
| 26-03770-5 <br> 26-03780-4 | ${ }^{\text {OJBCA }}$ | 8.05 | 5.39 | 4.89 | 4.09 |
| 26-03790-3 | ${ }_{6}$ J C6A $^{\text {A }}$ | 5.95 | 3.99 | 3.59 | 2.99 |
| 26-03810.9 | 6JD6 | 6.15 | 4.09 | 3.69 | 3.09 |
|  | 6) $\mathrm{EBB}^{\text {a }}$ | 5.05 | 3.39 | 3.94 | 2.59 |
| 26-03850.5 | 6, 3 F6 | 9.15 | 6.09 | 5.49 | 4.59 |
|  | 6JH8 | 8.35 | 5.59 | 4.99 | 4.19 |
| $26-03890-1$$26-03900-8$ | OJMSA | 7.20 | 4.79 | 4.29 | 3.59 |
|  | ${ }^{6}$ JN6 | 6.75 | 4.49 | 4.09 | 3.39 |
| 26-03900-8 <br> 26-03910-7 | OJN8 | 5.00 | 3.39 | 2.99 | 2.49 |
| 26-03920-6 | 6JS6C | 9.85 | 6.49 | 5.89 | 4.89 |
| ${ }_{26-03950-3}^{26-0390-4}$ | GJTSA | 9.60 | 6.29 | 5.79 3 | 4.79 |
|  | 6JT8 | 6.35 | 4.29 | 3.79 5 5 | 3.19 |
| 26-03955-2 | 6JU6 | 9.45 | 6.29 | 5.69 | 4.79 |
| ${ }_{\text {26-03970-1 }}^{26-0390-2}$ | 6 JUBA | 5.90 | 3.99 | 3.59 | 2.99 |
|  | 6JW8/ | 4.45 | 2.99 | 2.69 | 2.29 |
| 26-03990.9 | 6128 | 4.80 | 3.19 | 2.89 | 2.39 |
|  | 6K6GT | 8.40 | 5.59 | 5.09 | 4.19 |
| (20-04000-6 | $6 \mathrm{K7}$ | 7.45 | 4.99 | 4.49 | 3.79 |
| 26-04030-3 | ${ }^{6 K}{ }^{\text {A }} 8$ | 6.50 | 4.39 | 3.89 | 3.29 |
| 26-04040-2 | 6 KD 6 | 11.25 | 7.49 | 6.79 | 5.69 |
|  | $6 \mathrm{KE88}$ | 8.15 | 7.39 | 4.89 <br> 8.79 | 4.09 5.69 |
| ${ }^{26-040000-0}$ | ${ }^{60 \mathrm{KM6}}$ | 11.25 | 7.49 | 6.79 5.89 | 5.69 4.99 |
|  | ${ }_{6}^{6 \times N 6}$ | 9.85 | 6.59 | 5.89 <br> 3.89 | 4.99 2.99 |
| 26-04070-9 26-04080-8 |  | ${ }_{7} 5.25$ | 3.89 | 4.39 | 3.69 |
| 26-04100-4 | 6KVGA | 12.55 | 8.29 | 7.49 | 6.29 |
| 26-04110-3 | $6 \mathrm{KV8}$ | 8.90 | 5.89 | 5.39 | 4.49 |
| 26-04120-2 | 6KY8A | 11.55 | 7.69 | 6.99 | 5.79 |
| 26-04130-1 | 6 K 28 | 5.45 | 3.69 | 3.29 | 2.79 |
| 26-04140-0 | 616 | 16.20 | 10.69 | 9.69 | 8.09 |
| 26-04150-9 | 616GC | 8.15 | 5.39 | 4.89 | 4.09 |
| 26-04170-7 | 6186 | 10.75 | 7.19 | 6.49 | 5.39 |
| 26-04180-6 | 61E8 | 7.55 | 5.09 | 4.59 | 3.79 5 |
| 26-04190-5 | 6IFS/6MHC | 10.65 | 7.09 | 6.39 | 5.29 3.89 |
| 26-04220-0 | 6tF8 | . 80 | 5.19 | 4.69 | 3.89 |
|  | SULSA/ | 10.25 |  |  | 19 |
| 26-04230-9 | SU8 | 5.85 | ${ }_{3.89}$ | 3.49 | 2.99 |
| 26-04240-8 | 6 LM8 | 6.50 | 4.39 | 3.89 | 3.29 |
| 26-04250-7 | 61N8/LCF80 | 3.50 | 2.39 | 2.09 | 1.79 |
| 26-04260-6 | 61Q6/6JESC | 11.15 | 7.49 | 6.69 | 5.59 |
| 26-04270-5 | 6 J08 | 8.85 | 5.89 | 5.29 | 4.39 |
| 26-04280-4 | 6tR6 | 10.25 | ${ }^{6.89}$ | 6.19 | 5.19 |
| 26-04300-0 | ${ }_{6} 618$ | 5.45 | 3.69 | 3.29 3.89 | 2.79 3.19 |
| 26-043110-9 | stus | 6.40 | 4.29 | 3.89 | 3.19 |
| 26-04320-8 | 6148/ | 3.50 | 2.39 | 2.09 | 1.79 |
| 26-04330-7 | Olys | 5.55 | 3.69 | 3.39 | 2.79 |
| 26-04350-5 | 6 MD8 | 7.80 | 5.19 | 4.69 | 3.89 |
| 26-04355-4 | 6 GE6 | 10.35 | 6.89 | 6.19 | 5.19 |
| 26-04360-4 | ${ }^{\text {6ME8 }}$ 6MG8 | - $\begin{aligned} & 8.15 \\ & 3.60\end{aligned}$ |  | 4.89 2.19 | 4.79 |
| 26-04385-1 | OMG8 OMJ $/ 6106)$ | 3.60 | 2.39 | 2.19 | 1.79 |
|  |  | 11.80 | 7.89 | 7.09 | 5.89 |
| 26-04410-7$26.04420-6$ | 6mus | 7.05 | 4.69 | 4.29 | 3.59 |
|  | 6N7 | 6.90 | 4.59 | 4.19 | 3.49 |
| 26-04440-4 | 654 A | 6.85 | 4.59 | 4.09 | 3.49 |
| 26-04450.3 | ${ }^{654} 7$ | 6.80 | 4.59 | 4.09 | 3.39 |
| 26-04460-2 | ${ }^{65 C 7}$ | 8.25 | 5.99 | 5.99 | 4.19 |
| 26-04470-1 | 6SF5 | 9.10 | 5.99 | 5.49 | 4.59 |

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| 26-02220-2 | 68V11 | 7.85 | 5.29 | 4.69 | 3.99 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 26-02230-1 | 68W4 | 3.65 | 2.49 | 2.19 | 1.89 |
| 26-02250-9 | 68WII | 7.90 | 5.29 | 4.79 | 3.99 |
| 26-02300-2 | 6826/6JH6 | 4.10 | 2.79 | 2.49 | 2.09 |


$\qquad$

RECEIVING TUBES - CONTINUED

| Stock No. | Tube Type | Optional List | $\begin{aligned} & \text { Net } \\ & 1.5 \end{aligned}$ | $\begin{aligned} & \text { Net } \\ & 6-49 \end{aligned}$ | 50 or Over | Stock No. | $\begin{aligned} & \text { Tube } \\ & \text { Type } \end{aligned}$ | Optional List | $\begin{aligned} & \text { Net } \\ & 1.5 \end{aligned}$ | $\begin{aligned} & \text { Net } \\ & 6-49 \\ & \hline \end{aligned}$ | 50 or Over arer |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 26-04490-9 | ${ }_{65 G 7}$ | 7.65 | 5.09 | 4.59 | 3.89 | 26-06410-5 | 15KY8A | 9.70 | 6.39 | 5.79 | 4.89 |
| 26-04500-5 | 65 SH 7 | 10.75 | 7.09 | 6.49 | 5.39 | 26-06520-1 | 17AY3A | 5.05 | 3.39 | 3.09 | 59 |
| 26-04510-4 | 65.17 | 8.15 | 5.49 | 4.89 | 4.09 | 26-06530-0 | 178E3/ |  |  |  |  |
| 26-04530-2 | $65 \mathrm{K7}$ | 9.00 | 5.99. | 5.39 | 4.49 |  | 17B23 | 5.05 | 3.39 | 3.09 | 2.59 |
| 26-04550-0 | 6SL7GT | 7.65 | 5.09 | 4.59 | 3.89 | 26-06540-9 | 178511 | 7.95 | 5.29 | 4.79 | 3.99 |
| 26-04560-9 | 6SN7GTB | 5.05 | 3.39 | 3.09 | 2.59 | 26-06550-8 | 17853A |  |  |  |  |
| 26-04570-8 | 6SQ7 | 8.40 | 5.59 | 5.09 | 4.19 |  | 170W4A | 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 | 6710 | 7.50 | 4.99 | 4.49 | 3.79 | 26-06650-6 | 17 EW 8 |  |  |  |  |
| 26-04610-2 | 6U8A/6KD8 | 5.20 | 3.49 | 3.09 | 2.59 |  | HCC85 | 3.25 | 2.19 | 1.99 | 1.69 |
| 26-04630-0 | 6 U 10 | 5.40 | 3.59 | 3.29 | 2.69 | 26-06670-4 | 17GTSA | 7.55 | 5.09 | 4.59 | 3.79 |
| 26-04650-8 | OV6 | 11.90 | 7.89 | 7.19 | 5.99 | 26-06680-3 | 17GW6/ |  |  |  |  |
| 26-04660-7 | OVGGTA | 6.10 | 4.09 | 3.69 | 3.09 |  | 170Q68 | 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 | $6 \times 4$ | 4.85 | 3.29 | 2.89 | 2.49 | 26-06730-6 | 17JN6 | 7.20 | 4.79 | 4.29 | 3.59 |
| 26-04700-1 | 6XSGT | 4.90 | 3.29 | 2.99 | 2.49 | 26-06750-4 | 17128 | 5.90 | 3.99 | 3.59 | 2.99 |
| 26-04710-0 | $6 \times 8 \mathrm{~A}$ | 6.10 | 4.09 | 3.69 | 3.09 | 26-06760-3 | $17 \mathrm{kV6A}$ | 9.70 | 6.49 | 5.79 | 4.89 |
| 26-04720-9 | $6 \times 9 /$ |  |  |  |  | 26-06850-2 | 1978 | 10.35 | 6.79 | 6.19 | 5.19 |
| 26-04730-8 | ECF200 | 5.55 | 3.69 | 3.39 | 2.79 | 26-06860-1 | 204 Ca IYB8 | 3.90 | 2.59 | 2.39 |  |
|  | OYGG | 7.55 | 5.09 | 4.59 | 3.79 | 26-06880-9 | 21 GY 5 | 6.70 | 4.49 | 3.99 | 3.39 |
| 26-04750-6 | 6210/6J10 | 8.15 | 5.39 | 4.89 | 4.09 | 26-06900-5 | 21126 | 7.00 | 4.69 | 4.19 | 3.49 |
| 26-04850-4 | 8 8R11 | 8.20 | 5.49 | 4.89 | 4.09 | 26-06930-2 | 21 RR8 | 6.30 | 4.19 | 3.79 | 3.19 |
| 26-04860-3 | 8AW8A | 7.30 | 4.89 | 4.39 | 3.69 | 26-06940-1 | 21408 | 6.20 | 4.19 | 3.69 | 3.09 |
| 26-04870-2 | 8810 | 6.00 | 3.99 | 3.59 | 2.99 | 26-06960-9 | 228 W 3 | 5.50 | 3.69 | 3.29 | 2.79 |
| 26-04880-1 | 88 Al1 | 7.50 | 4.99 | 4.49 | 3.79 | 26-06980-7 | $22 \mathrm{JF6}$ | 8.85 | 5.89 | 5.29 | 4.49 |
| 26-04890-0 | $88 \mathrm{Ml1}$ | 7.65 | 5.09 | 4.59 | 3.89 | 26-06990-6 | $22 \mathrm{JG6A}$ | 10.30 | 6.79 | 6.19 | 5.19 |
| 26-04920-5 | 88911 | 6.60 | 4.39 | 3.99 | 3.29 | 26-07000-3 | 22 JR6 | 9.10 | 5.99 | 5.49 | 4.59 |
| 26-04930-4 | $88 \mathrm{Cl1}$ | 7.65 | 5.09 | 4.59 | 3.89 | 26-07010-2 | $22 \mathrm{JU6}$ | 9.30 | 6.19 | 5.59 | 4.69 |
| 26-04960-1 | $8 \mathrm{BW} 5 / \mathrm{XL86}$ | 2.95 | 1.99 | 1.79 | 1.49 | 26-07020-1 | $22 \mathrm{KM6}$ | 10.25 | 6.89 | 6.19 | 5.19 |
| 26-04980-9 | 8FQ7/BCG7 | 4.05 | 2.69 | 2.49 | 2.09 | 26-07040-9 | 2329 | 6.35 | 4.29 | 3.79 | 3.19 |
| 26-05010-4 | 8JU8A | 4.55 | 3.09 | 2.79 | 2.29 | 26-07070-6 | 24106 |  |  |  |  |
| 26-05020-3 | $8 \mathrm{8V8}$ | 6.20 | 4.19 | 3.69 | 3.09 |  | 24 JESC | 10.65 | 7.09 | 6.39 | 5.39 |
| 26-05030-2 | 8 KAB | 7.95 | 5,29 | 4.79 | 3.99 | 26-07090 | 25 C 5 | 5.05 | 3.39 | 3.99 | 2.59 |
| 26-05050-0 | 8178 | 5.35 | 3.59 | 3.19 | 2.69 | 26-07110.0 | $\begin{aligned} & 25 \mathrm{CG} 3 \\ & 25 \mathrm{EH} 5 \end{aligned}$ | 4.60 500 | 3.39 3.39 | 2.79 2.99 | 2.29 2.49 |
| $\begin{aligned} & 26-05060-9 \\ & 26-05190-4 \end{aligned}$ | 9AB/PCF80 10 cW 5 | 3.10 | 2.09 | 1.89 | 1.59 | $\begin{aligned} & 26-07160-5 \\ & 26-07170-4 \end{aligned}$ | $\begin{aligned} & 25 E H S \\ & 2516 G T \end{aligned}$ | 5.00 | 3.39 | 2.99 | 2.49 |
|  | 486 | 3.40 | 2.29 | 2.09 | 1.69 |  | 25W6GT | 5.05 | 3.39 | 3.09 | 2.59 |
| 26-05210-0 | 100x8 |  |  |  |  | 26-07200-9 | 27G85/ PL500 | 5.05 | 3.39 | 3.99 | 2.59 |
|  | LCL84 | 3.25 | 2.19 | 1.99 | 1.69 | 26-07205-8 | 30AE3/PY88 | 3.90 9.65 | 2.59 6.39 | 2.39 5 | 1.99 4.89 |
| 26-05250-6 | 10GF7A | 6.90 | 4.59 | 4.19 | 3.49 | 26-07230-6 | 31156 C | 9.65 | 6.39 6.79 | 5.79 | 4.89 5 |
| 26-05260-5 | 10GK6 | 6.05 | 4.09 | 3.69 | 3.09 | 26-07240-5 | 31196 | 10.15 | 6.79 | 6.09 | 5.09 |
| 26-05270-4 | 10GN8 | 6.40 | 4.29 | 3.89 | 3.19 | 26-07250-4 | 31126 | 11.25 | 7.49 | 6.79 | 5.69 |
| 26-05280-3 | 104F8 | 8.20 | 5.49 | 4.89 | 4.09 | 26.07280 | $33 \mathrm{GY7}$ A | 10.45 | 6.89 | 6.29 | 5.19 |
| 26-05300-9 | $10 \mathrm{JT8}$ | 8.50 | 5.59 | 5.09 | 4.29 | 26-07310-6 | 35 C 5 |  | 2.89 |  | 2.19 |
| 26-05310-8 | 10ıY8 | 5.00 | 3.39 | 2.99 | 2.49 | 26-07320-5 | 35EH5 | 4.60 | 3.99 | 2.79 | 2.29 |
| 26-05400-7 | 11 BQ 11 | 8.20 | 5.49 | 4.89 | 4.09 | 26-07330-4 | 3516 GT | 8.35 | 5.49 | 4.99 | 4.19 |
| 26-05410-6 | 118 BII | 10.05 | 6.69 | 6.09 | 5.09 | 26-07350-2 | ${ }^{35 W} 4$ | 2.95 | 1.99 | 1.79 | 1.49 |
| 26-05460-1 | 11 HMT | 7.15 | 4.79 | 4.29 | 3.59 | 26-07370-0 | 3525 GI | 4.70 | 3.19 | 2.79 | 2.39 |
| 26-05480-9 | $11 \mathrm{KV8}$ | 7.35 | 4.89 | 4.39 | 3.69 | 26-07380.9 | 36AM38 | 3.05 | 2.99 | 1.89 | 1.59 |
| 26-05490-8 | 11108 | 7.20 | 4.79 | 4.29 | 3.59 | 26-07385-8 | $36 \mathrm{MC6}$ | 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 $12 A F 3 /$ | 8.85 | 5.89 | 5.29 | 4.49 | $26-07440-1$ $26-07460-9$ | 42kN6 5085 | 9.15 4.05 | 6.09 2.69 | 5.49 <br> 2.49 | 4.59 2.09 |
| 26-05570.7 | 12AF3/ ${ }_{128 R 3 / 12 \mathrm{RK} 19}$ |  |  |  |  | 26-07460-9 $26-07470-8$ | 5085 $50 C 5$ | 4.05 4.10 | 2.69 2.79 | 2.49 2.49 | 2.09 2.09 |
|  | 128R3/12RK19 | $9 \quad 5.20$ | 3.49 | 3.09 | 2.59 | 26-07470-8 | S0C5 | 4.10 | 2.79 | 2.49 | 2.09 |
| 26-05590-5 | $12 \mathrm{AL5}$ | 5.00 | 3.39 | 2.99 | 2.49 | 26-07490-6 | S0EHS | 4.90 | 3.29 | 2.99 | 2.49 |
| 26-05600-2 | 12 AQS | 5.90 | 3.99 | 3.59 | 2.99 | 26-07520-0 | $50 \mathrm{HK6}$ | 2.85 | 1.89 | 1.69 3 | 1.49 |
| 26-05610-1 | 12ATO | 3.75 | 2.49 | 2.29 | 1.89 | 26-07530-9 | 5016 GT | 6.50 | 4.39 | 3.89 | 3.29 |
| 26-05620-0 | 12AT7/ |  |  |  |  | 26-07550-7 | 60FX5 | 5.10 | 3.39 | 3.99 | 2.59 |
|  | ECC81 | 4.55 | 3.09 | 2.79 2.89 | 2.29 2.39 | $26-07590-3$ $26-07600-0$ | 5879 5881 |  |  |  | 3.79 3.29 3 |
| $26-05630-9$ $26-05640-8$ |  | 4.80 | 3.19 | 2.89 | 2.39 | $26-07600-0$ $26.07610-9$ | 5881 6973 | $\begin{aligned} & 6.50 \\ & 6.15 \end{aligned}$ | 4.39 4.09 | 3.89 3.69 | 3.29 3.09 |
| 26-05640-8 | 12AU7A ECC82 |  | 2.79 | 2.49 | 2.09 | 26-07620-8 | ${ }_{7025}$ | 3.75 | 2.49 | 2.29 | 1.89 |
| 26-05660.6 | 12AVO | 3.40 | 2.29 | 2.09 | 1.69 | 26-07630-7 | 7027A | 9.10 | 6.09 | 5.49 | 4.59 |
| 26-05670-5 | $12 \mathrm{AV7}$ | 6.70 | 4.49 | 3.99 | 3.39 | 26-07640-6 | 7189 | 5.75 | 3.89 | 3.49 | 2.89 |
| 26-05680-4 | $12 \mathrm{AX4GTB}$ | 4.50 | 2.99 | 2.69 | 2.29 | 26-07650-5 | 7199 | 6.85 | 4.59 | 4.09 | 3.49 |
| 26-05690-3 | 12Ax7A |  |  |  |  | 26-07660-4 | 7247 | 5.10 | 3.39 | 3.99 | 2.59 |
|  | ECC83 | 3.75 | 2.49 | 2.29 | 1.89 | 26-07670-3 |  |  |  |  |  |
| 26-05720-8 | 12az7a | 5.80 | 3.89 | 3.49 | 2.89 | 26-07690-1 | 7581A | 9.40 4.50 | 6.29 2.99 | 5.69 2.69 | 4.69 2.29 |
| 26-05730-7 | 1284A | 5.90 | 3.99 | 3.59 2.39 | 2.99 | $26-07700-8$ $26-077720-6$ | ${ }_{7868} 751 \mathrm{~A}$ | 4.50 6.85 | 2.99 4.59 | 2.69 4.09 | 2.29 <br> 3.49 |
| 26-05740-6 | 12846 | 3.85 | 2.59 | 2.39 2.49 | 1.99 2 | 26-077730-6 | 7888 8417 | 8.85 8.05 | 5.39 | 4.89 | 4.09 |
| $26-05770-3$ $26-05800-8$ | $\begin{aligned} & \text { 12BE6 } \\ & 12 \text { RHZ } \end{aligned}$ | 4.05 5.25 | 2.69 3.49 | 2.49 $\mathbf{3 . 1 9}$ | 2.09 2.69 | SPECIAL PURPOSE TUBES <br> Int: International Servicemaster NE: National Electronics |  |  |  |  |  |
| 26-05840-8 | 12806 GTB |  |  |  |  |  |  |  |  |  |  |
|  | 12 CUS | 5.75 | 3.89 | 3.49 | 2.89 |  |  |  |  |  |  |
| 26-05880-0 | 12BY7A/ $128 \mathrm{BV} / 120 \mathrm{~F} 7$ | 74.75 | 3.19 | 2.89 | 2.39 |  |  |  |  |  |  |
| 26-05890-9 | 12 CAS | 5.35 | 3.59 | 3.19 | . 69 |  |  |  |  |  |  |
| 26-05910-5 | 12Cus/ |  |  |  |  | Stock No. | Type |  | Make | 1-4 | \$1.78 |
| 26-05940-2 | 12 CL 12057 | 7.35 6.40 | 4.89 4.29 | 4.39 3.89 | 3.69 3.19 | 25-00010-0 | 0A2 |  | RCA | \$1.87 |  |
| 26-05960-0 | 12 T 8 | 4.90 | 3.29 | 2.99 | 2.49 | 25-00040-7 | ${ }^{082}$ | RCA |  | 2.24 <br> 2.48 <br> 2.8 | 2.13 |
| 26-05990.7 | $12 \mathrm{FQ7}$ | 4.55 | 3.09 | 2.79 2.89 | 2.29 2.29 | 25-00060-5 $25-00070-4$ | OC3 |  | RCA |  | 2.136 <br> 2.18 <br> 1.17 |
| 26-06000-4 | $12 \mathrm{CX5}$ | 4.45 | 2.99 | 2.69 | 2.29 3.59 | 25-00070-4 | -1P39 |  | RCA | 2.29 0.65 |  |
| 26-06010-3 | 12GES | 7.05 | 4.69 | 4.29 | 3.59 | 25-00130-6 | 1 1P39 |  | RCA | 9.65 | $\begin{array}{r}2.17 \\ \hline 1195 \\ \hline 19\end{array}$ |
| 26-06030-1 | 12GW6/ |  |  |  |  |  |  | RCA |  | 12.552.242.85 | 11.952.13 |
|  | 120968 | 7.00 | 4.69 | 4.19 | 3.49 | 25-00190-0 | ${ }_{2 \times 21}^{2021}$ | RCA |  |  |  |
| 26-06060-8 | 12HG7/ |  |  |  |  | 25-00210-6 | $2 E 26$ |  | RCA | 6.35 | 6.03 |
|  | $12 \mathrm{GN7A}$ | 7.40 | 4.99 | 4.49 | 3.69 | 25-00240-3 | 3828 |  | RCA | 14.37 | 13.65 <br> 12.54 |
| 26-06070-7 | $12 \mathrm{HL7}$ | 6.50 | 4.39 | 3.89 | 3.29 | 26-00250-2 | $\mathrm{NL}^{\text {-3C23 }}$ |  | N.E. | 13.203.22 |  |
| 26-06080-6 | 12386 A | 9.15 | 5.99 | 5.49 | 4.59 | 25-00390-6 | 5R4GB |  | RCA |  | $\begin{array}{r}12.54 \\ 3.05 \\ \hline\end{array}$ |
| 26-06120-0 | 12 MD 8 | 5.90 | 3.99 | 3.59 | 2.99 | 25-00400-3 | SUP1 |  | RCA | 50.401.82 | 3.05 47.88 |
| 26-06130-9 | 12547 | 7.65 | 5.09 | 4.59 | 3.89 |  | SFG6/EM84 |  |  |  | 1.732.03 |
| 26-06150-7 | $125 \mathrm{G7}$ | 8.00 | 5.39 | 4.79 | 3.99 3 | 25-00436-7 $\mathbf{2 5 - 0 0 4 4 0 - 9}$ | OV4/-(6) |  | Int . | 2.14 |  |
| 26-06160-6 | 12517 | 7.65 | 5.09 | 4.59 | 3.89 | 25-00440-9 | N(-C6) |  | N.E. | 38.50 |  |
| 26-06170-5 | 125K7 | 7.20 | 4.79 | 4.29 | 3.59 | 25-00620-6 | 83 |  | RCA | 6.82 |  |
| 26-06200-0 | 125N7GTA | 5.85 | 3.89 | 3.49 | 2.99 | 25-00930-9 | N N .615 |  | N.E. | 13.90 | 6.48 13.21 |
| 26-06210-9 | 12507 | 7.50 | 4.99 | 4.49 | 3.79 | 25-00940-8 | Nt-623 |  | N.E. | 23.25 21.85 | 22.09 20.76 |
| 26-06230-7 | 12 T 10 | 7.80 | 5.19 | 4.69 | 3.89 | 25-00950.7 | NL-635/7019 |  | N.E. | 21.8514.45 | 20.76 13 |
| 26-06240-6 | 12V6GT | 6.10 | 4.09 | 3.69 | 3.09 | 25-00990-3 | $\mathrm{NL}-710 / 6011$ |  | N.E. |  |  |
| 26-06250-5 | 12W6GT | 6.65 | 4.49 | 3.99 | 3.39 | 25-01010-9 | NL-714 |  | N.E. | 14.45 16.10 |  |
| 26-06260-4 | 12X4 | 3.15 | 2.09 | 1.89 | 1.59 | 25-01090-1 | 807 |  | RCA | 16.10 6.65 | 15.30 6.32 |
| 26-06270-3 | $13 \mathrm{DE7}$ | 5.85 | 3.89 | 3.49 | 2.99 | 25-01120-6 | 810 | RCA |  | 46.20 | $\begin{aligned} & 43.89 \\ & 10.45 \end{aligned}$ |
| 26-06310-7 | 13FM7/ |  |  |  |  | 25-01130-5 | 8114 |  | RCA | $11.00$ |  |
|  | 15 FM7 | 5.45 | 3.69 | 3.29 | 2.79 | 25-01140-4 | 812 A |  | RCA | 10.8586.94 | 10.45 10.31 en ce. |
| 26-06330-5 | 13G77A | 6.95 | 4.69 | 4.19 | 3.49 | 25-01180-0 | 833 A |  | RCA |  | 82.59 |
| 26-06350-3 | $13210 /$ |  |  |  |  | 25-01200-6 |  | RCA |  | 6.80 15.40 | $\begin{array}{r}14.63 \\ 5.75 \\ \hline 677\end{array}$ |
|  | $13 \mathrm{J10}$ | 8.50 | 5.69 | 5.09 | 4.29 | 25-01220-4 | 872 A |  | RCA | 15.40 |  |
| 26-06360-2 | 148111 | 10.35 8.20 | 6.89 5.49 | 6.19 4.89 | 5.19 4.09 | 25-01230-3 | 884 922 |  | RCA |  | 6.7714.92 |
| 26-06370.1 | 148811 | 8.20 7.50 2 | 5.49 4.99 | 4.89 4.49 | 4.09 3.79 | $25-01260-0$ $25-01290.7$ | 922 927 | RCA |  | 15.70 |  |
| $26-063800-9$ 26063909 | 15CW5/P | - 2.90 | 99 | 4.4 | 3.70 | 25-01310-3 | 930 | RCA |  | 11.15 | 10.59 |


| Stock No. | Tube Type | Make | Prices 1-4 | $\begin{aligned} & \text { Each } \\ & 5.15 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 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 | 2050A | RCA | 3.29 | 3.13 |
| 25-01606-4 | 5557 | RCA | 11.30 | 10.74 |
| 25-01640-3 | 5582 | RCA | 12.55 | 11.92 |
| 25-01660-1 | NL-5632/C3J | N.E. | 19.35 | 18.38 |
| 25-01680-9 | 5651 A | RCA | 2.65 | 2.52 |
| 25-01690-8 | 5654 | RCA | 3.20 | 3.04 |
| 25-01700-5 | NL-5665/C16] | N.E. | 75.50 | 71.73 |
| 25-01770-8 | 5692 | RCA ${ }^{\text {a }}$ | 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 | 4.68 |
| 25-01810-2 | 5726 | RCA | 3.20 | 3.04 |
| 25-01820-1 | 5727 | RCA | 4.32 | 4.10 |
| 25-01830-0 | 5749 | RCA | 4.79 | 4.55 |
| 25-01840-9 | 5751 | RCA | 4.22 | 4.00 |
| 25-01860-7 | 5814 A | 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 | 6146 A | RCA | 6.00 | 5.70 |
| 25-02020-7 | 6146B/8298A | RCA | 6.60 | 6.27 |
| 25-02030-6 | 6146 W | RCA | 8.35 | 7.93 |
| 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 | 6680/12AU7A | RCA | 2.29 | 2.16 |
| 25-02250-0 | 6681/12AX7A | RCA | 2.29 | 2.16 |
| 25-02310-2 | 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 | Int. | 17.92 | 17.02 |
| 25-02430-8 | 7895 | RCA | 10.84 | 10.30 |
| 25-02450-6 | 8032 | RCA | 6.25 | 5.94 |
| 25-02470-4 | 8077/7054 | RCA | 2.17 | 2.06 |
| 25-00355-9 | $8621 / 4 \mathrm{C} \times 250 \mathrm{FG}$ | RCA | 43.50 | 41.33 |

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25-02537-0. RCA No. 8844. A $2 / 3^{\prime \prime}$ Vidicon with sepgrate mesh connection, replaces No. 8823. Each . . . . . . . . \$48.50 5 Up Each
$\$ 46.08$
25-02426-6. RCA 7735. A $1^{\prime \prime}$ 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 $1^{\prime \prime}$ Vidicon with separate


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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.
Stk. No. RCA No. Ea. Up Ea. $\begin{array}{llll}25-01500-9 & \text { DR-2000 } & \$ 5.52 & \$ 4.52\end{array}$ 25-01510-8 DR-2010 $\quad \mathbf{5 . 7 7} \quad 4.77$

## NATIONAL ELECTRONICS READOUT TUBES

Red-orange 0 thru 9 for good readibility
$\begin{array}{llll}\text { 170 volt operation. } & & & \\ \text { Stg. No. } & \text { Char. Size } & \text { Each } \\ \text { 25-02270-8 } & \text { NL6844A } & 0.6 \text { in. } & \$ 12.25\end{array}$ 25-02270-8 25A02520-6 NL8422
0.6 in .

SOCKETS FOR READOUT TUBES

| Stk. No. | Mfg. No. | For | Each |
| :--- | :--- | :---: | ---: |
| 12A5029-0 | RTS. | $6844 A$ | $95^{\circ}$ |
| 12A5031-6 | RTS-4 | NL8422/5991 | $90^{\circ}$ |

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Designed for 10,000 hour performance
$\begin{array}{llr}\text { Stock No. } & \text { Tube Type } & \text { Each } \\ 25-00471-4 & \text { 12AU7 ECC82-10M } & \$ 3.92\end{array}$
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25-02082-7 6267/EF86-10M
MATCNED PAIR OUTPUT TUBES
25-00424-3
25-00427-6
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Motorola HEK-4. Complete Kit
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Rated at 2 amperes. Size $.687 \times .468 \times .25$. Black molded insulated case.

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| :---: | :---: | ---: | ---: | ---: |
| No. | No. | PIV | Each | Each |
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| $22-10270-1$ | 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 |
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| Stock No. <br> 22-15430-6 | RCA No. Fig. SK3003 | Description | Price $\$ 0.99$ |
| :---: | :---: | :---: | :---: |
|  | SK3003 | Germanium PNP AF Output, Uriver, Low Level Amp. to 9 ( ${ }^{\text {Germanium PNP AF }}$ |  |
| 22-15440-5 | SK3005 1 | Germanium PNP RF Amp., Converter. IF Amp. AM 12 V | 1.17 |
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| 22-15450-4 | SK3007 3 | Germanium PNP RF Amp.'IF Amp., Converter to 30 MHz 15 V | 6 |
| 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, Hi-Fi Amps. | 2.34 |
| 22-15465- | SK3010 | Germanium NPN Class A Voltage Amp. \& Driver 15 V . | 26 |
| 22-15470-2 | SK3011 | Germanium NPN RF Amp., If Amp., Converter AM 18 V . | 1.62 |
| 22-15475-1 | SK3012 | Germanium PNP Audio Output Auto Radios 5 W. | 2.88 |
| 22-15495-9 | SK3016 | Silicon Rectifier 500V @ 1 Amp. | . 57 |
| 22-15510-5 | SK3018 2 | Silicon NPN VHF TV Tuners. TV If Amp., FM Tuner 25 V. | 1.35 |
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| 22-15525-3 | SK3021 4 | Silicon NPN AF Output for AC Radios, etc., to 120 VDC 1 W output | 5 |
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| 22-1556 | SK3029 | Matched Pair SK3027 Class B output 40W. | 6.30 |
| 22-15570 | SK3030 | Silicon Rectifier 200 Volt 1 Amp. | 2 |
| 22-1558 | SK3032 | Silicon Rectifier 800 Volt 1 Amp. | 1 |
| 22-15585-7 | SK3033 | Silicon Rectifier 1000 Volt 1 Amp. |  |
| 22-15595 | SK3035 | Germanium PNP TV Horizontal-Deflection-Output 36 V | 5.49 |
| 22-15600 | SK3036 | Silicon NPN AF Power Transistor 80 | 5.85 |
| 22-15610-3 | SK3038 | Silicon NPN AF Preamplifier 18 V | 1.44 |
| 22-15620-2 | SK3040 | Silicon NPN Video Output 140 V . | 2.25 |
| 22-15625-1 | SK3041 9 | Silicon NPN AF Power Transistor 18 V | 2.52 |
| 22-15660 | SK3048 2 | RF-Output Stages for CB Transmitter to 12 Volts | 5.58 |
| 22-15 | SK3052 4 | TO-66 Germanium PNP A.F. Output to 18V. | 2.35 |
| 22-15690 | SK3054 9 | si NPN AF Driver, Output to 50V. | 2.70 |
| 22-15825 | SK3081 7 | Silicon Rectifier, 1000V 2 Amp., Insulated Case | 0 |
| 22-15831-5 | SK3087 7 | IN34A Germanium Signal Diode 60 V .50 mA | 33 |
| 22-15832-3 | SK3088 7 | IN60 Germanium Signal Diode 25 V. 50 mA |  |
| 22-15833 | SK3089 7 | IN82A Silicon UHF Mixer for TV |  |
| 22-15834-9 | SK3090 | IN270 Germanium Signal Diode 80 V. 90 mA | 9 |
| 22-15835-6 | SK3091 | IN295 Germanium Video Det. Diode 40V. 35 mA | 3 |
| 22-15847-1 | SK3103 10 | AF Output 120V 1W | 80 |
| 22-15848-9 | SK3104 10 | AF Video Output, Color Amp. for T.V. | 2.90 |
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| 22-15856-2 | SK3112 12 | Small Sig. Lo Noise A.F. Preamp 40V. | 1.35 |
| 22-15858-8 | SK3114 8 | Small Sig. Lo Noise A.F. Preamp 55V | 1.45 |
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| 22-15863 | SK3119 11 | Dual Diode Arrays for T.V and FM Selenium | + |
| 22-15866-1 | SK3122 8 | AF and RF Amp. for AM, FM, Hi-Fi, 65V. | 1.30 |
| 22-15868-7 | SK3124 1 | Silicon NPN, AF Driver/Output. 30 V | 1.25 |
| 22-15917-2 | SK3503 | SCR 600V, 7 Amp Gate 2 V 15 MA | 1.42 |
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|  |  | Nom. Zener | $\underset{\text { Test }}{\text { IZT }}$ | $\mathrm{ZZT}_{12 \mathrm{~T}}^{2 \mathrm{at}}$ |  |  | Nom. <br> Zener | I2T | $\text { ZZT at }_{\text {IZT }}$ |  |  | Nom. Zener | $\underset{\text { Test }}{\text { IZT }}$ | $\text { ZZT at }_{\text {IZT }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Mallory No. | Zener Volts | Test mA | IZT | Stock | Mallory No. | Zener <br> Volts | Test | IZT <br> 0 hms | Stock No . | Mallory No . | Zener Volts | Test | 127 |
| 22-20795-5 | 2B6.8A | 6.8 | 37 | 3.5 | 22-20845-8 | ZB18A | 18. | 14 | 20 | 22-20895-3 | 2B47A | $47{ }^{\text {d }}$ | 5.5 | 80 |
| 22-20800-3 | 2B7.5A | 7.5 | 34 | 4.0 | 22-20850-8 | ZB20A | 20 | 12.5 | 22 | 22-20900-1 | ZB51A | 51 | 5.0 | 95 |
| 22-20805-2 | 2B8.2A | 8.2 | 31 | 4.5 | 22-20855-7 | 2B22A | 22 | 11.5 | 23 | 22-20905-0 | 2B56A | 56 | 4.5 | 110 |
| 22-20810-2 | 2B9.1A | 9.1 | 28 | 5.0 | 22-20860-7 | 2B24A | 24 | 10.5 | 25 | 22-20910-0 | 2B62A | 62 | 4.0 | 125 |
| 22-20815-1 | 2B10A | 10 | 25 | 7 | 22-20865-6 | ZB27A | 27 | 9.5 | 35 | 22-20915-9 | 2868A | 68 | 3.7 | 150 |
| 22-20820-1 | 2B11A | 11 | 23 | 8 | 22-20870-6 | 2B30A | 30 | 8.5 | 40 | 22-20920-9 | 2B75A | 75 | 3.3 | 175 |
| 22-20825-0 | 2B12A* | 12 | 21 | 9 | 22-20875-5 | 2B33A | 33 | 7.5 | 45 | 22-20925-8 | 2882A | 82 | 3.1 | 200 |
| 22-20830-0 | 2B13A | 13 | 19 | 10 | 22-20880-5 | 2B36A | 36 | 7.0 | 60 | 22-20930-8 | 2B91A | 91 | 2.8 | 250 |
| 22-20835-9 | 2B15A | 15 | 17 | 14 | 22-20885-4 | 2B39A | 39 | 6.5 | 60 | 22-20935-7 | ZB100A | 100 | 2.5 | 350 |
| 22-20840-9 | 2B16A | 16 | 15.5 | 16 | 22-20890-4 | 2B43A | 43 | 6.0 | 70 |  |  |  |  |  |
|  |  | You | hoice |  |  |  | 100 | Type | ach |  | 4 |  |  |  |

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49' 20 Lots Each


1 AMP SILICON RECTIFIERS Body $205^{\circ}$ dia. X $375^{\prime \prime}$ lona. Molded.

| $\begin{aligned} & \text { Stock No. } \\ & 22-00844.5 \\ & 22.00851-0 \\ & 22-00856-9 \end{aligned}$ | $\begin{aligned} & \text { Int. Rect. } \\ & \text { No. } \\ & \text { 1N2069 } \\ & \text { 1N2070 } \\ & \text { iN2071 } \end{aligned}$ | $\begin{aligned} & \text { PRV } \\ & 200 \\ & 400 \\ & 600 \end{aligned}$ | $\begin{array}{r} 1.9 \\ \$ 0.34 \\ .39 \\ .47 \end{array}$ | $\begin{gathered} \text { Prices Each } \\ 10-99 \\ \$ 0.30 \\ .34 \\ .41 \end{gathered}$ | $\begin{array}{r} 100 \mathrm{Up} \\ \mathrm{SO} .25 \\ .29 \\ .35 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \begin{array}{l} \text { 3-AMP } \\ 205^{\prime \prime} \text { dia } \end{array} \end{aligned}$ | $\begin{aligned} & \text { N RECT } \\ & \text { th } 375^{\prime \prime} \end{aligned}$ |  |  |
| Storn | Int. Rect. |  |  | Prices Each |  |
| $\begin{aligned} & \text { Stock } \mathrm{No} \text { o } \\ & 22-5526-3 \end{aligned}$ |  | $\begin{aligned} & \text { PRV } \\ & 100 \end{aligned}$ | 1.49 $\$ 0.47$ | $\begin{aligned} & 50.99 \\ & \$ 0.41 \end{aligned}$ | $\begin{gathered} 100 \mathrm{Up} \\ \mathrm{SO} .35 \end{gathered}$ |
| 22-5529-7 | 30 S2 | 200 | . 51 | . 45 | . 38 |
| 22-5530-5 | 3054 | 400 | 60 | . 53 | 45 |
| 22-5531-3 | 3056 | 600 | 70 | . 61 | 52 |
| 22-5533-9 | 30510 | 1000 | . 92 | . 81 | 69 |

## STUD MOUNT RECTIFIERS

Hermetically sealed, $1 / 4-28$ stud. Standard polarity-cathode connected to stud. Reverse polarity-anode connected to stud. Mounting hardware not included. See listing below

|  |  | STA | hi Pol Rating | aRITY <br> Current |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. | IR Numbers | PRV | RMS | AMPS | 1-49 | $50.99$ | 100 Up |
| 22-05625-3 | 40HF5 | 50 | 35 | 40 | \$1.63 | \$1.43 | \$1.22 |
| 22-05645-1 | 40 HF 20 | 200 | 140 | 40 | 2.05 | 1.79 | 1.52 |
| 22-05655-0 | 40 HF 40 | 400 | 280 | 40 | 4.67 | 4.07 | 3.47 |
| 22-05665-9 | $40 \mathrm{HF60}$ | 600 | 420 | 40 | 8.30 | 5.49 | 4.68 |
| 22-05800-2 | 70H10A | 100 | 70 | 70 | 3.99 | 3.49 | 2.98 |
| 22-05810-1 | 70H20A | 200 | 140 | 70 | 5.30 | 4.60 | 3.90 |
| 22-05820-0 | 70H40A | 400 | 280 | 70 | 7.61 | 6.63 | 5.65 |
| 22-05830-9 | 70H60A | 600 | 420 | 70 | 9.98 | 8.69 | 7.40 |
|  |  |  | SE POL | aITY |  |  |  |
| Stock No. | IR Numbers | Volt | Rating | Current |  | Prices Each 50-99 |  |
| 22-05630-3 | 40HFR5 | 50 | 35 | 40 | \$1.63 | \$1.43 | \$1.22 |
| 22-05640-2 | 40 HFR 10 | 100 | 70 | 40 | 2.05 | 1.79 | 1.52 |
| 22-05650-1 | 40HFR20 | 200 | 140 | 40 | 2.99 | 2.61 | 2.23 |
| 22-05660-0 | 40HFR40 | 400 | 280 | 40 | 4.67 | 4.07 | 3.47 |
| 22-05670-9 | 40HFR60 | 600 | 420 | 40 | 6.30 | 5.49 | 4.66 |
| 22-05805-1 | 70HR10A | 100 | 70 | 70 | 3.99 | 3.49 | 2.98 |
| 22-05815-0 | 70HR20A | 200 | 140 | 70 | 5.30 | 4.60 | 3.90 |
| 22-05825-9 | 70HR40A | 400 | 280 | 70 | 7.61 | 6.63 | 5.65 |
| 22-05835-8 | 70HR60A | 600 | 420 | 70 | 9.98 | 8.69 | 7.40 |

"BASIC 16" UNIVERSAL POWER RECTIFIERS
Eliminate costly breakdown delays with these stock rectifiers. The Basic 16 devices are specifically selected to satisty the vast majority of replacement requirements for industrial electronic equipment 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 | 40 HF 30 | Fwd. | 40 | 300 | \$3.83 |
| 22-05652-7 | 40 HFR 30 | Rev. | 40 | 300 | 3.83 |
| 22-05665-5 | $40 \mathrm{HF6} 0$ | 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 | 150 K 30 A | Fwd. | 150 | 300 | 21.53 |
| 22-05841-6 | 150KR30A | Rey | 150 | 300 | 21.53 |
| 22-05850-7 | $150 \mathrm{K60A}$ | 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 |  |  |  | . 45 |
| 22-05871-3 | - STA-LOK |  |  |  | 3.95 |

* $40-1361$ adapter is used for converting the $150 \mathrm{amp} .3 / \mathrm{b}-24$ UNF-2A (150K and 150KR) stud to a $1 / 2$-20 UNF-2A stud. STA-LOK chemical sealant cures in room temperature. It locks the adapter to the stud of the 150 amp devices.
16-01266-8 JD 653A. Alpha-Numeric Rectifier Cross Reference Brochure $\qquad$


## RECTIFIER MOUNTING HARDWARE

Complete set for DO-4 Rectifier includes 2 mica washers, 1 brass washer, 1 teflon washer, 1 solder lug, $110-32$ lock nut. Complete set for DO-5 Rectifier. Includes one each mica washer brass washer, teflon washer, solder luk. $1 / 4-28$ lock nut. 12-02403-0. Each
112

## 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 $5^{\prime \prime}$ long with $12^{\prime \prime}$ hole. Body $3^{\prime \prime}$ long.

Stock No.
22-12540-5
$22-12530-6$
$22-12500-9$
$22-12500-9$
$22-12510-8$
22-12520-7

| Int. Rect. No. | Reverse Voltage | Gate Firing Volts | Requirements <br> MA $\quad 1-9$ | $\begin{aligned} & \text { Prices Eac } \\ & 10-99 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| IR106Y 1 | Voitage |  | $\begin{array}{ll} \text { MA } & 1.9 \\ 50 & \$ 0.79 \end{array}$ | + 0.68 |
| IR106F 1 | 50 | 1 | . 82 | . 70 |
| IR106A 1 | 100 | 1 | 85 | 73 |
| IR106B 1 | 200 |  | 95 | 81 |
| IR106C 1 | 300 | 1 | 1.18 | 1.01 |

100 U
$\$ 0.56$
.61
.64
.66
.83
IR2160 UNIIUNCTION TRANSISTOR
Provides accurate timing and triggering for Silicon Controlled Rectifier circuits Rating 400 MW .30 V . max.
No. 22-12560-3. I.R. No. IR 2160. 1-4 Each ............ \$1.49 5-9 Each ........... \$1.35 10-99 Each ........................... \$1.20 100-299 Each ............................ $\$ 1.10$

## SEMICONDUCTORS FOR RADIO AND TV SERVICING

## SILICON RECTIFIER TUBE REPLACEMENT

A plug-in replacement for 5U4, 5AW4, 5T4,5V4, 5AV4, 5AX4, 5W4, 5Y3, 524. 6004. Contains a surge limiting resistor which adds to its practically unlimited life. Lower forward voltage drop characteristic results in higher equipment voltage. No. 22-16008-9. I.R. ST-14/IN2389. 1-9 Each $\qquad$ $\$ 4.50$ 10-24 Each


I?R ETE COLOR TV CARTRIDGE RECTIFIER
$61-8968$ used as voltage booster rectifier and $61-8969$ used as focus rectifier. $22-05745-9$ Int. Rect. 61-8968. 800 PR Volts. 1-9 Each ... \$1.15 10 Up Each.............. 92 22-05750-9 Int. Rect. 61-8969. 6500 PR Volts. 1-9 Each ... 2.0010 Up Each ........... $\$ 1.60$

JAPANESE ORIGINAL EQUIPMENT TRANSISTORS

The real thing . . . not universal replacements. Driginal equipment transistors Made in Japan.


$10-99$
Each
$\$ 0.61$
83
42
.42
1.12
74
1.60
1.76
.83
42
42
.51
.58
45
45
45
.61
38
38
45
.83
64
58
1.22
48
61
Jàpanese Transistor Cross Reference Guide. Brochure $\qquad$


WORKMANOIR EXPERIMENTER PHOTOCELLS AND SUN BATTERIES

[2]

May be used for powering transistor radios, light meters, operating small motors from sunlight. B2MC is $1 / 2 \times 3 / 4^{\prime \prime}$ with mounting brackets. Others are $11 / 8^{\prime \prime}$ square molded case. All have leads.

| Stoc | M |  |  | Output |  |  | O |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No | Material | Fig. | Voltage | MA | $1-9$ | 0- |
| 22-08000-6 | B2MC | Selenium | (1) | .2-. 4 | 2 | \$2.76 | \$2.41 |
| 22-15000-7 | SIMC | Silicon | (2) | .3-4 | 10-16 | 2.78 | 2.50 |
| 22-15010-6 | S4MC | Silicon | (2) | .3-. 4 | 25-40 | 4.65 | 4.19 |
| 22-15015-5 | S5MC | Silicon | (2) | .6-85 | 18-25 | 5.55 | 5.00 |

## (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. 13 -/6" square.
22-09840-4. CS120
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, expericadmium sulphide cells,
menters and hobbyists.
22-12700-5. K421
Kit of 7 For
$\$ 5$.
$\$ 5.95 \quad 5$ $\qquad$ $\$ 5.36$

Solar Cell and Photocell Handhook. 75 light operated circuits. Contains projects and demonstrations of selenium and silicon solar cells. 112 pages No. 16-01118-1 HB-30. Each.

## EXPERIMENTERS MOTOR



Special Anti-Friction Bearing Type-Designed to operate directly from the power supplied by Solar Cells. Offers many fascinating experiments and science
proiects. Runs on .3 to 1.5 V . Recommended cell is projects. Runs on .3 to 1.5 V . Recommended cell is S4MC above.
22-10140-6. EP50C
Each.
S3.95 5 Up Each .
$\$ 3.56$

## I.R. INDUSTRIAL RECTIFIERS




> FIG. (4) SILICON UNIVERSAL RECTIFIER ASSEMBLY

Two stud mount rectifiers with $4.8^{\prime \prime}$ leads mounted on a $4 \times 6^{\prime \prime}$ heat sink plate. 33 VAC input. 6 or 12 VDC 100 amp output.
$22-08010-5$. No . BCRO1.
22-08010-5. No. BC101. 1-24 Each .
\$20.17 25 Up Each
\$17.25

## PHOTO CELL

Photo resistive, cadmium sulfide type. Changes resistance with light. For many technical applications and science projects. Use for alarm systems, door openers, counting devices, etc. High resistance in darkness - low when illuminated. Specifications: 12 K ohm min . © 0.1 foot-candle. 250 ohm @ 100 foot-candle. Max. power dissipation 75 mW .
22-12575-1. Each
$75^{\circ}$

(3)

(6)


(7)

(B)

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 | Norig |
| :--- |
| No |



| $.1850 \times 340^{\circ} \mathrm{L}$ | 1-24 Each $\$ 2.95$ | $\begin{aligned} & \text { 25-99.99 } \\ & \text { E2.05 } \\ & \$ 2.05 \end{aligned}$ |
| :---: | :---: | :---: |
| . $1850 \times .340^{\prime \prime}$ L | 2.95 | 2.05 |
| . $1850 \times .340^{\prime \prime}$ L | . 50 | 46 |
| . $1000 \times .100^{\prime \prime} \mathrm{L}$ | 45 | 35 |
| . $1000 \times .095^{\prime \prime} \mathrm{L}$ | 45 | 35 |
| $2000 \times 340{ }^{\prime \prime}$ | 35 | 31 |
| $0900 \times 120^{\prime \prime} \mathrm{L}$ | 50 | 43 |
| .2000 X . $340{ }^{\prime \prime}$ L | . 67 | 50 |
| .1200 X 200"L | . 67 | 50 |
| $1850 \times 340^{\prime \prime} \mathrm{L}$ | 4.35 | 3.65 |
| $2880 \times 1.10^{\prime \prime} \mathrm{L}$ | 1.60 | 1.45 |
| 400W X $740^{\circ} \mathrm{H}$ | 9.55 | 7.30 |
| 168W X 240"H | 4.40 | 3.30 |
| 530W $\times .760 \% \mathrm{H}$ | 8.20 | 7.20 |
| 250W X 340"L | 2.25 | 1.90 |

"Color depends on direction of current flow.
Catalog Sheet and specifications on the above LED's.
No. 16A1216-3. With your order for any merchandise
FREE

(1) 2 amp. FULL WAVE SILICON BRIDGE RECTIFIERS

Only "/h6" square $\times 1 / 4^{\prime \prime}$ high. Insulated case with solder lug terminals. Rated 2 Amps . resistive-inductive load, derate 20\% for capacitive load.


## (2) 6 AMP. FULL WAVE SILICON BRIDGE RECTIFIERS

$1-15 / 32^{\prime \prime}$ diameter ${ }^{15} / 3^{\prime \prime}$ above mounting surface. Epoxy case with solder terminals. $8-32$ mounting stud. Rated 6 Amps. for resistive-inductive load.


## 22-15264-9

(3) 12 AMP. FULL WAVE SILICON BRIDGE RECTIFIERS

Only .560" diameter. Less than $1^{\prime \prime}$ above mounting surface including, terminals. Requires no heat sink when mounted on metal chassis. Rated 12 Amps. for resistive-inductive load,


## SARKES TARZIAN M500/40M <br> CLIP-IN RECTIFIER

For TV replacement, experiments, wherever a quick replaceable type is needed. Similar to Jedec 1 N1084. 1 amp at 400 PIV. 3/8" D. X $1^{\prime \prime} \mathrm{L}$.
22-13625-3. M500-40M
1-99 Each.

- 100 Up

RECTIFIER MOUNTING HARDWARE
No.12B843-9 Single Clip-In Mounting
for M500/40M. 1-5 Ea.
lip-in Mounting

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 $\mathbf{3 0} \mathrm{ma}$. Connect several in series for higher voltage and in parallel for higher current. 22-12570-2. 5 volt. Each
22-12571-0. 1 volt. Each
$\$ 4.50$
22-12573-6. 1.4 volt. Each
$\$ 6.50$

## MALIORY EVEREADY anvovac BATTERIES

FRESH BATTERIES FROM B-A LAST LONGER



| MALLORY CALCULATOR BATTERIES |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 21 A 5099-2 \\ & 21 A 5091-9 \end{aligned}$ | 5K65 7K67 | 9 Volt 6 Volt | $1-5$ $1-5$ | $\$ 2.95$ 2.29 | $6-23$ $6-23$ | $\$ 2.36$ 1.83 | 24 Up | \$1.92 |

## MALIORY DURACELL MERCURY BATTERIES

| Stock No. | Mallory No. | Volts | Size Inches 0.D. H. | Quantity Each | Quantity Each | Quantity | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21A5093-5 | MP401 | 1.4 | 29/64 $\times 1.1 / 8$ | 1-3 \$1.65 | 4-11 \$1.32 | 12 Up | \$1.08 |
| 21A5092-7 | MP 675 | 1.4 | $455 \times 210$ | 1-3 . 98 | 4-11 . 78 | 12 Up | 64 |
| 21A5010-9 | RM1 | 1.4 | $5 / 8 \times 21 / 32$ | 1-3 1.55 | $4.11 \quad 1.24$ | 12 up | 1.00 |
| $2145011-7$ | RM3R | 1.35 | 1. $\times 21 / 32$ | 1-3 2.85 | $4.11 \quad 2.28$ | 12 up | 1.85 |
| 21A5012-5 | RM4R | 1.35 | $1.2 \times 21 / 32$ | 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 | $\begin{array}{lll}4-11 & 2.12\end{array}$ | 12 up | 1.72 |
| 21A5014-1 | RM12R | 1.35 | $5 / 8 \times 1-61 / 64$ | 1-3 2.85 | 4-11 2.28 | 12 up | 1.85 |
| 21A5016-6 | RM42R | 1.35 | $1.2 \times 2.3 / 8$ | 1-3. 8.05 | $4-11 \quad 6.44$ | 12 up | 5.23 |
| 21A5017-4 | RM400R | 1.35 | 29/64×9/64 | $1-3 \quad 1.55$ | 4-11 1.24 | 12 up | 1.00 |
| 21A5018-2 | RM401 | 1.4 | 29/64×1-1/8 | $1-31.55$ | $4-11 \quad 1.24$ | 12 up | 1.00 |
| 21A5020-8 | RM575 | 14 | $455 \times 129$ | 1.30 .41 | $4.11 \quad .32$ | 12 up | 28 |
| 21A5021-6 | RM625 | 1.4 | $5 / 8 \times 1 / 4$ | $1-31.45$ | $4.11 \quad 1.16$ | 12 up | 34 |
| 21A5022-4 | RM625R | 1.35 | $5 / 8 \times 1 / 4$ | $1-3 \quad 1.60$ | 4-11 1.28 | 12 up | 1.04 |
| 21A5023-2 | RM630 | 1.4 | $5 / 8 \times 1 / 4$ | $1.3 \quad 1.40$ | $4-11 \quad 1.12$ | 12 up | 90 |
| 21A5024-0 | RM640 | 1.4 | 59/8×7/16 | 1.31 .45 | 4-11 1.16 | 12 up | 34 |
| $21 A 5025-7$ $21 A 5026-5$ | RM675 TR115R | 14 | 29/64 $\times 13 / 64$ | $\begin{array}{ll}1.5 & 7.75 \\ 1.3 & 5.40\end{array}$ | $6-23$ .60 <br> 4.9 4.32 | 24 up | . 49 |
| 21A5026-5 | TR115R | 6.75 | 21/32×1.5/16 | $\begin{array}{ll}1-3 & 5.40 \\ 1.2 & 3.75\end{array}$ | $\begin{array}{ll}4-9 & 4.32 \\ 3.5 & \end{array}$ | 10 up | 3.52 |
| 21A5069-5 | TR126 | 8.4 | 21/32 $3 / 4 \times 2$ | $\begin{array}{lll}1-2 & 3.75\end{array}$ | $\begin{array}{ll}3.5 & 3.00\end{array}$ | 6 up | 2.43 |
| 21A5027-3 | TR132R | 27 | 21/32 $\times 1.5 / 16$ | 1-3 3.20 | 4.92 .56 | 10 up | 2.08 |
| 21A5028-1 | TR133 | 4.2 | $21 / 32 \times 2$ | $\begin{array}{lll}1.3 & 3.85\end{array}$ | 4-11 3.08 | 12 up | 2.50 |
| 21A5029-9 | TR133R | 4.05 | 21/32x2 | $1-3 \quad 4.10$ | $4-113.28$ | 12 up | 2.65 |
| $2145030-7$ | TR134R | 5.40 | $21 / 32 \times 2-29 / 64$ | $1-34.90$ | 4.943 .92 | 10 up | 3.20 |
| 21A5031-5 | TR135R | 6.75 | 21/32 $\times 3-1 / 4$ | $1-3 \quad 5.80$ | 4-9 4.64 | 10 up | 3.77 |
| 21A5032-3 | TR136R | 8.1 | 21/32x3-29/32 | 1-3 6.60 | $\begin{array}{lll}4-9 & 5.28\end{array}$ | 10 up | 4.28 |
| 21A5033-1 | TR146X | 8.4 | $1 \times 21 / 32 \times 13 / 4$ | $1-2 \quad 2.79$ | $\begin{array}{lll}3.5 & 2.23\end{array}$ | 6 up | 1.80 |
| 21A5034-9 | TR163 | 4.2 | 21/32×1-5/16 | 1-3 4.20 | $\begin{array}{lll}4-9 & 3.36\end{array}$ | 10 up | 2.72 |
| 21A5035-6 | TR164 | 5.6 | 21/32×1-3/4 | $\begin{array}{lll}1-3 & 3.75\end{array}$ | $4-11 \quad 3.00$ | 12 up | 2.43 |
| 21A5036-4 | TR165 | 7 | 21/32×2-3/16 | 1-3 4.75 | 4.938 .80 | 10 up | 3.08 |
| 21A235.7 | TR175 | 7 | $31 / 64 \times 1.1 / 32$ | 7.303 .29 | $4.9 \quad 2.63$ | 10 up | 2.13 |
| 21A5037-2 | TR177 | 9.8 | $35 / 64 \times 1-29 / 32$ | 1-3 3.30 | $4-112.64$ | 12 up | 2.15 |
| 21A5038-0 | TR233 | 4.2 | $1.1 / 64 \times 1-31 / 32$ | 1-3 6.60 | 4.9 5.28 | 10 up | 4.28 |
| 21A5057-0 | TR289 | 12.6 | $1 \times 2-25 / 64$ | $1-2 \quad 7.39$ | $3-5 \quad 5.91$ | 6 up | 4.80 |
| 21A5039-8 | 2M-9 | 1.4 | 1/2x1-31/32 | 1-5 1.69 | $6-23 \quad 1.35$ | 24 up | 1.09 |

MALLORY PHOTOGRAPHIC BATTERIES

| $21 A 5079-4$ | $7 R 31$ | 4.5 | Instamatic X30 | 1.5 | 2.98 | $6-11$ | $\mathbf{2 . 3 8}$ | 12 up | 1.94 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $21 A 196-1$ | PX13B | 1.35 | Instamatic M24 | 1.5 | 1.55 | $6-11$ | 1.24 | 12 up | 1.00 |
| $21 A 5068-7$ | PX23B | 5.6 | Retina S1 | 1.5 | 1.65 | $6-11$ | 1.32 | 12 up | 1.07 |
| $21 A 5080-2$ | 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

| Stock No. | $\begin{gathered} \text { Ray-O-Vac } \\ \mathrm{No} \text {. } \end{gathered}$ | Size Comparables Eveready Malfory | Other | Voltage | $\begin{gathered} 1-9 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 10-29 \\ & \text { Each } \\ & \hline \end{aligned}$ | $\underset{\substack{30 \mathrm{Up} \\ \text { Each }}}{ }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21A346-2 | RW42 | $\begin{array}{ll} 303 & \text { WS14 } \\ 357 & 10 L 14 \\ \hline \end{array}$ | Timex A Bulova 288 | 1.5 | \$2.25 | \$1.80 | \$1.46 |
| 21A347-0 | RW44 | $\begin{array}{ll} 301 & \text { WS11 } \\ 386 & 10 L 124 \\ \hline \end{array}$ | Timex D Litronix | 1.5 | 2.00 | \$1.60 | \$1.30 |
| 21A350-4 | RW47 | 384 WS10 <br> 392 $10 L 125$ |  | 1.5 | 2.00 | 1.60 | 1.30 |
| 21A349-6 | RW48 | $\begin{array}{r} 309 \\ 393 \\ \hline \end{array}$ | Microma | 1.5 | 2.00 | 1.60 | 1.30 |
| 21A351-2 | RW49 |  |  | 1.5 | 2.00 | 1.60 | 1.30 |
| MERCURY WATCH BATTERIES |  |  |  |  |  |  |  |
| $\begin{aligned} & 21 A 352-0 \\ & 21 A 353-8 \\ & \text { 21A354-6 } \end{aligned}$ | $\begin{aligned} & \text { RW51 } \\ & \text { RW52 } \\ & \text { RW54 } \\ & \hline \end{aligned}$ | 387 W2 <br> 313 WH3 <br> 354 10R11 | Bulova 214 | $\begin{aligned} & 1.35 \\ & 1.35 \\ & 1.35 \\ & \hline \end{aligned}$ | 1.80 <br> 1.35 <br> 1.95 | 1.08 <br> 1.56 | $\begin{array}{r}1.15 \\ \hline 1.25 \\ \hline\end{array}$ |
| 21A355-4 | RW56 | $\begin{array}{ll} \hline 343 & \text { WH4 } \\ & \text { WH12NM } \end{array}$ | Timex B Bulova 218 | 1.35 | 1.85 | 1.48 | 1.19 |
| $\begin{aligned} & 21 A 356-1 \\ & 21 A 357-9 \\ & \hline \end{aligned}$ | RW57 RW58 | $\begin{array}{ll} 325 & \text { WH1 } \\ 323 & \text { WH6 } \\ \hline \end{array}$ | Timex C | $\begin{array}{r} 1.35 \\ 1.35 \\ \hline \end{array}$ | $\begin{array}{r} 1.55 \\ 1.85 \\ \hline \end{array}$ | $\begin{array}{r} 1.24 \\ 1.48 \\ \hline \end{array}$ | $\begin{aligned} & 1.00 \\ & 1.19 \\ & \hline \end{aligned}$ |

## Everiendy <br> BATTERIES <br>  <br> ENERGIZERS - TRANSISTOR BATTERIES

| Stk. No. | Eveready Number | Volts | $\begin{aligned} & \text { Wt. } \\ & \text { Lbs. } \end{aligned}$ | Dimensions | Quantity | Ea. | Quantity | Ea. | Quantity | E. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21A304-1 | 206 | 9 | 083 | $34^{\prime \prime}$ Dia. x $2^{\prime \prime}$ | 1-3 | \$1.20 | 4-11 | 0.96 | 12 up | \$0.80 |
| 21A305-8 | 216 | 9 | 089 | 9 Volt Transistor | 1-3 | . 89 | 4-11 | . 71 | 12 up | . 61 |
| 21A306-6 | 226 | 9 | 11 | $1^{\prime \prime}$ Dia x $\times 1^{11} / 6^{\prime \prime}$ | 1.3 | 1.50 | 4-11 | 1.20 | 12 up | 1.01 |
| 21A307-4 | 228 | 12 | 141 | $1^{\prime \prime}$ Dia. $\times 2^{\prime} / 15^{\prime \prime}$ | 1-3 | 2.55 | 4-11 | 2.04 | 12 up | 1.71 |
| 21A309-0 | 246 |  | 31 | $1^{13} 36 \times 1{ }^{11} 16 \times 2^{3}$ | 1-2 | 2.80 | 3.5 | 2.24 | 6 up | 1.92 |
| $214310-8$ | 266 | 9 | 441 | $1^{11} / 46 \times 1^{11} / 6 \times 2^{1} / 16{ }^{\text {a }}$ | 1-3 | 250 | 4.11 | 2.00 | 12 up | 1.68 |
| 21 A311-6 | 276 | 91 | 1.02 | $2^{3} 16 \times 2.1 / 32 \times 3.5$ | 1-2 | 3.70 | 3.5 | 2.96 | 6 up | 2.47 |
| 21A312-4 | 333 | $41 / 2$ | 06 | $662^{\prime \prime}$ Dia $\times 1.965$ | 1-3 | 1.80 | $4 \cdot 11$ | 1.44 | 12 up | 1.22 |
| 21A313-2 | 1015 | $1 / 2$ | 05 A | AA Cell | $1-11$ | . 35 | 12-23 | 28 | 24 up | 22 |
| $21 A 314$-0 | 1035 | $1{ }^{1 / 2}$ | 1 C | C Cell | $1-11$ | 45 | 12-23 | .36 | 24 up | 28 |
| 21A315-7 | 1050 | $11 / 2$ |  | Cell | 1.11 | 45 | 12-23 | . 36 | 24 up | 28 |
| 21A198-7 | 7. 1222 | 9 | 08 P | Premium 9 volt | 1-3 | 1.29 | 4-11 | 1.03 | 12 up | 84 |


| $\begin{array}{r} 21 A 5045-5523 \\ 21 A 5046-3582 \\ \hline \end{array}$ | $\begin{aligned} & 41 / 2 \\ & 3 \end{aligned}$ | $\begin{aligned} & .07 .662^{\prime \prime} \text { Dia. } \times 1.965 \\ & 06.664^{\prime \prime} \text { Dia. } \times 1.67 \\ & \hline \end{aligned}$ | $\begin{array}{ll} 1-3 & 2.29 \\ 1.3 & 2.00 \\ \hline \end{array}$ | $\begin{array}{ll} 4-11 & 1.83 \\ 4-11 & 1.60 \\ \hline \end{array}$ | $\begin{aligned} & 12 \mathrm{up} \\ & 12 \mathrm{up} \end{aligned}$ | $\begin{array}{r} 1.53 \\ 1.34 \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SECONDARY ALKALINE BATTERIES |  |  |  |  |  |  |
| $\begin{aligned} & 21 A 5047-1 \\ & 261 \\ & 21 A 5048-9563 \end{aligned}$ | 15 $41 / 2$ | $\begin{array}{ll} \hline 6 & 8^{8} / 6 \times 22^{11} / 6 \times 51 / /^{\prime \prime} \\ 9 & 1.23 / 64^{\prime \prime} \mathrm{Dia} . \\ \hline \end{array}$ | 122.44 | 2-3 17.95 | 4 up | 14.96 |
| 21A5049-7 564 <br> 21A5103-2 565 | $\begin{aligned} & 131 / 2 \\ & 6 \\ & \hline \end{aligned}$ |  | $\begin{array}{ll} 1-2 & 5.94 \\ 1 & 21.90 \\ 1 & 10.56 \end{array}$ | $\begin{array}{lll}3.5 & 4.75 \\ 2.3 & 17.52 \\ 2-11 & 8.45\end{array}$ | 6 up $4 \mathrm{up}^{\text {up }}$ 12 Up | $\begin{array}{r}3.96 \\ 14.60 \\ 7.04 \\ \hline\end{array}$ |


| FLASHLIGHT, LANTERN, EMERGENCY LIGHTING, TOYS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21A316-5 | No. $6 \quad 1{ }^{12}$ | 2 | $\begin{aligned} & 2^{5} 8^{\prime \prime} \text { Dia } \\ & \times 6.21 / 32^{\prime \prime} \end{aligned}$ | $1-3$ | 2.98 | 4-11 | 2.38 | 12 up | 1.99 |
| 214318 | 5096 | 1.3 | Lantern | 1-3 | 2.38 | 4.11 | 1.90 | 12 up | 1.58 |
| 21A319-9 | 510 S 6 | 1.4 | $2^{5} \times 2^{5} 8 \times 4^{1}$ /6 ${ }^{4}$ | 1.3 | 2.48 | 4.11 | 1.98 | 12 up | 1.65 |
| 21A321-5 | $715 \quad 712$ | 7.9 | $7^{\prime} \times \times 4^{\prime} 16 \times 6^{\prime}$ is " | 1 | 11.90 | 2-3 | 9.52 | 4 up | 7.93 |
| 21A322-3 | 7169 | 9.3 | $8-37 / 64 \times 4{ }^{\prime} 16 \times 6$ | 1 | 13.78 | 2.3 | 11.02 | 4 up | 9.19 |
| 21A323-1 | 7316 | 3.1 | Radar Lite | 1-2 | 5.25 | 3.5 | 4.20 | 6 up | 3.51 |
| 21A324-9 | $732 \quad 12$ | 3.2 | Radar Lite | 1-2 | 6.50 | 3.5 | 5.20 | 6 up | 4.33 |
| 21A325-6 | $9041^{1 / 2}$ | 01 | Size N | $1-11$ | 20 | 12-23 | 16 | 24 up | 13 |
| 21A326-4 | 912 112 | 02 | AAA Size | $1-11$ | 30 | 12-23 | 24 | 24 up | 20 |
| 21A327-2 | 915 11/2 | 04 | AA Size | $1-11$ | 30 | 12-23 | 24 | 24 up | 20 |
| 21A328-0 | $935 \quad 112$ | 1 | C Cell | $1-11$ | 40 | 12-23 | . 32 | 24 up | 27 |
| 21A329-8 | 950 112 | 2 | D Cell | 1.11 | 40 | 12-23 | 32 | 24 up | 27 |
| 21A330-6 | 14616 | 9.2 | Hot Shot | Ea. | 9.98 | 2-3 | 7.98 | 4 up | 6.65 |
| 21A331-4 | 146312 | 7.8 | Hot Shot | Ea. | 16.78 | 2-3 | 13.42 | 4 up | 11.19 |


| Stock No. | Eveready Type | Voltage | WL. 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 |  | 16.58 |
| $21 A 128-4$ $21 A 195-3$ | 504 531 | 15 $41 / 2$ | 03 | 1.5 | 1.90 | 6-11 | 1.82 1.83 | 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

| 218123-5 | 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 | , | 1.2 | 2.20 | 3.5 | 1.76 | 6 up | 1.51 |
| 21869-0 | 413 | 30 | 1 | 1.2 | 2.10 | 3-5 | 1.68 | 6 up | 1.44 |
| 218138-3 | 415 | 45 | 1 | 1-2 | 3.30 | 3.5 | 2.64 | 6 up | 220 |
| $218164-9$ | 416 | $671 / 2$ | 3 | 1-2 | 3.60 | 3-5 | 2.88 | 6 up | 2.47 |
| 21 C165-6 | 417 | 15 | 1 | 1-2 | 5.74 | 3.5 | 4.59 | 6 up | 3.83 |
| 218104.5 | 420 | 221/2 | 2 | 1-2 | 7.25 | 3.5 | 5.80 | 6 up | 4.83 |
| 218110-2 | 425 P | $221 / 2$ | 3 | 1-2 | 10.30 | 3.5 | 8.24 | 6 up | 6.87 |
| 21A17-9 | 455 | 45 | 5 | 1-2 | 5.60 | 3.5 | 4.48 |  | 3.73 |
| 21867-4 | 457 | 671/2 | 5 | 1-2 | 8.80 | 3.5 | 7.04 | 6 up | 5.87 |
| 21A18-7 | 467 | $671 / 2$ | 8 | 1.2 | 6.50 | 3.5 | 5.20 | 6 up | 4.46 |
| 21826-0 | 477 | $671 / 2$ |  | $1-2$ | 6.90 | 3-5 | 5.52 | 6 up | 4.73 |
| $218132-6$ | 479 | 90 |  | 1.2 | 8.50 | 3-5 | 6.80 | 6 up | 5.81 |
| 21A19-5 | 482 | 45 | 2.0 | 1-2 | 9.20 | 3-5 | 7.36 | 6 up | 6.30 |
| 21C143-3 | 484 | 45 | 3.1 | $1-2$ | 12.40 | 3-5 | 9.92 | 6 up | 8.27 |
| 21820-3 | 490 | 90 | 1.0 | 1.2 | 9.90 | 3 -5 | 7.92 | 6 up | 6.60 |
| 21868-2 | 493 | 300 | 1.2 | 1 | 17.90 | 2 | 14.32 | 3 up | 12.26 |
| 218145-8 | 505 | $221 / 2$ | 04 | 1-2 | 2.20 | 3.5 | 1.76 | 6 up | 1.51 |
| $21893-0$ | 703 | 4/2 | 3 | 1-2 | 3.30 | 3-5 | 2.64 | 6 up | 2.26 |
| 21870-8 | 117 | $71 / 2$ | 6 | 1-2 | 3.25 | 3-5 | 2.60 | 6 up | 2.17 |
| 21866-6 | 724 | - | 2 | 1-2 | 3.30 | 3-5 | 2.64 | 6 up | 2.26 |
| $218122-7$ | 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 3-5 | 5.52 | 6 up | 4.74 |
| 21 A12-0 | 742 | $11 / 2$ | 14 | 1-2 | 3.56 | 3.5 | 2.85 | 6 up | 2.44 |
| $21431-0$ | 744 | 4 | 1.4 | 1-2 | 3.20 | 3-5 | 2.56 | 6 up | 2.19 |
| 218102-9 | 762 S | 45 | 3.3 | 1-2 | 13.25 | 3.5 | 10.60 | 6 up | 8.83 |
| $218100-3$ | 763 | 221/2 | 7 | $1-2$ |  | 3-5 | 4.92 | ${ }_{5}^{6}$ up | 4.09 |
| 21A23-7 $218101-1$ | 773 | $71 / 2$ | 6 | 1-2 | 5.95 | 3 3-4 | 4.76 | 5 up | 3.97 |
| ${ }_{21}^{218101-1}$ | 778 | 221/2 | 1.5 | 12 | 14.00 | 2.3 | 11.20 | 4 up | 9.58 |
| ${ }_{21}^{21 A 9135-9}$ | 781 | $41 / 2$ | 4 | 1-2 | 3.65 | 3-4 | 2.92 | 5 up | 2.43 |
| 21A135-9 | 2356 N | 9 | 7 | $1-2$ | 7.40 | 3-5 | 5.92 | 6 up | 4.93 |

EVEREADY NICKEL-CADMIUM $\mathbf{1 . 2 5}$ V. RECHARGEABLE BATTERIES

| Stock No. | Type | Amp. Hours | Replaces | $\begin{array}{r} 1 \\ \text { Each } \end{array}$ | $\begin{array}{r} 2.5 \\ \text { Each } \end{array}$ | $\begin{aligned} & 6 \text { Up } \\ & \text { Each } \\ & \hline \end{aligned}$ | Wt. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 21 A 5056-2 \\ & 21 A 194-6 \\ & 21 A 234-0 \end{aligned}$ | $\begin{aligned} & \text { CH15 } \\ & \text { CH18 } \\ & \text { CH4 } \end{aligned}$ | $\begin{aligned} & 15 \\ & 1.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Size AA } 915 \\ & \text { Size C } 935 \\ & \text { Size O } 950 \end{aligned}$ | $\begin{array}{r} \$ 2.76 \\ 11.35 \\ 9.20 \end{array}$ | $\begin{array}{r} \$ 2.21 \\ 9.08 \\ 7.36 \end{array}$ | $\begin{array}{r} \$ 1.84 \\ 7.55 \\ 6.14 \end{array}$ | $\begin{aligned} & 06 \\ & 12 \\ & 34 \end{aligned}$ |



Recharge up to 1000 times to last 3 years or more under normal use when recharged regularly. Replaces all regular batteries in 1.5 volt applications.

|  | $\begin{gathered} \text { Ray-O-Vac } \\ \text { No. } \end{gathered}$ | Description |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stk. No. <br> 21A5076-0 | $\begin{gathered} \mathrm{No.} \\ 613-2 \end{gathered}$ | Description <br> Size D, 1.2 a.h., 1.25 V. | Wt. 8 oz. | $\begin{aligned} & \text { of } 2 \\ & \$ 6.80 \end{aligned}$ |
| 21 A5100-8 | M613-2 | Size D' with charging module | 9 oz . | 7.80 |
| 21 A5077-8 | 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 |

13A8075-9. MINI-CHARGER. Recharge any pair of batteries above with charging module. For 115 VAC. Shpg. wt. 8 ozs. Ray-O-Vac CH222-1. Each batteries above at the same time. For 115 VAC . Shpg. wt. 1 lb . Ray-O-Vac CH666.
Each
$\$ 17.95$


GOULD RECHARGEABLE GELYTE LANTERN BATTERIES

Rechargeable 6 volt lantern batteries. Give at least 500 hours use. Recharge overnight with charger shown.
PB645L replaces Eveready 509, Burgess F4M, NEDA908. Size $2-5 / 8 \times 2.5 / 8 \times 3-3 / 4^{\prime \prime} \mathrm{H}$. plus spring terminals. 4.5 AH rated. Shpg. wt. 1.5 lbs .
21A5104-0. Each
$\$ 15.00$
PB660L replaces Eveready 731, Burgess TW1, NEDA918. Size 2-3/4 X 5-1/4 X $4-3 / 8^{\prime \prime} \mathrm{H}$. plus binding post terminals. 6 AH rated. Shpg. wt. 3.2 lbs. 21A5105-7. Each
13A8076-7. Type 45122 Charger. Wt. I lib. Each
$\$ 16.10$

(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- $-76^{\circ} \mathrm{F}$ to $+140^{\circ} \mathrm{F}$. Rated (a $68^{\circ} \mathrm{F}$. 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 batieries 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.
$\begin{array}{llllll}\text { Stock } & \text { Mfa. Amp-Hours } & \text { (m } 20 \mathrm{Hr} & \text { Shpa } & & \\ & & \text { Wt. } & 1-9 & 10-99\end{array}$
 21A5070-3 $610-1 B \quad .9 \quad 6 \quad 2^{\prime \prime} \mathrm{W} \times 2.24^{\prime \prime} \mathrm{HX} 1.65^{\prime \prime} \mathrm{D} \quad .6$ \$9.92 $\mathbf{\$ 8 . 8 8}$ $\begin{array}{llllllllll}21 A 5071-1 & 1215-1 B & 1.5 & 12 & 7.02^{\prime \prime} \mathrm{W} \times 2.65^{\prime \prime} \mathrm{HX} 1.33^{\prime \prime} \mathrm{D} & 1.9 & 19.88 & 17.87\end{array}$ $\begin{array}{lllllllll}21 A 5072-9 & 626.1 B & 2.6 & 6 & 5.28^{\prime \prime} \mathrm{W} X 2.63^{\prime \prime} \mathrm{HX} 1.33^{\prime \prime} \mathrm{D} & 1.3 & 11.52 & 10.29\end{array}$ $\begin{array}{llllllllll}21 A 5073-7 & 1245-1 B & 4.5 & 12 & 5.95^{\prime \prime} W X 4.02^{\prime \prime} \mathrm{HX} 2.52^{\prime \prime} \mathrm{D} & 4.5 & 21.67 & 19.45\end{array}$ 21A5074-5 680-1B $\quad 7.5 \quad 6 \quad 5.96^{\prime \prime} \mathrm{WX} 3.97^{\prime \prime} \mathrm{HX} 1.97^{\prime \prime} \mathrm{D} ~ 3.3 ~ 16.98 \quad 15.25$
(2) GEL/CELL RECHARGEABLE POWER PACKS Consist of battery carrying cast with shoulder strap and battery charger with cigarette lighter plug. 7.5 A.H. 20 hr . rate at 12 volts. Size $61 / 2 \times 6,16 \times 4,36$. Shpg. wt. 8 lbs .
No. 21A5075-2. GC1200. Each
$\$ 59.86$
Other Gel/Cell batteries and power packs available on special order. For complete specifications and recharge information order 50c

## GLOBE YEL/CBLCll 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 Protected from accidental shorts and reversed polarity. Black bakelite case, natural finish
aluminum top. Size: $5-7 / 8^{\prime \prime} \mathrm{L}$. $\mathrm{X} 31 / 8^{\prime \prime} \mathrm{W} \times 23 / 4$
 aluminum top. Size: $5-7 / 8^{\prime \prime} \mathrm{L} . \times 31 / 8^{\prime \prime} \mathrm{W} \times 23 / 4^{\prime \prime} \mathrm{H}$. Wt. 2 lbs ,
Stock Mfg. Nominal End of Charge Voltage Use with
No. Number Output Fast Float Battery Nos. Each 13A8056-9 GRC6350M $350 \mathrm{ma} \quad 7.2+.2 \mathrm{~V} \quad 6.9+.1 \mathrm{~V} \quad 610.620 .626 \mathbf{\$ 2 7 . 5 0}$ 13A8057-7 GRC6750M $750 \mathrm{ma} . \quad 7.2+.2 \mathrm{~V} \quad 6.9+\mathrm{IV} 645,660.680 \quad 27.50$ 13A8058-5 GRC $12350 \mathrm{M} 350 \mathrm{ma} .14 .6+.2 \mathrm{~V} \quad 13.8+.1 \mathrm{~V} 1215 \quad \mathbf{2 7 . 5 0}$ 13A8059-3 GRC12750M 750 ma . $14.6+.2 \mathrm{~V} \quad 13.8+$. V V $124512200 \quad 30.80$


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

No. 41A8070-6. Each
$\$ 8.99$
(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. lb .
No. 41A8071-4. Each
$\$ 14.99$

## $\triangle S A N T O$ <br> POWER FAILURE LIGHT

Plug it in any wall outlet. Constant glow bulb serves as night light while recharging. The instant there is a power failure powerfut lantern light comes on. Un-plug it anywhere ... shines brightly. Has re chargeable Ni -Cad batteries. Weighs only $61 / 2$ ozs. Shpg. wt. 8 ozs. Size 2 . $716^{\prime \prime} \mathrm{W} . \times 1.916^{\prime \prime} \mathrm{D} . \times 3.38^{\prime \prime} \mathrm{H}$. Operates on $115 \mathrm{~V} .50-60 \mathrm{~Hz}$.
No. 41A6038-5.
Special Each
$\$ 16.99$

## PREMIUM

## 

HI-TOP BATTERIES
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.


## co,

## CORNELL DUBILIER DPMS DIPPED PAPER-MYLAR CAPACITORS

Combination paper-Mylar in high-impact rock-hard dipped casing aflords excellent protection against moisture and soldering iron contacts. Leads are straight. Operates from $-55^{\circ} \mathrm{C}$. to $+125^{\circ} \mathrm{C}$. at ful rated voltage. 20AWG tinned copper leads.

Order by stock number and capacity.

| Stock No. | uf | DPMS No. | $\begin{gathered} \text { Size } \\ \mathrm{D} . \mathrm{X}_{\mathrm{L}} . \end{gathered}$ | $\begin{gathered} \text { Lead } \\ \text { Spacing } \end{gathered}$ | $\begin{aligned} & 1.5 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & \text { 6-24 } \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 25-49 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 50.99 \\ & \text { Each } \end{aligned}$ | $\underset{\text { Each }}{100 \mathrm{UP}^{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A421-1-210-5 | 01 | 4 S 1 | $390 \times .660$ | 530 | \$0.38 | \$0.28 | \$0.19 | \$0.15 | \$0.13 |
| 15A421-1-220-4 | . 02 | $4{ }^{\text {S }} 2$ | $390 \times 855$ | 688 | 38 | 28 | 19 | 15 | . 13 |
| 15A421-1-310-3 | 1 | $4 \mathrm{P1}$ | . $520 \times 1.180$ | 1.00 | 51 | . 38 | 26 | 21 | . 18 |
| 15A421-1-322-8 | 22 | $4{ }_{4} 22$ | $620 \times 1.560$ | 1.375 | . 69 | 48 | 35 | 27 | 3 |
| 15A421-1-350-9 | . 5 | 4P5 | . $850 \times 1.600$ | 1.375 | 1.06 | 79 | 60 | . 46 | 40 |
| 600 WVDC |  |  |  |  |  |  |  |  |  |
| 15A422-9-110-7 | 001 | 601 | $340 \times .660$ | 530 | 38 | 28 | 19 | 5 | 13 |
| 15A422-9-115-6 | . 0015 | 6015 | $340 \times .660$ | 530 | . 38 | 28 | . 19 | 15 | 13 |
| 15A422-9-122-2 | . 0022 | 6022 | $340 \times .660$ | 530 | . 38 | 28 | 19 | 15 | 3 |
| 15A422-9-133-9 | . 0033 | 6033 | $370 \times .660$ | 530 | . 38 | 28 | 19 | 15 | 3 |
| 15A422-9-139-6 | . 0039 | 6039 | $370 \times .660$ | 530 | . 38 | 28 | 19 | 15 | 13 |
| 15A422-9-147-9 | . 0047 | 6047 | $400 \times 690$ | 530 | 38 | 28 | 19 | 15 | 13 |
| 15A422-9-150-3 | . 0050 | 605 | $400 \times .690$ | 530 | 38 | 28 | 19 | 15 | 3 |
| 15A422-9-168-5 | . 0068 | 6068 | . $430 \times .690$ | 530 | . 38 | 28 | . 19 | 15 | 3 |
| 15A422-9-182-6 | . 0082 | 6082 | $370 \times .870$ | 688 | 38 | 28 | . 19 | 15 | 13 |
| 15A422-9-210-5 | . 010 | 651 | $390 \times 870$ | 688 | 38 | 28 | 19 | . 15 | . 13 |
| 15A422-9-220-4 | . 020 | 6 S 2 | $445 \times 870$ | 688 | 38 | 28 | 19 | . 15 |  |
| 15A422-9-222-0 | . 022 | 6 S 22 | $470 \times 870$ | 688 | 38 | 28 | 19 | 15 | 3 |
| 15A422-9-233-7 | 033 | 6 S 33 | $430 \times 1.150$ | 1.00 | 42 | 31 | 23 | 18 |  |
| 15A422-9-239-4 | . 039 | 6 639 | $470 \times 1.150$ | 1.00 | 46 | 35 | 25 | 19 |  |
| 15A422-9-247-7 | . 047 | 6 647 | $490 \times 1.150$ | 1.00 | 51 | 38 | 26 | 21 |  |
| 15A422-9-250-1 | . 050 | 655 | $490 \times 1.150$ | 1.00 | 51 | . 38 | 26 | 21 |  |
| 15A422-9-310-3 |  | 6 P 1 | . $640 \times 1.300$ | 1.125 | 50 | 45 | . 34 | 26 |  |
| 15A422-9-325-1 | 25 | 6P25 | $830 \times 1.560$ | 1.375 | 1.01 | 76 | 55 | 43 |  |
| 2000 WVDC |  |  |  |  |  |  |  |  |  |
| 15A2282-5-110-7 | 001 | 2001 | . $360 \times 870$ | 688 | 46 | 35 |  | 20 |  |
| 15A2282-5-127-1 | . 0027 | 20027 | $415 \times 1.187$ | 1.00 | . 55 | 41 | 30 | 23 |  |
| 15A2282-5-139-6 | . 0039 | 20039 | $465 \times 1.187$ | 1.00 | . 60 | 45 | . 33 | 26 |  |
| 15A2282-5-147-9 | . 0047 | 20047 | $495 \times 1.187$ | 1.00 | 64 | 48 | 34 | 27 |  |
| 15A2282-5-212-1 | . 012 | $20 \$ 12$ | . $600 \times 1.250$ | 1.125 | 83 | 62 | 46 | 36 |  |
| 15A2282-5-222-0 | . 022 | $20 \$ 22$ | . $585 \times 1.750$ | 1.125 | 92 | 69 | 52 | 41 | 35 |
| 15A2282-5-239-4 | . 039 | 20539 | $735 \times 1.750$ | 1.562 | 124 | 93 | 68 | 53 | 46 |
| 15A2282-5-250-1 | . 050 | 2055 | . $800 \times 1.750$ | 1.562 | 1.29 | 97 | 73 | 57 | 49 |

ead, Mylar tubular capacitor is ideal where space is limited and require ents are demanding. Minimum size and maximum moisture resistance. Tolerance is 85 C , derate voltage $10 \%$ at 100 C , and $50 \%$ at 125 C .

SPECIFY STOCK NUMBER AND CAPACITY ON ALL ORDERS
50 WVDC

| Stock No. | uf | $\begin{aligned} & \text { WMF } \\ & \text { Wo. } \end{aligned}$ | Size Inches | $\begin{aligned} & 1.5 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & \hline \begin{array}{l} 6-24 \\ \text { Each } \end{array} \end{aligned}$ | $\begin{gathered} \text { 25-49 } \\ \text { Each } \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { Each } \end{gathered}$ | $\underset{\substack{100 \text { Up } \\ \text { Each }}}{ }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A2283-3-310-3 |  | 05 P 1 | $25 \mathrm{X}^{13}$ | \$0.52 | \$0.39 | \$0.30 | \$0.23 | \$0.20 |
| 15A2283-3-315-2 | 15 | 05 P 15 | 285 $\mathrm{X}^{13} / 6$ |  |  | . 31 | 24 | 20 |
| 15A2283-3-322-8 | 22 | 05 P 22 | $33 \times 1$ 16 | . 59 | 42 | 32 | 25 | 21 |
| 15A2283-3-333-5 | 33 | 05P33 | . $4 \times 15$ | . 67 | . 50 | 38 | 30 | 25 |
| 15A2283-3-347-5 | 47 | 05 P 47 | . $375 \times 1{ }^{1 / 16}$ | 83 | 62 | 47 | 37 | 31 |
| 15A2283-3-410-1 | 1.0 | 05W1 | . $5 \times 136$ | 1.46 | 1.09 | 83 | . 65 | 55 |
| 15A2283-3-420-0 | 2.0 | 05W2 | . $6 \times 15$ | 2.42 | 1.81 | 138 | 1.07 | 91 |
| 15A2283-3-430-9 | 3.0 | 05W3 | . $73 \times 15$ | 3.39 | 2.54 | 1.94 | 1.50 | 1.27 |
| 15A2283-3-450-7 | 5.0 | 05W5 | .85X1\% | 4.99 | 3.73 | 2.85 | 2.21 | 1.87 |
| 100 WVDC |  |  |  |  |  |  |  |  |
| Stock No. | uf WMF |  | Size Inches | $\begin{aligned} & 1-5 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & \hline 6-24 \\ & \text { Each } \end{aligned}$ | 25-49 | $50.99$ | $100 \text { Up }$ |
| 15A996-2-110-7 | .001.0033.0047.01.022.033.0471.22.33.471.02.0 | 10110331047151$1 \$ 22$$1 S 33$1547$1 P 1$$1 P 22$1923193$1 P 47$$1 W 1$$1 W 2$ |  | \$0.43 | \$0.32 | S0. 24 | \$0.19 | S0.16 |
| 15A996-2-133-9 |  |  |  |  |  |  | . 19 | . 16 |
| 15A996-2-147-9 |  |  |  | 43 | 32 | 24 | . 19 | . 16 |
| 15A996-2-210-5 |  |  |  | 43 | . 32 | 24 | 19 | 16 |
| 15A996-2-222-0 |  |  |  | 43 | 32 | 24 | 19 | . 16 |
| 15A996-2-233-7 |  |  |  | 43 | . 32 | 24 | 19 | . 16 |
| 15A996-2-247-7 |  |  |  | 44 | 33 | 25 | 19 | . 16 |
| 15A996-2-310-3 |  |  |  | 47 | 35 | 27 | 21 | . 18 |
| 15A996-2-322-8 |  |  |  | 51 | . 38 | 29 | 23 | 19 |
| 15A996-2-333-5 |  |  |  | 61 | 46 | . 35 | 27 | 23 |
| 15A996-2-347-5 |  |  |  | 74 | 55 | . 42 | 33 | 28 |
| 15A996-2-410-1 |  |  |  | 1.32 | 99 | 75 | . 59 | 49 |
| 15A996-2-420-0 |  |  |  | 2.18 | 1.63 | 1.24 | . 97 |  |
| 400 WVDC |  |  |  |  |  |  |  |  |
| 15A998-8-210-5 | . 01 | 4S1 | . 3 X 5 /6 | \$0.48 | 36 | 27 | 21 | 18 |
| 15A998-8-222-0 | . 022 | 4S22 | . $32 \times 3 / 4$ | 48 | 36 | 27 | 21 | 18 |
| 15A998-8-247-7 | . 047 | 4547 | $4 \times 1 / 8$ | 50 | 37 | 28 | 22 | 19 |
| 15A998-8-310-3 | . 1 | 4 P 1 | $46 \times 1$ | 54 | 41 | . 31 | 24 | 20 |
| 15A998-8-322-8 | 22 | 4 P 22 | $56 \times 13 / 8$ | 65 | 49 | 37 | 29 | 24 |
| 15A998-8-347-5 | 47 | 4 P 47 | 7 $7151 / 6$ | 1.26 | 94 | 72 | 56 | 47 |
| 15A998-8-410-1 | 1.0 | 4W1 | $875 \times 2$ | 1.83 | 1.37 | 1.05 | 81 | 69 |
| 15A998-8-420-0 | 2.0 | 4W2 | $1.25 \times 21 / 4$ | 2.99 | 2.24 | 1.71 | 1.33 | . 93 |

CORNELL-DUBILIER DMF MINIATURE DIPPED MYLAR CAPACITORS
Flat pressed mylar dielectric radial lead capacitor. Moisture and humidity resistant. $85^{\circ} \mathrm{C}$ operating temperature at full rated voltage. Tolerance $\pm 10 \%$. Lead spacing $9 / 6$ for $3 / /^{\prime \prime}$ length, $15 / 6$ for $11 / 3^{\prime \prime}$. 20AWG leads.

100 WVDC

| Stack No. | uf | DWF <br> No. | Size <br> Inches | $1-5$ <br> Each | $6-24$ <br> Each | 25-49 <br> Each | $50-99$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: |
| Each | 100 Up |  |  |  |  |  |  |
| Each |  |  |  |  |  |  |  |


| $\begin{aligned} & \text { 15A420-3-210-5 } \\ & 15 A 420-3-247-7 \end{aligned}$ $15 A 420-3-310-3$ | .04 047 1 | 2 S 1 $2 \mathrm{S47}$ 2 P 1 2 P 22 | $\begin{aligned} & 3 / 16 x^{3} / 6 x^{3} / 4 \\ & 1 / 43+6 \times 3 / 4 \\ & 5 / 6623 / 32 \times 3 / 4 \end{aligned}$ | .38 .38 .46 | .28 .28 .35 | 20 .20 26 | 16 17 .21 | 14 .14 .18 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A420-3-322-8 | 22 | 2 P 22 | $15 / 32 \times 27 / 32$ | 69 |  |  |  | 6 |
| 15A420-3-347-5 | 47 | 2 P 47 | $1 / 2 \times 1 / 3 \times 11 / 8$ | 87 | . 66 | . 50 | $.30$ | . 33 |

CORNELL-DUBILIER DIPPED SILVERED MICAS


Rated 500 working voits DC. Temperature range $-55^{\circ}$ to +125 C. $5 \%$ tolerance except $5 \mathrm{pf}^{\text {pf }}$ is $\pm 1 / 2 \mathrm{pf}$. $\times .24^{\prime \prime}$ Size of CD19 from $.65 \times .51 \times .20$ to $.71 \times .59 \times .37^{\prime \prime}$ "
size of CD30 is $.80 \times .89 \times .34$
Specify Stock No. and Capacity on Orders

| Stk. No. | Cap. Pf. | Mfg. Type | $\begin{aligned} & 1-5 \\ & \text { Ea. } \end{aligned}$ | $\begin{gathered} \hline \text { 6-24 } \\ \text { Ea. } \end{gathered}$ | $\begin{gathered} \text { 25-99 } \\ \text { Ea. } \end{gathered}$ | $\begin{gathered} 100 \mathrm{Up} \\ \mathrm{Ea} \text { p. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A2122-3-005-9 | 5 | CD15CD050003 | S0.39 | \$0.29 | S0.19 | S0.14 |
| 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 | CD15E0470J03 | . 31 | 23 | . 16 | . 12 |
| 15A2122-3-051-3 | 51 | CD15ED510J03 | . 31 | 23 | . 16 | . 12 |
| 15A2122-3-056-2 | 56 | CD15E0560J03 | . 31 | 23 | . 16 | 2 |
| 15A2122-3-068-7 | 68 | CD15ED680J03 | 31 | 23 | 16 | 12 |
| 15A2122-3-075-2 | 75 | CD15ED750,03 | . 31 | 23 | . 16 | 12 |
| 15A2122-3-110-7 | 100 | CD15FD101J03 | 32 | 24 | . 16 | 12 |
| 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 | CD15FD27.1J03 | . 51 | . 38 | 26 | 19 |
| 15A2122-3-130-5 | 300 | CD15FD301J03 | . 55 | . 40 | 27 | 20 |
| 15A2122-3-136-2 | 360 | CD15FD361J03 | 63 | 47 | 32 | 24 |
| 15A2 122-3-139-6 | 390 | CD15FD391J03 | 66 | 49 | 33 | 25 |
| 15A2122-3-143-8 | 430 | CD15F0431J03 | 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 | 560 | CD19FD561J03 | . 50 | . 37 | 25 | 19 |
| 15A2122-3-168-5 | 680 | CD19FD681J03 | . 55 | 41 | 27 | 20 |
| 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 | CD19FD152.J03 | 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 | CD19FD512.J03 | 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 aiuminum construction. Stable capacitance vs temperature. Temperature range - 400 C to $+85^{\circ} \mathrm{C}$. Tolerance at 3 to $50 \mathrm{DCV}-10+100 \%$, 51 to 350 DCV $-10+75 \%, 351$ to 450 DCV $-10+50 \%$

| Stk. No. | Mfg. No. FAH- | Cap. | $\begin{aligned} & \hline \text { DC } \\ & \text { WV } \end{aligned}$ | Dia. X L. | $\begin{aligned} & 1-24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} \text { 25-49 } \\ \text { Each } \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { Each } \end{gathered}$ | $\underset{\text { Each }}{100 \mathrm{Up}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A5237-6 | 8500-10- | 8,500 | 10 | 13/8×21/6 | \$2.92 | \$2.29 | \$2.00 | \$1.59 |
| 15A5238-4 | 14500-10-A2 | 14.500 | 10 | $13 / 8 \times 31 / 8$ | \$3.50 | 2.78 | 2.46 | 1.88 |
| 15A5239-2 | 22000-10-A3 | 22,000 | 10 | $13 / 8 \times 41 / 8$ | 4.08 | 3.29 | 2.87 | 2.24 |
| 15A5242-6 | 6500-15-A1 | 6.500 | 15 | $13 \times 8 \times 21 / 8$ | 2.92 | 2.29 | 2.00 | 1.59 |
| 15A5243-4 | 12000-15-A2 | 12.000 | 15 | $1318 \times 31 / 8$ | 3.50 | 2.78 | 2.46 | 1.88 |
| 15A5245-9 | 28500-15-E3 | 28.500 | 15 | $13 / 4 \times 41 / 8$ | 5.44 | 4.35 | 3.81 | 2.9 |
| 15A5246-7 | 42500-15-B3 | 42.500 | 15 | 2X41/5 | 6.17 | 4.93 | 4.27 | 3.3 |
| 15A5247-5 | 60000-15-B6 | 60,000 | 15 | 2 $\times 5$ \%/6 | 7.75 | 6.22 | 5.46 | 4.18 |
| 15A5249-1 | 3700-25-A1 | 3.700 | 25 | $1318 \times 21 / 8$ | 2.92 | 2.29 | 2.00 | 1.59 |
| 15A5250-9 | 6000-25-A2 | 6,000 | 25 | $13 \times 31 / 8$ | 3.50 | 2.78 | 2.46 | 1.88 |
| 15A5251-7 | 11000-25-A3 | 11,000 | 25 | 13/8×41/8 | 4.08 | 3.29 | 2.87 | 2.24 |
| 15A5252-5 | 16000-25-E3 | 16.000 | 25 | $13 / 4 \times 41 / 8$ | 5.44 | 4.35 | 3.81 | 2.94 |
| 15A5254-1 | 59000-25-03 | 59,000 | 25 | $3 \times 41 / 8$ | 13.21 | 10.57 | 9.25 | 7.13 |
| 15A5255-8 | 4900-30-A2 | 4.900 | 30 | $11 / 8 \times 31 / 8$ | 3.50 | 2.78 | 2.46 | 1.88 |
| 15A5260-8 | 1600-50-A1 | 1.600 | 50 | $13 / 5 \times 21 / 8$ | 2.92 | 2.29 | 2.00 | 1.59 |
| 15A5261-6 | 3000-50-A2 | 3,000 | 50 | $173 \times 31 / 8$ | 3.50 | 2.78 | 2.46 | 1.88 |
| 15A5262-4 | 4500-50-A3 | 4.500 | 50 | 1\%/841/8 | 4.08 | 3.29 | 2.87 | 2.24 |
| 15A5263-2 | 7500-50-E3 | 7.500 | 50 | $13 \times 41 / 8$ | 5.44 | 4.35 | 3.81 | 2.94 |
| 15A5264-0 | 9500-50-83 | 9,500 | 50 | $2 \times 41 / 8$ | 6.17 | 4.93 | 4.27 | 3.30 |
| 15A5265-7 | 23000-50-03 | 23.000 | 50 | $3 \times 41 / 8$ | 13.21 | 10.57 | 9.25 | 7.13 |
| 15A5266-5 | 640-200-A3 | 640 | 200 | 136841/8 | 4.42 | 3.57 | 3.14 | 2.41 |
| 15A5269-9 | 2500-350-D6 | 2,500 | 350 | $3 \times 5 \%$ | 19.75 | 15.79 | 13.80 | 10.65 |
| 15A5270-7 | 180-450-A3 | 180 | 450 | 13/8×41/8 | 4.42 | 3.57 | 3.14 | 2.41 |
| 15A5271-5 | 325-450-E3 | 325 | 450 | 13/4×41/8 | 6.02 | 4.82 | 4.22 | 3.25 |
| 15A5272-3 | 600-450-86 | 600 | 450 | 2 $\times 5 \%$ | 9.00 | 7.22 | 6.34 | 4.88 |

## CDEE AND SPRAGUE CAPACITORS

## WBR TUBULAR ELECTROLYTICS

2anyen All the characteristics of the Blue Beaver BR Series updated in smaller size. with The moplastic insulation for more compact circuitry. Tinned wire leads. $+150 \% .75$ to 250 V. $-10 \%$ to $+100 \%, 450$ V. and over $-10 \%$ to $+50 \%$. Can size shown.

| Stock No. | uf | $\begin{aligned} & \text { WV } \\ & \text { DC } \end{aligned}$ | Size | $\begin{aligned} & 1-5 \\ & \text { Each } \end{aligned}$ | $6-24$ Each | $\begin{gathered} \text { 25-49 } \\ \text { Each } \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { Each } \end{gathered}$ | $\begin{gathered} 100-\mathrm{Up} \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A5605-4 | 100 | 16 | 5/16×3/4" | \$1.26 | \$0.95 | \$0.73 | \$0.53 | \$0.40 |
| 15A5606-2 | 500 | 16 | 1/2×1-7/16 | 1.81 | 1.35 | 1.04 | . 75 | . 56 |
| 15A5607-0 | 1000 | 16 | $5 / 8 \times 1-11 / 16^{\prime \prime}$ | 2.26 | 1.69 | 1.30 | . 94 | . 71 |
| 15A5608-8 | 2000 | 16 | $3 / 4 \times 2$ | 2.70 | 2.03 | 1.55 | 1.13 | . 85 |
| 15A5594-0 | 5000 | 16 | $1 \times 2-3 / 16^{\prime \prime}$ | 4.06 | 3.04 | 2.33 | 1.69 | 1.27 |
| 15A5609-6 | 10 | 25 | 1/4×1/2" | 1.30 | . 78 | . 60 | .43 | . 33 |
| 15A5610-4 | 25 | 25 | $5 / 16 \times 5 / 8^{\prime \prime}$ | 1.41 | . 85 | . 65 | . 47 | . 35 |
| 15A5611-2 | 50 | 25 | $5 / 16 \times 3 / 4^{\prime \prime}$ | 1.47 | . 88 | . 67 | .49 | . 37 |
| 15A5612-0 | 100 | 25 | $3 / 8 \times 3 / 4^{\prime \prime}$ | 1.81 | 1.08 | . 83 | . 60 | . 45 |
| 15A5613-8 | 250 | 25 | 1/2X1-7/16" | 2.54 | 1.52 | 1.17 | . 85 | . 64 |
| 15A5614-6 | 500 | 25 | 5/8×1-7/16" | 3.30 | 1.98 | 1.51 | 1.10 | 83 |
| 15A5615-3 | 1000 | 25 | $3 / 4 \times 1-11 / 16^{\prime \prime}$ | 5.45 | 3.27 | 2.55 | 1.82 | 1.36 |
| 15A5616-1 | 2000 | 25 | $3 / 4 \times 2-1 / 2^{\prime \prime}$ | 6.71 | 4.03 | 3.08 | 2.24 | 1.68 |
| 15A5226-9 | 100 | 35 | $3 / 8 \times 1{ }^{\prime \prime}$ | 1.44 | 1.08 | . 83 | . 60 | .45 |
| 15A5228-5 | 500 | 35 | $5 / 8 \times 1-7 / 16^{\prime \prime}$ | 2.64 | 1.98 | 1.51 | 1.10 | . 83 |
| 15A5229-3 | 1000 | 35 | $3 / 4 \times 1-11 / 16^{\prime \prime}$ | 4.36 | 3.27 | 2.55 | 1.82 | 1.36 |
| 15A5230-1 | 2000 | 35 | 7/8×2-1/2' | 5.37 | 4.03 | 3.08 | 2.24 | 1.68 |
| 15A5231-9 | 3000 | 35 | 1 $\times 2-1 / 2^{\prime \prime}$ | 6.15 | 4.62 | 3.53 | 2.56 | 1.92 |
| 15A5595-7 | 1 | 50 | 1/4×1/2" | . 94 | . 71 | . 54 | . 40 | . 30 |
| 15A5596-5 | 5 | 50 | 1/4X1/2" | 1.04 | . 78 | . 60 | . 43 | . 33 |
| 15A5617-9 | 10 | 50 | $3 / 8 \times 5 / 8^{\prime \prime}$ | 1.04 | . 78 | . 60 | . 43 | . 33 |
| 15A5618-7 | 25 | 50 | $3 / 8 \times 5 / 8^{\prime \prime}$ | 1.13 | . 85 | . 65 | . 47 | . 35 |
| 15A5619-5 | 50 | 50 | $3 / 8 \times 1$ " | 1.31 | . 98 | . 75 | . 55 | . 41 |
| 15A5620-3 | 100 | 50 | 1/2X1-7/16" | 1.45 | 1.08 | . 83 | . 60 | . 45 |
| 15A5621-1 | 150 | 50 | 5/8×1-7/16" | 1.64 | 1.23 | . 94 | . 68 | . 51 |
| 15A5622-9 | 250 | 50 | $5 / 8 \times 1-7 / 16^{\prime \prime}$ | 2.07 | 1.55 | 1.19 | . 86 | . 65 |
| 15A5623-7 | 500 | 50 | $3 / 4 \times 1-11 / 16^{\prime \prime}$ | 2.74 | 2.06 | 1.57 | 1.14 | : 86 |
| 15A5624-5 | 1000 | 50 | $7 / 8 \times 2$ " | 4.60 | 3.45 | 2.64 | 1.92 | 1.44 |
| 15A5625-2 | 2000 | 50 | $1 \times 2-11 / 16^{\prime \prime}$ | 6.38 | 4.79 | 3.66 | 2.66 | 2.00 |
| 15A5220-2 | 3000 | 50 | $1 \times 4-1 / 16^{\prime \prime}$ | 7.19 | 5.40 | 4.12 | 3.00 | 2.25 |
| 15A5234-3 | 500 | 75 | $7 / 8 \times 2$ | 3.83 | 2.87 | 2.20 | 1.60 | 1.20 |
| 15A5235-0 | 1000 | 75 | 1 $\times 2-1 / 2^{\prime \prime}$ | 4.60 | 3.45 | 2.64 | 1.92 | 1.44 |
| 15A5236-8 | 2000 | 75 | 1-3/8×2-9/16" | 7.67 | 5.75 | 4.40 | 3.20 | 2.40 |
| 15A56278 | 8 | 150 | $3 / 8 \times 3 / 4$ | 1.35 | 1.01 | . 78 | . 56 | 42 |
| 15A5628 6 | 10 | 150 | $3 / 8 \times 7 / 8^{\prime \prime}$ | 1.45 | 1.08 | . 83 | . 60 | . 45 |
| 15A5597.3 | 16 | 150 | $3 / 8 \times 1{ }^{\prime \prime}$ | 1.49 | 1.12 | . 86 | . 62 | 47 |
| $15 A 56294$ | 20 | 150 | $3 / 8 \times 1-1 / 4^{\prime \prime}$ | 1.58 | 1.18 | . 91 | . 66 | . 49 |
| 15 A5630-2 | 30 | 150 | $3 / 8 \times 1-1 / 2^{\prime \prime}$ | 1.71 | 1.28 | . 98 | . 71 | . 54 |
| 15A5631-0 | 40 | 150 | 5/8×1-7/16" | 2.12 | 1.59 | 1.22 | . 88 | . 66 |
| 15A5632-8 | 50 | 150 | 5/8×1-7/16" | 2.26 | 1.69 | 1.30 | . 94 | . 71 |
| 15A5633-6 | 80 | 150 | $3 / 4 \times 1-7 / 16^{\prime \prime}$ | 2.53 | 1.89 | 1.45 | 1.05 | . 79 |
| $15 A 56344$ | 100 | 150 | $3 / 4 \times 1-11 / 16^{\prime \prime}$ | 2.62 | 1.96 | 1.50 | 1.09 | . 82 |
| 15A5635-1 | 150 | 150 | 7/8×1-11/16 | 2.75 | 2.06 | 1.58 | 1.15 | . 86 |
| 15A5598-1 | 250 | 150 | 1 $\times 1-11 / 16^{\prime \prime}$ | 3.66 | 2.74 | 2.10 | 1.52 | 1.14 |
| 15A5638-5 | 4 | 250 | 1/2×1-1/16" | 1.18 | . 88 | . 67 | . 49 | . 37 |
| 15A5639-3 | 8 | 250 | 1/2X1-7/16" | 1.81 | 1.35 | 1.04 | . 75 | . 56 |
| 15A5640-1 | 12 | 250 | 1/2×1-7/16" | 1.85 | 1.39 | 1.06 | . 77 | . 58 |
| 15A5641-9 | 20 | 250 | $3 / 4 \times 1-1 / 16^{\prime \prime}$ | 2.26 | 1.69 | 1.30 | . 94 | . 71 |
| 15A5642-7 | 30 | 250 | $3 / 4 \times 1-7 / 16^{\prime \prime}$ | 2.34 | 1.76 | 1.35 | . 98 | . 73 |
| 15A5643-5 | 40 | 250 | $5 / 8 \times 1-11 / 16^{\prime \prime}$ | 2.48 | 1.86 | 1.43 | 1.03 | . 78 |
| 15A5644-3 | 50 | 250 | $3 / 4 \times 1-11 / 16^{\prime \prime}$ | 2.58 | 1.93 | 1.48 | 1.07 | . 80 |
| 15A5645-0 | 100 | 250 | 7/8×2- | 3.38 | 2.54 | 1.94 | 1.41 | 1.06 |
| 15A5646-8 | 225 | 250 | 1 $\times 2-11 / 16^{\prime \prime}$ | 3.78 | 2.84 | 2.17 | 1.58 | 1.18 |
| 15A5647-6 | 2 | 450 | $5 / 8 \times 1-1 / 16^{\prime \prime}$ | 1.90 | 1.42 | 1.09 | . 79 | . 59 |
| 15A5648-4 | 4 | 450 | $5 / 8 \times 1-1 / 16^{\prime \prime}$ | 1.94 | 1.45 | 1.11 | . 81 | . 61 |
| 15A5649-2 | 8 | 450 | $3 / 4 \times 1-1 / 16^{\prime \prime}$ | 2.12 | 1.59 | 1.22 | . 88 | . 66 |
| 15A5650 0 | 10 | 450 | $3 / 4 \times 1-1 / 16^{\prime \prime}$ | 2.12 | 1.59 | 1.22 | . 88 | . 66 |
| 15A55916 | 16 | 450 | $3 / 4 \times 1-7 / 16^{\prime \prime}$ | 2.21 | 1.66 | 1.27 | . 92 | . 69 |
| 15A56518 | 20 | 450 | $3 / 4 \times 1-11 / 16^{\prime \prime}$ | 2.26 | 1.69 | 1.30 | . 94 | . 71 |
| 15A5652-6 | 30 | 450 | $7 / 8 \times 1-11 / 16^{\prime \prime}$ | 3.16 | 2.37 | 1.81 | 1.32 | . 99 |
| 15A5653-4 | 40 | 450 | 7/8×2" | 3.38 | 2.54 | 1.94 | 1.41 | 1.06 |
| 15A5599-9 | 50 | 450 | 7/8×2-1/2" | 3.66 | 2.74 | 2.10 | 1.52 | 1.14 |
| 15A5654-2 | 80 | 450 | $1 \times 2-11 / 16^{\prime \prime}$ | 3.83 | 2.87 | 2.20 | 1.60 | 1.20 |
| 15A5655-9 | 100 | 450 | $1 \times 3-9 / 16^{\prime \prime}$ | 5.19 | 3.89 | 2.98 | 2.16 | 1.62 |
| 15A5656-7 | 160 | 450 | 1-1/8×4-1/16" | 5.86 | 4.39 | 3.37 | 2.44 | 1.83 |
| 15A5657-5 | 225 | 450 | 1-3/8×3-5/8" | 6.99 | 5.24 | 4.02 | 2.91 | 2.19 |
| 15A5590-8 | 5 | 500 | $5 / 8 \times 1-1 / 16^{\prime \prime}$ | 2.03 | 1.52 | 1.17 | . 85 | . 64 |
| 15A5658-3 | 8 | 500 | $3 / 4 \times 1-1 / 16^{\prime \prime}$ | 2.26 | 1.69 | 1.30 | . 94 | . 71 |
| 15A5600-5 | 16 | 500 | $3 / 4 \times 1-11 / 16^{\prime \prime}$ | 2.48 | 1.86 | 1.43 | 1.03 | . 78 |
| 15A5593-2 | 20 | 500 | $3 / 4 \times 2{ }^{-1}$ | 2.70 | 2.03 | 1.55 | 1.13 | . 85 |
| 15A5659 - 1 | 30 | 500 | 7/8×1-11/16 | 3.38 | 2.54 | 1.94 | 1.41 | 1.06 |
| 15A5660-9 | 20 | 600 | 15/16×3-11/16 | 4.50 | 3.38 | 2.59 | 1.88 | 1.41 |
| 15A5592-4 | 10 | 700 | $15 / 16 \times 3^{13} / 6^{\prime \prime \prime}$ | 4.24 | 3.17 | 2.43 | 1.77 | 1.32 |
| 15A5604-7 | 16 | 700 | $15 / 16 \times 4-5 / 16^{\prime \prime}$ | 4.50 | 3.38 | 2.59 | 1.88 | 1.41 |

## TYPE 36D "POWERLYTIC" ELECTROLYTICS

Maximum capacitance in a given case size for space economy. Extremely sure type silicone rubber safety vents. Low $1 / 32^{\prime \prime}$ screw insert terminal. Plastic outer tube.
Size Code: $A A-13 /{ }^{\prime \prime}{ }^{\prime \prime}$ Dia. X $21 / 4^{\prime \prime} L_{;} A B-13 / 8^{\prime \prime}{ }^{\prime \prime}$ Dia. X $31 / 8^{\prime \prime} L$.; $A C-13 / 8{ }^{\prime \prime}$ Dia. X $41 / 8^{\prime \prime}$


| Stock | Manufacturers |  | $\begin{aligned} & \text { WV } \\ & \text { DC } \end{aligned}$ | Case 1-5 | $6-24$ Each | $25-49$ | 50-99 | $\overline{U Q p}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 360462G015AA2A | 600 | 15 | AA S4.35 | \$2.89 | \$2.10 | \$1.50 | \$1.37 |
| - | 36D133G015AC2A | 13.000 | 15 | AC 6.15 | 4.10 | 2.89 | 2.13 | 1.94 |
| 15A5486-9 | 36D313G015BC2A | 31.000 | 15 | BC 7.35 | 6.13 | 4.46 | 3.19 | 2.90 |
| 15A5488-5 | 36D272G025AA2A | 2.700 | 25 | AA 4.35 | 2.89 | 2.10 | 1.50 | 1.37 |
| 15A5489-3 | 360552 G 25 AB 2 A , | 5,500 | 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 | 2.13 | 19 |
| 15A5491-9 | 36D323G025CC2A | 2,000 | 25 | CC 10.68 | 8.91 | 6.48 | 4.63 | 4.21 |
| 15A5492-7 | 36D553G025DD2A | 5.000 | 25 | DD 17.02 | 14.61 | 10.30 | 7.36 |  |
| 15A5493-5 | 36D132G050AA2A | 1.300 | 50 | AA 4.35 | 2.89 | 2.10 | 1.50 |  |
| 15A5494-3 | 36D2626050AB2A | 2.600 | 50 | AB 5.25 | 3.49 | 2.54 |  |  |
| 15A5495, -0 | 36D392G050AC2A | 3.900 | 50 | AC 6.15 | 4.10 | 2.98 | 2.13 | . 94 |
| 15A5496\% | 360602 G 050 BB 2 A | 6,000 | 50 | BB 6.75 | 5.17 | 3.76 | 2.13 | 4 |
| 15A5497-6 | 36D902G050BC2A | 9,000 | 50 | BC 7.35 | 6.13 | 4.46 | 3.19 | 2.90 |
| 15A5498-4 | 36D153G050CC2A | 15.000 | 50 | C 10.6 | 8.91 | 6.48 |  |  |
| 15A5499-2 | 36D223G050DC2A | 22,000 | 50 | DC 15.06 | 12.54 | 9.12 | 6.52 | 93 |
| 15A5500-7 | 36D252G075AC2A | 2.500 | 75 | AC 6.20 | 4.43 | 3.22 | 2.30 | 209 |
| 15A5501-5 | 36D392G075BB2A | 3.900 | 75 | BB 7.00 | 5.39 | 3.92 | 280 | 5 |
| 15A5502-3 | 36D592G075BC2A | 5,900 | 75 | BC 8.16 | 6.79 | 4.94 | 3.53 | 12 |
| 15A5503-1 | 36D113G075CD2A | 11.000 | 75 | CD 14.20 | 11.83 | 8.60 | 6. 15 | . 5 |
| 15A5507-2 | 360901F150AC2A | 900 | 150 | AC 6.20 | 4.43 | 3.22 | 230 | . 5 |
| 15A5508-0 | 360212F150BC2A | 2.100 | 150 | BC 8.16 | 6.79 | 4.94 | 3.53 | . 0 |
| 15A5509 | 360362F150CC2A | 3.600 | 150 | 12.82 | 10.67 | 776 | 5.55 |  |
| 15A5510-6 | 36D122F250BC2A | 1.200 | 250 |  | 6.79 | 4.94 | 3.53 | 21 |
| 15A5511 | 36D452F250DF2A | 4.500 | 250 | DF 23.64 | 19.69 | 14.32 | 10.24 | 9.31 |
| 15A5515-5 | 36D252F350DF2A | 2,500 | 350 | DF 23.64 | 19.69 | 14.32 | 10.24 | 9.31 |
| 15A5516-3 | 36D331F450BC2A | 330 | 450 | BC 8.16 | 6.79 | 4.94 | 3.53 | 3.21 |
| 15A5517-1 | 360861F4500C2A | 860 | 450 | DC 18.12 | 15.10 | 10.98 | 7.85 | 7.14 |


|  | VERTICAL MOUNTING |  |  | CLAMPS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stk. No. Type | Diameter | 1-5 Ea. | 6-24 Ea. | 25-49 Ea. | 50-99 Ea. | 100 Up Ea. |
| 15A5518-9 4586-97A | $13 / 8$ | \$0.72 | \$0.48 | \$0.43 | \$0.40 | \$0.36 |
| 15A5519-7 4586-48 | 2 | 1.08 | . 72 | . 65 | . 60 | . 54 |
| 15A5520-5 4586-1 | $21 / 2^{\prime \prime}$ | 1.08 | 72 | . 65 | . 60 | 5 |
| 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.
to +850 C


## PHOTOFLASH ELECTROLYTIC

Ultra-low leakage for either dry battery or AC operated power supplies film eliminate rectifier burnouts. Weighs only 11 ozs. Highly stable $21 / \mathrm{s}^{\prime \prime}$ dja. X 4 K/7" long. 15A5561-9., Type FF-1. 1-5 Each ..... $\$ 22.50$ 6-24 Each $\$ 13.50$
$\$ 11.25$ B-A IS YOUR SOURCE FOR ALL SPRAGUE ENERGY STORAGE

## SPRAGUE CAPACITORS

TE LITTL-LYTIC ELECTROLYTICS

|  |  |  | $\begin{aligned} & \text { salll. } \\ & \text { ced } \\ & \text { co } \\ & \text { plastio } \end{aligned}$ | depen c. mi nsula |  |  | $\begin{aligned} & \text { constry } \begin{array}{l} \text { conth } \\ \text { nt } \end{array} \text { With } \end{aligned}$ | $\begin{aligned} & \text { ction } \\ & \text { tands } \\ & \text { shelf } \end{aligned}$ | or tran ife. With | $\begin{gathered} \text { Stock } \\ \text { No } \\ 15 A 597-0 \\ 15 A 5298-8 \end{gathered}$ |  | $\frac{\mathrm{uf}}{20}$ | $\text { wvoc }_{16}$ |  | $\begin{aligned} & 1.5 \\ & \text { Each } \\ & \text { So. } 90 \end{aligned}$ | $\begin{aligned} & \text { 6-24 } \begin{array}{c} \text { Each } \\ \text { So. } 60 \\ .60 \end{array} \end{aligned}$ | $\begin{aligned} & 25-49 \\ & \text { E.ach } \\ & \text { So.42 } \\ & \hline .42 \end{aligned}$ | $\begin{gathered} \text { 50.99 } \\ \text { Each } \\ 50.33 \\ .33 \end{gathered}$ | $\begin{gathered} 100 \text { Up } \\ \text { Each } \\ 50.25 \\ \hline 25 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Size Code: } \\ & \text { DC - } 385 \end{aligned}$ | $88^{\prime \prime} ;{ }^{260}$ D | 88- | 260 ${ }^{26}$ | $\begin{array}{r}.723 \\ -.38 \\ \hline\end{array}$ | $\begin{gathered} \mathrm{CB} \\ \times 1.12 \end{gathered}$ | $86^{32} ; \mathrm{DH}^{2}$ | $385$ | $.536$ | $.848^{\prime \prime} ;$ | 15A5299-6 <br> 15A5300-2 | $\mathrm{TE}-1158$ <br> $\mathrm{E}-1160$ |  | $\begin{aligned} & 10 \\ & 16 \\ & 16 \\ & \hline 6 \end{aligned}$ | ${ }^{\circ} \mathrm{CB}$ | $\begin{aligned} & 1.04 \\ & 1.04 \\ & \hline 104 \end{aligned}$ | $\begin{aligned} & .69 \\ & .69 \\ & .69 \end{aligned}$ | $\begin{aligned} & .47 \\ & .47 \\ & .47 \end{aligned}$ | $\begin{aligned} & .33 \\ & .38 \\ & .38 \end{aligned}$ | $\begin{aligned} & .2888 \\ & .28 \\ & 30 \end{aligned}$ |
| Stock | $\xrightarrow{\mathrm{Mfg}}$. |  |  |  | $\stackrel{1}{1.5}$ | E-24 | 25.49 | 50.99 | 100 Up | 5 5 55302 |  | $\begin{aligned} & 100 \\ & 150 \\ & 150 \end{aligned}$ |  | - | 13 | $.72$ | $\begin{aligned} & .50 \\ & .56 \end{aligned}$ |  | $\begin{aligned} & .30 \\ & .30 \\ & .30 \end{aligned}$ |
| 15A5276-4 | TE-1055 |  | ${ }_{3}$ | BA | S0.90 | \$0.60 | \$0.42 | S0.33 | \$0.25 | 1545304 | TE-1164.5 | 250 |  | DF | 22 | 81 | 56 | 45 | 34 |
| 15A5277-2 | TE-1058 |  |  | 88 | 90 | . 60 | 42 | 338 | ${ }^{25}$ | ${ }_{154530}$ | TE-12 |  | 25 | ${ }^{B A}$ | 90 | 60 60 | $.42$ | 33 <br> 33 | $.25$ |
| 15A5280-6 | TE-1064 | 200 |  | CC | 1.08 | 12 | . 50 | 40 | 30 | $15 \mathrm{A5} 309$ - | TE-1201.1 |  | 25 | BA |  | 60 | 42 | 33 | $\frac{25}{25}$ |
| 15A5281-4 | TE-1065 | 250 |  | ${ }^{0} \mathrm{C}$ | 1.08 | 82 | 50 | 40 | 30 | 154531 | TE-1202 |  | 5 | BB |  | $60$ | ${ }_{42}^{42}$ | 33 33 | $\begin{aligned} & 25 \\ & 25 \end{aligned}$ |
| 15A582-2 | TE-1080 | 00 |  | BA | . 90 | 60 | 42 | 33 | 5 | 1545312 | TE-1205 |  | 25 | ${ }_{8 B}$ | 90 | 60 | 42 | 33 | $\begin{aligned} & 25 \\ & 25 \\ & 25 \end{aligned}$ |
| $15 A 5285.5$ $15 A 5286-3$ | TE-1081 |  |  | ${ }_{B A}^{B A}$ | 90 | 60 | .$_{42}$ | 33 | 25 25 | 154531 | $\mathrm{TE}_{\text {TE-12 }}$ |  | 25 | ${ }_{\text {CB }}$ | . 04 | 69 | 17 | 38 | ${ }^{88}$ |
| 15A5287-1 | TE-1087 | 10 |  | BA | . 90 | 60 | 42 | 33 | 25 | 15 A531 | TE-1208 |  | 25 | CB | 04 | 69 | 77 | 38 | 8 |
| 15A52899-7 | TE-1093 |  |  | ${ }_{8 B}^{8 B}$ | . 90 | . 60 |  | 33 | 25 | 15 | TE-12 |  | 25 | D0 | 13 | 75 | 5 | 40 | 30 |
| 15A5291-3 | TE-1100 | 50 |  |  | . 90 | 60 |  | 33 | 5 | 15453 | TE-12 |  |  |  | 22 | 81 | 56 | 45 | $\begin{aligned} & 34 \\ & 36 \end{aligned}$ |
| 1545334. | TE-1102 | 200 |  |  | 1.08 | 72 | 50 | 40 | 30 | 15 1 | TE |  |  | ${ }_{8 A}$ | 90 | 60 | 42 | 33 | 5 |
| 15A5335-8 | TE-1105 | 250 |  | DO | 1.13 | 75 | 51 | 40 | 30 | 1545321 | TE-130 |  |  | ${ }^{88}$ | 90 | 0 | 22 | 33 | 55 |
| 154533 | TE-1107.5 | 1 | ${ }_{12}^{6}$ | ${ }_{8 \text { BA }}$ | $\begin{array}{r}1.31 \\ \hline 0\end{array}$ | 87 | . 60 | 48 3 | 36 25 | 15 15A53 | TE-13 | 1 |  | ${ }^{\text {CB }}$ | 04 | 69 | 47 | 38 | 8 |
| 15A5339-0 | TE-1121 |  |  | BA |  | . 6 | 42 |  |  | 15453 | TE |  |  |  | 8 | 72 | 5 | 40 | $\begin{aligned} & 30 \\ & 30 \end{aligned}$ |
| 5 | TE-112 |  | 12 | ${ }_{\text {BA }}^{\text {BA }}$ | 90 | 6 | 42 |  |  | 154 | TE-1306 |  |  | ${ }_{0}$ | 08 | 12 | 50 | 40 | 30 |
| 15 A | TE-1129 |  |  | BA | . 90 | 6 | 42 | 3 | 25 | 1545 | - | 50 |  | 0 | 13 | 7 | 1 | 48 | 30 |
| 5 5 | (E-1131 |  |  | ${ }^{88}$ | 1.04 | . 69 | . 47 | 38 | ${ }_{28}$ | 15 S533 | TE-1404 |  | 100 |  | 22 | 81 | 55 | 44 | 3 |
| 15 A | TE-1135 | 100 |  |  | 1.08 | 72 | . 50 | 40 | 30 | 1545354 | TE-1409 | 20 | 100 |  | 14 | 5 | 62 | 49 | 37 |
| 15A5347-3 | TE-1137 | 200 | 12 | ${ }_{\text {OF }}$ | 1.22 | . 81 | . 56 | 45 |  | 15 5535 | TE-1500 | ${ }^{2}$ | 15 |  | 9 | \% | 6 | 37 |  |
| 15A5351-5 | TE-1148 |  |  | BA | . 90 | . 6 |  | 33 | 25 | 15 | TE-1501 | 2 |  | 8 | 99 | 86 | 5 | 37 | 33 |
|  | TE-1149 |  | 16 | ${ }_{\text {BA }}$ | 90 | . 6 |  | 33 | . 25 |  | 退 | 10 | 15 | 0 | 22 | 81 | 5 | 44 | 33 |
| 5A5295-4 | TE-1155 | 10 |  | BA | 90 | 60 | 42 | 33 33 | 25 | 15A5363-0 | TE-1508. | 15 | 150 |  | 1.35 |  | 62 | 49 53 |  |
| 5A5296-2 | TE-1156 | 15 | 16 | BB | 90 | 60 | 42 | 33 | 25 | 15A5364-8 | TE-1509 | 20 | 150 | OH |  |  |  |  |  |

SPRAGUE "ATOM" ELECTROLYTICS


| Stk. No. | Mfg. No. | uf | WVDC | Dia. $\times 1$. | 1-5 | 6-49 | 50-99 | 100 Up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A5396-0 | TVA-1161 | 250 | 16 | $13 / \times 15 / 6$ | \$1.49 | \$0.99 | S0.64 | \$0.48 |
| 15A5397-8 | TVA- 1162 | 500 | 16 | $15 y_{2} \times 119_{2}$ | $1.76$ | 1.17 | . 75 | . 56 |
| 15A5398-6 | TVA-1163 | 1000 | 16 | ${ }^{13} /{ }_{6} \times 1{ }^{13} 6$ | 2.21 | 1.47 | 94 | 71 |
| 15A5399-4 | TVA-1204 | 10 | 25 | ${ }_{12} 2_{2} \mathrm{X}^{3 / 4}$ | 1.04 | . 69 | 44 | 33 |
| 15A5400-0 | TVA-1205 | 25 | 25 | $11.2{ }^{1} \times 1 / 4$ | 1.13 | 75 | 47 | 35 |
| 15A5401-8 | TVA. 1206 | 50 | 25 | $11 / 32 \mathrm{X} / 8$ | 1.13 | 75 | 49 | 38 |
| 15A5402-6 | TVA-1207 | 100 | 25 | ${ }_{132} \times 1$ | 1.40 | 93 | . 60 | 45 |
| 15A5403-4 | TVA-1208 | 250 | 25 | $15.32 \times 15$ | 1.98 | 1.32 | 85 | 64 |
| 15A5404-2 | TVA-1209 | 500 | 25 | $3 / 4 \times 113 / 6$ | 2.57 | 1.71 | 1.10 | 83 |
| 15A5405-9 | TVA-1211 | 1000 | $25^{13}$ | /68 $\times 1-21 / 32$ | 4.19 | 2.79 | 1.82 | 1.36 |
| 15A5406-7 | TVA-1301 | 2 | 50 | $83 / 2 \times 19 / 32$ | . 95 | . 63 | . 40 | . 30 |
| 15A5407-5 | TVA-1303 | 5 | 50 | ${ }_{172} \mathrm{X}^{3 / 4}$ | 1.04 | . 69 | 44 | 33 |
| 15A5408-3 | TVA-1304 | 10 | 50 | $1132 \times 3 / 4$ | 1.04 | . 69 | 44 | 33 |
| 15A5409-1 | TVA-1306 | 25 | 50 | ${ }^{11} 52 \times 7 / 8$ | 1.13 | 75 | 47 | 35 |
| 15A5410-9 | TVA-1308 | 50 | 50 | ${ }_{13}^{132} 2 \times 1$ | 1.26 | 84 | 55 | 41 |
| 15A5411-7 | TVA-1310 | 100 | 50 | $13.32 \times 1192$ | 1.40 | 93 | 60 | 45 |
| 15A5412-5 | TVA-1311 | 150 | 50 | $15 / 32 \times 119 / 32$ | 1.58 | 1.05 | . 68 | 51 |
| 15A5413-3 | TVA-1312 | 250 | 50 | $1 / 2 \times 1 / 16$ | 1,98 | 1.32 | 86 | 65 |
| 15A5414-1 | TVA-1315 | 500 | 50 | $1 \times 15 / 6$ | 2.66 | 1.77 | 1.14 | 86 |
| 15A5415-8 | TVA-1402 | 4 | 150 | $11 / 32 \mathrm{X} / 8$ | 1.21 | . 81 | . 53 | 40 |
| 15A5416-6 | TVA-1403 | 5 | 150 | $1132 \mathrm{X} / 8$ | 1.21 | 81 | 53 | 40 |
| 15A5379-6 | TVA-1406 | 10 | 150 | $132 \times 1$ | 1.40 | 93 | 60 | 45 |
| 15A5380-4 | TVA-1410 | 20 | 150 | $11352 \times 1195$ | 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 | $15 / 2 \times 119 / 2$ | \$1.67 | \$1.11 | \$0.71 | \$0.54 |
| 15A5382-0 | TVA-1413 | 40 | 150 | $13 / 18 \times 1 \%$ | 2.03 | 1.35 | 1.88 | 65 |
| 15A5384-6 | TVA-1418 | 80 | 150 | $15 / 6 \times 1 \%$ | 2.43 | 1.62 | 1.05 | 92 |
| 15A5385-3 | TVA-1420 | 100 | 150 | 15/6x $\times 21 / 6$ | 2.52 | 1.68 | 1.09 | 82 |
| 15A5386-1 | TVA-1422 | 150 | 150 | $1116 \times 21 / 16$ | 2.66 | 1.77 | 1.15 | 86 |
| 15A5389-5 | TVA-1501 | 4 | 250 | ${ }_{13}^{13} \times 1$ | 1.17 | . 78 | 51 | 38 |
| 15A5390-3 | TVA-1503 | 8 | 250 | $1952 \times 119 / 32$ | 1.76 | 1.17 | 75 | 56 |
| 15A5391-1 | TVA-1504 | 10 | 250 | $15 / 2 \times 15$ | 1.76 | 1.17 | 76 | 57 |
| 15A5392-9 | TVA-1508 | 20 | 250 | $130 \times 15$ | 2.21 | 1.47 | 94 | 71 |
| 15A5394-5 | TVA-1511 | 40 | 250 | $13 / 16 \times 1-13 / 32$ | 2.39 | 1.59 | 1.03 | 78 |
| 15A5395-2 | TVA-1512 | 50 | 250 | 1516011\%6 | 2.45 | 1.65 | 1.07 | 80 |
| 15A5365-5 | TVA 1604 | 10 | 350 | $3 / 4 \times 196$ | 1.98 | 1.32 | . 85 | 64 |
| 15A5366-3 | TVA-1608 | 20 | 350 | $1916 \times 1116$ | 2.30 | 1.53 | 1.00 | 75 |
| 15A5367-1 | TVA-1620 | 100 | 350 | $11 / 10 \times 21 / 16$ | 3.76 | 2.46 | 1.60 | 1.20 |
| 15A5368-9 | TVA-1700 | 1 | 450 | $13,7 \times 2 / 8$ | 1.85 | 1.23 | . 79 | 59 |
| 15A5370-5 | TVA-1702 | 4 | 450 | $15 / 2 \times 1 \% / 6$ | 1.89 | 1.26 | 81 | . 61 |
| 15A5371-3 | TVA-1704 | 8 | 450 | $1 / 2 \times 1$, /6 | 2.03 | 1.35 | 88 | 66 |
| 15A5372-1 | TVA-1705 | 10 | 450 | $1 / 2 \times 156$ | 2.03 | 1.35 | 88 | 66 |
| 15A5373-9 | TVA-1708 | 16 | 450 | $120 \times 1{ }^{136}$ | 2.24 | 1.56 | 1.02 | 75 |
| 15A5374-7 | TVA-1709 | 20 | 450 | $1516 \times 1316$ | 2.24 | 1.56 | 1.02 | . 76 |
| 15A5375-4 | TVA-1712 | 40 | 450 | $1156 \times 2-13 / 32$ | 3.29 | 2.19 | 1.41 | 1.06 |
| 15A5376-2 | TVA. 1713 | 50 | 450 | $11 / 6 \times 2 \%$ | 3.51 | 2.34 | 1.52 | 1.14 |
| 15A5377-0 | TVA-1716 | 80 | 450 | $1116 \times 313$ | 4.55 | 3.03 | 1.98 | 1.48 |
| 15A5378-8 | TVA-1718 | 100 | 450 | $11 / 16 \times 3-5 / 32$ | 5.36 | 3.57 | 2.32 | 1.74 |

SPRAGUE HYPERCON LOW VOLTAGE CERAMIC DISCS
Ultra miniature, ideal for by-pass and coupling in transistor circtitry where low power factor is required. Tolerance $+50,-20 \%$.


| Stk. <br> No. | uf | Dia. | Sprague No. | $\begin{aligned} & 1-5 \\ & \text { Each } \end{aligned}$ | $6-99$ <br> Each | $100 \text { Up }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A2503-4 | . 05 | 11/16" | TGL-S50 | \$0.32 | \$0.21 | \$0.17 |
| 15A2504-2 | . 005 | 5/16 ${ }^{\prime \prime}$ | TG-D50 | . 23 | . 15 | . 12 |
| 15A2505-9 | . 01 | $3 / 8^{\prime \prime}$ | TG-S10 | 23 | 15 | . 12 |
| 15A2506-7 | . 02 | $1 / 2^{\prime \prime}$ | TG-S20 | 23 | 15 | 12 |
| 15A2507-5 | . 025 | $1 / 2^{\prime \prime}$ | TG-S25 | 23 | 15 | 12 |
| 15A2509-1 | . 05 | $1 / 2^{\prime \prime}$ | TG-S50 | 59 | 39 | 30 |
| 15A2510-9 | . 1 | 11/16" | TG-P10 | 77 | 51 | 40 | 118

## SPRAGUE CAPACITORS

## SPRAGUE TYPE 503D VERTI-LYTIC

$85^{\circ} \mathrm{C}$ miniature Electrolytics. Use in high density printed circuit packaging Meets 1000 hour test at $85^{\circ} \mathrm{C}$ for stability. series resistance and leakage
Size code is last two letters of mfg. no.

 L: HS -197" Dia. X 433" L

| Stk. No. | Mfg. No . | uf | V | $\begin{aligned} & 1-5 \\ & \text { Each } \end{aligned}$ | 6-24 Each | $\begin{gathered} 25-99 \\ \text { Each } \end{gathered}$ | $\begin{gathered} 100 \text { Up } \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A5699-7 | 503D476G6R3AS | 47 | 6.3 | \$0.45 | \$0.30 | \$0. 20 | S0.15 |
| 15A5700 $=3$ | $5030107 \mathrm{G6R3BB}$ | 100 | 6.3 | . 50 | . 33 | 22 | . 17 |
| 15A5701-1 | 5030477 G6R3CG | 470 | 6.3 | . 72 | . 48 | . 31 | 23 |
| 15A5702-9 | 503D108G6R30K | 1000 | 6.3 | 1.13 | . 75 | . 50 | 38 |
| 15A5703-7 | 5030228 G6R3ER | 2200 | 6.3 | 1.67 | 1.11 | 74 | 55 |
| 15A5704-5 | 503D338G6R3ET | 3300 | 6.3 | 2.16 | 1.44 | 96 | 72 |
| 15A5705-2 | 503D107G010CB | 100 | 10 | . 54 | . 36 | 24 | 18 |
| 15A5706-0 | $503 \mathrm{D} 227 \mathrm{G010CD}$ | 220 | 10 | . 63 | 42 | 27 | 20 |
| 15A5707-8 | $503 \mathrm{D} 477 \mathrm{G0100G}$ | 470 | 10 | . 95 | 63 | 41 | 31 |
| 15A5708-6 | 50301086010 EK | 1000 | 10 | 1.40 | . 93 | . 62 | 47 |
| 15A5709-4 | $5030228 \mathrm{GO10EU}$ | 2200 | 10 | 1.85 | 1.23 | . 80 | 60 |
| 15A5710-2 | $5030106 \mathrm{GO16HS}$ | 10 | 16 | . 45 | . 30 | 20 | . 15 |
| 15A5711 -0 | 5030476 G 016 BB | 47 | 16 | . 50 | . 33 | 22 | . 17 |
| 15A5712-8 | $503 D 107 \mathrm{G016CD}$ | 100 | 16 | .63 | . 42 | 27 | 20 |
| 15A5713-6 | 503D227G016CG | 220 | 16 | 72 | . 48 | 31 | 23 |
| 15A5714-4 | $503 \mathrm{D} 477 \mathrm{G016DK}$ | 470 | 16 | 1.13 | . 75 | . 50 | 38 |
| 15A5715-1 | $503 D 108 \mathrm{GO16ER}$ | 1000 | 16 | 1.67 | 1.11 | . 74 | . 55 |
| 15A5716-9 | 5030158G016ET | 1500 | 16 | 2.16 | 1.44 | . 96 | 72 |
| 15A5717-7 | 503D474G025HS | 47 | 25 | .45 | 30 | 20 | . 15 |
| 15A5718-5 | 503D105G025HS | 1 | 25 | .45 | 30 | 20 | . 15 |
| 15A5719-3 | 503D225G025HS | 2.2 | 25 | .45 | . 30 | 20 | . 15 |
| 15A5720-1 | 5030475 GO 25 HS | 4.7 | 25 | . 45 | . 30 | - 20 | . 15 |
| 15A5721-9 | 5030106G025AS | 10 | 25 | .45 | . 30 | 20 | 15 |
| 15A5722-7 | $503022660258 B$ | 22 | 25 | . 50 | . 33 | . 22 | . 17 |
| 15A5723-5 | 5030336G025BB | 33 | 25 | . 50 | . 33 | . 22 | . 17 |
| 15A5725-0 | 503D107G025CG | 100 | 25 | . 72 | . 48 | 31 | 23 |
| 15A5726-8 | 5030227G0250G | 220 | 25 | . 95 | . 63 | 41 | . 31 |
| 15A5727-6 | 5030477 G 025 EK | 470 | 25 | 1.40 | . 93 | . 62 | . 47 |
| 15A5728-4 | $5030108 G 025 E U$ | 1000 | 25 | 1.85 | 1.23 | 81 | . 60 |
| 15A5729-2 | 503D474G063HS | 47 | 63 | . 50 | 33 | 22 | . 17 |
| 15A5730-0 | 5030105G063HS | 1.0 | 63 | . 50 | 33 | 22 | . 17 |
| 15A5731-8 | $5030155 \mathrm{G063HS}$ | 1.5 | 63 | . 50 | 33 | 22 | . 17 |
| 15A5732-6 | 5030225G063AS | 2.2 | 63 | . 50 | 33 | 22 | . 17 |
| 15A5733-4 | 503D335G063AS | 3.3 | 63 | . 50 | . 33 | 22 | . 17 |
| 15A5734-2 | 5030475G0638B | 4.7 | 63 | . 59 | 39 | 24 | . 18 |
| 15A5735-9 | 5030685G063BB | 6.8 | 63 | . 59 | 39 | . 24 | . 18 |
| 15A5736-7 | 503D106G063BB | 10 | 63 | . 59 | 39 | . 24 | . 18 |
| 15A5737-5 | 5030156G063CB | 15 | 63 | . 63 | 42 | . 26 | . 20 |
| 15A5738-3 | 5030226G063CB | 22 | 63 | . 63 | . 42 | 26 | 20 |
| 15A5739-1 | 503D336G063C6 | 33 | 63 | 77 | 51 | 34 | 25 |
| 15A5740-9 | 5030476 G 063 CG | 47 | 63 | 77 | 51 | . 34 | 25 |
| 15A5741-7 | 5030686G063DG | 68 | 63 | 1.04 | 69 | 45 | . 34 |
| 15A5742-5 | 503D10/G063DK | 100 | 63 | 1.25 | 83 | . 55 | 41 |
| 15A5743-3 | $5030157 \mathrm{G063EK}$ | 150 | 63 | 1.53 | 1.02 | . 68 | 51 |
| 15A5744-1 | $5030227 \mathrm{G063EU}$ | 220 | 63 | 2.03 | 1.35 | 88 | 66 |
| 15A5745-8 | $5030337 \mathrm{G063ET}$ | 330 | 63 | 2.39 | 1.59 | 1.06 | 79 |

TYPE AB MOTOR STARTING CAPACITORS
Molded phenolic cases protect against mois ture, 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.


## 1020

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 ( -55 C to +85 C ). Low dissipation factor




Operating temperatures $-30^{\circ} \mathrm{C}$. to $+65^{\circ} \mathrm{C}\left(-22^{\circ} \mathrm{F}\right.$ to $\left.+149^{\circ} \mathrm{F}\right)$. Each capacitor replaces any value between minimum and maximum rating shown.
All are rated 125 VAC except $*$ which are 250 VAC, 60 Hz .

| Stock No. | Mfg. No. | mf | Size | $\begin{aligned} & 1-9 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 10-24 \\ \text { Each } \end{gathered}$ | 25 Up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A2413-6 | AB1209 | 72.88 | $17 / 6 \times 23 / 4{ }^{\prime \prime}$ | \$2.33 | \$ 1.70 | \$1.30 |
| 15A2414-4 | AB1210 | 88-108 | $17 / 6 \times 23 / 4{ }^{\prime \prime}$ | 2.33 | 1.70 | 1.30 |
| 15A2415-1 | AB1213 | 108-130 | $11 / 6 \times 23 / 4$ | 2.45 | 1.78 | 1.36 |
| 15A2417-7 | AB1219 | 130-156 | $17 / 6 \times 23 / 4{ }^{\prime \prime}$ | 2.63 | 1.92 | 1.46 |
| 15A2418-5 | AB1222 | 145-175 | $17 / 16 \times 23 / 4$ | 2.73 | 2.00 | 1.52 |
| 15A2419-3 | AB1225 | 161-193 | $1^{\prime} / 6 \times 234^{\prime \prime}$ | 2.83 | 2.06 | 1.57 |
| 15A2420-1 | AB1228 | 189.227 | $1^{1} / 16 \times 234^{\prime \prime}$ | 3.25 | 2.36 | 1.79 |
| 15A2421-9 | AB1231 | 216-259 | $1 / 16 \times 33 / 8{ }^{\prime \prime}$ | 3.43 | 2.50 | 1.90 |
| 15A2422-7 | AB1237 | 243-292 | 1 'h6 $\times 338^{\prime \prime}$ | 3.83 | 2.78 | 2.11 |
| 15A2423-5 | AB1240 | 270-324 | $1^{1} / 6 \times 31 / 8^{\prime \prime}$ | 4.08 | 2.96 | 2.26 |
| 15A2424-3 | AB1242 | 324-388 | 1136 $\times 318{ }^{\prime \prime}$ | 4.40 | 3.20 | 2.43 |
| 15A2425-0 | AB1246 | 378-440 | $11 / 16 \times 33 / 8{ }^{\prime \prime}$ | 4.83 | 3.52 | 2.67 |
| 15A2426-8 | AB1252 | 430.516 | $1{ }^{11 / 16} \times 31 / 6^{\prime \prime}$ | 6.20 | 4.52 | 3.44 |
| 15A2427-6 | AB1258 | $540 \cdot 648$ | $113 / 6 \times 43 / 8{ }^{\prime \prime}$ | 7.25 | 5.28 | 4.02 |
| 15A2428-4 | AB2502 | * 25-30 | $17 / 6 \times 23 /{ }^{\prime \prime}$ | 3.46 | 2.63 | 2.00 |
| 15A2429-2 | AB2507 | *53-64 | $113 / 6 \times 31 / 8{ }^{\prime \prime}$ | 4.51 | 3.42 | 2.60 |

SPRAGUE HARDWARE FOR MOTOR STARTING CAPACITORS

|  | MOUNTING BRACKET |  | (Requires | Cap) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1-9 | 10-24 | 25 UP |
| Stk. No. $15 A 2433-4$ | Type ABB. 1 | Capacitor Length | h Each | Each | Each |
| 15A2434-2 | ABB-2 | $3.1 / 8$ | 50.60 | \$0. 62 | \$0.44 |
| 15A2435-9 | ABB-3 | $43 / 8{ }^{\prime \prime}$ | . 80 | 70 | 58 |
|  |  | PLASTIC E | END CAPS |  |  |
| Stk. No. | Type | Diameter | 1-9 Each | 10-24 Each | 25 Up Ea. |
| 15A2436-7 | ABC-2 | 17/6" | \$0.50 | \$0.46 | \$0.36 |
| 15A2437-5 | ABC-4 | $11 \%$ " | . 60 | . 52 | . 44 |

SCREW ADAPTOR. Type $4-10-14$. For making wire connections without solder. 2 required per


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.

| Stock | $\begin{aligned} & \text { Sprague } \\ & 225 p \end{aligned}$ |  | 100 VOLTS DC Size <br> H. T. L. | $\underset{\text { Each }}{1-5}$ | $\begin{aligned} & 6.24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 25.49 \\ \text { Each } \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 100 \text { Uf }^{\text {Each }} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15A2292 | 10291 W03 | 001 | $5 / 16 \times 13 / 64 \times 45 / 64$ | \$0.41 | \$0.27 | \$0.17 | \$0.13 | \$0.1 |
| 15 A2296 | 22291W03 | 0022 | $5 / 16 \times 13 / 64 \times 45 / 64$ | 41 | 27 | 17 |  |  |
| 1542298 | 33291W03 | 0033 | $5 / 16 \times 13 / 64 \times 45 / 64$ | 41 | 27 | . 17 |  |  |
| 15A2300-5 | $47291 W 03$ | 0047 | $5 / 16 \times 13 / 64 \times 45 / 64$ | 41 | 27 | 17 | 13 |  |
| 15 A2302 | 68291W03 | 0068 | $5 / 16 \times 13 / 64 \times 45 / 64$ | 41 | 27 | . 17 |  |  |
| 15 A2303-9 | 82291W03 | 0082 | 5/16×13/64×45/64 | 41 | 27 | 17 | 13 |  |
| 15 A2304 | 10391W03 | 01 | $5 / 16 \times 13 / 64 \times 45 / 64$ | 41 | 27 | . 17 |  |  |
| 15A2306-2 | 15391W03 | . 015 | $5 / 16 \times 13 / 64 \times 45 / 64$ | 41 | 27 | . 17 | 13 |  |
| 15A2308-8 | 22391 W03 | . 022 | $5 / 16 \times 13 / 64 \times 45 / 64$ | 41 | 27 | 7 | 13 |  |
| 15 A2310 | 33391W03 | 033 | 21/64×15/64×45/64 | 41 | 27 | 17 |  |  |
| 15 A2312 | 47391W03 | . 047 | $11 / 32 \times 1 / 4 \times 45 / 64$ | 50 | 33 | 19 | 5 |  |
| 15A2314 | 68391W03 | . 068 | $3 / 8 \times 9 / 32 \times 45 / 64$ |  |  | 20 |  |  |
| 15 A2316 | 10491WD3 | 1 | 17/32 $21 / 64 \times 45 / 64$ | 50 | 33 | 20 |  |  |
| 154 | $22491 \times 03$ | 22 | $43 / 64 \times 27 / 64 \times 3 / 4$ | 76 | 51 | 32 | 5 |  |
| 154257 | $33491 \times 03$ | 33 | 27/32 $31 / 64 \times 3 / 4$ | 95 | 63 | . 39 | 30 |  |
| 15A2578-6 | $47491 \times 03$ | 47 | 27/32 $\times 19 / 32 \times 3 / 4$ | . 49 | 99 | . 61 | 48 |  |
| 15A2320-3 | 10591YD3 | 1.0 | $63 / 64 \times 47 / 64 \times 1$ 1/66 | 2.11 | 1.41 | 86 | . 67 |  |

$\equiv 1$Sprague $\quad 100$ VOLTS DC


 | $15 A 8003-9$ | 107X0010PE4 | 100 | 1.28 |
| :--- | :--- | ---: | ---: |
| $15 A 8004-7$ | $227 \times 0010$ TE4 | 220 | 5.15 | $\begin{array}{llcr}\text { 15A8183-9 } & \text { 335X0015HA1 } & 3.3 & .98 \\ \text { 15A8005-4 } & \text { 156X0015JA1 } & 15 & 1.13 \\ 15 A 8006-2 & \text { 226X0015KA1 } & 22 & 1.28 \\ 15 A 8007-0 & \text { 686X0015PE4 } & 68 & 3.15 \\ 15 A 8008-8 & 157 \times 0015 \text { TE4 } & 150 & 5.78\end{array}$

## 20 WVDC, 26 V SURGE



## TYPE 198D VERTICAL MOUNTING

## PLASTIC - ENCASED SOLID TANTALUM CAPACITORS

Encapsulated in a tough flame retardant plastic case with excellent dielectric properties. Straight leads with $1^{1 "}$ spacing. Flat at top of the capacitor permits quick identification of the positive terminal. Operating temperature range $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ without derating
Tolerance $\pm 10 \%$ Last letter of Sprague number indicates size: H . $25^{\circ}$ Dia. X $325^{\circ}$ High. K. $25^{\prime \prime}$ Dia. X. 475 High.

## 198D QUANTITY PRICES

| $1-5$ | $6-24$ | 25.49 | 50-99 | 100 Up |
| :---: | :---: | :---: | :---: | :---: |
| Elach | Each | Each | Sach | Each |
|  | S | 30. | . 12 | . 58 |
|  |  | 8 | 80 | 64 |
| 5 | 42 | 1.07 | 90 |  |
| 2.31 | 1.54 | 1.16 |  | 8 |



Stock 20 VOLTS OC 26 VDC SURGE $\begin{array}{ccc}\text { No. Sprague } & \text { No.198D uf } \\ \text { No. }\end{array}$ $\begin{array}{llll}\text { 15A8194-6 } & 156 \times 9020 \mathrm{KI} & 15 & \$ 1.47\end{array}$ 25 VOLTS DC 32 VDC SURGE $\$ 1.11$

35 VOLTS DC 46 VDC SURGE
15AB197-9
$\begin{array}{ll}15 A 8198-7 & 224 \times 9035 \mathrm{HI} \\ 15 \mathrm{HI}\end{array}$
$\begin{array}{ll}15 A 8200-1 & 474 \times 9035 \mathrm{HI} \\ 15849035 \mathrm{HI}\end{array}$
$\qquad$ 1.53
1.53 $\begin{array}{ll}15 A 8200-1 & 684 \times 9035 \mathrm{HI} \\ 15 \mathrm{~A} 8201-9 & 105 \times 9035 \mathrm{HI}\end{array}$ $\begin{array}{ll}15 A 8202-7 & 225 \times 9035 \mathrm{KI}\end{array}$ $\begin{array}{ll}15 A 8204-3 & 475 \times 9035 \mathrm{~K} 1 \\ 15 A 8205-0 & 685 \times 9035 \mathrm{~K} 1\end{array}$

50 VOLTS DC 65 VDC SURGE

|  |  |
| :---: | :---: |
| 15A8207-6 | $154 \times 9050 \mathrm{HI}$ |
| 15A8208-4 | $224 \times 9050 \mathrm{H1}$ |
| 15A8209-2 | $334 \times 9050 \mathrm{H1}$ |
| 15A8210-0 | $474 \times 9050 \mathrm{HI}$ |
| 15A8211-8 | $105 \times 9050 \mathrm{HI}$ |
| 15A8212-6 | $225 \times 9050 \mathrm{Kl}$ |
| 15A8213-4 | $335 \times 9050 \mathrm{k} 1$ |
|  | $475$ |

## CRL AND MALIORY CAPACITORS



## OHMITE AND TRW RESISTORS

## TRW TYPE RC COMPOSITION RESISTORS

EIA/MIL color coded. Conforms to MIL-R-11 specs. Formerly known as GBT and SR tvoes
RC07 $1 / 4$-watt stocked in 2.7 ohms thru 22 Meg . Size $1 / 4 \times 1 / 22^{\prime \prime}$ RC20 $1 / 2$-Watt stocked in 2.7 ohms thru 22 Meg . Size $25 / 4 \times 2 /{ }^{\prime \prime}$ RC32 1-Watt stocked in 2.7 Ohms thru 22 Meg . Size $\$ / 10 \times 1 / 7^{\prime \prime}$ RC42 2 -Watt stocked in 10 ohms thru 22 Meg . Size "1/10 $x^{5} / \mathrm{co}^{\prime \prime}$

RC STANDARD STOCK VALUES
Bold face listings below available in 10\% tolerance.
All values available in $5 \%$ tolerance.

| Ohms | Ohms | Ohms | Ohms | Ohms | Ohms | Meg | Meg | Meg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: |
| $\mathbf{2 . 7}$ | 16 | 100 | 620 | 3990 | 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 |
| $\mathbf{6 . 8}$ | 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 | 91,000 | 0.39 | 2.4 | 15.0 |
| 11 | 68 | 430 | 2700 | 16,000 |  | 0.43 | 2.7 | 16.0 |
| 12 | 75 | 470 | 3000 | 18,000 |  | 0.47 | 3.0 | 18.0 |
| 13 | 82 | 510 | 3300 | 20,000 |  | 0.51 | 3.3 | 20.0 |
| 15 | 91 | 560 | 3600 | 22.000 |  | 0.56 | 3.6 | 22.0 |

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. | Type | Wattage | Tolerance | e Each | $\begin{aligned} & 10.99 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 100-499 \\ \text { Each } \end{gathered}$ | $\begin{gathered} 500.999 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 1000- \\ & 2499 \end{aligned}$ | $\begin{aligned} & \hline 2500 \\ & \text { Up Ea. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14M5002-5 | RC07 | 1/4-Watt | 5\% | \$0.28 | \$0.16 | \$0.08 | \$0.07 | \$0.06 | \$0.055 |
| 14M5003-3 | RC07 | 1/4-Watt | 10\% | 24 | 12 | 06 | . 05 | . 04 | . 029 |
| 14M5004-1 | RC20 | 1/2-Watt | 5\% | 28 | 16 | 08 | . 07 | 06 | . 055 |
| 14M5005-8 | RC20 | 1/2-Watt | 10\% | 24 | 12 | 06 | . 05 | 04 | . 029 |
| 14M5006-6 | RC32 | 1-Watt | 5\% | 40 | 20 | 10 | 09 | 085 | . 08 |
| 14M5007-4 | RC32 | 1-Watt | 10\% | 28 | . 14 | 07 | 06 | 05 | . 046 |
| 14M5008-2 | RC42 | 2-Watt | 5\% | 59 | 35 | 23 | 21 | 20 | 18 |
| 14M5009-0 | RC42 | 2-Watt | 10\% | 39 | 25 | 13 | 12 | 11 | 10 |

TRW BWH MOLDED WIRE-WOUND RESISTORS
Exceptional stability, reliability and long-term life characteristics of a wire-wound $137^{\circ}$ Provides resistances not avariabie in composition resistors. Rated $1 / 2$-watt @ $137^{\circ} \mathrm{C}$ Ambient, 1-watt @ $115^{\circ} \mathrm{C}$ Ambient, and 2-watt @ $70^{\circ}$ C Ambient.
Size, $/ 16 \times 1 / 22^{\prime \prime}$. EIA color coded. Wide first band distinguishes from composition resistors.

|  |  |  | STA | RD S | CK V | UES |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { All re } \\ & 10 \% \end{aligned}$ | rance s | stock ed only | $\text { in } 5 \%$ resista | lerance位ted | Bold |  |  |  |
| 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 | 1500 |
| 0.16 | 0.51 | 1.6 | 5.1 | 16 | 51 | 160 | 510 | 1600 |
| 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 | 2000 |
| 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 | 2400 |
| 0.27 | 0.82 | 2.7 | 8.2 | 27 | 82 | 270 | 820 |  |
| 0.30 | 0.91 | 3.0 | 9.1 | 30 | 91 | 300 | 910 |  |

 Quantity purchasers of 1000 or more of each Value contact B-A for quotation.


## COLOR CODE GUIDE

Here is one of the handiest Color Code Guides for Resistors ever devised. Standard EIA range is automatically and accurately indicated. 14A5001-7. Each....


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 $\pm 5 \%, 1 \mathrm{ohm}$ and higher. $\pm 10 \%$ values below 1 ohm.
Table of Stock Resistance Values and Ohmite Brown Devil Numbers

| Ohms | $\begin{aligned} & 8 \text { Watts } \\ & I^{\prime \prime} L . x^{5} / s^{\prime \prime} \mathrm{D} \end{aligned}$ | 12 Watts $13 / 4^{\prime \prime} \mathrm{Lx} / \mathrm{x}^{5}$ "D | $\begin{aligned} & 20 \text { Watts } \\ & 2^{\prime \prime}\left[x^{-}-16^{\prime} \mathrm{D} .\right. \end{aligned}$ | Ohms | $\begin{gathered} 8 \text { Watts } \\ 1^{\prime \prime} \mathrm{L} x^{3} / 76^{\prime \prime} \mathrm{D} \\ \hline \end{gathered}$ | 12 Watts $134^{\prime \prime}\left[x^{3} / 16^{\prime \prime} \mathrm{D}\right.$ | $20 \text { Watts }$ $2^{2} L x^{\prime}=0$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 |  | 1700A | 1800A | 350 | 1523 | 1727 | 1813 |
| 2 | 1500 1501 | 1701 1705 | $1802 A$ 1802 B | 400 500 | 1526 | 1728 1730 | 5 |
| 3 | 1502 | 1706 | 1802 C | 600 | 1527 | 1731 |  |
| 4 | 1503 | 1707 | 18020 1803 | 750 1000 |  | 1733 1736 |  |
| 7.5 | 1504 | 1708 | 1803 | 1000 1200 | 1532 1534 | 1736 1738 | 1821 |
| 10 | 1506 | 1710 | 1804 | 1500 | 1536 | 1740 | 1824 |
| 15 | 1508 | 1712 |  | 1750 | 1537 | 1741 | 1825 |
| 20 | 1509 1510 | 1713 |  | 2000 |  | 1742 | 1827 |
| 25 30 | 1510 1511 | 1714 1715 | 1805 | 2500 3000 | 1540 1541 | 1744 1745 | 1830 1832 |
| 35 | 1512 | 1716 |  | 4000 | 1543 |  | 1834 |
| 40 | 1513 | 1717 |  | 5000 | 1545 | 1749 | 1836 |
| 50 | 1514 | 1718 | 1806 | 6000 | 1546 | 1750 | 1837 |
| 75 | 1515 | 1719 | 1807 | 7500 | 1548 | 1752 | 1839 |
| 100 | 1516 | 1720 | 1808 | 10.000 | 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 - Specify Stock No. 14M5012-4 and
Resistance Value on Orders.
Rect


25,000 Ohms
20-WATT - Specify Stock No. 14M5014-0 and Resistance Value on Orders
Value

OHMITE OHMS LAW CALCULATORS


Pocket size slide rule with parallel resistance scale and Law Calculator with full instructions on other side.
No. 14B25-1 Each
No. 14B304-0 Durable Plastic Model of above, Each $\$ 3.09$
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 |  | Resistance | $1-5$ | 6.99 | 100 Up |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Dimensions | Ohms | Each | Each | Each |
| 14 M5194-0 | $1 / 6^{\prime \prime} \times 78^{\prime \prime} \times 11 / 32^{\prime \prime}$ | 1 to 5 K | $\mathbf{S 0 . 4 8}$ | $\$ 0.29$ | $\$ 0.23$ |
|  |  | 7.5 K | .59 | .38 | .30 |



## 10-WATT RESISTORS

| Stock No. | Dimensions | Resistance Ohms | $\begin{gathered} 1-5 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & \text { 6-99 } \\ & \text { Each } \end{aligned}$ | $\underset{\text { Each }}{100 ~ U p}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 14M5196-5 | $11 / 6 \times 3 / 8 \times 11 / 32^{\prime \prime}$ | 5 to 5K | \$0.63 | \$0.38 |  |
|  |  | 5K | 77 | . 46 | 3 |

Stocked Resistance Values for 10 -Watt Square Wire-Wound Resistors (Ohms)


# © 



## C< clectronics

## SLIDE POTENTIOMETERS

Modern, space-saving controls for audio equipment. measuring devices, electronic propects countless applications.
mounting screws with spacer washers, mounting template, calibrating scales. control titite label and wiring diagram.

AUDIO TAPER

| Stk. No. | Type | Resistance | Each | Stk. No. | Type | Resistance | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14A1314-8 | $81-700$ | 1 K | \$1.60 | 14A1320-5 | 81.708 | 1 k | \$1.60 |
| 14A1315-5 | 81-701 | 5K | 1.60 | 14A1321-3 | $81-710$ | 5 K | 1.60 |
| 14A1316-3 | 81-702 | 10K | 1.60 | 14A1322-1 | B1-712 | 10K | 1.60 |
| 14A1317-1 | 81-703 | 50K | 1.60 | 14A1323-9 | $81-714$ | 50K | 1.60 |
| 14A1318-9 | 81-704 | 100K | 1.60 | 14A1324-7 | $81-716$ | 100K | 1.60 |
| 14A1319-7 | 81-706 | 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 $15 / 9^{\prime \prime}$ dia. $L^{L}$ pad is $11 / \mathbf{s}^{\prime \prime}$ deep;
T pad is $111 / 6^{\prime \prime}$ deep. Both have $1 / 4^{\prime \prime}$ shaft. $2^{\prime \prime}$ long with $3 / 3^{\prime \prime}$ bushing. All are complete with mounting hardware,

15-WATT "L" PADS

| Stk. No. Type | Resistance | Stk. No. | Type Resistance | Stk. No. | Type | ance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L-4 | 4 | 14 A | l-500 500 | 14A1109-2 | L-2000 | 2000 |
| L-8 |  | 14A1108 | L-1000 100 | 14A1110-0 | 1-4000 | 0 |



|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 15-WATT "L-A" PADS WITH 1 " BUSHING, 11/2" SHAFT |  |  |  |  |
| Sth. Ne. Type | Resistance | stk. No. | Type | Resistance |
| 14A1118-3 L8A  <br> Choice 1.9 <br> Each............. $\$ 3.27$  | $\begin{aligned} & 10-24 \\ & \$ 3.09 \end{aligned}$ | $\begin{aligned} & \text { 14A1127-4 } \\ & 25-49 \\ & \$ 2.93 \end{aligned}$ | 4  <br>   <br>  50.99 <br>   <br>  $\$ 2.74$ | $\begin{aligned} & 16 \\ & 100 \mathrm{up} \\ & \$ 2.43 \end{aligned}$ |
| 15-WATT "T" PADS |  |  |  |  |
| Stk.No. Type Resistance | Stt.No. Type | Resistance | Stk.No. Type | Resistance |
| $\begin{array}{lll} \hline 14 A 1111-8 & \mathrm{~T}-4 & 4 \\ 14 A 1112-6 & \mathrm{~T} & 8 \end{array}$ | $\begin{array}{ll} 14 A 1113-4 & \text { T-50 } \\ 14 A 1126-6 & \text { T-250 } \end{array}$ | $\begin{aligned} & 50 \\ & 250 \end{aligned}$ | $\begin{array}{ll} 14 A 1116-7 \\ 14 A 1117-5 & T-500 \\ \text { T-600 } \end{array}$ | $\begin{aligned} & 500 \\ & 600 \end{aligned}$ |
| 14A1121-7 T-15 15 <br> Choice  1.9 <br> Each $\$ 5.05$  | \$4.74 | 25.49 $\$ 4.50$ | $\begin{aligned} & 50-99 \\ & \$ 4.24 \end{aligned}$ | $\begin{array}{r} 100 . \mathrm{Up}_{1} \\ \$ 3.83 \\ \hline \end{array}$ |

Two $L$ pads in tandem for stereo level control. Bushing $3 / 8^{\prime \prime}-32 \times 1^{\prime \prime}$. Shaft $1 / 4^{\prime \prime}$ dia. x $11 / 2$ " long. With nuts, washers and deluxe "Level" dial supplied.

| Stk.No. | Type | Impedance | Stk.No. | Type | Impedance |
| :--- | :---: | :---: | :---: | :---: | ---: |
| 14A1119-1 | 118 | 80 hms | $14 \mathrm{~A} 1120-9$ | L 16 | 16 Ohms |
| Choice | $1-9$ | $10-24$ | $25-49$ | $50-99$ | 100 Up |
| 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 $\quad 3 / \mathrm{m}^{\prime \prime}-32 \times 1^{\prime \prime}$
No. 14A1152. RR50. Each........... $\$ 2.83 \quad 10$ Each.


## 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 $1 / /^{\text {a }}$. except Model "E
which mounts on $1 / 3^{\prime \prime}$ panel. Average shipping wis $1 / 2 \mathrm{lb}$. Order knob and Dial Plate from listing below right. 'Silicone Ceramic Coating.

MODEL "E" $121 / 2$ - WATT
Dia. $1 /$ s $^{\prime \prime}$ Deoth " $1 / 6^{\prime \prime}$ Shaft $1 / 8^{\prime \prime}: 1 / 4^{\prime \prime}-32$ bushing. Rated on metal panel. Uses No. 5151 knob and No. 5007 dial plate

| Stock No. | $\begin{aligned} & \text { Ohmite } \\ & \mathrm{No} \text {. } \end{aligned}$ | Ohms | Max. Amps |  | $\overline{\text { ach }} 5$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 148808-0 | 0101 |  | 3.53 | \$6.94 | \$5.91 |
| 148809-8 | 0106 | 10 | 1.12 | 6.94 | 5.91 |
| 148810-6 | 0107 | 15 | 91 | 6.74 | 5.74 |
| 148811-4 | 0108 | 25 | 71 | 6.74 | 5.74 |
| 148812-2 | 0110 | 50 | 50 | 6.74 | 5.74 |
| 148813-0 | 0112 | 100 | 35 | 6.74 | 5.74 |
| 148815-5 | 0117 | 500 | 16 | 6.74 | 5.74 |
| 148816-3 | 0119 | 1000 | 11 | 6.94 | 5.91 |
| 148818-9 | 0123 | $5000^{*}$ | . 050 | 8.37 | 7.12 |

MODEL "H" 25-WATT
Dia. $1-9 / 16^{\prime \prime}$. Depth $1-3 / 8^{\prime \prime}$. Shaft $1 / 4.3 / 8^{\prime \prime}-32$ bushing. Uses No. 5150 knob and No. 5000 dial plate

| Stock | Ohmite | Max. |  | Prices Each |  |
| :---: | :---: | :--- | :---: | :---: | ---: |
| No. | No. | Ohms | Amps | 1.4 | 5 Up |
| 14 A700.9 | 0140 | 1 | 5.0 | $\$ 7.29$ | $\$ 6.21$ |
| $148773-6$ | 0145 | 10 | 1.58 | 7.29 | 6.21 |
| $148774-4$ | 6147 | 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 |


| MODEL "H" 25-WATT (continued) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: |
| Stock | Ohmite |  | Max. | Prices | Each |
| No. | No. | Ohms | Amps | $1-4$ | 5 Up |
| $148778-5$ | 0156 | 500 | .222 | $\$ 7.08$ | $\$ 6.03$ |
| 148779.3 | 0158 | 1000 | 155 | 7.29 | 6.21 |
| $14780-1$ | 0160 | 2500 | 100 | 7.29 | 6.21 |
| $148781-9$ | 0162 | 5000 | 070 | 8.22 | 6.98 |
| 14823.9 | 4201 | 10000 | .050 | 8.80 | 7.49 |
| 14882.7 | 4202 | $15000^{*}$ | 041 | 9.40 | 7.99 |
| $148825-4$ | 4203 | $20000^{*}$ | .035 | 10.00 | 8.49 |

MODEL "J" 50 - WATT
Dia. $2-5 / 16^{\prime \prime}$. Depth $1-3 / 8^{\prime \prime}$. Shatt $1 / 4^{\prime \prime} .3 / 8-32$ bushing. Uses
No. 5150 knob and No. 5000 dial plate. No. 5150 knob and No. 5000 dial plate.

| Stock No. | Ohmite No. | Ohms | Max. Amps | $\underset{1-4}{\text { Prices }}$ | $\begin{aligned} & \text { Each } \\ & 5 U_{p} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 14A702-5 | 0309 | 1 | 7.07 | S | 7.28 |
| 14A703-3-5 | 0311 |  | 3.53 2.50 | 8.57 |  |
| 14A711-6 | 0315 | 16 | 1.76 | 7.63 | 6.49 |
| 14A704-1 | 0317 | 35 | 1.19 | 7.63 | 6.49 |
| 14A712-4 | 0318 | 50 | . 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 |  |
| 148782-7 | 0324 | 500 | 316 | 7.63 | 6.49 |
| 148784-3 | 0326 | 1000 | 224 | 8.10 | 6.89 |
| 148785-0 | 0328 | 2500 | 141 | 8.10 | 6.89 |
| 148786-8 | 0330 | 5000 | 100 | 8.57 | . 28 |
| 148787-6 | 0332 | 10000 | 070 | 8.57 | 7.2 |

MODEL "K" 100-WATT
Dia. $3-1 / 8^{\prime \prime}$. Depth 1-3/4". Shaft $1 / 4^{\prime \prime} .3 / 8-32$ bushing. Uses No. 5150 knob and No. 5007 dial plate.

| Stock No. | Ohmite No. | Ohms | Max. Amps | $\begin{aligned} & \text { Prices } \\ & 1-4 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Each } \\ & 5 \text { Up } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 14A960-9 | 0441 | 1 | 10.00 | \$16.10 | \$13.68 |
| 144961-7 | 0444 |  | 4.47 | 14.99 | 12.75 |
| 14A962-5 | 0446 |  | 3.16 |  | 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 | 1.007 | 12.57 | 10.68 |
| 14A966-6 | 0452 | 200 | 707 |  | 10.68 |
| 14A967-4 | 0453 | 300 | 575 | 12.57 | 10.68 |
| 144968-2 | 0455 | 500 | 447 | 12.57 | 10.68 |
| 14A969-0 | 0457 | 1000 | 316 | 14.99 | 12.75 |

MODEL "L" 150-WATT
Dia. $4^{\prime \prime}$. Depth $2^{\prime \prime}$. Shaft 1/4". 3/8-32 bushing. Uses No. 5150

| Stock No. | Ohmite No. | Ohms | Max. Amps | $\begin{aligned} & \text { Prices Each } \\ & 1-4 \quad 5 \text { Up } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 148788-4 | 0525 |  | 12.30 | \$17.85 | \$15.17 |
| 148789-2 | 0528 |  | 5.48 | 15.61 | 13.28 |
| 148790-0 | 0530 | 10 | 3.88 | 15.61 | 13.28 |
| 148791-8 | 0531 | 15 | 3.16 | 15.61 | 13.28 |
| 148792-6 | 0532 |  | 2.45 | 14.49 | 12.33 |
| 148793-4 | 0534 | 50 | 1.73 | 14.49 | 12.33 |
| 148794-2 | 0536 |  |  |  | 12.33 |
| 148796-7 | 0537 | 150 | 1.00 | 14.49 | 12.33 |
| 148797-5 | 0539 | 250 | 775 | 14.49 | 12.33 |
| 148798-3 | 0541 | 500 | 548 | 14.49 | 12.33 |

KNOBS AND DIAL PLATES

| Stk.No. | Type | $1-9$ Ea. | 10-49 Ea. | 50 Up |
| :--- | :---: | :---: | :---: | :---: |
| $12 A 2399-0$ | $5151^{\circ} \mathrm{knob}$ | $77^{\circ}$ | $65^{\circ}$ | $50^{\circ}$ |
| $12 A 2397-4$ | 5150 Knob | $69^{\circ}$ | $59^{\circ}$ | $45^{\circ}$ |
| $14 A 82-6$ | 5007 Plate | $38^{\circ}$ | $32^{\circ}$ | $25^{\circ}$ |
| $14 A 873-4$ | 5000 Plate | $38^{\circ}$ | $32^{\circ}$ | $25^{\circ}$ |

Burstein-Applebee Co., 3199 Mercier, Kansas City, Mo. 64111

# , CRL MALORY AND TRW CONTROLSS 

## TRW-CTS TRIMMER CONTROLS

U201 Series. $1 \% / 1$ dia. Arrow indicator knob, slotted for front or rear screwdriver adjustment. Snap-in self supporting parallel to printed circuit board. Linear taper, $\times 201$ Series. As above with vertical mounting.

| U201 <br> Stock No. | X201 <br> Stock No. | Ohms | U201 <br> Stock No. | X201 <br> Stock No. | Ohms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 14A10-3-110-7 | 14A19-4-110-7 | 100 | 14A10-3-325-1 | 14A19-4-325-1 | 25K |
| 14A10-3-125-5 | 14A19-4-125-5 | 250 | 14A10-3-350-9 | 14A19-4-350-9 | 50 K |
| 14A10-3-150-3 | 14A19-4-150-3 | 500 | 14A10-3-410-1 | 14A19-4-410-1 | 100K |
| 14A10-3-210-5 | 14A19-4-210-5 | 1 K | 14A10-3-425-9 | 14A19-4-425-9 | 250 K |
| 14A10-3-225-3 | 14A19-4-225-3 | 2.5 K | 14A10-3-450-7 | 14A19-4-450-7 | 500K |
| 14A10-3-250-1 | 14A19-4-250-1 | 5K | 14A10-3-510-8 | 14A19-4-510-8 | 1 Meg. |
| 14A10-3-310-3 | 14A19-4-310-3 | 10K |  |  |  |
| Your Choice 1-24 Each.. | 25-49 Ea. | . $37^{\circ}$ | 50-99 Ea. | 35 ${ }^{\text {c }} 100$ Up E | $31^{\circ}$ |



WIRE-WOUND CONTROLS
Packs 5 -watt capacity into a 2 watt size unit linear taper, $11 / 2^{\prime \prime}$ dia. $x$ Kon deep. Model WW has full round aluminum shaft $1 / 4^{\prime \prime}$ dia. $x 3^{\prime \prime}$ long. Model WN has fingertip knurled, slotted shaft $1 / 4^{\prime \prime}$ dia. $x 314^{\prime \prime}$ long. Linear taper. Breakdown, 900 V. AC rms to ground. WN or WW prefix indicates manufacturers number. Shpg. wt. 4 ozs.


## CENTRALAB RV4 HOT MOLDED POTENTIOMETERS



HMS
RV4NAYSK


HML HML
RV4LAYSA

Model 12. Meets all requirements of Mit-R-94 specifications. Designed for long lite and noise-free operation, Totally en. closed and sealed against moisture and dirt. Tolerance 50 ohm thru $500 \mathrm{~K} \pm 10 \%$
ibove $500 \mathrm{~K} \pm 20 \%$ Linear taper. Rated above $500 \mathrm{~K} \pm 20 \%$ Linear taper. Rated
2.25 watts at $70{ }^{\circ} \mathrm{C}$. Size $1 / \mathrm{m}^{\text {dia }}$ dia., 2.25 watts at $70^{20} \mathrm{C}$. Size $1 / \mathrm{s}^{\prime}$ dia., $/ \mathrm{s}^{\prime \prime}$ deep.

| Stock No. | Ohms | Centralab No. | MIL RV4NAYSK | Stock No. | Ohms | Centralab No. | $\frac{\text { MIL }}{\text { RV4LAYSA }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 501 A | 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 |
| 14 A1232 2 | 5000 | HMS. 5000 | 502 A | 14A1206-6 | 10K | HML. 10 K | 103A |
| 14A1234-8 | 10K | HMS 10 K | 103A | 14A1208-2 | 25K | HML- 25 K | 253A |
| 14A1236-3 | 25 K | HMS $\quad 25 \mathrm{~K}$ | 253A | 14A1210-8 | 50 K | HML. 50 K | 503A |
| 14A1238-9 | 50K | HMS - 50 K | 503A | 14A1212-4 | 100K | HML - 100 K | 104A |
| 14A1240-5 | 100K | HMS 100 K | 104A | 14A1214-0 | 250 K | HML 250 K | 254A |
| 14A1242-1 | 250K | HMS 250 K | 254A | 14A1215-7 | 350 K | HML 350 K | 354A |
| 14A1243-9 | 350K | HMS. 350 K | 354A | 14A1216-5 | 500K | HML 500 K | 504A |
| 14A1244-7 | 500K | HMS. 500 K | 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 | 2558 | 14A1220-7 | 5 M | HML. 5 M | 505B |
| 14A1248-8 | 5 M | HMS-5 M | 505B |  |  |  |  |

TYPE HMS has standard $3 / s^{\prime \prime}$ bushing with $1 / 4^{\prime \prime}$ slotted shaft $21 / 2^{\prime \prime}$ long. Meets MIL desig. nation RV4

TYPE HML has $1 / 8^{\prime \prime}$ locking type bushing with slotted shaft $5 / 8^{\prime \prime}$ long. Meets MIL desig. nation RV4L


TRW CONTROLS

LESS SWITCH
$15 / s^{\prime \prime}$ diameter with universal $3^{\prime \prime}$ shaft. Add mul-
tisections or switches at right. Shpg. Wt. 4 ozs .
tisections or switches at right. Shpg. Wt. 4 ozs.

| stk. No. | TRW Type | Ohms Res. | Taper |
| :---: | :---: | :---: | :---: |
| 14.3777 .6 | Q11-201 | 250 | A |
| 148416-2 | Q11-108 | 500 1000 | ${ }_{\text {A }}$ |
| $14.3880-0$ | Q11-110 | 2000 | A |
| 148419-6 | ${ }^{0.11-112}$ |  | A |
| 148421-2 | Q11-114 | 5K | A |
| 148425-3 | Q11-116 | 10K |  |
| 148426-1 | ${ }_{\text {Q }}{ }^{0.113 .116}$ | ${ }^{10 \mathrm{~K}}$ | ${ }_{\text {c }}$ |
|  |  |  |  |
|  | ${ }_{\text {alili20 }}$ | 25k | A |
| 1488436-0 | Q13-123 | $\begin{aligned} & 50 \mathrm{~K} \\ & 50 \mathrm{~K} \end{aligned}$ | ${ }_{\text {A }}$ |
| 148440-2 | 0.11-128 | 100 K |  |
| 148441-0 | 013.128 | 100k |  |
| 148444-4 | $011-130$ | 250k | ${ }_{\text {A }}$ |
| 148445-1 | Q13-130 | 250k |  |
| $1488451-9$ $148452-7$ | ${ }^{\text {Q11-133 }}$ | 500 K 500 K | C |
| 148456-8 | Q11-137 | 1 Meg . | A |
| 148457-6 | Q13-137 | g. | c |
| 14A395-8 | Q11-139 | 2 Meg . | A |
| 148470-9 | Q11-141 | 5 Meg . | A |
| 148471-7 | Q11-143 | 10 Meg . | A |
| EACH - | .. \$2. 29 | EACH | \$1.94 |
| EXPLANAT | $\begin{aligned} & \text { ON of TRW } \\ & C^{C} \text { Logarititm } \end{aligned}$ | CONTROL |  |

(1) MULTISECTIONS


Attach to the standard $Q$ control to make dual or multisection controls. Use
snap on switch if needed. Wt. 2 ors.

| Stk. No. | TRW Type | Ohms Res. | Taper |
| :---: | :---: | :---: | :---: | :---: |
| $148183-8$ | M11-116 | 10 K | A |
| $148200-0$ | M11-120 | $25 K$ | A |
| $148203-4$ | M11-128 | .1 Meg. | A |
| $148206-7$ | M11-133 | .5 Meg. | A |
| $148208-3$ | M11-137 | 1.0 Meg. | A |

CHOICE $\qquad$ $\$ 1.69$ EAC $\qquad$ $\$ 1.40$
(2) SNAP-ON SWITCHES

Type GC S.P.S.T. Switch
No. 14A117.
No. 14A1177-gEACH........
Type WF D.P.S.T. Switch
Type WF D.P.S.T. Switch
No. 14A1178-7EACH.
$\$ 1.50$


MALLORY
PUSH-PULL REPLACEMENT SWITCHES
KR8M dimension " $A$ " is $1+A+1{ }^{3 / 2} A^{\prime \prime}:$ is $1 / 4^{\prime \prime}$
Replaces push-pull $A C$ switch sections of single and dual controls. Rated 6 amp . 125VAC. Easy to replace.

| Stk. No. | Type | Each | 6 Each |
| :--- | :--- | :--- | ---: |
| 14A1150-6 | KR8M | $\$ 1.87$ | $\$ 1.13$ |
| 14A1151-4 | KR9M | 2.01 | 1.21 |

MALLORY SUB-MINIATURE CONTROLS

"Taper 1 is audio, Taper 4 is linear. Shpg. wt. 1 oz .


NALLORY VOLUME CONTROLS

## VOLUME CONTROL ACCESSORIES

(1)
(2)
(3) -8
(4) 3 ) $=$
(1) No. 14A186-1 Mounting Bracket. $2 \frac{1}{2 / 2^{\prime \prime}}$ centers. 5 For

- Each $\$ 1.99 \quad 10$ Ea, $\$ 1.79$ (3) Dial Plates. Calibrated 0.10 , matching rotation of volume controls and rheostat. No. 14A160-6 For Wire-Wound Controls. Your Choice
- .......... 79' 10 Each 59
(4) Adapter Bushing. For mtg. above controls in thick panels or enclosures. Fits
any control with standard $3 / 8^{\prime \prime}$ bushing and exter.ds bushing $1^{\prime \prime}$.
No.14A223-2 Type AK-31. Brass Adapter. Net Each 89: 10 Each.


## ALORY AND CENTRALAB SWITCHES

MALLORY SINGLE GANG ROTARY SWITCHES
Compact switches having wide application for use in alt electronic equipment. Rating 500 V . breakdown; max. current .2 amp 300 VDC, 5 amp a 6 VDC; ${ }^{25}$ amp a 300 VAC; 6 amp a 6 VAC. $1 / 4^{\prime \prime}$ round shaft. $2^{\prime \prime}$ long, $3 / 8^{\prime \prime}$ dia. $\times 3 / /^{\prime \prime}$ long brass threaded bushing. All $30^{\circ}$ index except which are $20^{\circ}$. Shpg. wt. 4 ozs . See Plates below. Specify B-A Stock Number and Switch Number when ordering
NON-SHORTING - BREAK BEFORE MAKE

| Stock No. | $\underset{\substack{\mathrm{Ng} \\ \hline}}{ }$ | Poles | Posi- Base tions Dia. | 1-4 | 5-9 | Prices 10-24 | $\begin{aligned} & \text { Each } \\ & 25-49 \end{aligned}$ | $\begin{aligned} & 50- \\ & 99 \end{aligned}$ | $\underset{U p}{100}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19-07035-8-006-7 | 3215 J | 1 | $511 /{ }^{\prime \prime}$ | \$1.88 | \$1.58 | \$1.42 | \$1.33 | \$1. 26 | \$1.12 |
| 19-07035-8-018-2 | 32112 J | 1 | 12 11/4" | 1.88 | 1.58 | 1.42 | 1.33 | 1.26 | 1.12 |
| 19-07035-8-007-5 | 3222 J | 2 | 11/4." | 1.88 | 1.58 | 1.42 | 1.33 | 1.26 | 1.12 |
| 19-07035-8-008-3 | 32235 | 2 | 11/4" | 1.88 | 1.58 | 1.42 | 1.33 | 1.26 | 1.12 |
| 19-07035-8-009-1 | 3226J | 2 | 11/4" | 1.88 | 1.58 | 1.42 | 1.33 | 1.26 | 1.12 |
| 19-07035-8-011-7 | 3234, | 3 | 11/" | 1.94 | 1.62 | 1.46 | 1.39 | 1.30 | 1.15 |
| 19-07035-8-013-3 | 3242 J | 4 | $11 /{ }^{\prime \prime}$ | 1.94 | 1.62 | 1.46 | 1.39 | 1.30 | 1.15 |
| 19-07035-8-014-1. | 3243 J | 4 | $311 /{ }^{\prime \prime}$ | 1.94 | 1.62 | 1.46 | 1.39 | 1.30 | 1.15 |
| 19-07035-8-019-0 | 32117J | 1 | $17^{\circ} 1{ }^{\prime \prime} / 6^{\prime \prime}$ | 2.87 | 2.39 | 2.15 | 2.04 | 1.91 | 1.72 |
| 19-07035-8-010-9 | 3229 J | 2 | $9^{\circ} 1^{11} / 6^{\prime \prime}$ | 2.87 | 2.39 | 2.15 | 2.04 | 1.91 | 1.72 |
| 19-07035-8-012-5 | 32365 | 3 | $6^{\circ} 1^{116} 6^{\circ}$ | 3.02 | 2.52 | 2.27 | 2.15 | 2.03 | 1.82 |
| 19-07035-8-015-8 | 3263J | 6 | $3^{\circ} 1^{\prime \prime} / 6^{\prime \prime}$ | 3.02 | 2.52 | 2.27 | 2.15 | 2.03 | 1.82 |
| SHORTING - MAKE BEFORE BREAK |  |  |  |  |  |  |  |  |  |
| 19-07035-8-001-8 | 3115 J | 1 | $511 / \%^{\prime \prime}$ | 1.88 | 1.58 | 1.42 | 1.33 | 1.26 | 1.12 |
| 19-07035-8-016-6 | 31112 J | , | $1211 / 4$ | 1.88 | 1.58 | 1.42 | 1.33 | 1.26 | 1.12 |
| 19-07035-8-002-6 | 3123 J | 2 | 3 11/4" | 1.88 | 1.58 | 1.42 | 1.33 | 1.26 | 1.12 |
| 19-07035-8-003-4 | 3126 J | 2 | 11/4" | 1.88 | 1.58 | 1.42 | 1.33 | 1.26 | 1.12 |
| 19-07035-8-004-2 | 3143J | 4 | 1/4" | 1.94 | 1.62 | 1.46 | 1.39 | 1.30 | 1.15 |
| 19-07035-8-017-4 | 31117 J |  | $17^{\circ} 11 /{ }^{10}$ | 2.75 | 2.29 | 2.06 | 1.95 | 1.83 | 1.65 |
| 19-07035-8-005-9 | 3163 J | 6 | $3^{\circ} 1^{11} 16^{\circ}$ | 3.02 | 2.52 | 2.27 | 2.15 | 2.03 | 1.82 | Have adjustable stops to prevent turning to unused contacts.



CERAMIC SECTION ROTARY
$13 / 4^{\prime \prime}$ diameter, non-shorting, adjustable stops,
2 gang, $1 / 2^{\prime \prime}$ spacing. Rated 75 amp 300 VAC : 2 gang, $1 / 2^{\prime \prime}$ spacing. Rated 75 amp a 300 VAC;
$10 \mathrm{amps}(a) 6 \mathrm{VAC} / \mathrm{DC}$. Use $30^{\circ}$ dial plates below, 10 amps @ 6 VAC
Shipg. wt. 8 ozs.
Specify B-A Stock Number and Switch Number when ordering

| Stock No. | $\underset{\substack{\mathrm{Mfg} \\ \mathrm{No} \\ \hline}}{ }$ | Gang | Poles | Positions | 1-4 | 5-9 | $\begin{aligned} & \text { Prices } \\ & 10-24 \end{aligned}$ | $\begin{aligned} & \text { Each } \\ & 25-49 \end{aligned}$ | $\begin{aligned} & 50- \\ & 99 \end{aligned}$ | $\underset{\substack{100 \\ U p}}{ }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19-07036-6-172-7 | 172 C . | 1 |  | 10 | \$4.17 | \$3.47 | \$3.13 | \$2.95 | \$2.78 | \$2.49 |
| 19-07036-6-173-5 | $173 \mathrm{C}^{\circ}$. |  | 2 |  | 4.17 | 3.47 | 3.13 | 2.95 | 2.78 | 2.49 |
| 19-07036-6-174-3 | $1746^{\circ}$ | 1 | 3 |  | 4.17 | 3.47 | 3.13 | 2.95 | 2.78 | 2.49 |
| 19-07036-6-176-8 | 176 C | 2 | 2 | 10 | 5.96 | 4.98 | 4.47 | 4.24 | 3.98 | 3.58 |
| 19-07036-6-177-6 | $177 C^{*}$ | 2 | 4 | 5 | 5.96 | 4.98 | 4.47 | 4.24 | 3.98 | 3.58 |
| 19-07036-6-178-4 | $178{ }^{*}$ | 2 | 6 |  | 5.96 | 4.98 | 4.47 | 4.24 | 3.98 | 3.58 |
| 19-07036-6-180-0 | 180 C | 3 | 3 | 10 | 7.59 | 6.35 | 5.69 | 5.38 | 5.05 | 4.55 |
| 19-07036-6-181-8 | $181{ }^{\circ}{ }^{*}$ | 3 | 6 | 5 | 7.59 | 6.35 | 5.69 | 5.38 | 5.05 | 4.55 |



## SWITCH DIAL PLATES

Aluminum, figures etched on black background. $1^{11} / 15^{\circ} 0.0$. with ${ }^{1} / 6^{"}$ hole. For switches with 30 indexing except * which is for switches with $20^{\circ}$ indexing. Shpg. wt. 2 ozs. Specify B-A Stock No. and Type When Ordering

| Stock No. | Type | Marked | Stock No. | Type | Marked |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 19-07037-4-372-3 | 37 | 1 to 2 | 19-0703 | 382 | , |
| 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 |  | Off 1 to 5 |
| 19-07037-4-376-4 | 376 | 1 to 6 | 19-07037-4-386-3 |  | Off 1 to 6 |
| 19-07037-4-377-2 | 377 | 1 to 7 |  |  |  |
| 19-07037-4-378-0 | 378 | 1 to 8 | 19-07037-4-389-7 |  | 0 ff 1 to |
| 19-07037-4-379-8 $19-07037-4-380-6$ | 379 | 1 to 9 | 19-07037-4-390-5 |  | 10 |
| $\begin{aligned} & 19-07037-4-380-6 \\ & 19-07037-4-381-4 \end{aligned}$ | 380 381 | 1 to 10 1 to 11 | 19-07037-4-46 |  |  |
| Your Choice, 1-9 Each |  |  | 10 Up Eàch |  | ...... |


(1) SINGLE POLE ROTARY For lamp and appliance repairs SPST switch. Rated 3 amp -125 volt; 1 amp- 250 volt. $3 / 8^{\prime \prime}$ dia. shank, sio' long. Black phenolic knob, $6^{\prime \prime}$ wire leads. Wt. 2 ozs.
13 POSITION ROTARY Rated 3 am............69 10 Lots, Each......................... $59{ }^{\circ}$ high. Shank $3 / 8^{\prime \prime}$ dia, by $3 \mathrm{k}^{\prime \prime}$ long ams 125 volts. Bakelite case $1^{\prime \prime}$ dia. by $\%^{\prime \prime}$ 19A7106-7.582. Each 85. 10 Lots, Each
(2) 4 POSITION ROTARY For 3 light floor and desk lamps. Rated 6 amps at 125 volts. Round metal case and knob. $1116^{\prime \prime}$ dia. $\times 11 / 6^{\prime \prime}$ behind panel. $3 / 8^{\prime \prime}$ long shank. 19A7105-9. 683. Each long $\mathrm{x} 5 / 8^{\prime \prime}$ wide $\mathrm{x} 11 / 6^{\prime \prime}$ high. Shank, $3 / 8^{\prime \prime}$ dia. by $5 / 6^{\prime \prime}$ long. $6^{\prime \prime}$ wire leads. Plastic //3 $2^{\prime \prime}$ dia. push button. Shp. wt. 2 ozs.
19A7024-2.575. Each 9. FLUORESCENT LAMP STARTER SWITCH. Eliminates starter from circuit on single
15 to 40 W. lamps. 1 /6" dia. by $3 / 4^{\prime \prime}$ high. Shank $3 / 8^{\prime \prime}$ dia. by K6". $6^{\prime \prime}$ wire leads, 15 to 40 W . lamps. $11 / \mathrm{ch}^{\prime \prime}$ dia, by $3 / /^{\prime \prime}$ high. Shank $3 / 8^{\prime \prime}$ dia. by Kot ${ }^{\prime \prime} .6^{\prime \prime}$ wire leads. Phenolic push button.
19A7025-9.382. Each
... 94. 10 Lots, Each...
Ask For Quotation on Bulk Packed Centralab Switches.

CENTRALAB MINIATURE STEATITE PA2000


## SERIES ROTARY

Small and compact. Silver plater spring brass clips and contacts adjustable stop or continuous rulation; 30 indexing; $1 / 2^{\prime \prime}$ spacing between sections; $1 / 4$ round shaft, $1 / 8$ long; All are non-shortin 2.75 amp at $15 \mathrm{VDC} ; 230$ milliamps at 115 VAC. Use 30 dia plates shown in left column. Avg. shpg. wt. 6 ozs.
\$ $\mathbf{2 0 4 2}$ 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 $30^{\circ}$ dial plates. All are non-shorting type

Specify B-A Stock No, and Switch No. - Order Knob Listed Balow

| Stock No. | Mfg. No.PA- | Gang | Pole | Positions | $1-24$ | $\begin{gathered} \text { rices Ea } \\ 25-49 \end{gathered}$ | $50-99$ | 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 | 1 | 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 | 1 | 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 | 1 | 4 | , | 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



| Stock No. | $\begin{gathered} \hline \mathrm{Mfg} . \\ \mathrm{No} . \end{gathered}$ | Poles | Position | Indexing | 1-24 | $\begin{aligned} & \text { Prices } \\ & 25-49 \end{aligned}$ | $\begin{aligned} & \text { Each } \\ & 50-99 \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19-07103-4-452-3 | $1452 \dagger$ | 2222244 | $\begin{aligned} & \hline 3 \\ & 3 \\ & 3 \\ & 3 \\ & 2 \\ & 2 \end{aligned}$ | Positive | \$2.10 | \$1.89 | \$1.68 | \$1.25 |
| 19-07103-4-454-9 | 1454 |  |  | Positive | 2.10 | 1.89 | 1.68 | 1.25 |
| 19-07103-4-455-6 | 1455 |  |  | Spring Return | 2.27 | 2.03 | 1.82 | 1.35 |
| 19-07103-4-467-1 | 1467 |  |  | Posit. \& Sp. Return | 2.10 | 1.89 | 1.68 | 1.25 |
| 19-07103-4-457-2 | 1457 |  |  | Spring Return | 2.50 | 2.24 | 2.00 | 1.49 |
| 19-07103-4-458-0 | 1458 |  |  | Positive | 2.50 | 2.24 | 2.00 | 1.49 |
| 19A7378-2. P-193 |  |  |  |  | $25^{\circ}$ | $24^{\circ}$ | 23 | $22^{\circ}$ |

## CENTRALAB UNIVERSAL PHENOLIC SWITCHES



19-07100-0-460-6 $19-07100-0-460-6$
$19-071100-0-461-4$
$19-07100-0-462-2$ $19-07100-0-462-2$
$19-07100-0-464-8$


4 POLE, 2 POSITION SWITCHES For long hard use in intercom, test equipment, etc. 2.75 am
15 VDC, 350 MA at 115 VAC . $1 / 4^{\prime \prime}$ round shaft, $17 / 8^{\prime \prime}$ long With hardware. Wt. 4 ois.
 50-99 Each …............. $\$ 2.97$ Ead Up Each

Rating 1.75A@ 24 VDC, 230 milliamps @ 115 VAC. Bush ing $3 / 8^{\prime \prime}-32$ thread, $3 / 8^{\prime \prime}$ long. With hardw'are, Shpg. wt. 6 ozs.

Specify B-A Stock No. and Switch No. When Ordering

| $\begin{aligned} & \mathrm{Mgg} . \\ & \mathrm{No} . \end{aligned}$ | Pole | Pos. | Shorting | Index | $\begin{aligned} & 1-24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 25-49 \\ \text { Each } \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { Each } \end{gathered}$ | $\underset{\text { Each }}{100 \mathrm{Up}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1460 | 1 | 2 | Yes | Pos. | \$1.22 | \$1.09 | \$0.98 | \$0.73 |
| 1461 | 1 | 3 | Yes | Pos. | 1.28 | 1.15 | 1.03 | 11 |
| 1462 | 2 | 2 | Yes | Pos. | 1.73 | 1.55 | 1.39 | 1.03 |
| 1464 | 2 |  | No | Mom. | 2.06 | 1.85 | 1.65 | 1.24 |

at
$\$ 3.32$
$\$ 2.21$

## 

## CARLING TOGGLE SWITCHES

(1) AC-DC TOGGLE SWITCHES
$11 / 6^{\prime \prime}$ bat handle toggle switch with $15 / 2^{\prime \prime}$ stem length. Dia. $15 / 22^{\prime \prime} \times 32$ thread

| Stock No. | Mig. Type | Action | $\begin{aligned} & \text { Amps } \\ & 125 \mathrm{~V} . \end{aligned}$ | $\begin{aligned} & 1-5 \\ & \text { Each } \end{aligned}$ | 6-24 Each | $\begin{gathered} 25-49 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 50-99 \\ & \text { Each } \end{aligned}$ | $100 \mathrm{Up}$ Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A7000-2 | 110.73 | SPST | 6 | \$1.40 | \$0.98 | \$0.88 | \$0.75 | \$0.68 |
| 19A7001-0 | 112.73 | SPDT | 3 | 1.75 | 1.23 | 1.10 | . 94 | . 85 |
| 19A7002-8 | 216.73 | DPST | 3 | 2.40 | 1.68 | 1.51 | 1.28 | 1.16 |
| 19A7003-6 | 316.73 | DPDT | 3 | 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
Solder lug terminals. **Center Off. Fone side momentarily on; other side N.C. $\xi^{8}$ Both sides momentarily on. Center off. All $3 / 4$ H.P. $-115-230$ V. A.C. Shpg. wt. 2 ozs.

| (2)19A7005-1 <br> (219A7006-9 <br> (219A7007-7 <br> (319A7008-5 <br> (319A7009-3 <br> (319A7010-1 <br> (219A7011-9 <br> (219A7082-0 | $\begin{aligned} & \text { 2FA53-73 } \\ & \text { 2FB53-73 } \\ & \text { 2FC53-73 } \\ & \text { 2GK50.73 } \\ & \text { 2GL50-73 } \\ & \text { 2GM50-73 } \\ & \text { 6FB53-73 } \\ & \text { 6FC53-73 } \end{aligned}$ | SPST SPDT SPDT DPST DPDT DPDT SPDT SPDT 8 | $\begin{aligned} & 15 \\ & 15 \\ & 15 \\ & 15 \\ & 15 \\ & 15 \\ & 15 \\ & 15 \\ & \hline \end{aligned}$ | $\begin{array}{r} \$ 1.45 \\ 1.55 \\ 1.55 \\ 2.20 \\ 2.65 \\ 2.65 \\ 2.15 \\ 2.15 \end{array}$ | $\$ 1.02$ 1.09 1.09 1.54 1.86 1.86 1.51 1.51 | $\begin{array}{r} \text { S0.91 } \\ .98 \\ .98 \\ 1.39 \\ 1.67 \\ 1.67 \\ 1.36 \\ 1.36 \end{array}$ | $\begin{array}{r} \$ 0.78 \\ .83 \\ .83 \\ 1.18 \\ 1.42 \\ 1.42 \\ 1.15 \\ 1.15 \end{array}$ | $\begin{array}{r} \$ 0.70 \\ .75 \\ .75 \\ 1.06 \\ 1.28 \\ 1.28 \\ 1.04 \\ 1.04 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

(9) HEAVY DUTY AC-DC TOGGLE SWITCHES
$11 / \mathrm{r}^{\prime \prime}$ bat handle, ${ }^{15 / 92^{\prime \prime}}$ stem length -32 thread. Screw terminals. Wt. 3 oz .
DK284-73 rated $1 \mathrm{HP}-250 \mathrm{~V}$; EK204-73 rated $11 / 2 \mathrm{HP}-250 \mathrm{~V}$.

| 19A7014-3 | DK284.73 | OPSI | 16 | $\$ 2.70$ | $\$ 1.89$ | $\$ 1.70$ | $\$ 1.45$ | $\$ 1.30$ |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: |
| 19A7015-0 | EK204.73 | DPST | 20 | 4.60 | 3.22 | 2.90 | 2.46 | $\mathbf{2 . 2 2}$ |

## PUSH-PUSH AC-DC SWITCHES



Positive action push on, push again for off. For any application where a pushbutton is preferable. Stem $9^{\prime \prime \prime} \mathrm{L}$. $\mathrm{x}^{15} / 2^{\prime \prime}$ dia., body $19 / 2^{\prime \prime} \mathrm{L}$. x $5 / 8^{\prime \prime}$ W. depth behind panel $1 / 2^{\prime \prime}$. Complete with mtg. nuts. Screw terms. Shpg. wt. 3 OZ . $\begin{array}{lllllll}\text { Stock } & \text { Mifg. Amperes 1-5 } & 6-24 & 25-49 & 50-99 & 100 \text { Up } \\ \text { No. } & \text { Type } & 125 \mathrm{~V} \text {. Each } & \text { Each } & \text { Each } & \text { Each Each }\end{array}$ $\begin{array}{lccrccrr}19 A 7016-8 & 110-\mathrm{SP} & 6 & \$ 2.45 & \$ 1.72 & \$ 1.54 & \$ 1.31 & \$ 1.18 \\ 19 A 7017-6 & 160-\mathrm{SP} & 10 & 3.05 & 2.14 & 1.92 & 1.63 & 1.47\end{array}$

## SPST MIDGET SWITCH <br> KNIFE SWITCHES

 Type 125 RB, 3 amps at
125 volts AC, Solder
 19A7018-4. 1-5 Each 6-24 Each....... 77 .
$50-99$ Each terminals. Threaded terminals. Threaded stem diameter. "名" ${ }^{\prime \prime}$;
stem length K". Has bat handle length $3 / 8^{\prime \prime}$. With hex and knurled nuts. Wt. 2 oz .
59. 100 Up Ea. ...... $53^{\circ}$

## SPST MOMENTARY PUSH SWITCHES

$1 \mathrm{amp} .250 \mathrm{~V} / 3 \mathrm{amp} 120 \mathrm{~V} \mathrm{AC}$ current rating. 19/32" sleeve length, 15/32-32 thread. 430 pushbutton extends $5 / 16^{\prime \prime} ; 432$ pushbutton extends $7 / 16^{\prime \prime}$. NO is normally opened, NC is normally closed. Sol$\begin{array}{llllll}\text { der terminal. Shpg. wf. } 2 \mathrm{oz} \text {. } & 1-9 & 10-49 & 50-99 & 100-\mathrm{Up}\end{array}$ $\begin{array}{lcccccc}\text { Stock No. } & \text { G-C No. } & \text { Circuit } & \text { Ea. } & \text { Ea. } & \text { Ea. } & \text { Ea. } \\ \text { 19A7374-1 } & 35-430 & \text { NO } & \$ 1.55 & \$ 1.45 & \$ 1.27 & \$ 1.00\end{array}$ 19A7375-8 19A7376-6 19A7377-4
TAPESWITCH FOR ALARMS, CONTROLS, SAFETY, PROTECTION, AUTOMATION
 CVP.

## 1723

131A


CVP-1723 SWITCHMAT
Reliable thin switching unit for use under entrance mat, runner or rug. Can be used exposed. $3 / 32^{\prime \prime}$ thick, $17 \times 23^{\prime \prime}$ with 6 ft . lead. Fully encased, weather proof. Responds to light step, closing circuit momentarily. Wt. 5 lbs.
No. 41A4034-6

## $9 \stackrel{3}{3}_{\text {Each }}$

 ch. $\$ 20.99$ Each
## H

$3 / 4^{\prime \prime}$ wide $\times 3 / 16^{\prime \prime}$ thick, light gray, 40 oz. nominal finger pressure, heatsealed with sleeve fittings and terminated with $18 / 2$ lead wire $18^{\prime \prime}$ long. Normally open, momentary contaciors. Shp. wt. 8 oz
No. 19A7370-9. 1 Ft. Long. Each $\$ 5.99$ 3 Ea. .. $\$ 5.3910$ Ea. $\$ 4.81$

## 111 CONTROFLEX FOOT SWITCH

Black footswitch, rated at 100 watts, 5 lbs . nominal foot pressure. Uses Controflex in molded flat pad $2^{\prime \prime} \times 5 \times 1 / 4^{\prime \prime}$ thick, complete with $18 / 2 \quad 1 / 4^{\prime \prime}$ dia.lead wire, 6 ft . long. Sealed and moisture-proof. Momentary, normally-open contacts. Non-tiring, user can stand on it, jump on it. Can be taped or cemented
in place. Shpg. wt. 10 oz.
No. $19 \mathrm{~A} 7372-5$. Ea. ...... $\$ 7.99$ 3 Each ... $\$ 7.2910$ Each .. $\$ 6.27$

## SWITCHCRAFT LEV-R SWITCHES

Compact lever-action switches. Silver contacts rated at 3 amps AC, non-inductive load, Length $21 /{ }^{\prime \prime}$, behind panel, width $5 / /^{\prime \prime}$. Require $1 / 2^{\prime \prime} \mathrm{mtg}$. hole. +N .0 . center
 position off.

TWO POSITION TYPES

| Stock N Spring Return | $\begin{aligned} & \text { Locking } \\ & \text { Type } \end{aligned}$ | $\begin{gathered} \mathrm{Mfg} \\ \mathrm{No} . \end{gathered}$ | Action |  | Prices Each$\begin{array}{lll} 1-9 & 10-24 & 25-49 \end{array} \quad 50-99$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 19A7167-9 } \\ & 19 A 7168-7 \\ & \text { 19A7169-5 } \end{aligned}$ | $\begin{aligned} & \text { 19A7175-2 } \\ & \text { 19A7176-0 } \\ & \text { 19A7177-8 } \end{aligned}$ | $\begin{aligned} & 3001 \\ & 3003 \\ & 3004 \end{aligned}$ | $\begin{aligned} & \text { SPST-NO } \\ & \text { SPDT } \\ & \text { DPST-NO } \end{aligned}$ |  | $\$ 2.52$ 3.04 3.28 | $\begin{array}{r} \$ 1.89 \\ 2.28 \\ 2.46 \\ \hline \end{array}$ | $\$ 1.73$ 2.09 2.26 | $\$ 1.58$ 1.90 2.05 |
| THREE POSITION TYPES |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { 19A7172-9 } \\ & \text { 19A7173-7 } \\ & \text { 19A7174-5 } \end{aligned}$ | $\begin{aligned} & \text { 19A7180-2 } \\ & 19 A 7181-0 \\ & 19 A 7182-8 \end{aligned}$ | $\begin{aligned} & 3033 \dagger \\ & 3036 \\ & 3037 \dagger \end{aligned}$ | SPDT-NO SPOT Ea. Sec SPOT-NO Ea. Sec | ${ }_{2} 2$ Sections | 3.28 3.84 3.92 | 2.46 2.88 2.94 | 2.26 2.64 2.70 | $\begin{array}{r} 2.05 \\ 2.40 \\ 2.45 \\ \hline \end{array}$ |

## SWITCHCRAFT "TINY SWITCH" \&

 "LITTEL-SWITCHES"MOMENTARY MINIATURE PUSH-BUTTON SWITCHES
Littel" 200 Series mounts in $3 / 8^{\prime \prime}$ hole. Black button. "Tiny" 950 Series mounts in $1 / 4$ " hole. Red button.

| $\begin{gathered} \hline \text { Stock } \\ \text { No. } \\ \hline \end{gathered}$ | Type | Action | $1-9$ | $\begin{gathered} \text { Pric } \\ 10-24 \end{gathered}$ | $\begin{aligned} & \text { ach } \\ & 25-49 \end{aligned}$ | 50-99 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A7038-2 | 201 | SPST-NO | \$1.00 | \$0.75 | \$0.69 | \$0.63 |
| 19A7039-0 | 202 | SPST-NC | 1.00 | . 75 | . 69 | . 63 |
| 19A7040-8 | 203 | SPDT | 1.24 | . 93 | . 85 | 78 |
| 19A7043-2 | 951 | SPST-NO | 1.00 | . 75 | 69 | 63 |
| 19A7044-0 | 952 | SPST-NC | 1.00 | . 75 | . 69 | . 63 |
| 19A7045-7 | 953 | SPDT | 1.24 | 93 | 85 | . 78 |

"BUTTON SWITCH" SWITCHES
SMALL MOMENTARY PUSH-BUTTTON SWITCHES
Metal housing. Mounts in $1 / z_{2}{ }^{\prime \prime}$ hole, Rated 250 MA AC.

| $\begin{gathered} \hline \text { Stock } \\ \text { No. } \end{gathered}$ | Type | Action | 1.9 | ${ }_{10-24}$ | ach |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | ${ }_{913} 9$ | $\begin{aligned} & \text { SPDT } \\ & \text { SPD } \end{aligned}$ | $\begin{array}{r} \$ 1.52 \\ 1.52 \\ \hline \end{array}$ | 1.14 | \$1.05 | S0.95 |

ND

## SWITCHCRAFT BOX SWITCHES

behind panel. Molded push-button switch "/10" sq. Depth $1{ }^{\text {s. }}$ " max. behind panel. Molded plastic body. Snap-in front panel mounting in
$.615^{\prime \prime} \mathrm{sq}$. hole. $\mathrm{z}^{\prime \prime}$ button stroke. Rated 250 MA, 30 watts max. AC.

| Stock | Mg <br> No | Button | Contacts | 1-9 | 10-24 | Prices Each 25-49 | 50-99 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T9A709-1 | BxR-01-1 | Red | SPST-NO | \$3.04 | \$2.28 | 2.09 | \$1.90 |
| 19A7110-9 | BXR-02-1 | Black | SPST-N0 | 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 $4^{\text {" }}$ long. all have $1 / 4^{"}$ diameter bushings. Depth behind bushing is $5^{\prime \prime}$ for $S P$ or $D P^{*} .57^{\prime \prime}$ for $3 P$ or $4 P$. Weighs only 1902 to 3202 . Momentary.


| Stock No. | JBT No. | Action | Panel Space | 1-9 | $\begin{gathered} \text { Price } \\ 10-29 \end{gathered}$ | $\begin{aligned} & \text { Each } \\ & 30-99 \end{aligned}$ | 100 Up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A7351-9 | JMT-121 | SPDT Center Off | $26 \times 5$ | \$1.95 | \$1.43 | \$1.30 | \$1.14 |
| 19A7352-7 | JMT-123 | SPDT 2 Position | $26 \times 5$ | 1.65 | 1.21 | 1.10 | . 96 |
| 19A7353-5 |  | - SPDT 2 Position | $26 \times 5$ | 1.95 | 1.43 | 1.30 | 1.14 |
| 19A7354-3 | JMT-221 | DPDT Center Off | . $45 \times 5$ | 2.55 | 1.87 | 1.70 | 1.48 |
| 19A7355-0 | JMT-223 | DPDT 2 Position | $45 \times 5$ | 2.15 | 1.58 | 1.43 | 1.26 |
| 19A7356-8 | JMT-321 | 3PDT Center Off | . $65 \times 5$ | 4.25 | 3.12 | 2.84 | 2.48 |
| 19A7357-6 | JMT-323 | 3PDT 2 Position | . $65 \times 5$ | 3.85 | 2.82 | 2.57 | 2.24 |
| 19A7358-4 | JMT-421 | $4 \mathrm{4PDT}$ Center Off | . $83 \times 5$ | 5.45 | 4.00 | 3.64 | 3.18 |
| 19A7359-2 | JMT-423 | 4PDT 2 Position | . $83 \times 5$ | 4.85 | 3.56 | 3.24 | 2.83 |

## PUSH-BUTTON SWITCHES

Have . $375^{\prime \prime}$ dia. threaded molded knobs $.31^{\prime \prime}$ long. Depth behind bushing is $795^{\prime \prime}$ PB123 is push to make, push again to reverse. PB126 is momentary action either NO or NC depending on how you wire it.
$\begin{array}{lllllllll}\text { 19A7360-0 } & \text { PB-123 } & \text { SPDT } & 26 \times 5^{\circ} & \$ 2.05 & \$ 1.54 & \$ 1.37 & \$ 1.29 \\ \text { 19A7361-8 } & \text { PB-126 } & \text { SPDT } & 26 \times 5^{\prime \prime} & 2.05 & 1.54 & 1.37 & 1.29\end{array}$

## EMMETYANAT AND CONTINENTAL WIRT SWITCHES

SWITCHCRAFT SERIES PL "PUSH-LITE" SWITCHES

"Push-Lite" is the first completely enclosed, lighted pushbutton switch which features long-life, high-ly-reliable leaf-spring swittching. 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 $1^{\prime \prime} \times .875^{\prime \prime}$ panel cutout; (B) barrier mounting requires $1-3 / 16^{\prime \prime} \times .875^{\prime \prime}$ panel cutout. Can be mounted in vertical or horizontal rows and in matrixes. Depth behind panel only $13_{4}$ " "Push-Lite" switch accepts standard $\mathrm{T}-11 / 4$ flange base lamps (not furnished with switch) in either 6 V type 328 or 28 V type 327 listed on page 139 . Specity 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.

|  | Mfg. $\quad 1.9 \quad 10-24$ |  |  |  | 25-49 | 50 Up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. |  | Action | Each | Each | Each | Each |
| 19A7297-4 | PL-1032-05 | SPDT | \$8.56 | \$6.42 | \$5.89 | \$5.35 |
| 19A7298-2 | PL-1062-05 | DPDT | 8.76 | 6.57 | 6.02 | 5.48 |
| 19A7299-0 | PL-1122-05 | 4PDT | 9.48 | 7.11 | 6.52 | 5.93 |
|  | MOMENTARY ACTION-TWIN LAMP |  |  |  |  |  |
| 19A7303-0 |  | SPPT | 8.76 | 6.57 |  |  |
| 19A7304-8 | $\mathrm{Pl}-2062-05$ | DPDT | 9.04 | 6.78 | 6.22 | 5.65 |
| 19A7305-5 | PL-2122-05 | 4PDT | 9.68 | 7.26 | 6.66 | 6.05 |
|  | PUSH-LOCK/PUSH-RELEASE-SINGLE LAMP |  |  |  |  |  |
| 19A7309-7 | PL-1037-05 |  |  | 6.78 |  |  |
| 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 |
| $\begin{aligned} & \text { 19A7315-4 } \\ & 19 A 7316-2 \\ & \text { 19A7317-0 } \end{aligned}$ | PUSH-LOCK/PUSH-RELEASE-TWIN LAMP |  |  |  |  |  |
|  | PL-2037-05 |  |  | 7.47 | 6.85 |  |
|  | PL-2067-05 | DPDT | 10.16 | 7.62 | 6.99 | 6.35 |
|  | PL-2127-05 | 4POT | 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 $1 / 8^{\prime \prime}$ centers, overal height is $27 / 3 ", 2 \mathrm{C}$ assemblies (suffix No. 206) extend $11 / 6^{\prime \prime}$ behind panel, 4 C assemblics (suffix No. 212) extend 15/0". Inter: lock function returns any button to "out" position when any other button is pushed. lock-out prevents operation of more than switches are completely assembled and tested at the factory.
 at the factory.

2C ASSEMBLIES (2PDT)


## 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 ${ }^{11 / 0^{\prime \prime}}{ }^{\prime \prime}$. depth behind panel is $23 / \mathbf{y}^{\prime \prime}$. Two $6 / 32$ screws required for mounting. 4 4PDT switch contacts on each station.


126

Switchcraft $67021 \mathrm{~K}-512$ $67041 \mathrm{~K}-512$ 67061K- 512
67081 K .512 67081K-512 $67121 \mathrm{~K}-512$

## No. of Stations 2 4 6 8 8 10



Prices Each

| Prices Each |  |  |
| ---: | ---: | ---: |
| $\mathbf{1 0 - 2 4}$ | $\mathbf{2 5 - 4 9}$ | $50-99$ |
| $\mathbf{S} 2.99$ | $\mathbf{2} .56$ | $\$ 2.33$ |
| 5.10 | 4.68 | 4.25 |
| 7.41 | 6.79 | 6.18 |
| 9.75 | 8.94 | 8.13 |
| 12.03 | 11.03 | 10.03 |
| 14.37 | 13.17 | 11.98 |

SWITCHCRAFT PUSHBUTTONS
Series PL-500. Colored pushbuttons are important elements of the "Push-Lite" Switch. All pushbuttons have a lusterless matte finish to eliminate reflective rlare.
Stock
Mig.

| Stock | Mig. |  | 1-9 | 10-24 | 25-49 | 100 UP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ${ }^{\mathrm{No}} \mathrm{O}$ | Color | Each | Each | Each | Each |
| 19A7274-3 | PL-501 | Red | \$0.20 | \$0.15 | \$0.14 | \$0.13 |
| 19A7275-0 | PL-503 | Green | 20 | . 15 | 14 | . 13 |
| 19A7276-8 | PL. 504 | Blue | 20 | 15 | 14 | 13 |
| 19A7277-6 | PL-505 | White | 20 | 15 | 14 | 13 |
| 19A7278-4 | PL-508 | Yellow | 20 | . 15 | 14 | 13 |
| 19A7279-2 | PL-512 | Clear | 20 | 15 | 14 | 13 |
| 19A7280-0 | PL-513 |  |  |  |  |  |

## SWITCHCRAFT MOUNTING BARRIERS

Barriers, molded of plastic, separate "Push-Lite", switches and prevent accidental operation 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 No. | Mig . No. | Description | 1-9 Each | $\underset{\text { Each }}{10-24}$ | $\begin{gathered} 25-49 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 50-99 \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 19A7293-3 } \\ & \text { 19A7295-8 } \end{aligned}$ | $\begin{aligned} & \text { Pl-102 } \\ & \text { PL-202 } \end{aligned}$ | End barrier - black Center barrier - black | $\frac{12^{\circ}}{12^{\circ}}$ | $\begin{aligned} & \mathbf{g} \\ & \mathbf{g} \end{aligned}$ | $\begin{aligned} & 8: \\ & 8: \end{aligned}$ |  |

## SWITCHCRAFT LIGHT DIVIDER <br> Used in the standard pushbutton to separate the lighting from twin lamps.

No. 19A7291-7. Switcheraft PL-551
1-9 Each .......8: 10-24 Each ........78 25-49 Each ........64 50 Up Each ....... 5
SWITCHCRAFT COLOR FILTER SNAP-INSERTS
Translucent filters for special color-coding in "Push-Lite" switch. Use with white or clear pushbuttons.


## 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.
$\begin{array}{cccccc}\text { Stock } \\ \text { No. } & \text { Mgg. } \\ \text { No. }\end{array} \quad$ Color $\begin{gathered}1-9 \\ \text { Each } \\ \text { Each } \\ \text { Each } \\ \text { Each }\end{gathered}$ $\begin{array}{ccccccc}\text { Noo } & \text { No } & \text { Color } & \text { Each } & \text { Each } & \text { Each } & \text { Each } \\ 19 A 7343-6 & \text { PL.9105 } & \text { Black } & \$ 2.24 & \$ 1.68 & \$ 1.54 & \$ 1.40\end{array}$ 19A7344-4 PL-9205 Grey $2.24 \quad 1.68 \quad 1.54$
No. 37A3367-7 Chassis Punch for PL. $1^{\prime \prime} \times .875^{\prime \prime}$. Each $\$ 30.00$


## MOMENTARY PUSH-BUTTON SWITCH

Normally open. Ideal for signal bells, lights, buzzers, etc. Pearl button with a nickel plated outer ring. Screw terminals. Snap mounts in $5 / \mathrm{a}^{\prime \prime}$ dia. hole. Depth of shank $1 / 2^{\prime \prime}$. Shpg. wt. 2 oz. No. 19A7026-7.1-9 Ea....... 69 $10-99^{\circ} \mathrm{Ea} . . . . . . .61^{\circ} 100 \mathrm{up} \mathrm{Ea} .55^{\circ}$

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 $\times 1.40^{\circ}$ long with 1.12 mtg . ctr. Size "B" $1.00^{\circ}$ wide $\times 1.40^{-\prime}$ long with 1.12 mtg . ctr. Average shpg. wt. 3 ozs . All are positive action

| Stock No. | Size | Action | $1-9$ <br> Each | $10-99$ <br> Each | 100 Up <br> Each |
| :--- | :---: | :---: | ---: | ---: | ---: |
| $19 A 7366-7$ | A | SPST | $\$ 0.35$ | $\$ 0.26$ | $\$ 0.17$ |
| $19 A 7367-5$ | A | SPDT | .36 | .27 | .18 |
| $19 A 7368-3$ | A | DPDT | .51 | .38 | .25 |
| $19 A 7369-1$ | B | 4PDT | 1.41 | 1.13 | .75 |

等SPST normally open, momentary contact. For all sorts of minia ture AC or battery powered DC devices. Moided insulated hous ing and red button. Solder terminals. Really smail, only $3 / 2$ dia. $\times 1^{\prime \prime}$ long over3II. Mounts in $1 / 4^{\prime \prime}$ hole. Top quality import at less than $1 / 2$ usual cost. Wt. 2 oz .
No. 19A7210-7
Net Each
99 ${ }^{\circ}$
10 Lots,
$89^{\circ}$

## 

## EICO LOW-RIPPLE DC POWER SUPPLIES <br> 1064 <br>  <br> 1020 <br>  <br> 1032 <br> 

## 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 voltmeter and ammeter permits constant monitoring. Fused primary, automatic reset
overload relay on secondary. Cabinet size $81 / 2 \times 53 / 4 \times 71 / 2^{\prime \prime}$. Wt. 16 lbs. Use on overioad relay on secondary.
117 volts $\mathrm{AC} 50-60 \mathrm{~Hz}$ line.
35A272-4 1064 K Kit, Each $\qquad$ $\$ 89.95$
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 $5 \times 4 \times 51 / 2^{\prime \prime}$. Housed in gray steel cabinet. Fuse protected. Wt. 5 lbs.
35A397-9. 1020 K Kit, Each $\$ 39.95$
35A398-7. 1020 Factory 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. $33^{\prime \prime} \times 8^{\prime \prime} \times 43 / 4^{\prime \prime}$. Wt. 5 lbs . 35A711-1. Model 1032 Kit. Each 35A3099-8. Model 1032 Factory Wired. Each
$\$ 59.95$

EICO 1030 VARIABLE REGULATED POWER SUPPLY
Featuring: Regulated continuously variable DC
FOR LABS-SCHOOLS
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 . Bias $3 \%$. Variation $4 \%$ or 5 volt for $\pm 10$ velt i $3 \%$. Variation $.4 \%$ or .5 volt for ${ }^{ \pm} 10$ volt Also variation. Ripple, less than 3 MV RMS. Also supplies 6.3 voits 3 amps. 6.3 volts center tapped 3 amps . 12.3 volts at 3 amps , 60 Hertz, 160 watts. Has dual range $0-200$, 60 . Hertz, 160 watts. Has dual range $0-200$ $81 / 2^{\prime \prime}$ H., $121 / 2^{\prime \prime}$ W.. $9^{n}$ D. Wt. 21 lbs 35A589-i.Model 1030. Kit, Ea................ $\$ 119.95$ 35A589-1.Model 1030. Kit, Ea.
$35 A 588-3.1030$ Factory Wired.


## 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, Osciliators, etc. Highly self shielding and little affected by stray magnetic fields.

## Mfg

Stock No.
3A5590-9
3A5191-7
3A5192-5
${ }^{\mathrm{No}} \mathrm{M}$
100 Turns $\pm 5$
O.D. Inche

3A5193-3
T- 200 MIX-
-2
120 uh
Ninciaimimionsio
ష్ష్మMN
$3 A 5196-6$
3A5197-4
3A5198-2
3A5199-0
3A5200-6
T-200 MIX-4
710 uh
110 uh
55 uh
34 uh
57 uh
-80 MIX-2
T-68 MXX-2
T-68 Mix-10
-50 MIX-2
T-50 MIX-10
-25 MIX- 12

$B K_{\text {Preclsions }}$
MODEL 1640 MOBILE EQUIPMENT POWER SUPPLY

Requlated adjustable power supply for servicing and operating CB transceivers, auto stereo, auto radios, electronic ignitions and other 12 voit 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 autodown it over

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 $3^{1} / 66 \times 10 \times 81 / 2^{\prime \prime}$. Shpg. wt. 13 lbs
35A3208-5. Model 1640. Each
$\$ 100.00$


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 $10^{1 / 4^{\prime \prime}} \mathrm{W} \times 21 / 2^{\prime \prime} \mathrm{H} \times 61 / 2^{\prime \prime} \mathrm{D}$. Shpg. wt. 5 lbs.
13A8073-4. Each
$\$ 49.95$

## REGULATED DC POWER SUPPLY

- 3 Amps Continuous
- 13.6 Volts DC $\pm 1 \%$.

Double the use of your CB mobile equipment, auto stereo tape player, or ca radio. Converts 115-125 VAC to 13.6 VDC $\pm 1 \%$. Regulated output voltage is tree of major variations with line voltage and load charges. Regulator employs a precision integrated circuit and rugged metal-cased power transistors for fong life and reliability. Foldback current-limiting 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: $31 / 2^{\prime \prime} \mathrm{HX} 51 / 4^{\prime \prime} \mathrm{W} \times 7^{\prime \prime} \mathrm{D}$.
13A8074-2. Model PS-133. Shpg. wt. 6 lbs. Each
\$26.95

## 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 $0^{\circ} \mathrm{C}$ to $50^{\circ} \mathrm{C}$. Order by manufacturer's number

| Stock No. | $\begin{aligned} & \mathrm{Mig} . \\ & \mathrm{No} . \end{aligned}$ | Fig. | $\begin{gathered} \text { Ohms @ } \\ 25 \text { C } \end{gathered}$ | Ratio | $\begin{gathered} 1-9 \\ \text { Each } \\ \hline \end{gathered}$ | $\begin{gathered} 10-\mathrm{Up} \\ \text { Each } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22-10450-9 | GA51J1 | A | 100K | 103.1 | \$2.16 | \$1.72 |
| 22-10455-8 | GA51P2 | B | 100K | 103.1 | 2.20 | 1.76 |
| 22-10460-8 | GB32J2 | A | 2 K | 73.1 | 2.16 | 1.72 |
| 22-10465-7 | GB32P8 | B | 2 K | 73.1 | 2.58 | 2.07 |
| 22-12640-3 | J825.1 | C | 500 | 69.1 | 1.05 | 84 |
| 22-12650-2 | J831J1 | C | 1 K | 69.1 | 1.05 | 84 |
| 22-12630-4 | JA35, 1 | C | 5 K | 9.11 | 1.05 | 84 |
| 22-12730-2 | KA31L1 | C | 1 K | 911 | 89 | 71 |
| 22-12740-1 | K822.J1 | C | 200 | 6.9:1 | 89 | 71 |
| 22-13500-8 | L821J1 | C | 100 | 6.9:1 | 89 | 71 |
| 22-13700-4 | NB11J1 |  | 10 | 6.91 | 89 | 71 |
| 22-13900-0 | Qa51J1 | 0 | 100K | 911 | 1.31 | 1.05 |
| 22-14565-0. | RB41L1 | 0 | 10K | 911 | 1.26 | 1.01 |

## THERMISTOR BASIC APPLICATION KIT

Contains 10 glass bead and rod thermistors. Resistance values from 3 K to 135 K ohms. Complete with applications manual and thermistor computer.
22-10430-1. G701. Per Kit. Each
Fenwal Thermistor Manual of characteristics and applications.
No. 16A1153-8. Each

## 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: $3^{1 / 2} \times 61 / 2 \times 5 \frac{1 / 211}{}$. Shpg. wt. 6 lbs. No. 13A8036-1. Tripp Lite Model PV-115. Each
$\$ 39.95$
Delivers 60 watts continuously. With cigarette lighter plug and cord. Size $31 / 2 \times 31 / 2 \times 21 / 2^{\prime \prime}$. Shpq. wt. 3 lbs.
No. 13A8049-4. Tripp Lite Model PV-60. Each
$\$ 29.95$


## 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 $11-14 \mathrm{VDC}$ input. 11 transistors. Size $31 / 2 \times 61 / 2 \times 9$ 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. $31 / 2^{\prime \prime} \times 5^{\prime \prime} \times 5^{\prime \prime}$. Fused. Shpg. wt. 8 lbs . No. 13A8023-9. Net Each
\$69.95
Model PV350 350 W. Continuous: 115 VAC from 12 V. DC input. 8 transistors. Size $31 / 2 \times 61 / 2 \times 9^{\prime \prime}$. Shpg. wt. 12 lbs .
No. 13A8050-2. Net Each.
$\$ 89.95$
Extra High Power Model PV-500HE 500 W. Continuous 115 VAC from 12 VDC input. Size $5 \times 91 / 2 \times 9^{\prime \prime}$. Shpg. wt. 20 lbs .
No. 13A8037-9. Each
$\$ 149.95$

[^3]
# SUPERIOR AND $\operatorname{soLA}$ TRANSFORMERS 



## 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 mainfrom no load

OPEN CONSTRUCTION POWERSTATS

| Stock No. | $\begin{gathered} \text { Mfg. } \\ \mathrm{No} . \end{gathered}$ | $\text { Volts }^{\text {In }}$ | $\begin{aligned} & \text { put } \\ & \text { Hertz } \end{aligned}$ | Output <br> Volts Amps | KVA | $\text { Dia. }{ }^{\text {Si }}$ | $\begin{aligned} & \text { Dize } \\ & \text { Dept } \end{aligned}$ | $\begin{aligned} & \text { Shpg. } \\ & \text { Wt. } \end{aligned}$ | $\begin{gathered} \text { Net } \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A941-0 | 10B | 120 | 50/60 | 0-120*2.25 | . 27 | $213{ }^{\prime \prime}$ | $2{ }^{18^{\prime \prime}}$ | 2.5 Lbs. | \$16.75 |
| 13A942-8 | 21 | 120 | 60/60 50 | ${ }_{0.120}^{0-132} * 2.25$ | . 30 |  |  |  |  |
|  |  | 120 | 50/60 | 0-140 4.5 | . 63 | $33 / 4^{\prime \prime}$ | $3{ }^{5} 8^{\prime \prime}$ | 6 Lbs . | 25. |
| 13A943-6 | 116BU | 120 | 50/60 | 0-120 10 | 1.2 |  |  |  |  |
| $\begin{aligned} & \text { 13AAS44-4 } \\ & 13 \text { A945-1 } \end{aligned}$ | $\begin{aligned} & 117 \mathrm{BU} \\ & 126 \mathrm{U} \end{aligned}$ | 120 | 50/60 | $0-140 \quad 10$ | 1.4 |  |  | 12 Lbs . | 33.70 |
|  |  | 120 | 60 $50 / 60$ | $\begin{array}{ll}0-120 & 12 \\ 0-120 & 15\end{array}$ | 1.4 1.8 | 5" | 43/8" | 12 Lbs . | 36.20 |
|  |  | 120 | 50/60 | 0-140 15 | 2.1 | $6^{\prime \prime}$ |  | Lbs | 61.70 |
| 13A917-0 | 136BU | 120 | 50/60 | 0-120 22 | 2.6 |  |  |  |  |
| 13A918-8 | 146 U | 120 | 50/60 50/60 | $\begin{array}{ll}0-140 & 22 \\ 0-120 & 30\end{array}$ | 3.1 3.6 | 67/8" ${ }^{\prime \prime}$ | $48^{518}$ | 26 Lbs. | 39.80 |
|  |  | 120 | 50/60 | 0-140 30 | 4.2 | 918" | $4{ }^{2} 2^{\prime \prime}$ | 38 Lbs. | 144.60 |
| 13A946-9 | 216BU | 120 | $50 / 60$ $50 / 60$ | $\begin{aligned} & 0-280 \\ & 0-240 \\ & 0.5 \\ & \hline \end{aligned}$ | $.42$ |  | 43 | 38. | 144.60 |
| $\begin{aligned} & 13 \text { A919-6 } \\ & 13 \text { A920-4 } \end{aligned}$ | $\begin{aligned} & 2178 \mathrm{~B} \\ & 226 \mathrm{U} \end{aligned}$ | 240 | 50/60 | $\begin{array}{lll}0-280 & 3.5\end{array}$ | 98 | 5" | 43\%" | 12 Lbs . |  |
|  |  | 240 120 | $\begin{aligned} & 60 \\ & 50 / 60 \end{aligned}$ | $0-240$ $0-280 * *$ 5 | 1.2 91 |  | 43/" | 12 Lbs. | 43.00 |
|  |  | 240 | 50/60 | $0-240 * *$ | 1 |  |  |  |  |
|  | 236BU | 240 | 50/60 | $0-280 \quad 7.5$ | 2.1 | $6 \%$ | 4-5/32" | 18 Lbs. | 61.70 |
| S21-2 | 236Bu | 240 | 50/60 | 0.240 0.280 | 1.2 |  |  |  |  |
|  |  | 240 | 50/60 | 0-280 10. | 2.8 | 67/8" | $4^{5} / 16^{6}$ | 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 150 V . Derate to 1.5 amps at 280 V . "Max output amps with output voits up to 150 V . Derate to 3.25 amps at 280 V . It Max output amps with output voits up to 150 V . Derate to 4.25 amps at 280 V .

## PORTABLE PLUG-IN POWERSTATS W/2 WIRE CORD

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{gathered} \mathrm{Mig} . \\ \mathrm{No} . \end{gathered}$ | Volts | put Hertz | Volts | tput Amps | KVA |  | Depth | $\begin{aligned} & \text { Shpg. } \\ & \text { Wt. } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 A937-8 | 16 B | $\begin{aligned} & 120 \\ & 120 \end{aligned}$ | $\begin{aligned} & 50,60 \\ & 50 \\ & 50 \end{aligned}$ | $\begin{aligned} & 0.120 \\ & 0.120 \end{aligned}$ | $\begin{aligned} & 10 \\ & 10 \end{aligned}$ | $\frac{n v n}{1.2}$ |  |  |  |  |



The 0 EM 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 tection, temperature compensation, etc. allow the same regulation and filter characteristics 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 $50-400 \mathrm{~Hz}$, with load derated to $75 \%$ for 400 Hz operation. DC output is completely filtered for a 10 mV ripple with either positive or negative terminal grounded. Regulation is $\pm 0.1 \%$, line and load combined. Recovery time is less than 50 microseconds, half to full load. Operating 30 Watt series are $475 \times$
30 Watt series are $4.75^{\circ} \mathrm{L} \times 44^{\prime \prime} \mathrm{W} \times 2.7{ }^{\circ} \mathrm{H}$. Shpg. wts. 3 lbs .
60 Watt series are $6{ }^{\circ} \mathrm{L} \times 4.94{ }^{\circ} \mathrm{W} \times 4.94^{\circ} \mathrm{H}$. Shpg Wis. 7 lbs
$120{ }^{\circ}$ Watt series are $7^{\prime \prime} \mathrm{L} \times 6.60^{\circ} \mathrm{W} \times 5{ }^{\circ} \mathrm{H}$. Shpg. 14 lbs.
30 WATT SERIES

| $\begin{aligned} & \text { Stock } \\ & \text { Nn } \end{aligned}$ | Sola <br> Model | Output Voltage Adjustment | Output Current | $\begin{aligned} & 1-4 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} \text { 5-9 } \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 13-08062-7 \\ & 13-08063 \\ & 13-08064-5 \\ & 13-08065-0 \end{aligned}$ | $\begin{aligned} & 83-05-230 \\ & 83-12.218 \\ & 83-15-216 \\ & 83-24-212 \end{aligned}$ | $\begin{aligned} & 4.8-5.5 \mathrm{~V} \\ & 11.5 \mathrm{~V} .1 .5 \mathrm{~V} \\ & 14.5-15-5 \mathrm{~V} \\ & 23.25 \mathrm{~V} \end{aligned}$ | $\begin{aligned} & 3 \mathrm{~A} \\ & 1.8 \mathrm{~A} \\ & 1.6 \mathrm{~A} \\ & 1.2 \mathrm{~A} \end{aligned}$ | $\begin{array}{r} \$ 33.83 \\ 33.83 \\ 33.83 \\ 33.83 \end{array}$ | $\begin{array}{r} \$ 31.72 \\ 31.72 \\ 31.72 \\ 31.72 \end{array}$ |

60 WATT SERIES

| $\begin{aligned} & 13-08066-8 \\ & 13-08067-6 \\ & 13-08068-4 \\ & 13-08069-2 \end{aligned}$ | $\begin{aligned} & 83-05-260-1 \\ & 83-12-250-1 \\ & 83-15-240-1 \\ & 83-24-225-1 \end{aligned}$ | $\begin{aligned} & 4.8 .5 .5 \mathrm{~V} \\ & 11.5 .12 \mathrm{~V} \\ & 14.5-15.5 \mathrm{~V} \\ & 23.25 \mathrm{~V} \end{aligned}$ | $\begin{aligned} & 6 A \\ & 5 A \\ & 4 A \\ & 2.5 A \end{aligned}$ | 68.83 68.83 68.83 68.83 | $\begin{aligned} & 64.53 \\ & 64.53 \\ & 64.53 \\ & 64.53 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 120 WATT SERIES |  |  |  |  |
| $\begin{aligned} & 13-08070-0 \\ & 13-08071-8 \end{aligned}$ | $\begin{aligned} & 83-05-312-1 \\ & 83-24-260-1 \end{aligned}$ | $\begin{aligned} & 4.8-5.5 \mathrm{~V} \\ & 23-25 \mathrm{~V} \end{aligned}$ | 6A 6 | $\begin{aligned} & 104.42 \\ & 104.42 \end{aligned}$ | $\begin{aligned} & 97.89 \\ & 97.89 \end{aligned}$ |

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 | PL | POWERSTATS |  |  | W/3 | WIRE | CORD |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A922-0 | 3PN116B 120 | 50/60 | 0-120 | 10 | 1.2 |  |  |  |  |
|  | 120 | 50/60 | 0-140 | 10 | 1.4 | 5 " | 55/9" | 12 Lbs. | \$52.50 |
| 13A923-8 | 8 3PN1178 120 | 60 | 0-120 | 12 | 1.4 | $5^{\prime \prime}$ | 55/3 ${ }^{\prime \prime}$ | 12 Lbs. | 59.20 |
|  | 120 | 50/60 50/60 | 0-120 | 15 | 1.8 | 631 | 53/8" | 18 Lbs. | 86.60 |
| 13A925-3 | 3 3PN136B 120 | 50/60 | 0.120 | 22 | 2.6 |  | 5\%81 | 18 Lbs |  |
|  | 120 | 50/60 | 0-140 | 22 | 3.1 | $73 / 4{ }^{\prime \prime}$ | $61 / 8^{\prime \prime}$ | 26 Lbs. | 125.90 |

## CASED POWERSTATS WITH EXPOSED TERMINALS

| $\begin{aligned} & \hline \text { Stock } \\ & \text { No. } \end{aligned}$ | $\begin{gathered} \mathrm{Mig} . \\ \mathrm{No} . \end{gathered}$ | Input |  | Output |  | Size |  |  | Shpg. | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Volts | Hertz | Volts | Amps | KVA | Dia. | Depth |  |  |
| 13A938-6 | 146 | 120 | 50/60 | 0-120 | 30 | 3.6 |  |  |  |  |
| A940-2 | 12560 | 120 120 | $50 / 60$ $50 / 60$ | 0.140 0.280 | 30 28 | 4.2 3 | $9^{11 / 6}$ | 636" | 38 Lbs . | \$155.80 |
| - |  | 240 | 50/60 | -240 | 28 | 6.7 |  |  |  |  |
|  |  | 240 | 50/60 | 0.280 | 28 | 7.8 | 137/3" | 15 | 82 lbs |  |

"Max output amps with output volts up to 150 V . Derate to 12 amps at 280 V .
SOLA CONSTANT VOLTAGE TRANSFORMERS

(2)

(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 $\pm 1 \%$ with input voltage variation as great as $\pm 15 \%$. 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 Ibs., 120 VA 14 lbs., 250 VA 28 lbs., 500 VA $45 \mathrm{lbs} ., 1000$ VA 72 lbs., 2000 VA 140 lbs., 3000 VA 194 lbs., 5000 VA 335 lbs.

| Stock No. | $\begin{aligned} & \mathrm{Mgg} . \\ & \mathrm{No} . \end{aligned}$ | *inpu Volts |  | Volt Amps | L. | $\begin{aligned} & \text { Size } \\ & \text { W. } \end{aligned}$ | H. | Each | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3A | 23-13-030 | 95 to | 118 | 30 |  | 4 |  | 55.9 |  |
| 3 A92 | 23-13-060 | 95 to 130 | 118 | 0 |  | 4 |  | 67. |  |
| A927-9 | 23-22-112-2 | Note 1 | 11 | 120 | 81/6 | 4 |  | 86. |  |
| 13A928-7 | 23-22-125 | Note | 118 | 250 | 95/8 | 53 | 7 | 18.25 | 110 |
| 13 | 23-22-150 | Note | 118 | 500 | 12 |  |  | 192.42 |  |
| 13 A930 | 23-25-210 | Note 2 | 118 \& 236 | 1000 | 177/8 | 9 |  | 299.75 |  |
| 10 | 323-25-220 | Note 2 | 118 \& 236 | 2000 |  | 101 |  | 510.25 |  |
|  | 23-25-230-3 | Note 2 | $118 \& 236$ 1188 | 3000 | 21 | 10 |  | 109.2 |  |
|  | 23-25-250 | Note 2 | 118 \& 236 | 5000 |  | - |  | 107. |  |

$\dagger$ shipped direct from factory.

## NORMAL HARMONIC TYPE CVN

Provide the same $\pm 1 \%$ regulation as the Sinusoidal series. Output contains average of $20 \% \mathrm{rms}$ 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 $5 \mathrm{lbs}, 60$ VA $8 \mathrm{lbs}, 120$ VA 13 lbs .250 VA $25 \mathrm{lbs} ., 500$ VA 36 lbs. 1000 VA 48 lbs .

| Stock No. | Mfg. No. | * Input Volts | Outpu Volts | Volt <br> Amps | L. | Size W. | H. | $1-4$ Each | $\begin{array}{r} \text { 5-9 } \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A1088-9 | 20-14-015 | 95-130 | 118 | 15 | 2'/6 | 2-11/32 | $4^{5} / 16$ | \$35.83 | \$33.59 |
| 13A1089-7 | 20-14-030 | 95-130 | 118 | 30 | $3^{5} / 16$ | 2-11/32 | $4^{5} / 16$ | 41.75 | +39.14 |
| 13A1090-5 | 20-14-060 | 95-130 | 118 | 60 | 37/8 | 31\% | $4^{13}$ /6 | 48.58 | 45.55 |
| 13A1091-3 | 20-14-112 | 95-130 | 118 | 120 | $4^{13} / 16$ | $31 / 8$ | $4^{11}$ /6 | 75.58 | 70.86 |
| 13A975-8 | 20-22-125 | Note 1 | 118 | 250 | $11^{\prime \prime}$ /6 | $6^{15}$ /6 |  | 111.75 | 104.77 |
| 13A976-6 | 20-22-150 | Note 1 | 118 | 500 | $12^{5 / 6}$ | $6^{15}$ h6 | $6^{\prime}$ /18 | 170.67 | 160.00 |
| 13A977-4 | 20-22-210 | Note 1 | 118 | 1000 | $15^{1 / 8}$ | $6^{15} / 6$ | $6^{7}$ '18 | 283.08 | 265.39 |

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 voits.
(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 . 60 and 120 VA | $\begin{aligned} & \text { 2-Wire } \\ & \text { 3-Wire } \end{aligned}$ | $\begin{aligned} & 999-104 \\ & 999-105 \end{aligned}$ | $\begin{aligned} & \text { No. 13A931-1 } \\ & \text { No. } 13 \text { A9 } 32-9 \end{aligned}$ | Each Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fits CVS 250 YA only | $\begin{aligned} & \text { 2-Wire } \\ & \text { 3-Wir } \end{aligned}$ | $\begin{aligned} & 999-005 \\ & 999-019 \end{aligned}$ | No. 13A933-7 <br> No. 13A934-5 | Each Each | $+\quad . \quad \$ 11.33$ |
| Fits CVS 500 VA CVN 250VA, CVN 500 VA | $\begin{aligned} & \text { 2-Wire } \\ & \text { 3-Wire } \end{aligned}$ | $\begin{aligned} & 999-009 \\ & 999-020 \end{aligned}$ | No. 13A935-2 <br> No. 13A936-0 | Each Each |  |

## 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 P. 6469.

| Stock No. | $\begin{gathered} \mathrm{Mig} . \\ \mathrm{No} . \end{gathered}$ | Secondary V.CT@A. |  | Test Volts | Mtg. Fig. | Dimensions <br> H. W. D. | Wt. Lbs. | $\begin{aligned} & 1-9 \\ & \text { Each } \end{aligned}$ | 10 Up Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A335-5 | P4026 | 2.5 | 1.5 | 2500 | A | $156 \times 27 / 8 \times 158^{\prime \prime}$ | 7 | \$4.00 | \$3.60 |
| 13A29-4 | P6454 | 2.5 | 10 | 7500 | S | $31 / 6 \times 3 / 6 \times 21 /{ }^{\prime \prime}$ | 2.5 | 7.42 | 6.68 |
| 13A399-1 | P6467 | 2.5 | 3 | 2500 | A | $2 \times 31 / 4 \times 2 \frac{1 / 8}{}{ }^{\prime \prime}$ | 1.4 | 5.17 | 4.65 |
| 13A281-1 | P6465 | 8.3 | . 6 | 1500 | A | $13 \times 23 \times 1{ }^{1 / 2^{\prime \prime}}$ | 4 | 3.75 3 | 38 |
| 13A21-1 | P8389 | 6.3 | 1. | 1500 | A | $146 \times 27 \mathrm{x} \times 1 / 2^{\prime \prime}$ | 6 | 3.75 3 | 3.37 |
| 13A99-7 | P6134 | 6.3 | 1.2 | 3000 | A | $176 \times 27 / 8 \times 1 /{ }^{\prime \prime}$ ", | 8 | 3.75 | 3.37 |
| 13A402-3 | P6466 | 6.3 | 1.2 | 2500 | A | $2 \times 31 / 4 \times 21 /{ }^{\prime \prime}$ | 1.4 | 5.42 | 4.88 |
| 13A329-8 | P6456 | 6.3 | 6 | 2000 | A | $23 \times 23 \times 23{ }^{19}$ |  | 7.33 | 6.60 |
| 13A147-4 | P6308 | 6.3 | 10 | 2500 | NV |  | 3.4 | 12.09 | 10.88 |
| 13A721-6 | P6309 | 6.3 | 20 | 2500 | NV | $4^{4} 16 \times 374 \times 334^{\prime \prime}$ | 6.7 | 19.00 | 17.10 |
| 13A336-3 | P6458 | 10 | 20 | 2000 | NV | $3^{1 / 16 \times 21 / 2 \times 21 / 2^{\prime \prime}}$ | 3. | 9.17 | 8.25 |
| 13A330-6 | P6461 | 10 | 10 | 2000 | N | $37 / 3 \times 31 / \times 3^{3} / \mathrm{me}^{\prime \prime}$ | 5.0 | 14.59 | 13.13 |
| 13A1020-2 | 2 P 384 | 12.6 | 1.0 | 1500 | A | $31 / \times 2 \times 136^{\prime \prime}$ | , | 4.58 | 4.12 |
| 13A192-0 | P8130 | 12.6 | 2 | 1500 | A | $2 \times 31 / 4 \times 21 /{ }^{\prime \prime}$ | 1.4 | 5.17 | 4.65 |
| 13A331-4 | P8358 | 12.6 |  | 1500 | A | $23 / 6 \times 33 / \times 21 /{ }^{\prime \prime}$ | 1.6 | 6.00 | 5.40 |
| 13A211-8 | P6469 | 25.2 | 1 | 1500 | A | $2 \times 31 / 4 \times 21 /{ }^{\prime \prime}$ | 1.4 | 5.00 | 4.50 |
| 13A978-2 | P8180 | 25.2 | 1 | 1500 | A | $2 \times 31 / 4 \times 21 /{ }^{\prime \prime}$ | 1.4 | 5.00 | 4.50 |
| 13A332-2 | P8357 | 25.2 | 2 | 1500 | A | $25.84 \times 21 /{ }^{\prime \prime}$ | 2.2 | 7.92 | 7.13 |
| 13A1019-4 | 4 P 3888 | 25.2 | 2.8 | 1500 | A | $276 \times 4 \times 21 / 4=$ | 2.2 | 9.34 | 8.41 |
| 13A1070-7 | 7 P 8609 | 26.8 | 1.0 | 1500 | A | $2 \times 31 / 4 \times 21 / 6^{\prime \prime}$ | 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. | $\begin{gathered} \mathrm{Mgg} . \\ \mathrm{No.} \end{gathered}$ | $\begin{aligned} & \text { H.V. } \\ & \text { V.CT } \end{aligned}$ | $\text { Sec. } 5 \text { V. }$ MA@ | $\begin{array}{r} 6.3 \\ \hline \\ \hline \end{array}$ | Dimensions <br> H. W. D. | Wt. Lbs. | $\begin{array}{r} 1-9 \\ \text { Each } \end{array}$ | $\begin{gathered} 10-24 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A381-9 | PC8402 | 480 | 55 2A | 2A CT | $31 / 8 \times 21 / \times 23 /{ }^{\prime \prime}$ | 2.4 | \$11.00 | \$9.90 |
| 13A382-7 | PC8403 | 500 | 70 2A | 2,5A CT | $31 / 3 \times 21 / \times 31 / 2^{\prime \prime}$ | 3.2 | 11.67 | 10.50 |
| 13A979-0 | PC8404 | 520 | 90 2A | 3A | $31 / 2 \times 2{ }^{11} / 6 \times 31 / 2^{\prime \prime}$ | 4 | 13.00 | 11.70 |
| 13A384-3 | PC8405 | 540 | 120 3A | 3.5A | $31 / 8 \times 31 / \times 3^{1 / 2} 2^{\prime \prime}$ | 4.9 | 15.00 | 13.50 |
| 13A668-9 | P8356 | 540 | 260 3A | 8.8A | $31 / 8 \times 31 / \times 33{ }^{3 /}$ | 6.5 | 23.34 | 21.01 |
| 13A388-4 | PC8409 | 700 | 90 2A | 3A CT | $31 / 2 \times 2^{13} / 6 \times 35 \%^{\prime \prime}$ | 4.5 | 15.50 | 13.95 |
| 13A389-2 | PC8410 | 720 | 120 3A | 3.5 ACT | 31/4x $3^{1 / 6 \times 374}{ }^{\prime \prime}$ | 5.5 | 17.00 | 15.30 |
| 13A391-8 | PC8412 | 800 | 200 3A | 5A CT | $4^{11} / 6 \times 33 / 4 \times 4^{\prime \prime}$ | 8.2 | 25.01 | 22.51 |
| 13A 30-2 | PS8415 | *125 | 15 | . 6 A | $1^{15} / 6 \times 238 \times 198^{\prime \prime}$ |  | 4.58 | 4.12 |
| 13A 32-8 | PA8421 | * 125 | 50 | 2 A | $21 / 4 \times 3{ }^{11} / 6 \times 22^{\prime \prime}$ | 1.5 | 6.67 | 6.00 |
| 13A1051-7 | P8624 | *125 | 15 | 12.6V@3A | $1^{15} / 6 \times 23 \times 13{ }^{138^{\prime \prime}}$ |  | 4.33 | 3.90 |
| 13A1052-5 | P8625 | 125 | 25 | 12.6 V @ 6 . ${ }^{\text {a }}$ | $2^{3} / 6 \times 22^{11} / 6 \times 134^{\prime \prime}$ | 1. | 5.58 | 5.02 |
| 13A1053-3 | P8626 | *125 | 50 | 12.6V@1A | $2^{1 / 4 \times} \times 3^{11}$ hex $2^{1 / 4} 1$ |  | 6.67 | 6.00 |
| 13A84-9 | PS8416 | 250 | 25 |  |  |  |  | 4.88 |
| 13A395-9 | PC8419 | 480 | 70 | 3 A | $31 / 8 \times 21 / 2 \times 27 / 8^{\prime \prime}$ | " 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 paraliel connections. All are $\mathrm{s} \mathrm{mtg} .8^{\prime \prime}$ leads. Excellent for building transistor power supplies.

| Stock No. | Stancor No. | Amps Each Sec. | Dimensions <br> H. W. D. | Wt. Lhs. | $\begin{array}{r} 1-9 \\ \text { Each } \end{array}$ | $\begin{gathered} 10-24 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1386699-7$ $138678-8$ <br> 138679. | $\begin{aligned} & \text { P8361 } \\ & \text { P8363 } \\ & \text { P8364 } \end{aligned}$ | $\begin{aligned} & 0.10 \\ & 0.25 \\ & 0.50 \\ & \hline \end{aligned}$ |  | $\begin{array}{r} 36 \\ .85 \\ 1.25 \\ \hline \end{array}$ | $\begin{array}{r} \$ 5.42 \\ 5.50 \\ 6.25 \\ \hline \end{array}$ | $\$ 4.88$ 4.95 5.63 |

LINE VOLTAGE CONTROL

## 230 TO 115 V. STEP-DOWN AUTO-TRANSFORMERS

For operation of 115 VAC devices in areas where $230 \mathrm{~V}, 50$ 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. | $\underset{\substack{\mathrm{Mig} \\ \mathrm{No} .}}{ }$ | Watts Max. | Dimensions H. W. D. | $\begin{aligned} & \text { Wt. } \\ & \text { Lbs. } \end{aligned}$ | $\begin{array}{r} 1-9 \\ \text { Each } \end{array}$ | $\begin{gathered} 10-24 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A1055-8 |  |  | 31/x25 $6 \times 21 / 2^{\prime \prime}$ | 2.5 | \$11.25 | \$10.13 |
| 13A1056-6 | P8631 | 125 | $31 / 2 \times 256 \times{ }^{3}$ |  | 11.50 | 10.35 |
| 13A1057-4 | P8633 | 300 | 3) $\times 3 \times 31 \times 4 \times 4 /{ }^{\prime \prime}$, | 5.2 | 17.50 | 15.75 |
| 13A1058-2 | P8635 |  |  | 10.3 | 26.01 | 23.41 |
| 13A1059-0 | P8636 | 1000 | $4^{1} / \mathrm{h6} \mathrm{\times 3} 3 \times 6 \mathrm{C}^{3} \mathrm{c}^{\prime \prime}$ | 17. | 37.67 | 33.90 |


| Stock No. | $\begin{aligned} & \mathrm{Mfg} . \\ & \mathrm{No} . \end{aligned}$ | Hys. | MA | Ohms | Fig. | Dimensions <br> H. W. | $\begin{aligned} & \text { Wt. } \\ & \text { Lhs. } \end{aligned}$ | $\begin{array}{r} 1-9 \\ \text { Each } \\ \hline \end{array}$ | $\begin{array}{r} 10-24 \\ \text { Each } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A51-8 | C1515 | 20 | 15 | 900 | A | $158 \times 27 / 8 \times 13 /{ }^{1 /}$ | 7 | \$3.75 | \$3.37 |
| 13A1013-7 | C1706 | 4.5 | 50 | 300 | A | $136 \times 276 \times 11 / 4{ }^{\prime \prime}$ | 5 | 2.95 | 2.63 |
| 13A61-7 | C1279 | 8.5 | 50 | 400 | A | $15 \% \times 27 \times 138^{\prime \prime}$ | 7 | 3.58 | 3.22 |
| 13A43-5 | C1003 | 16 | 50 | 580 | A | 2x31/415/ ${ }^{\prime \prime}$ | 1 | 4.17 | 3.75 |
| 13A46-8 | C1709 | 8 | 85 | 250 | A | $2 \times 31 / 4 \times 11 / 3^{\prime \prime}$ | 1.4 | 4.17 | 3.75 |
| 13A48-4 | C1001 | 10.5 | 110 | 225 | A | $25 / 64 \times 21 / 8$ " | 2.3 | 6.67 | 6.00 |
| 13A635-8 | C2327 | 1.5 | 200 | 85 | A | $1 \% \times 27 /{ }^{1 / 1 / 2^{\prime \prime}}$ | 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. | Mig. No. | Ind. Hys. | Amps | $\begin{aligned} & \text { Ohms } \\ & \text { Res. } \end{aligned}$ | Dimensions H.W.D. | wt. Lbs. | $\begin{array}{r} 1-9 \\ \text { Each } \\ \hline \end{array}$ | $\begin{gathered} 10-24 \\ \text { Eacb } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 7 | . 135 | 40 | $1 / 16 \times 23 \times 1{ }^{1 / 4}$ |  |  | \$2.18 |
|  |  | 4 | 275 | 22 | $19.8 \times 2 / 6 \times 1 / 16^{\prime \prime}$ | 65 | 2.67 |  |
|  |  | 25 |  | 10 | $2 \times 31 / 4 \times 11 / 16^{\prime \prime}$ | 1. |  | 3.08 |
|  |  | . 011 |  |  |  |  | 2.50 | 2.25 |
|  |  | . 035 |  | 75 | 25/6x2\% ${ }^{2 / 2 / 8}$ | 1.9 | 7.00 10.42 | 6.30 9.38 |
|  |  | . 025 |  |  |  |  | 10.42 13.00 | 11.70 |
|  |  |  |  |  | $3^{1 / 45} \times 3^{3 / 4} \times 3^{-1}$ | 5.3 | 13.00 | 11.70 |

## AUTOMATION CONTROL TRANSFORMERS

Dual winding primaries are connected parallel for 115 V . in series for $230 \mathrm{~V} .50-60 \mathrm{~Hz}$ AC. Dual secondaries also may be connected series or parallel. P6375. P6376, P6377. P8616 and P8617 are J type. Others gre BV mounting.

| Stock No. | $\mathrm{Mfg} .$ | Secondary <br> Parellel Series | Wt. | $\begin{aligned} & \text { Size } \\ & \text { H.W.D. } \end{aligned}$ | $\begin{gathered} 1-9 \\ \text { Each } \end{gathered}$ | $\underset{\substack{10-24 \\ \text { Each }}}{ }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4-5 | P6375 | 6V.@2A. 12V.@1A. |  | $23 \times 2 \% \times 156^{\prime \prime}$ | \$5.42 | \$4.88 |
| 13A622-6 | P6376 | 6V.@4A 12V.@2A. | 1.5 | $23 / 4 \times 31 / 8 \times 1 / 1 / 4$ | 6.50 | 5.94 |
| 13A623-4 | P6377 | 12V.@4A. 24 V .@ 2 A . | 2.5 4.3 | ${ }^{3 / 1 / 6 \times 35 \times 2 \times 21 / 4}$ | 8.34 13.75 | 12.38 |
| 13A624-2 | P6378 P6379 | 12v.@8A. 24 V .(a) 16 A . | 8 |  | 25.01 | 22.51 |
| 13 131063-5-2 | P8616 | $24 V .(a) 1 A$. $48 V .(0) 5 A$ | 1.5 | $23 \times 31 / 4 \times 1 /{ }^{\prime \prime}$ | 6.83 | 6.15 |
| 13 11064 | P8617 | 24V@2A 48V@1A | 2.5 | 31/6 $345 \times 21 / 4^{\prime \prime}$ | 8.34 | 7.51 |
| 13A1065-7 | P8618 | 24V@4A. 48V@2A. | 4.2 |  | 13.50 20.00 | 12.15 18.00 |
| 13 A1066-5 | P8619 | 24V@8A.48V@4A. | 8 | $4^{1 / 26 \times 3^{\prime} / 6 \times 37+8^{\prime \prime}}$ | 20.00 | 18.00 |

MINIATURIZED CONTROL TRANSFORMERS
FIG. A SECONDARY 24 V. C.T.

| Stock No. | Mig. No. | Secondary Ampers | Dimensions H. W. D. | Wt. Lhs. | Each | $\begin{array}{r} 10-24 \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A996-4 | P-8394 | 085 DC | 21/8×11/4×11/4 | 25 | \$4.58 | \$4.12 |
| 13A997-2 | P-8395 | 200 DC | $238 \times 13 \times 13{ }^{\prime \prime}$ | . 35 | 4.58 | 4.12 |
| 13A998-0 | P-8396 | 400 DC | $23 / 8 \times 158 \times 11 /{ }^{\prime \prime}$ | . 60 | 5.00 | 4.50 |
| 13A999-8 | P.8397 | 700 DC | $31 / 4 \times 2 \times 15 \%^{\prime \prime}$ | . 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. $21 / 2 \times 23 / 3 \times 31 /{ }^{\prime \prime} \mathrm{H} . \mathrm{H}^{2} .2 .5 \mathrm{lbs}$ : RT-202.



| $\begin{gathered} \text { Stock } \\ \text { No } \end{gathered}$ | Stancor No. | Rect. Ckt. | AC Volts Range | $\underset{\text { Amps. }}{\text { DC }}$ | DC V. Out Res. Load | $\begin{aligned} & \text { DC V. Out } \\ & \text { Cap. Load } \end{aligned}$ | $\begin{gathered} 1-9 \\ \text { Each } \end{gathered}$ | $\underset{\substack{10-24 \\ \text { Each }}}{ }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A734-9 | RT-201 | CT Bridge | $\begin{aligned} & 11.7-29.4 \\ & 11.1-28.5 \end{aligned}$ | ${ }_{1}^{2} .25$ | $\begin{aligned} & 3.3 \text { to } 11.2 \\ & 7.4 \text { to } 23 \end{aligned}$ | $\begin{aligned} & 3.5 \text { to } 13.8 \\ & 8.7 \text { to } 30.8 \end{aligned}$ | \$10.00 | \$9.00 |
| 13A735-6 | RT-202 |  | $12.0-29.8$ $12.0-29.8$ | ${ }_{2}^{4}$ | 3.7 to 11.1 8.9 to 24.3 | 4 to 14.7 10.8 to 33 | 13.75 | 12.38 |
| 13A736-4 | RT-204 |  | 11.7-29.2 | 4 | 4.3 to 12 | $\begin{aligned} & 1.5 \text { to } 14.5 \end{aligned}$ |  | 17.25 |
| 13A737-2 | RT-206 |  | $11.6-29.2$ $12-29.7$ | 12 | 8.8 to 24 8.411 .5 | 3.9 to 14.4 | 19.17 | 17.25 |
|  | RT-208 | ${ }^{\text {Bridge }}$ | 12 <br> $12.1-29.7$ <br> 1 | 15 | 8.4 to 24.4 3.9 to 11.4 | 10 to 32 4.4 to 14.8 | 26.34 | 23.71 |
|  |  | Bridge | 12.1-29.2 | 8 | 8.7 to 23.7 | 10.4 to 32.5 | 34.01 | 30.61 |
| 13A1061-6 | RT-401 | $\begin{aligned} & \mathrm{Cr} \\ & \text { Bridge } \end{aligned}$ | $24-59$ $24-59$ | 2 | 9 to 25 20.5 to 52.5 | 11.5 to 34 28.5 to 73.5 | 15.34 | 13.81 |

## LINE TO VOICE COIL TRANSFORMERS

| Stock No. | $\begin{aligned} & \mathrm{Mfg} . \\ & \mathrm{No} . \end{aligned}$ | Primary <br> Ohms | Sec. Ohms | Audio Watts | $\begin{aligned} & \text { Size } \\ & \text { H.W.D. } \end{aligned}$ | $\begin{aligned} & 1-9 \\ & \text { Each } \end{aligned}$ | $\begin{array}{r} 10-24 \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 13 A 16-1 \\ & \text { 13A37-7 } \end{aligned}$ | $\begin{aligned} & \text { A8101 } \\ & \text { A7947 } \end{aligned}$ | 500 2000/ 1500 1000/500 | 6-8/3.2 | 5 | $138 \times 238 \times 13{ }^{\prime \prime}$ | \$3.17 | $\begin{array}{r} \$ 2.85 \\ 4.88 \\ 5.92 \end{array}$ |
|  |  |  | $6-8 / 3.2$$16 / 8 / 2$ | $1{ }^{8}$ | $\begin{aligned} & 15 \times 2 \times 156^{\prime \prime} \\ & 236 \times 21 / 2 \times 136^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 5.42 \\ & 6.58 \end{aligned}$ |  |
| 13A532-7 | A8104 | $3000 / 2000$ |  |  |  |  |  |

## STANCOR MINIATURE TRANSISTOR AUDIO TRANSFORMERS



Open frame style with coded wire leads．Size， 150 milliwatt units ${ }^{3}{ }^{\prime \prime}{ }^{\prime \prime}$ between mounting tabs，$⿳ 亠 口^{12} 2^{\prime \prime}$ high， $18^{\prime \prime}$ wide， $5 / 8^{\prime \prime}$ deep．Wt .65 ozs． 300 milliwatt units $13 / 8^{\prime \prime}$ between holes， $13^{\prime \prime}$ high， $15 / 8^{\prime \prime}$ wide， $3 / 4^{\prime \prime}$ deep．Wt 1.2 ozs．
＊Indicates 300 MW units．All others rated 150 MW ．

| Stock No． | $\begin{gathered} \text { Stancor } \\ \mathrm{No} . \\ \hline \end{gathered}$ | Appli－ cation | Turns Ratio | Imped． Pri． | Ohms Sec． | $\begin{aligned} & 1.9 \\ & \text { Each } \\ & \hline \end{aligned}$ | $\begin{gathered} 10-24 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A818－0 | TA52 ${ }^{\circ}$ | In．Stg． | 1．00：1．00 | 500CT | 500CT | \＄5．33 | \＄4．80 |
| 13A909－7 | TA28 | In．Stg． | 1．65：1．00 | 1500 | 500 CT | 5.33 | 4.80 |
| 13A832－1 | TA34 | In．Stg． | 6.971 | 10 K | 200 CT | 4.33 | 3.90 |
| 13A833－9 | TA35 | In．Stg． | 2.24 .1 | 10 K | 2 KCT | 5.00 | 4.50 |
| 13A825－5 | TA21 | Output |  | 500 CT |  | 5.42 | 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 TA56 is J mtg．；TA59 is for driver use，others for output use．

| Stock No． | Type $\mathrm{No} \text {. }$ | Ohms Pri． | Ohms Sec． | $M A$ | Power Watts | Ht ． | Area | $\begin{aligned} & 1-9 \\ & \text { Each } \end{aligned}$ | $\begin{array}{r} 10-24 \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 13 A 1071-5 \\ & 13 A 1073-1 \\ & 13 A 813-1 \\ & 13 A 819-8 \end{aligned}$ | $\begin{aligned} & \text { TA-2 } \\ & \text { TA-7 } \\ & \text { TA-12 } \\ & \text { TA-56 } \end{aligned}$ | $\begin{aligned} & 100 \mathrm{CT} \\ & 100 \\ & 20 \mathrm{CT} \\ & 48 \mathrm{CT} \end{aligned}$ | $\begin{gathered} 10 \mathrm{CT} \\ 100 \mathrm{CT} \\ 8 \\ 3.2 / 6 \\ 8 / 16 \\ 200 \mathrm{cT} \end{gathered}$ | 100 | 25 | 1／4 | $21 / 8 \times 11 / 2$ | \＄3．33 | \＄3．00 |
|  |  |  |  | 100 |  | 136 | $27 \times 15$ | 4.17 | 3.75 |
|  |  |  |  | 500 | 10. | 13／8 | $23 \times 158$ | 4.00 | 3.60 |
|  |  |  |  |  |  |  |  |  |  |
| 3 A1011－1 | TA－59 | 500 CT |  | 50 | ． 5 | $11 / 4$ | $21 / \times 138$ | 4.17 | 5 |

## TRANSISTOR POWER TRANSFORMERS

Multiple tapped primary and secondary to furnish 24 differeht voltages from 6.5 V to 42 V ．Style A mounting
TP2－100 DCMA for bridge rectification with capacitor input filtering． $1-5 / 8^{\prime \prime} \mathrm{H} . \times 2-7 / 8^{\prime \prime} \mathrm{W} . \times 1$ ． ．
No．13A632－5 1－9 Each ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．$\$ 5.42$ 10－24 Each．．．．．．．．．．．．$\$ 4.88$

100 WS ELECTRONIC PHOTOFLASH
Power transformer for AC powered electronic flash circuits． 380 VAC at 20 DCMA in half




Use with power transistors and silicon rectifiers to produce HV DC from 12 volts DC． ypical circuit included．
TY－81 and TY－84 are highly efficient epoxy molded toroidal design．Exceed Grade 5 Class R require－ ments of specs．MIL－T－27B TF5RX40ZZ．
TY－68S and TY－74S are commercial open frame transiormers．

| Stock No． | Triad No． | DC Output From FW Bridge Rectifier | Dimensions H．W．D． | Wt． Lbs． | $\begin{aligned} & \hline 1-9 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 10-24 \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A907－1－081－0 | TY－81 | 375 V．a 200 MA | $2^{\prime \prime}$ Dia，1＂H | 5 | \＄16．92 | \＄15．23 |
| 13A907－1－084－4 | TY－84 | 600 V ．（a） 200 MA | $234^{\prime \prime}$ D． $138^{\prime \prime} \mathrm{H}$. | 1. | 27.15 | 24.44 |
| 13A907－1－068－7 | TY－68S | 250 V ．（a） 65 MA | $136 \times 13 / 4 \times 1-11 / 32^{3}$ | 2 | 7.53 | 6.78 |
| 13A907－1－074－5 | TY－74S | 600 V （a） 200 MA | $2 \times 41 / 8 \times{ }^{\prime \prime}$ | 1.07 | 14.38 | 12.94 |

FOR 115 V .60 Hz AC POWER FROM 12 V ．DC SOURCE
12 V ．input， $110-115-125 \mathrm{VAC} 60 \mathrm{~Hz} .115$ watt output． $378^{\prime \prime} \mathrm{H} . \times 3-9 / 32^{\prime \prime}$ W．X $31 / 2^{\prime \prime}$ D．Wt． 5 13A907－1－075－2 TY－75A．Each ．．．．．．．．．．．．．．\＄27．94 3－9 Each $\$ 21.49$ 10－24 Ea．．$\$ 19.49$

## SPRAGUE TYPE $11 Z$ TRIGATE PULSE TRANSFORMERS

Balanced pulse characteristics and energy transfer be－ tween windings．Minimum saturation effect to allow operation where increased pulse widths are required． Operating temperature range of -10 C to +70 C

FLEXIBLE LEAD

| Stock | Mfg． | Turns | Max．L1 | Max．DCR | $1-24$ | $25-49$ | 50－99 | 100－249 | 250－499 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No． | No． | Ratio | （uH） | （ohm） | Each | Each | Each | Each | Each |
| 13A1021－0 | $11 Z 12$ | $1: 1$ | 3.0 | 1.5 .1 .5 | $\$ 2.10$ | $\$ 1.65$ | $\$ 1.08$ | $\$ 0.78$ | $\$ 0.72$ |
| $13 A 1022-8$ | 11213 | $1: 1: 1$ | 3.0 | 2.2 .2 | 2.45 | 1.93 | 1.26 | .91 | 84 |

$\begin{array}{lccccccccc}\text { No．} & \text { No．} & \text { Ratio } & \text {（uH）} & \text {（ohm）} & \text { Each } & \text { Each } & \text { Each } & \text { Each } & \text { Each } \\ 13 A 1021-0 & 11112 & 1: 1 & 3.0 & 1.5-1.5 & \$ 2.10 & \$ 1.65 & \$ 1.08 & \$ 0.78 & \$ 0.72 \\ 13 A 1022-8 & 11213 & 1: 1: 1 & 3.0 & 2.2 .2 & 2.45 & 1.93 & 1.26 & .91 & .84\end{array}$

## POTTER AND BRUMFIELD RELAYS

## POTTER \& BRUMFIELD (PARELCO) GENERAL PURPOSE COMPACT RELAYS

R10-E1 SERIES INDUSTRIAL RELAYS
 contacts. Solder in or plug in sockets listed.


| 19A1961-1 | 27E130 | RIO-6PDT | PC Pins | 1.16 | . 04 | 93 | d |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HOLD DOWN SPRINGS FOR SOCKETS |  |  |  |  |  |  |  |
| 19A1965-2 19A1966-0 | $\begin{aligned} & 20 C 249 \\ & 20 C 250 \end{aligned}$ | 27E162 or $27 E 163$ or | 128 | 8 8: | $7{ }^{7}$ | + | 5 |
| 19A1967-8 | 20 C 251 | 27E164 or | 130 | 8. | 7 | * |  |



Small size - rugged 4PD1 enclosed reiay. For exacting high speed data processing. computer and process conrol service. 3 amp siver contacts. Solder terminals with $3-48$ stud. May be used with sockets listed below
$1.17 / 64^{-1} \mathrm{H}, 55 / 64$ W. W, $1-7 / 64^{\prime \prime} \mathrm{D}$. Wt. $21 / 20$. KHU $1-17 / 64^{\prime \prime} \mathrm{H}, 55 / 64^{\prime \prime} \mathrm{W}, 1-7 / 64^{\circ} \mathrm{O}$. Wt. $21 / 402$. KHU has clear polycarbonate
sealed in metal enclosure.

| Stk. No. | Mfa, No | Coil Y, | $1-24$ | $\begin{gathered} \mathbf{2 5 - 5 0} \\ \text { Each } \\ \hline \end{gathered}$ | $\begin{gathered} 51-99 \\ \text { Each } \\ \hline \end{gathered}$ | $\begin{array}{r} 100-249 \\ \text { Each } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A1948-8 | KHU17A11 | 12 AC | \$6.55 | \$6.22 | \$5.90 | \$4.91 |
| 19A1949-6 | KHU17A11 | 24 AC | 6.55 | 6.22 | 5.90 | 4.91 |
| 19A1950-4 | KHU17A11 | 120 AC | 7.10 | 6.75 | 6.39 | 5.33 |
| 19A1951-2 | kH17011 |  | 5.95 | 5.65 | 5.36 | 4.46 |
| 19A1952-0 | KHU17011 | 12 DC | 5.95 | 5.65 | 5.36 | 4.46 |
| 19A1953-8 | KHU17D11 | 24 DC | 5.95 | 5.65 | 5.36 5.58 | 4.46 |
| $19 A 19546$ <br> $19 A 1874-6$ | KHU17011 KHS17011 | 48 DC 24 DC | 6.20 10.50 | 5.89 <br> 9.98 | 5.58 | 4.65 |
| SOCKETS FOR ABOVE |  |  |  |  |  |  |
| 19A1956-1 | $\begin{aligned} & \text { 27E006 Socket } \\ & 24 \mathrm{AOO22} \text { Retainer for } \\ & 27 \mathrm{E} 006 \text { socket } \end{aligned}$ |  | \$0.71 | \$0.67 | \$0.64 | \$0.53 |
| 19A1955-3 |  |  |  |  |  |  |
| 19A1957-9 |  |  | . 74 | 70 | 65 | . 04 |

SOLID STATE TIME DELAY RELAYS
Electronic timing with solid state switching combined to provide a trouble free timing device with no moving parts, Knob adiustable through delay range shown. All have internal relay with DPDT contacts rated 10 amps. 120 VAC. Size $1.78 \times 1.41$. Height including knob, $3.56^{\prime \prime}$.

CHB - DELAY "ON OPERATE"
Accuracy $\pm 10 \%$ of nominal, reset times 100 milliseconds, repeataccuracy $\pm 2 \%$ octal base.
$\begin{array}{ll}\text { stk. No. } & \text { Mfg. } \mathrm{No} \text {. } \\ \text { 1981459-6 } & \text { CHB38-30001 } \\ \text { 19A1789-6 } & \text { CHB38-30003 }\end{array}$ 19A1789-6 CHB38-30003 19B1460-4 CHB38-70001 $1981460-4$ CHB $38-70001120$ VAC $1.10 \quad 23.35$
Release occurs when control circuit is de-energized. Accuracy $\pm 10 \%$ of nominal, reset time 100 milliseconds, repeatability $\pm 2 \%$. i1 pin base.
$\begin{array}{llllllll}1981463-8 & \text { CHB38-70011 } & 120 \text { VAC } & 1.10 & 28.60 & 27.17 & 25.74 & 22.88 \\ 19 A_{1747-4} & \text { CHB } 38-70013 & 120 \text { VAC } & 1-180 & 28.40 & 26.98 & 25.56 & 22.72\end{array}$ CDB DELAY "ON OPERATE"
Accuracy $\pm 5 \%$ of nominal, reset time 60 milliseconds, repeatability $\pm 1 \%$. Octal
$\begin{array}{lllllllll}\text { base. } \\ \text { 1981482-8 } & \text { CDB38-70003 } & 120 \text { VAC } & .1-10 & 51.80 & 49.21 & 46.62 & 41.44\end{array}$
CUF SOLID STATE TIME DELAY RELAYS

Adjustable thru delay range shown by using external resistor (not furnished). Fur minimum 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. $1.53 \times 1.41 \times 2.50^{\prime \prime} \mathrm{H}$. Wire in circuit or use 9KU1 $\begin{array}{llllllll}\text { socket. Mg. No. Input Delay Ext. } & \text { 1-9 } & 10-24 & 25-49 & 50-99\end{array}$ $\begin{array}{llllllllll}\text { Stk. No. } & \text { CUFP-41 } & \text { Volts } & \text { Seconds } & \text { Rexistor } & \text { Each } & \text { Each } & \text { Each } & \text { Each } \\ \text { 19A1748-2 } & 7010 & 120 \text { VAC } & 1.10 & 200 \mathrm{~K} & \$ 17.60 & \$ 16.72 & \$ 15.84 & \$ 14.08\end{array}$ | $19 A 1748-2$ | 70010 | 120 VAC | 1.10 | 200 K | $\$ 17.60$ | $\$ 16.72$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $1911749-0$ | 70120 | 120 VAC | $1-120$ | 2.4 Meg. | 19.15 | 18.19 |
| 19 | 17.24 | $\$ 15.08$ |  |  |  |  |



POTTER \& BRUMFIELD PR POWER RELAYS


Dependable, fast acting, sturdy, continuous duty relays for industrial use. Molded base, bobbin and contact carrier. 25 amp silver contacts. $2^{1 / 2^{\prime \prime}} \times 21 / 2^{\prime \prime} \times 3 \% \%^{\prime \prime}$ L. AC types are 60 Hz . ST contacts are contact carrier. 25 amp silver contacts. ${ }^{2}$. UL and CSA listed. Screw terminals. 1 lb .

| Stk. No. | Type | Contacts | Coil Volt | $\begin{aligned} & 1-24 \\ & \text { Each } \\ & \hline \end{aligned}$ | $\begin{array}{r} 25-50 \\ \text { Each } \\ \hline \end{array}$ | $\begin{gathered} 51-99 \\ \text { Each } \\ \hline \end{gathered}$ | $\begin{gathered} 100-249 \\ \text { Each } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A1925-6 | PRD3AY0 | SPST | 24AC | \$5.75 | \$5.46 | \$5.18 | \$4.31 |
| 19A1926-4 | PRDSAYO | SPST | 120AC | 5.75 | 5.46 | 5.18 | 4.31 |
| 19A1927-2 | PRD3AYO | 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 | 4.31 |
| 19A1930-6 | PRD5AY0 | SPDT | 24AC | 6.00 | 5.70 | 5.40 | 4.50 |
| 19A1931-4 | PRD5AYO | SPDT | 120AC | 6.00 | 5.70 | 5.40 | 4.50 |
| 19A1932-2 | PRD5AY0 | SPDT | 240AC | 6.65 | 6.32 | 5.99 | 4.99 |
| 19A1933-0 | PRD5DY0 | SPDT | 120C | 6.00 | 5.70 | 5.40 | 4.50 |
| 19A1934-8 | PRD5DY0 | SPDT | 240C | 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 | PRD7AYO | 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 | PRD70Y0 | DPST | 24DC | 6.80 | 6.46 | 6.12 | 5.10 |
| 19A1942-1 | PRDI1AYO | DPDT | 24AC | 8.90 | 8.46 | 8.01 | 6.68 |
| 19A1943-9 | PRDIIAYO | DPDT | 120AC | 8.90 | 8.46 | 8.01 | 6.68 |
| 19A1944-7 | PRDIIAYO | DPDT | 240AC | 9.50 | 9.03 | 8.55 | 7.13 |
| 19A1945-4 | PRDIIDY0 | DPDT | 120. | 8.90 | 8.46 | 8.01 | 6.68 |
| 19A1946-2 | PRDIIDY0 | DPDT | 1100C | 9.70 | 9.22 | 8.73 | 7.28 |

Matal Dust Cover for PRD Relays PG \# 350013
19A438-1.
1-24 Each....
$\$ 5.00$ Each..

## $51-99$ Each. <br> 1-99

$\qquad$ $\$ 4.50 \underset{\text { Each }}{\text { 100. } 249}$ $\qquad$ PRDAIIAYATYPE
Same type PRD described above. DPDT, with auxiliary snap switch snap switch' SPDT, rated 5 amps. 19 . $947-0$. Type PRDA11AYA. Coil volts 120 AC .
$1-24$ Each... $\$ 12.55 \quad 25-50$ Each. $\$ 11.92$ 51-99 Ea ... $\$ 11.30 \quad 100-249$ Ea .. $\$ 9.41$ PM 4PDT POWER TYPE
$1 / 4^{\prime \prime}$ contacts rated 25 amp 120 or 240 VAC, $50 / 60 \mathrm{~Hz}$. resistive load. UL and CSA listed. Screw terminals. $2.7^{\prime \prime} \times 3.4^{\prime \prime} \times 2.7^{\prime \prime} \mathrm{H}$. Wt. 1 lb .

|  |  | Mg. No. | Coll Volts | $1-24$ | $\mathbf{2 5 - 5 0}$ | $\mathbf{5 1 - 9 9}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Stk No. | Mech | Each | Each | Each |  |  |
| 19A1512-2 | PM17AY | $24 A C$ | $\$ 18.60$ | $\$ 17.67$ | $\$ 16.74$ | $\$ 13.95$ |
| 19A1513-0 | PM17AY | $120 A C$ | 18.60 | 17.67 | 16.74 | 13.95 |
| 19A1514-8 | PM17AY | $240 A C$ | 18.70 | 17.77 | 16.83 | 14.03 |

## MS MOTOR STARTING

For capacitor start, induction run motors. Operates on back EMF of start winding. Carries UL component recognition. Size $21 / 16^{\prime \prime} \times 3^{\prime \prime} \times 21 / 8^{\prime \prime}$ high. Pure silver SPST, NC, double break contacts. For motors to 3 HP . Wt. 1 lb .


## 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 $30^{\circ}$ 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 protection circuit with each relay. Up to 200 operations per sec. SPDT break before make (form C) contacts. $2.64^{\prime \prime}$ seated height. 1.31 max. dia. Wt. 502 s .


| Stock No. | Mig. No. | Coil Ohms | Coil MA | $\begin{aligned} & 1-9 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 10-24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 25-99 \\ \text { Each } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A1754-0 | JML-1160-81 | 1000 | 8.1 | \$17.45 | \$13.02 | \$11.03 |
| 19A401-9 | JM1-105-12 | 130 | 38.8 | 21.05 | 15.70 | 13.37 |
| 19A439-9 | JM1-112-11 | 500 | 20.1 | 21.05 | 15.70 | 13.37 |
| 19A472-0 | JM1-119-11 | 4 K | 8.1 | 10.70 | 10.70 | 10.70 |

# POTTER AND BRUMFIELD RELAYS 

sth. No.
1991354-9
19 A1390-3 19A1390-3 19A1391-1
19A1357-2 $19 A 1357-2$
$19 B 1349-9$ $1981349-9$
$19 A 1382-0$ 19A1382-0
19A1392-9 19A1439-8
19A1393-7 $19 A 1771-4$
$19 A 1383-8$ 19 A1383-8
19A1394-5
$19 A 1384-6$ 19A1384-6
19A1395-2 19A1385-3
19A1396-0 19A1358-0 19A1462-0
19A1397-8 19A1788-8 19A1328-3
19A1359-8 19B1350-7 19B1351-5
Type
KRP5A KRP5A
KRP5AG KRP5AG
KRP11AG KRP11AG KRP11A
KRP11AG KRP11A KRP11A
KRP11AG KRP11AG KRP11AG
KRP11AG KRP11D KRP11D
KRP11DG KRP11D KRP11DG KRP11D KRP14A KRP14AG KRP14AG
KRP14D KRP14D KRP14D
KRP14DG KRP14DG

## 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. $1 / 32^{\prime \prime}$ silver contacts rated 8 amps . 115 V AC non-inductive. Size $2^{31} 1 / 32 \mathrm{X}$
$1^{11} / 32 \times 11 / 16^{\prime \prime} \mathrm{H}$ for single pole, $2^{19 / 32} \times 23 / 16 \mathrm{X} 2^{\prime \prime} \mathrm{H}$ for double pole, $2^{311 / 22} \mathrm{X}$ $23_{6} \times 2^{\prime \prime} \mathrm{H}$ for three pole.


## KCP SENSITIVE TYPE PLATE CIRCUIT RELAYS

Same appearance as KRP above. Operates on 125 MW for SP. 250 MW for DP. 1/8" silver contacts rated 2 amps. $1-13 / 32^{\prime \prime}$ square $\times 2^{\prime \prime}$ high. Wt. 3 oz. 8 pin base.

| Stk. No. | Type | Contacts | Ohms | Each | 25-50 | Each | 51-99 |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Each | 100-249 <br> Each |  |  |  |  |  |  |
| 19A1353-1 | KCP5 | SPDT | $5 K$ | $\$ 8.40$ | $\$ 7.98$ | $\$ 7.56$ | $\$ 6.30$ |
| 19A1312-7 | KCP5 | SPDT | 10 K | 8.95 | 8.50 | 8.06 | 6.71 |
| 19B1352-3 | KCP11 | DPDT | $2.5 K$ | 8.80 | 8.36 | 7.92 | 6.60 |
| 19A1532-0 | KCP11 | DPDT | $5 K$ | 8.95 | 8.50 | 8.06 | 6.71 |
| 19A1533-8 | KCP11 | DPDT | $10 K$ | 9.55 | 9.07 | 8.60 | $\mathbf{7 . 1 6}$ |

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 $2.25^{\prime \prime}$ seated height $\times 1.406$
$\times 1.531^{\prime \prime}$. Wt, 3 oz . Socket for KUP relays listed below.

## KUP5A15-SPDT 10-Amp.

Stik. No Coil Coil Ohms $\quad 1-24 \quad 25-50$
Coil V.
19A1586-6
120 VAC 19A1595-7 $120 \mathrm{~V} \mathrm{AC} \quad{ }^{2250}$ KUP11A15-0.OPDT 10 Am ${ }_{5.65}^{54.66}$ 19A1598-1 12 V DC $\quad 120$ KUP11015-5PDT 10 Amp 13 $19 A 1600-5 \quad 110 \mathrm{~V}$ DC
 KUP14A15 3PDT 10-Amp. $\begin{array}{ll}19 \mathrm{~A} 565.0 & 24 \mathrm{~V} \text { AC } \\ 19 \mathrm{~A} 1566-8 & 120 \mathrm{VAC}\end{array}$

27E043 SOCKETS FOR KUP RELAYS. Rated 10 amperes, molded nylon, pierced solder terminals. 19A1958-7. 1-24 Each .... 90' $90^{\circ}$ 25-50 Ea.


SMALL LIGHT DUTY KA RELAY DC AND 60 Hz . AC COILS
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 $127 / 32^{\prime \prime} \times 11 / 32^{\prime \prime} \times 111 / 6^{\prime \prime}$ high. 110 V . DC Coil res. 10,000 ohms. Wt. 2 oz .

|  |  |  |  | $\text { IG } 5 \text { AMP. }$ $1-24$ | 25-50 | 51-99 | 100-249 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stk. No. | Type | Contacts | Coil V. | Each | Each | Each | Each |
| 19A1429-9 | KA5AY | 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 | KA5AY | 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 | KAllDY | 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 | 3 3PD | 6AC | 5.90 | 5.61 | 5.31 | 4.43 |
| 19A1434-9 | KA14AY | 3 PDT | 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 | 3 PDT | 110DC | 6.20 | 5.89 | 5.58 | 4.65 |
|  |  | CONT | T RATING | 10 AMP |  |  |  |
| 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 | 3 PDT | 12AC | 6.10 | 5.80 | 5.49 | 4.58 |
| 19B386-2 | KA14AG | 3 3PT | 24AC | 6.10 | 5.80 | 5.49 | 4.58 |



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 $1.8^{\prime \prime} \times 3.2^{\prime \prime} \times 2.1^{\prime \prime} \mathrm{H}$. Wt. 6 oz .

| Stk. No. | Type | Contacts | Coil V. | Each | 25-50 | Each | Each |
| :--- | :--- | :---: | ---: | ---: | ---: | ---: | ---: | | 100-249 |
| :--- |
| Each |



AP RATCHET OPERATED
Fors. Postions requiring on-off or reversing action on alternate operaEach successive impulse reverses contact position. as " 60 milliseconds. tacts Rated 5 A . For intermittent coil operation. Size $3 \frac{3}{4} \times 2{ }^{1} / 4 \times 2 \% / 16{ }^{\prime \prime} \mathrm{H}$. $\begin{array}{lllllll}\text { Stk. No. Type Contacts Coil V. } & \text { Each } & \text { Each } & 51-99 & \text { Each } & \text { Each }\end{array}$ $\begin{array}{lccccccc}\text { Stk. No. } & \text { Type } & \text { Contacts } & \text { Coil V. } & \text { Each } & \text { Each } & \text { Each } & \text { Each } \\ \text { 19A1435-6 } & \text { AP11A } & \text { DPDT } & 24 A C & \$ 16.35 & \$ 15.53 & \$ 14.72 & \$ 12.26 \\ 19 A 1436-4 & \text { AP11A } & \text { DPDT } & 120 A C & 16.35 & 15.53 & 14.72 & 12.26\end{array}$


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 $21 / 6 \times 231 / 22 \times 2 \% / 64$, two hole mounting. Wt. 5 oz .

|  |  |  | $1-24$ | $25-50$ | $51-99$ | 100-249 |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Stk. No. | Type | Contacts | Coil V. | Each | Each | Each | Each |
| 19A1344-0 | PC11A | DPDT | $120 A C$ | $\$ 9.40$ | $\$ 8.93$ | $\$ 8.46$ | $\$ 7.05$ |
| $19 A 1345-7$ | PC17A | 4PDT | $24 A C$ | 16.50 | 15.68 | 14.85 | 12.38 |
| $19 A 1346-5$ | PC17A | 4PDT | $120 A C$ | 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.


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. $.187^{\prime \prime}$ quick-disconnect/solder terminals. . $156^{\prime \prime}$ slot width.


## STANCOR/

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. ${ }^{4-40}$ $1 \mathrm{k} \mathrm{k}^{\prime \prime}$. Shipg. wt. 3 ozs .

| Stock No. | $\begin{gathered} \mathrm{Mgg} . \\ \mathrm{No} . \end{gathered}$ | Nom. Current or Voltage | Ohms Resistance | $\begin{aligned} & 1.24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 25-49 \\ \text { Each } \\ \hline \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { Each } \\ \hline \end{gathered}$ | $\begin{gathered} 100-249 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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. $1 \frac{1}{18} \times 3 / 4 \times 11 / 8^{\prime \prime}$. (1) PRINTED CIRCUIT TERMINALS

| Stock No. | $\begin{aligned} & \hline \mathrm{Mfg} . \\ & \mathrm{No} \text {. } \end{aligned}$ | Voltage or Current | Ohms Resistance | $\begin{aligned} & 1.24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} \text { 25-49 } \\ \text { Each } \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { Each } \end{gathered}$ | $\begin{gathered} 100-24! \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A1822-5 | MS64-901 | 6 V . | 400 | \$2.31 | \$2.08 | \$1.86 | \$1.62 |
| 19A1823-3 | MS64-902 | 12 V. | 1600 | 2.46 | 2.14 | 1.91 | 1.67 |
| 19A1824-1 | MS64-903 | 24 V . | 6500 | 2.69 | 2.35 | 2.09 | 1.82 |
| 19A1825-8 | MS64-904 | 3 MA | 10,000 | 2.92 | 2.54 | 2.27 | 1.97 |
| (2) BRACKET MOUNTING |  |  |  |  |  |  |  |
| 19A1826-6 | MS 64-911 | 6 V . | 400 | 2.46 | 2.14 | 1.91 | 1.67 |
| 19A1827-4 | MS64-912 | 12 V . | 1600 | 2.53 | 2.20 | 1.96 | 1.71 |
| 19A1828-2 | MS64-913 | 24 V. | 6500 | 2.76 | 2.40 | 2.14 | 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: $1-5 / 8 \times 1-1 / 8 \times 1-1 / 4^{\prime \prime}$. Plug in: $2 \times 1-3 / 8$


| Stock No. | $\begin{gathered} \text { Mfg. } \\ \text { No. } \end{gathered}$ | Nom. Voltag | Ohms sistance | $\begin{aligned} & 1.24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} \text { 25-49 } \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 50-99 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 100-249 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A1799-5 | MS50-902 | 12 V . | 650 | \$5.78 | \$5.19 | \$4.64 | \$4.04 |
| TWO POLE DOUBLE THROW - PLUG IN TYPE - 8 PRONG OCTAL |  |  |  |  |  |  |  |
| 19A1811-8 | MS50P-902 | 12 V . | 650 | \$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.
Wt.
$31 / 2 \mathrm{Oz}$.

|  |  |  |  | 1-24 | 25-50 | Each | 249 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stk. No. | Mfg. No. | Contacts | Coil V. | Each | Each | Each |  |
| 19A1572-6 | GA11A | DPDI DPDT | ${ }^{6} 12 \mathrm{AC}$ | \$6.25 | \$5.94 | \$5.63 | S4.69 4.69 |
| 19A1574-2 | GA11A | DPDT | 24 AC | 6.25 | 5.94 | 5.63 | 4.69 |
| 19A1575-9 | GAlla | DPDT | 120 AC | 6.25 | 5.94 | 5.63 | 4.69 |
| 19A1580-9 | GA17A | 4PDT | 24 AC | 8.80 | 8.36 | 7.92 | 6.6 |
| 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 $1 \times 1-5 / 32 \times 15 / 16^{\prime \prime}$. H. Wt. $1-1 / 202$

|  |  |  | 1.24 | 25-50 | 51.99 | 100-24 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 1.25 | 6.89 | 53 | 5.44 |

## KT ANTENNA RELAYS



Low-loss glass base insulation, For switching 300 ohm RF line. DPDT silver contacts rated at 5 amps . Size $1.3^{\prime \prime} \times 1.9^{\prime \prime} \times 1.7^{\prime \prime} \mathrm{H}$. Mounts with

| 6.32 stud. |  |  | 1-24 | 25-50 | 51-99 | 100-249 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stk. No. | Type | Coil V. | 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. $13 / 3$ oz. 6.32 tapped core mounting. Size $1.03 \times 1.37 \times 1.03^{\prime \prime} \mathrm{H}$.


129 AC POWER RELAYS
Totally enclosed. Screw connections. Contact rating inductive load: 18 amp at 250 VAC. continuous $1 \mathrm{HP}-125 \mathrm{~V}, 2 \mathrm{HP}-250 \mathrm{~V}$ : resistive load: 18 amp continuous. Operates in any position. $2-3 / 8 \times 1$ $7 / 8 \times 1-7 / 8^{\prime \prime}$. Shpg. wt. 5 ozs .


84 AC GENERAL PURPOSE RELAYS Totally enclosed. Screw terminals. Operates in any position.

 tinuous, 25 amps inrush; resistive load: 16 amps continuous, \begin{tabular}{llllll}
\hline Stock Mfg. AC Coil \& $\mathbf{1 - 2 4}$ \& $25-49$ \& $50-99$

 

No. \& No. \& Voltage \& Action \& Each \& Each \& Each <br>
\hline 19A179-1 \& $84-902$ \& 24 \& SPNO \& $\$ 3.96$ \& $\$ 3.57$ \& $\$ 3.20$ <br>
19A180-9 \& $84-903$ \& 120 \& SPNO \& 4.10 \& 3.70 \& 3.57
\end{tabular} Contact Rating at $125 / 250$ V. AC. Inductive load: 8 amps continuous, 18 amps inrush; resistive load: $\mathbf{8} \mathrm{amps}$ continuous.

| Stock No. | $\begin{gathered} \mathrm{Mfg} . \\ \mathrm{No} . \end{gathered}$ | AC Coll Voltage | Action | $\begin{aligned} & 1.24 \\ & \text { Each } \\ & \hline \end{aligned}$ | $\begin{aligned} & 25-49 \\ & \text { Each } \\ & \hline \end{aligned}$ | $\begin{aligned} & 50-99 \\ & \text { Each } \\ & \hline \end{aligned}$ | $\begin{gathered} 100-24! \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A1723-5 | 84-906 | 24 | SPDT | \$4.51 | \$4.07 | \$3.63 | \$3.1 |
| 19A1724-3 | 84-907 | 120 | SPDT | 4.87 | 4.40 | 3.92 |  |
| 19A1725-0 | 84-908 | 230/240 | SPDT | 5.29 | 4.77 | 4.24 | 3.7 |

## 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. $31 / 4 \times 23 / 3 \times 21 / 2^{\prime \prime}$. 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.

| Stock <br> No. | Mfg, <br> No. | Coif <br> Voltage | $1-24$ <br> Each | $25-49$ <br> Each | $50-99$ <br> Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| EA1816.7 | $1433-901$ | 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 @ $277 \mathrm{~V} . \mathrm{AC}$ per pole. Resistive load: 35 amp (a 277 V. AC per pole. With cover.

|  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Stk. No. | Mfg. No. | Coil Voltage | $\mathbf{1 - 2 4}$ | $\mathbf{2 5 - 4 9}$ | $\mathbf{5 0 - 9 9}$ | $\mathbf{1 0 0 - 2 4 9}$ |
| $19 A 1819-1$ | $143-914$ | 24 | Each | Each | Each | Each |
| $19 A 1820-9$ | $143-915$ | 120 | $\$ 10.08$ | $\$ 9.06$ | $\$ 8.06$ | $\$ 7.05$ |

## 75 AC POWER CONTACTORS



Screw terminal contacts ( 8 solid wire max.) Hardware included. $9^{n}$ 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. $21 / 2 \times 21 / 8 \times 21 / 4^{\prime \prime}$. Shpg. wt. $802 s$.

| Stock <br> No. | Mtg. <br> No. | Coil <br> Voltage | $1-24$ <br> Each | $25-49$ <br> Each | $50-99$ <br> Each |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $19 A 1730-0$ | $75-901$ | $24 \mathrm{~V} . \mathrm{AC}$ |  | $\$ 5.45$ | $\$ 4.90$ |
| $19 A 211-2$ | $75-902$ | $115 / 120 \mathrm{~V} . \mathrm{AC}$ | $\$ 4.35$ |  |  |

## 85 AC POWER CONTACTORS



## 10 AND 30 AMP AC INDUSTRIAL CONTACTORS

 Doublebreak contacts. Silver alloy contacts. Replaceable contacts and coil. H dielectric arc resistant contact block and carrier, $50 / 60 \mathrm{~Hz}$ coil, resilient mounting All types are $35 / 8 \times 23 / 4 \times 33 / 8^{\prime \prime}$. Shpg, wt. 5 ozs.Pressure ty C10 10 AMP 4-POLE NORMALLY OPEN

Pressure type power terminals, \#10 solid wire max. All contacts | Stock | Coil | $1-24$ | $25-49$ | $50-99$ | $100-249$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| No. | Type | Voltage | $1-24$ | End |  |  | $19 \mathrm{~A} 1736-7 \mathrm{C} 10-902 \quad 110$ V. AC $\quad \$ 21.00 \mathrm{\$ 18.68} \quad \mathbf{\$ 1 5 . 5 5} \mathbf{\$ 1 5 . 1 8}$

C30 30 AMP 4-POLE NORMALLY OPEN
Pressure type terminals, \#8 solid wire max.

| stk. No. | Type | Coil Voltage |  | $1-24$ <br> Each | 25-49 <br> Each | $50-99$ <br> Each | 100-249 <br> Each |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| $19 A 1740-9$ | C30-902 | 110 V. AC |  | $\$ 32.03$ | $\$ 28.81$ | $\$ 25.59$ | $\$ 22.37$ |
| $19 A 1741-7$ | C30-903 | 220 V. AC | 32.03 | 28.81 | 25.59 | $\$ 22.37$ |  |

## REM CONTROLS

## GUARDIAN PULL－TYPE SOLENOIDS


＂ 1 ＂intermittent types can be energized up to 5 minutes．＂C＂continuous duty types for un－ limited time，if operated within power rating． Plunger has slotted end with $1 / 8^{\prime \prime}$ hole for cou－ pling．


| Stock No． | $\begin{aligned} & \mathrm{Mfg} . \\ & \mathrm{No} . \end{aligned}$ | Duty | Volts | $\begin{gathered} A C \\ \text { or } D C \end{gathered}$ | Ohms | Minimum | rokes Maximum | Body Size <br> L． X W． XH ． | $\begin{aligned} & \text { Wt. } \\ & \text { Ozs. } \end{aligned}$ | $\begin{aligned} & 1-24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} \text { 25-49 } \\ \text { Each } \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { Each } \end{gathered}$ | $\begin{gathered} 100-249 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 198142－9 | 11 | 1 | 6 | DC | 2 | 4002 at $1 / 8^{\prime \prime}$ | 202. at $3 / 44^{\prime \prime}$ | $1 / 8 \mathrm{X}^{15} / 6 \mathrm{X}^{13} / \mathrm{l}^{\prime \prime}$ | 7.5 | \＄4．16 | \＄3．95 | \＄3．74 | \＄3．12 |
| 198143－7 | 11 | C | 6 | DC | 4.5 | 2502. at $1 / 8{ }^{\prime \prime}$ | 102 at $3 / 4$＂ | $17 / 8{ }^{15} / 6 \times{ }^{3} / 16{ }^{\prime \prime}$ | 7.5 | 4.16 | 3.95 | 3.74 | 3.12 |
| 198156－9 | 11 | 1 | 120 | AC | 85 | 25 oz ．at 1／8＂ | 6 oz at ${ }^{\prime \prime}$ | $11 / 8 \times^{15} / 6 \times{ }^{1 / 16 .}$ | 7.5 | 4.16 | 3.95 | 3.74 | 3.12 |
| 198165－0 | 11 | C | 120 | AC | 200 | 12 oz ．at $1 / 8{ }^{\prime \prime}$ | 102 at $1^{\prime \prime}$ | $17 / 8 \times 15 \times 1{ }^{13} / 6^{\prime \prime}$ | 7.5 | 4.16 | 3.95 | 3.74 | 3.12 |
| 198169－2 | 12 | C | 120 | AC | 150 | 22 oz ．at $1 / \mathrm{s}^{\prime \prime}$ | 3 oz ．at ${ }^{1 / \mathrm{c}^{\prime \prime}}$ | $15 / 8 \times 11 / 4 \times 1 / 16{ }^{\prime \prime}$ | 6 | 6.20 | 5.89 | 5.58 | 4.65 |
| 198103－1 | 14 | ， | 120 | AC | 11 | 6502 at $1 /{ }^{\prime \prime}$ | 37 oz ．at $11 /{ }^{\prime \prime}$ | $2^{\prime} / 16 \times 1{ }^{15} / 76 \times 2.16{ }^{\prime \prime}$ | 9 | 8.65 | 8.22 | 7.79 | 6.49 |
| 198170－0 | 14 | C | 120 | $A C$ | 18 | 110 oz ．at $1 / \mathrm{s}^{\prime \prime}$ | 52 oz at $11 / z^{\prime \prime}$ | $2^{\prime} / 16 \times 1{ }^{15} / 76 \times 2{ }^{\prime} / 16^{\prime \prime}$ | 9 | 8.65 | 8.22 | 7.79 | 6.49 |
| 198186－6 | 18 | 1 | 120 | AC | 8.8 | 280 02．at $1 / 8{ }^{\prime \prime}$ | 8002 at $1^{\prime \prime}$ | $21 / 2 \times 11 / 16 \times 2-3 / 32$＂ | 16.5 | 8.21 | 7.80 | 7.39 | 6.16 |
| 19890－0 | 18 | C | 120 | AC | 19.7 | 14502 at $1 / \mathrm{s}^{\prime \prime}$ | 40 oz ．at $1^{\prime \prime}$ | $21 / 2 \times 11 / 6 \times 2-3 / 32^{\prime \prime}$ | 16.5 | 8.21 | 7.80 | 7.39 | 6.16 |
| 198286－4 | 18 | C | 240 | AC | 78 | 14502 at $1 / 8{ }^{\prime \prime}$ | 40 02．at $1^{\prime \prime}$ | $21 / 2 \times 13 / 16 \times 2-3 / 32^{\prime \prime}$ | 16.5 | 8.34 | 7.92 | 7.51 | 6.26 |
| 19A27－2 | 28 | C | 120 | AC | 400 | 20 02．at ${ }^{1 / 16}{ }^{\text {c／}}$ | 2.502 at $1 / 2^{\prime \prime}$ | $11 / 8 \times 1.7 / 32 \times 1 / 16^{\prime \prime}$ | 3.5 | 4.02 | 3.82 | 3.62 | 3.02 |
| 19A44－7 | 28 | C | ， | ${ }^{\text {D }}$ | 7.7 | 2402. at ${ }^{1 / 16}{ }^{\prime \prime}$ | 102 at $3 / 8^{\prime \prime}$ | $11 / 8 \times 1.7 / 32 \times 1{ }^{1 / 26}$ | 3.5 | 3.70 | 3.52 | 3.33 | 2.78 |
| 19A47－0 | 28 |  | 12 | DC | 13 | 3502. at ${ }^{1 / 16}{ }^{\text {c }}$＂ | 202. at $1 / 2^{\prime \prime}$ | $11 / 8 \times 1.7 / 32 \times 1{ }^{1 / 2 "}$ | 3.5 | 3.70 | 3.52 | 3.33 | 2.78 |
| 19A58－7 | 28 | C | 12 | DC | 27 | 2402 at ${ }^{\text {ches }}$／ 16 | 102 at $388^{\prime \prime}$ | $11 / 8 \times 1.7 / 32 \times 1{ }^{1 / 16^{\prime \prime}}$ | 3.5 | 3.70 | 3.52 | 3.33 | 2.78 |

EFe

## GUARDIAN PUSH－TYPE SOLENOIDS

Plunger pushes out when Solenoid is energized．Length of push rods equals maximum stroke length shown．

| Stock No． | $\underset{\substack{\mathrm{Mfg} \\ \mathrm{No} \\ \hline}}{ }$ | Duty | Volts | $\begin{aligned} & \mathrm{AC} \\ & \text { or } \mathrm{DC} \\ & \hline \end{aligned}$ | Ohms | $\begin{gathered} \text { Lifts an } \\ \text { Minimum } \end{gathered}$ | okes Maximum | Body Size $\text { L. } \mathrm{XWW} . \mathrm{XH} \text {. }$ | $\begin{aligned} & \text { Wt. } \\ & \text { Ozs. } \end{aligned}$ | $\begin{aligned} & 1.24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 25-49 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & \hline 50.99 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 100-249 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A5018－6 | 18 P | 析 | 120 | AC | 19.7 | 145 oz．at $1 / 8^{\prime \prime}$ | 40 oz at ${ }^{1 / 1 / 8}$ | $21 / 2 \times 1{ }^{11 / 16} \times 2^{1 / 160}$ | 16.5 | \＄9．68 | \＄9．20 | \＄8．71 | \＄7．26 |
| 19A5020－2 | 28 P |  | 120 | AC | 220 | 28 oz．at ${ }^{1 / 65^{-}}$ | 402 at $1 / 2^{\prime \prime}$ | $11 / 6 \times 1{ }^{1 / 6} \times 1^{11 / 26}$ | 3.5 | 4.55 | 4.32 | 4.10 | 3.41 |
| 19A5021－0 | 28 p |  | 120 | AC | 400 | 1602 at ${ }^{\prime \prime} / 5^{\prime \prime}$ | 202 at $1 / 2{ }^{2}$ |  | 3.5 | 4.55 | 4.32 | 4.10 | 3.41 3 |
| 19A5022－8 <br> 19A5023－6 | 28p | C | ${ }_{12} 12$ | OC OC | 27.7 | 19 oz at $1 / 166^{\prime \prime}$ |  |  | $\begin{array}{r}3.5 \\ 3.5 \\ \hline\end{array}$ | 4.10 4.10 | 3.90 3.90 | 3.69 3.69 | $\begin{array}{r}3.08 \\ 3.08 \\ \hline\end{array}$ |

## IMPULSE RATCHET RELAYS



Type 660．Contact ratings $121 / 2$ amp．resistive load 120 volts AC．Each impulse reverses contacts．Intermittent duty coil．Relay size $3^{1 / 16} \times 2 \frac{1 / 4}{} \times 2^{1} / 16^{\prime \prime}$ ．Wt． 802
$\begin{array}{cccccc}\text { Stock } & & & \text { T－24 } & \text { 25－49 } & \text { 50．99 } \\ \text { No．} & \text { Type } & \text { Contacts } & \text { Each } & \text { Each } & \text { Each } \\ \text { No．} & \text { Sach } \\ \text { 19A523－0 } & \text { 660－C－120AC } & \text { SPDT } & \text { S8．64 } & \$ 8.21 & \$ 7.78 \\ 19 A 524-8 & 660-2 C-120 A C & \text { DPDT } & 9.33 & 8.86 & 8.40\end{array}$


## INTERLOCKING AC RELAYS

TYPE IR－1200／1200．Used to maintain circuits continuously without coll power consumption．Unit is electrically pulse operated with mechanical hold and electrical release． 10 amp contacts 60 Hz ，non－inductive．Size： $1 / 3 \times 13 / 4 \times 21 /{ }^{1 / 2}$ Wt． 5.5 oz ．
19A549－5．IR－1200／1200－4C－120A．4PDT． 120 VAC
$1-24 \mathrm{Ea} . . . \$ 13.96 \quad 25-49 \mathrm{Ea} \ldots$ ．．．$\$ 13.26 \quad 50-99 \mathrm{Ea} . .$. ．$\$ 12.56 \quad 100-249 \mathrm{Ea} . .$. \＄10．47

（2）WITH BUILT－IN NEON LAMP，Used for
tion．Rated 10 amps
19 18336－5． 120 VAC． $1210 \mathrm{~N}-2 \mathrm{C}-120 \mathrm{~A}$ ．DPDT
19A1836－5． $120 \mathrm{VAC} .1210 \mathrm{~N}-2 \mathrm{C}-120 \mathrm{~A} . \mathrm{DPD}$
$1-24 \mathrm{Ea} . \mathrm{S} .09$
$25-50 \mathrm{Ea} \ldots$
51－99 Ea．．． 88.18
100－249 Ea．．． $\mathbf{\$ 6 . 8 2}$

STANCOR／RBM TYPE 70 DC POWER CONTACTORS


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 6 V ．DC， 80 amp continuous， 300 amp inrush； 12 V．DC， 80 amp continuous， 150 amp inrush； 24 to 36 V．DC， 50 amp continuous， 50 amp inrush．Suggested mounting cap down．Size $21 / 2 \times 31 / 2 \times 21 / 2^{\prime \prime}$ ．Wt． 1 lb ．

4 TERMINAL－ISOLATED COIL

| Stock No． | $\begin{aligned} & \text { Mfg. } \\ & \text { No. } \end{aligned}$ | $\begin{gathered} \text { Coil } \\ \text { Voltage } \end{gathered}$ | $\begin{gathered} \text { Resistance } \\ 0 \mathrm{hms} \\ \hline \end{gathered}$ | $1.24$ | $\begin{aligned} & 25-49 \\ & \text { Each } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 50-99 \\ & \text { Each } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 198176.7 | 70－901 | 6 V ．DC | 4 | \＄5．14 | \＄4．63 | \＄4．11 |
| 198177－5 | 70－902 | $12 \mathrm{~V} . \mathrm{DC}$ | 19 | 5.14 | 4.63 | 4.11 |
| 198178－3 | 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 |
| 3 TERMINAL－COIL COMMON TO CASE |  |  |  |  |  |  |
| 19A1791－2 | 70－914 | $12 \mathrm{~V} . \mathrm{DC}$ | 19 | 5.14 | 4.63 | 4.11 |



## 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 auto matically．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 $2^{1} / 6 \times 3^{3} / 66^{\circ} 3^{3} / 16^{-1} \mathrm{H}$ ．Contacts $11 / 2 \mathrm{amp}$ ．Intermittent duty coil．Wt． $111 / 2$ ozs．
 （2）IR－MC 24 POINT MIDGET．Continuous rotation stepper with 24 points．For circuit selecting．Contacts $11 / 2 \mathrm{amp}$ ．Intermittent duty coil．Size $3^{3} / 6 \times 2^{15} / 6 \times 2^{3} / 6^{\prime \prime} \mathrm{H}$. Wt．$^{9} 1 / 2 \mathrm{ozs}$
 （3）ROTOMITE STEPPER－DC． 12 positions－continuous rotation．Completely metal en cosed． 3 amp contacts resistive load．Used in business machines，computer circuits， automation．Size $3^{\prime \prime}\left\llcorner\times 1-5 / 32^{\prime \prime}\right.$ dia．Continuous duty．Wt． 5 ozs．

|  |  |  | 1－24 | 25－50 | 51－99 | 49 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stk．No． | Volts | Mfg．No． | ach | ， | Each | Each |
| 19A486－0 | $\begin{aligned} & 6 \mathrm{DC} \\ & 12 \mathrm{DC} \end{aligned}$ | 705－12P－6D ${ }^{\text {7 }}$ | 88.50 | $\begin{array}{r} \$ 8.08 \\ 8.08 \end{array}$ | $\begin{array}{r} \$ 7.65 \\ 7.65 \end{array}$ | S6．38 6.38 |
| 19A488－6 | 24 DC | 705－12P－24D | 8.50 | 8.08 | 7.65 | 6.38 |

（4）LATCHING ON／OFF RELAY．Midget Latching relay．Provides positive on－off control for posi－ tioning 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 $21 / 4 \times 1-29 / 64 \times$ $1-27 / 32^{\circ}$ ．Intermittent duty coil．Single $8 / 32$ tapped mnunting hole．Shpg．wt． 5.2 ozs． Stk．No．Volts Mig．No．Conts．$\quad 1.24 \quad 25-50$ E1－99 100.249 | $19 A 1924-9$ | 120 | AC | $840 \mathrm{~L}-\mathrm{C}-120 \mathrm{~A}$ | SPDT | $\$ 6.46$ | $\$ 6.14$ | $\$ 5.81$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |



## GUARDIAN ALL PURPOSE <br> 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， $11 / 8 \times 1-3 / 32 \times 2-5 / 32^{\prime \prime}$ ．Shpg．wt． 4 ors．


## 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 Heater wattage-- 2 W . approx. For 220 V . use a 6500 ohm 5 watt resistor in series with 115 V . heater.
$23 / 4^{\prime \prime}$ high, less pins, $\times 11 / 4^{\prime \prime}$ maximum diameter, have octal base.
NORMALLY OPEN CONTACTS
NORMALLY CLOSED CONTACTS



Specify Stock No. and Amperite Type Number
YbUR CHOICE EACH .............. $\$ 3.49$
10 EACH

## MALLORY SONALERT AUDIBLE SIGNAL DEVICE



Compact solid state circuitry produces a penetrating sound by purely electronic means with no mechanical contacts or adjustments and no RF noise. Use anywhere a completely dependable audio signal is needed Standard Sonalert output is 68 db to 80 db depending on voltage. SCl. 5 is 60 dt . SC6 to SC24 is 70 db . Temperature range 20 to +150 F 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 $7 / 16^{-1}$ long threaded neck for mounting, are $1-11 / 16^{\text {dia }}$. extend $1-3 / 8^{\prime \prime}$ behind panel. Screw connections. Mini Sonalert mounts entirely on front of panel with crimp lugs to secure to panel. Proiects $5 / 8^{\prime \prime}$ in front of panel. $1-1 / 2^{\prime \prime}$ dia. Solder terminals Shpg. wt. Standard 3 oz Mini $202 *$ UL yellow card approval.

| Stock No. | $\begin{aligned} & \text { Mallory } \\ & \text { No. } \end{aligned}$ | Freq. Hz | Voltage | $\begin{aligned} & 1-24 \\ & \text { Each } \\ & \hline \end{aligned}$ | $\begin{array}{r} \text { 25-49 } \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12A2443-6 | * SC628 | 2900 | $6-28$ V DC | \$ 6.20 | \$6.12 |
| 12 A2444-4 | SC628A | 2900 | $6-28 \mathrm{~V}$ AC/DC | 9.92 | 9.75 |
| $12 \mathrm{~A} 2445-1$ | SC628H | 4500 | $6-28 \mathrm{~V} \mathrm{DC}$ | 7.19 | 7.09 |
| 12A2446-9 | * SC628P+ | 2900 | $6-28$ V DC | 11.24 | 11.06 |
| 12A2448-5 | *SC110 | 2900 | $110 \mathrm{~V} \mathrm{AC/DC}$ | 9.92 | 9.75 |
| NOTE: + gives pulsing sound at 2 to 5 Hz depending on voltage |  |  |  |  |  |
| MINI SONALERTS |  |  |  |  |  |
| 12A2841-1 | SC1.5 | 3500 | 1-4 VDC |  |  |
| 12A2842-9 | SC6 | 3500 | 4.8 VDC | 5.98 | 5.84 5.884 |
| 12A2843-7 | SC12 | 3500 | $8-15$ VDC | 5.98 | 5.84 |
| 12A2845-2 | SC24 | 3500 | 20-30 VDC | 5.98 | 5.84 |



MODEL MS-6 BENCH TOP KEPRO MULTI-6 SHEAR s17700
Precision cutting for clad or unclad plastic up to $1 / 16^{\prime \prime}$ thick or sheet metal up to $.040^{\prime \prime}$ thick. Will shear panels of XXXP phenolic. FR-3 paper-base epoxy. G10 glass epoxy and mat polyesters in sizes through $12^{\prime \prime}$ wide. Supplied with squaring guage. length guage and shearing blades, front and back transpar ent blade guards. $15^{\prime \prime}$ wide and $13^{\prime \prime}$ deep. Wt. 24 lbs
37A5585-2
MS-6. Each.
$\$ 177.00$

## ACCESSORY ATTACHMENTS FOR KEPRO MULTI-6 SHEAR

37A5586-0. Pilot Hole Punch Set. PH-6. Wt 4 lbs, Each
37A5587-8. Random 2-Hole Punch Set. PS-2. Wt. 2 lbs. Each
$\$ 157.00$
$\$ 49.00$
37A5588-6. Corner Notching Attachment. NA-1. Wt. 3 lbs. Each
$\$ 159.00$
$\$ 53.00$
37A5588-6.
37A5589-4.
Corner Notching Attachment. NA-1. Wt. 3 ibs.
37A5590-2. Variable Speed Drilling Attachment. DA-2. Wt. 4 lbs . Each
See Kepro Printed Circuit Boards on Page 141

## ADJUSTABLE WIDTH

CONTROLS FOR TV
With mtg . clip to fit $5 \mathrm{~s}^{\prime \prime}$ or * $7_{60^{\prime \prime}}$ hole. Required in TV, widely used in low frequency osciliator circuits and as adjustable RF chokes.

| Stk. No. | Miller Type | Induct. Milli-Hy. | 1-5 Each | Up Each |
| :---: | :---: | :---: | :---: | :---: |
| 13A5187-5 | 6196 | . 054.245 | \$5.00 | \$3.00 |
| 13A5101-6 | 6315 | 4.30 | 3.25 | 1.95 |
| 13A5103-2 | 6318 | 3-3 | 2.80 | 1.68 |
| 13 A5104-0 | 6319 | 8 -60 | 3.90 | 2.34 |
| 13A5109-9 | 6324* | 60-130 Tapped | 4.00 | 2.40 |

$13 A 5104-0$
$13 A 5109-9$
6324*
$60-130$ Tapped
4.00
13.00
1.95
1.68
2.34
2.40

TV AND RADIO INTERFERENCE FILTER
Stops line static from electric razors, can openers, mixers, knives, vacuum cleaners, refrigerators and similar appliances. $11 / 8^{\prime \prime}$ dia.
$\mathrm{X} 2 \mathrm{~s} / 8$ " long.
No . 13 A5165-1. Miller 7811. Each...... $\$ 5.90 \quad 6 \mathrm{Up}$ Ea .. $\$ 4.74$

## TV AND APPLIANCE FILTER



Designed for use with larger household appliances and commu-tator-type motors, communications-type receivers and recording receivers load requirements up to 550 watts 115 VAC. Gray Hammertone case. $2^{1 / 4^{\prime \prime}}$ square $\times 41 / 2^{\prime \prime}$ long. No. 13A5076-0. Miller 7815. Each \$42.95 6 Up Ea. ..... $\$ 34.20$

## Surnts 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 resis

| Stock | Miller | Inductance | o.c. | Milliamp | Winding Diameter | Form Length | $1-5$ | $6 \text { Up }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A5077-8 | 70F103AI | 1.0 uh | Resife | ${ }_{636}$ | . 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 | 70F475AI | 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 | 70F824AI | 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 |

MILER 3/4" UNIVERSAL I.F. TRANSFORMERS
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 /" sq. $\times 2^{1 / h^{\prime \prime}} \mathrm{H}$--Wt. 2 ozs.

| Stk. No. | Type | Frequency | $1-5$ Each | 6 Up Ea. |
| :--- | :--- | :--- | :--- | :---: |
| 13A5182-6 | KH2262 | $250-275 \mathrm{KHz}$ | $\$ 4.00$ | $\$ 2.40$ |
| $13 A 5183-4$ | KH2455 | $450-475 \mathrm{KHz}$ | 4.00 | 2.40 |
| $13 A 5186-7$ | 1457 | 10.7 MHz | 4.95 | 2.97 |

13A5186-7 $\quad 1457 \quad 10.7 \mathrm{MHz}$
SUB-MINIATURE
10.7
MHz TRANSISTOR TRANSFORMERS




\section*{ <br> 455 KHz SOLID STATE I.F. STRIP AND TRANSFORMER <br> Pre-tuned strip gives 8 KHz selectivity at 6 db . Gain 45 db . No. 13A5181-8. Miller $8903 B$. Input Transformer and I.F. Strip Each $\$ 12.006$ Up Each <br> $\$ 7.20$ <br> STEREO MULTIPLEX COILS <br> Use 138 KHz and 219 KHz coils for each Multiplex Stereo System. Designed for one Motorola C6095P IC listed on HEP Semiconductor pages, or with Motorola IC 1304 or 1305 . <br> | Stk. No. | Miller | Frequency | Can Size | $1-5 \mathrm{Ea}$ | 6 Un Ez |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13A5177-6 | 1361 | 19 K | $591 \times .591 \times$ | \$3.65 | S2.19 |
|  |  |  |  |  |  |

## J. W. MILLER MINIATURE ADJUSTABLE COILS



Extremely compact iron core units $1 / 2^{\prime \prime}$ dia. Tune $540-1600 \mathrm{KHz}$ with any condenser having maximum capacity between 250 and 450 pfd. Oscillator coils track with IF amplifier between 100 and 550 KHz . Type $\mathbf{7 0 - 0 S C}$ has primary and tapped secondary. Clip mtg. in $5 / 16^{\prime \prime}$ hole.

## Unshielded.

| Stk. No. | Miller No. | Description | Size | 1-5 Ea. | Up Ea |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (1) 13A5013-3 | 70-A | Antenna | $1 / 2^{\prime \prime}$ Dia. $\times 11 / 2^{\prime \prime}$ long | \$3.50 | \$2.10 |
| 13A5014-1 | 70-0SC | Oscillator | $1 / 2^{\prime \prime}$ Dia. X $11 / /^{\prime \prime}$ long | 3.20 | 1.92 |
| (2) 13A5011-7 | 45-C | Tapped Osc. | $55^{\prime \prime}$ Dia. $\times 21^{\prime \prime} \mathrm{H}^{\prime \prime}$ | 8.00 | 4.80 |

## MILLER HIGH Q FERRITE ROD AM ANTENNAS


(1) Adjustable Sub-Miniature, $1 / 2 \times 21 /{ }^{\prime \prime}$. Mounts with clips

No. 13A5146-1. Type 2002. For transistor set. Tunes with $250-450$ pfd 1-5 Each
(2) Long Loop-Rod. Highest efficiency. $3 / 4 \times 9$

No. 13A5144-6. Type 2000. For transistor set. Tunes with 365 Pld
$1-5$ Each .... Type 2000. Fi..... $\$ 5.006$ Up Each $\qquad$

## OHMITE RF CHOKES


$\square$

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. | $\begin{aligned} & \text { Ind. } \\ & \text { UH. } \end{aligned}$ | MA | Op. Freq. MHz | Length | $\begin{aligned} & 1-5 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 6 \text { Up } \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | 13A5095-0 | 214 | 44. | 600 | 7-35 |  | \$1.49 | S0.96 |
| (1) | 13A5057-0 | 228 | 21. | 600 | 20-60 | 1-3/4 | 1.29 | 84 |
| (2) | 13A5058-8 | 250 | 7. | 1000 | 35-110 | 1 | 1.09 | 73 |
| (3) | 13A5059-6 | 2144 | 1.8 | 1000 | 80-200 | 3/4 | 99 | . 62 |
| (3) | 13A5096-8 | 2235 | 0.84 | 1000 | 160-350 | 3/4 | 99 | . 62 |

## MILLEN COIL FORMS



Low loss mica base phenolic. Dia. $1^{\prime \prime} \times 15 \mathbf{c}^{\prime \prime}$ long.
No. 45004 with 4 prongs tor standard tube socket. No. 13A5039-8. Each .... $\mathbf{N}$. No. 45005 with 5 pr
No. 13A5040-6. Each 5189

## MORRIS COIL-WINDER FOR ELECTRONICS



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 made parts. Shpg wt 4 lbs
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.
99 Mercier St., Kansas City, Mo. 64111

## SYLVANIA INDICATOR LIGHTS

## HOUSINGS \＆LENS CAPS FOR ESB \＆PSB LAMPS


（1）Lamp Housing for ESB Indicator Lamps．Black nylon．Tinnerman clip for mtg． $1 / 2^{\prime \prime}$ mtg，hole．Combination solder／．205＂quick－disconnect terminals．Order round or square lens caps below．
No．12A1719－0．Sylvania 30153．Housing Only．
 （ Lamp Housing for PSB Pilot Lamps．Black phenolic．UL approved 125 volts．Tin－
nerman clips for mtg． $1 / 2^{\prime \prime}$ mtg．hole．Combination solder $/ .205^{\prime \prime}$ quick－disconnect nerman clips for mtg ． $1 / 2^{\prime \prime}$ ．mtg．hole．Combination
terminals．Order round or square lens caps below．
No．12A4111－7．Sylvania 30152．Housing Only．

．．．．．．．．．．．．．． 36 Polycarhonate Snap－On Lens Caps for $30152-0$ and $30153-0$ housings．


## PILOT LAMP HOUSINGS \＆LENS FOR PSB LAMPS


（1）Lamp Housing for PSB Pilot Lamps．Phenolic body with threaded $11 / 66^{\prime \prime}$ metal bushing and bezel．Mounts in panels up to $11 / z^{\prime \prime}$ thick．With washer and mtg．nut． bushing and bezel．Mounts in panels up to $132^{\prime \prime}$ thick．With washer and metg．nut．
UL approved for 120 volts．Combination solder $/ .205^{\prime \prime}$ quick－disconnect terminals． UL approved for
Order Lens below．
No．12A1679－6．Sylvania 30099．Housing only．
Each
12A1679－6．Sylvania 30099．Housing only
LENS CAPS FOR 30099 HOUSING ABOVE Specify Stock Number and Color When Ordering
（2）JEWELED LENS CAP
Sylvania


## CARTRIDGE LIGHT HOUSING AND LENS



Each
$\$ 2.30 \quad 10-99 \mathrm{Ea}$
（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 $3 / 8^{\prime \prime}$
hole．Solder terminals． $11 / 4^{\prime \prime}$ long over－ II．Order Lens below．
No．12A1716－6．Sylvania 30097－SM1）．
．$\$ 1.35100$ up ．．．．．．．．．．．．．．．．．$\$ 1$
$\$ 1.12$
（1）Housing for Pilot Lamps number 21 thru 81 shown at right． $13 / 8^{\prime \prime}$ ．long overall． Otherwise same as above．Order Lens below．
No．12A1710－9．Sylvania 30095－SM2
Each ．．．．．．．．．．．．．．．\＄2．30 10－99 Ea．
$\$ 1.35 \quad 100$ up
$\$ 1.12$
Polycarbonate Screw－On Cartridge Lens for SM－1 and SM－2 housings． $1 / 2^{\prime \prime}$ diameter


（1）Strip Sockets for ESB Indicator Lamps， 12 sockets on $1 / 2^{\prime \prime}$ centers．Easily cut to number desired．With 3 Tinnerman clips for mtg．Combination solder／．205＂quick disconnect terminal．Black Lexan．Size $6^{\prime \prime}$ long $\times$ Kis $^{\prime \prime}$ wide．Shpg．wt． 3 ozs．
No．12A1678－8．Svivania 33250．Individual Contacts．
Each ．．．．．．．．．．．．．．．$\$ 4.87$ 10－99 Ea．．．．．．．．．．．．．\＄2．95 100 up Ea．．．．．．．．．．．．．$\$ 2.70$
12A4113－3 Sylvanis 31250－0．Common Ground．
Each ．．．．．．．．．．．．．．．．．．$\$ 4.87$ 10－99 Ea．．．．．．．．．．．．．．．$\$ 2.95100$ up Ea．．．．．．．．．．．．．．．$\$ 2.70$
Individual Sockets for ESB Indicator Lamps．Each socket with Tinnerman clip． Combination solder $/ .205^{\prime \prime}$ quick－disconnect terminal．Black color． $1 / 2^{\prime \prime} \mathrm{mtg}$ ．hole． Shpg．wt． 2 ozs．
（2）No．12A1676－2．Sylvania 30151．Ractangular Nylon Socket．
（3）No．12A1677－0．Silvania 30150．Round Phenolic Socket
Choice Each ．．．．．．．．．．．38．10－99 Ea．．．．．．．．．．．．．．．．．23． 100 up Ea．．
（4）COLOR CAPS．Fit directly on top of ESB Lamps．Plastic Profac caps for lamps rated below 1.5 Watts．


PSB PILOT LAMPS－SLIDE BASE
Engineered to give a minimum of 5000 hours life． $1.075^{\prime \prime} \mathrm{L}, \times .25^{\prime \prime}$ dia．


## ESB INDICATOR LAMPS－SLIDE BASE Engineered to give a minimum of 5000 hours life． $875^{\prime \prime}$ L．， $25^{\prime \prime}$ dia． $\begin{array}{lllllll}\text { 12A1698－6 } & \text { 6ESB } & 6 & .04 & 1.30 & .75 & .62 \\ \text { 12A1699－4 } & \text { 12ESB } & 12 & .04 & 1.31 & .76 & .03 \\ \text { 12A1700－0 } & \text { 24ESB } & 24 & .04 & 1.33 & .77 & .64 \\ \text { 12A1701－8 } & \text { 28ESB } & 28 & .04 & 1.33 & .77 & .64 \\ \text { 12A1702－6 } & \text { 48ESB } & 48 & .04 & 1.53 & .88 & .74\end{array}$

INDICATOR CARTRIDGE LAMPS－SERIES 900 12A1711－7909 $6 \quad .04$

| 12A1711－7909 | 6 | .04 | 1.87 | 1.08 | 1.08 |
| :--- | :---: | :---: | :---: | :--- | :--- |
| 12A1712－5918 | 12 | .04 | 1.87 | 1.08 | .90 |
| 12A4114－1934 | 24 | .04 | 1.87 | 1.08 | .90 |
| 12A1714－1938 | 28 | .04 | 1.87 |  |  |

 Fits SM－2 cartridge

## PILOT GARTRIDGE LAMPS

Fits SM－2 cartridge lamp housing． $1.328^{\prime \prime}$ long less pins， $.328^{\prime \prime}$ dia．

| Fits SM－2 cartridge lamp housing． $1.328^{\prime \prime}$ | long less pins， $.328^{\prime \prime}$ dia． |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A1703－4 | 21 | 6 | .14 | 1.87 | 1.08 | .90 |
| $12 A 1704-2$ | 31 | 12 | .17 | 1.87 | 1.08 | .90 |
| $12 A 1706-7$ | 51 | 28 | .04 | 1.87 | 1.08 | .90 |
| 12A1709－1 81 | 120 | .025 | 1.87 | 1.08 | 90 |  |

ES INDICATOR LAMPS WITH WIRE LEADS

## $875^{\prime \prime}$ long， $.25^{\prime \prime}$ dia．，${ }^{7 / 8^{\prime \prime}}$ wire leads．

Stk．No．Lamp No．Volts Amps


ゅめゃゃ

## MINIATURE BAYONET BASE PILOT LAMPS

8Replaces any $T 31 / 4$ miniature bayonet tamp such as type 44,47 ，etc．May be used in any miniature bayonet pilot light assembly．Engineered for 5000 hours minimum life．
$\begin{array}{lcccc}\text { 12A1691－1 6MB } & 6 & 14 & 1.64 & .95 \\ 12 A 1692-912 \mathrm{MB} & 12 & .17 & 1.64 & .95 \\ 12 A 1693.724 \mathrm{MB} & 24 & .073 & 1.49 & .86 \\ 12 A 1694-528 \mathrm{MB} & 28 & .04 & 1.64 & .95 \\ 12 A 1695-248 \mathrm{MB} & 48 & .053 & 1.64 & .95 \\ 12 \mathrm{~A} 1697-8120 \mathrm{MB} & 120 & .025 & 1.37 & .79\end{array}$

|  |  | ANNUNCIATOR LAMPS <br> Long－life with high brightness．Unique light control is made possible by self－contained reflector． 5000 hour minimum life． 13 ＂＂long $X 1 / s^{\prime \prime}$ wide at the reflector． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No．Type |  |  | 1－9 | 10－99 | 100 |
| No．Type | Volts | Base | Ea． | Ea | $\mathrm{Ea}^{\text {E }}$ |
| 12A4482－2 12RC | 12 | Candelabra Screw | \＄2．25 | \＄1．30 | 1.0 |
| 12A4484－8 120RC | 120 | Candelabra Screw | 2.06 | 1.19 | 99 |
| 12A4485－5 12RB | 12 | Miniature Bayonet | 2.25 | 1.30 | ． 08 |
| 12A4487－1 120RB | 120 | Miniature Bayonet | 2.06 | 1.19 |  |

## FUSES, MINIATURE LAMPS AND SOCKETS




| Fig. | Stock $\mathrm{No}$. | $\begin{gathered} \text { Lamp } \\ \text { No. } \end{gathered}$ | Nom. Watts | Nom. MA |  | or Base | Each | $\begin{gathered} 10 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 12A4133-1 | NE2D(C7A) | 1/12 | 7 | 100k | SC Mid. Flange | \$1.68 | 0.97 |
|  | 12A4073-9 | NE2E(A9A) | 1/12 | 7 | 100K | Wire leads | 27 | 16 |
|  | 12A4142-2 | NE2H(C2A)* | 1/4 | 1.9 | 30K | Wire leads | 26 | 15 |
| 3 | 12A4130-7 | NE30(J5A) | 1 | 12 | none | Med Screw | 3.54 | 2.03 |
| $4$ | 12A4141-4 | NE45(B7A) | $1 / 4$ | 2 | none | Cand. Screw | 2.33 | 1.34 |
| 5 | 12A4136-4 | NE48(B9A) | 1 | 2 | 30 K | OC. Bayonet | 1.93 | 1.12 |
|  | 12A4071-3 | NE51(B1A) * | 1/25 | 3 | 220 K | Min. Bayonet | 66 | 39 |
| 6 | 12A4072-1 | NE51H(B2A)* | 1/7 | 12 | 47K | Min. Bayonet | 66 | 39 |

*High Brightness Type


> (1) 12A1170-6.Bakelite Base, Double Contact Candelabra. Fits neon lamps NE32, NE48. (1) 12A1172-2.Bakelite Base, Single Contact Candelabra. Fits auto lamp, etc, Choice, 1-24 Each........... S1.20 25-99 Each ........ $\$ 1.09$ - 100 Up Each............ 98 .
(2) Bakelite Screw Base for miniature base lamps.
No.12A4079-6. 1-9 Ea...... $49^{\mathrm{A}} 10-99$ Each ..........

No. 12A4079-6. 1-9 Ea.


U2-100 Up Each $\qquad$
(2) Bai.elite Screw Base for candelabra base lamps
No. 12A4080-4.1-9 Each $\quad$ 49: $10-99$ Each .......... 42 100 Up Each.
$38^{\circ}$
(3) Bakelite Cleat Receptacle for standard screw base lamps.

No. 41A311-2. 1-9 Each 69 - 10-99 Ea.
. .........
$50^{\circ}$
(1)

(3)
里
(4)


MINIATURE BAYONET


WORKMAN FUSED RESISTORS


Often needed replacement in series wired TV sets. 5 watt rating. Stk. No. Resistance Stk. No. Resistance Stk. No. Resistance $\begin{array}{llll}14 A 5028-0 & 4.70 \mathrm{hms} & 14 A 5030-6 & 5.60 \mathrm{hms} \\ \text { 14AA5034-8 } & 220 \mathrm{hms}\end{array}$ 14A5029-8 $50 \mathrm{hms} \quad$ 14A5032-2 $\quad 7.50 \mathrm{hms}$

Choice Each $\quad 69^{\mathbf{6}} \quad \mathbf{1 0}$ Lots Each
No. 14A5036-3.Kit of $\mathbf{1 0}$ Assorted Fused Resistors in Handy Plastic Box. Contains: $6-7.5,2-4.7$, plus 1 each 5.6 and 9 ohm.


Each

SNAP-IN NEON INDICATOR LIGHTS COMPLETELY ASSEMBLED WITH LONG-LIFE NEON BULBS

Popular new style panel lights give hi-fi, ham, commercial, etc. equipment looking than older type assemblies. Contains 10,000 hour life high brightness neon lamp with built-in resistor. Has $41 / 2^{\prime \prime}$ 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 $5 / 16^{\prime \prime} \mathrm{dia}$. 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, $1 / 2^{\prime \prime}$ dia. Extends slightly from surface for good side visibility. Mounting hole $1 / 2^{\prime \prime}$ in thin or thick panel.
12-04125-7-002-6. Red
12-04125-7-009-1. White
3) Large, $7 / 8^{\prime \prime}$ dia. Mounts in $7 / 8^{\prime \prime}$ hole. With retainer for thin panels. Can be press-fit into thick wood or composition panels.
12-04126-5-002-6. Red
12-04126-5-012-5. Amber
12-04126-5-009-1. White
(4) Rectangular $19 / 32^{\prime \prime} \mathrm{X}, 400^{\prime \prime} \mathrm{mfg}$. Snap-fits into panels .055 to $0.70^{\prime \prime}$ thick. Mounts with speed nut in thicker panels. 12-04127-3-002-6. Red



## IDI RED, GREEN

 OR YELLOW LED'S
## 12 V . SOLID STATE FLAT TOP LENS

Approximately 100,000 hour life. Built-in current limititing and rectification permits $\mathrm{AC} / \mathrm{DC}$ use. Requires $5 / 16^{\prime \prime}$ hole (speednut supplied). $41 / 2^{\prime \prime}$ leads stripped
12A4541-5-Red. 2191L1-12V. Each
$\$ 2.49$
12A4542-3-Green. 219115-12V. Each................................ \$2.49
12A4543-1 - Yellow. 219117-12V. 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. . $1^{\prime \prime}$
12A4544-9 - Red. 4301T1. Each

## BUSS FUSES AND HOLDERS

BUSS GLASS TUBE FUSES
Formerly Called $3 A G$


Quick-acting general purpose fuses for radios, amplifiers, etc. Rated 250
listed. Size $11 / 4^{\prime \prime} \times 1 / 4^{\prime \prime} . * 125 \mathrm{~V}$.

\section*{ 12A891-8 AGC $1 / 100 \quad \$ 4.68$ \$3.75 $\$ 3.15$ $\begin{array}{lllll}12 \text { A88002-4 } & \text { AGC } & 1 / 32 & 4.05 & 3.25 \\ 12 \text { A8006-5 } & \text { AGC } & 1 / 16 & 2.10 & 1.70 \\ 1.70\end{array}$ $\begin{array}{llllll}12 A 8006-5 & \text { AGC } & 1 / 16 & 2.10 & 1.70 & 1.40 \\ 12 A 8007-3 & \text { AGC } & 1 / 8 & 2.10 & 1.70 & 1.40\end{array}$ $\begin{array}{llllll}2 \text { 2A8011-5 } & \text { AGC } & 1 / 4 & 1.20 & .95 & .80\end{array}$ 2A8013-1 AGC $3 / 8$ 12 | 2AB014-9 | AGC | $1 / 2$ | 1.20 | .95 |
| :--- | :--- | :--- | :--- | :--- |
| 2A8015-6 | AGC | $3 / 4$ | 1.20 | .95 |
| 120 |  |  |  |  | | 12A88016-4 | AGC |
| :--- | :--- | :--- |
| 12 A8017-2 |  | 12 A <br> | $12 A 8019-8$ | AGC | .87 | .85 | .70 |
| :--- | :--- | ---: | ---: | ---: |
| 12AB020.6 | MTH | 4 | 1.05 | .85 |
| 12A8021-4 | MTH | 5 | 1.05 | 85 |
| 12A8022-2 | MTH | 6. | 1.05 | .85 |
| 12A8023-0 | GLH | 80 |  |  |
| 12A8024-8 | GLH | $10^{\circ}$ | 1.46 | 1.20 |}

## ABC CERAMIC FUSES

 Formerly Called 3ABsize $1 / 4 \times 11 / 4^{\prime \prime}$. High interrupting capacity fuses for use on circuits delivering as high as $25,000 \mathrm{amps}$ at 125 V . or $10,000 \mathrm{amps}$ at $250 \mathrm{~V} . * 125 \mathrm{~V}$.

| 12A8032-1 | ABC |  | \$1.73 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 A 8033 | ABC |  |  | 1.40 | 1.15 |
| 12 A 8035 | ABC |  | 1.46 | 1.20 |  |
| 12A8036-2 | ABC |  | 1.46 | 1.20 | 1.00 |
| 12A8037-0 | ABC | 10 | 1.46 | 1.20 | 1.00 |
| 12A8038-8 | $A B C$ | 12 | 1.46 | 1.20 | 1.00 |
| 12A8039-6 | ABC | 15 | 1.46 | 1.20 | 00 |
| 12A8040-4 | ABC | 20 | 1.46 | 1.20 | . 00 |
| 2A8109-7 |  |  |  |  |  |

## LOW VOLTAGE FUSES

$1 / 4^{\prime \prime}$ dia., with various lengths shown. BUSS AGC FUSES, 32 VOLT

## Formerly Called 3AG.

Stock Amps Lgth Boxes of Five
 $\begin{array}{rrrrrr}12 A 8025-5 & 1 / 4 & 50.87 & 50.70 & 50.60 \\ 2 A 8026-3 & 5 & 1 / 4 \\ 2 A 8027-1 & 71 / 2 & 11 / 4 & .64 & .50 & .40\end{array}$
12 A 8028 -9
2A8111-3
2A8030-5

BUSS SFE FUSES, 32 VOLT
For Auto. Radio. Instrument Protection
12 A8041-2

| $12 A 8041-2$ | 4 | $5 / 8$ | $\$ 0.60$ | $\$ 0.46$ | $\$ 0.39$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $12 A 8044-6$ | 9 | $1 / 3$ | .60 | .46 | .39 |
| $12 A 8045-3$ | 14 | $11 / 16$ | .60 | .46 | 39 |
| $12 A 8046-1$ | 20 | $11 / 4$ | .60 | .46 | .39 |
| $12 A 8047-9$ | 30 | $1 / 16$ | .75 | .60 | .50 |

BUSS AGX
FAST ACTING FUSES Formerly Called 8AG


For protection of delicate equipment, meters, etc. Glass enclosed; $1 \quad x \quad 1 / 4^{\prime \prime}$ dia. Provide high speed action. UL listed. Voitage rating: $1 / 500$ to $2,250 \mathrm{~V}_{;} 3$


High time lag withstands heavy surges quick on shorts. Used in circuits having high inductive or capacitive start ing loads. Sizes $1 / 100$ to 1 for 250 Vi listed; 8 to 30 for $32 \mathrm{~V} .11 / 4 \times 1 / 4^{\prime \prime}$.
Stock Buss Amps Boxes of Five
$\begin{array}{lllllll}\text { No. } & \text { No. Rating } & 1-5 & 6-19 & 20 & U_{p} \\ \text { 12A8062-8 } & \text { MDL } & 1 / 16 & \$ 2.59 & \$ 2.05 & \$ 1.70\end{array}$

| $12 A 8062-8$ | MOL | $1 / 16$ | $\$ 2.59$ | $\$ 2.05$ |
| :--- | :--- | :--- | :--- | :--- |
| 2 2AB064-4 | MOL | $\$ 1.70$ |  |  |

$\begin{array}{llllll}12 A 8067-7 & \text { MDL } & 2 / 10 & 2.59 & 2.05 & 1.70 \\ 12 & 1.70\end{array}$

| $12 A 8068-5$ | MDL | $1 / 4$ | 2.59 | 2.05 |
| :--- | :--- | :--- | :--- | :--- |
| 12A8069-3 | MDL $3 / 10$ | 2.59 |  |  |

$\begin{array}{llllll}12 A 8069-3 & \text { MDL } & 3 / 10 & 2.59 & 2.05 & 1.70 \\ 12 A 8070-1 & \text { MDL } & 3 / 8 & 2.59 & 2.05 & 1.70\end{array}$


| $12 A 8073-5$ | MDL | $6 / 10$ | 2.59 | 2.05 |
| :--- | :--- | :--- | :--- | :--- |
| 12 I | 1.70 |  |  |  |
| $128075-0$ | MDL | $3 / 4$ | 2.59 | 2.05 |


$\begin{array}{llllll}12 A 8079-2 & \mathrm{MOL} & 1.1 / 4 & 2.48 & 1.95 & 1.65 \\ 12 A 8080-0 & \mathrm{MOL} & 1.1 / 2 & 2.48 & 1.95 & 1.65 \\ 12 A 8081-8 & \mathrm{MOL} & 1-6 / 10 & 2.48 & 1.95 & 1.65\end{array}$
$\begin{array}{llllll}1248080-0 & \text { MOL } & 1.1 / 2 & 2.48 & 1.95 & 1.65 \\ 12 A 8081-8 & \text { MOL } & 1-6 / 10 & 2.48 & 1.95 & 1.65 \\ 1248082-6 & \text { MDL } & 2.48 & 1.95 & 1.65 \\ 12 A 8083-4 & \text { MOL } & 2.1 / 2 & 210 & 170 & 1.40\end{array}$
$\begin{array}{llllll}1248082-6 & \text { MOL } & 2.48 & 1.95 & 1.65 \\ \text { 12A8883-4 } & \text { MDL } & 2.1 / 2 & 2.10 & 1.70 & 1.40 \\ 1228084-2 & \text { MDX } & 3 & 2.10 & 1.70 & 1.40 \\ 12 A 8855-9 & \text { MDX } & 3-2 / 10 & 2.10 & 1.70 & 1.40 \\ 1228086-7 & \text { MDX } & 2.10 & 1.70 & 1.40\end{array}$
$\begin{array}{lllll} & 12 A 8886-7 & M D X & 4 & 2.10 \\ 12.70 & 1.40 \\ 12 A 8087-5 & M D X & 5 & 2.10 & 1.70 \\ 12 A 8088-3 & M D X & 1.40 \\ 12 & 2.36 & 1.90 & 1.55\end{array}$

$12 A 8$
$12 A 8$
$12 A 8$
12
$\begin{array}{lllll}2 A 8093-3 & \text { MDL } 25 & 2.10 & 1.70 & 1.40\end{array}$


FNM FUSETRON FUSES Dual-Element. Slow Blowing Fibre Tube, $\frac{13}{32} \times 11 / 2^{\prime \prime}$.
Long time lag prevents needless blows
from starting currents or surges-yet quick on shorts. Rated 250 V, UL listed; * 125 V .

No. Amps Box of 10, Per Box

$\begin{array}{lllll}12 A 8201-2 & 16 / 10 & 8.50 & 6.50 & 5.40 \\ 12 A 8202-0 & 2 & 8.50 & 6.50 & 5.40\end{array}$
12A8206-1 5
$12 A 8206-15$
$12 A 8207-98$
12A8208-7 10
$\begin{array}{lll}12 A 8209-5 & 12 * \\ \text { 12A8210-3 } & 15 *\end{array}$

HPC PANEL MOUNTED FUSEHOLDER Molded phenolic. Screw knob. For $\frac{13}{13} \mathrm{x}$ $11 / 2^{\prime \prime}$ fuse.

| 12A8211-1 1-5 Each |
| :--- |
| $6-99$ Ea. ..... $\$ 1.10$ |
| 100 Üp Ea........ $\$ 1.84$ |

INSULATED

## TWIN CLIPS



For AGC replacement of TV pigtail fuses without soider ing. Snaps on to blown pigtail fuse in TV set. Buss


## Gै दु刀

For $1 /{ }^{\prime \prime}$ diam
For $1 / /^{\prime \prime}$ dia. fuses. Eliminates danger of breaking fuses or damaging fuse clips. 12A8112-1 FP1. Each
10 @ Each
$\$ 1.54$
$\$ 1.29$

## FOREIGN CAR FUSES



For Volkswagen, Mer cedes and others using Buss Glass Tube Fuses

## reduce danger of <br> spraying hot metal when fuse opens on

 heavy short-circuit. Fits German type fus blocks. Size $1 / 4 \mathrm{X}^{3} \frac{1}{2}$ ".

LIMITED CURRENT
 FUSEHOLDERS

Bayonet knob. Termin als designed for severe service. Molded black body with flat side to lock against rotation.

With mtg . hdwe.
Fits panels up to $5 / 16$ thick. UL listed.
Stock Mig. Fuse Prices Each $\begin{array}{ccccc}\text { No. No. Size } & 1-5 & 6-99 \quad 100 ~ U p \\ 12 A 8059-4 & \text { HKP } & 1 / 4 \times & & \end{array}$ 12A8195-6 HCM $9 / 32$ or $\$ 0.81$ \$0.65 $\quad$ \$0.54 $\begin{array}{rlrrr}12 A 8060-2 ~ H J M ~ \\ 1 / 4 \times 1 / 4 & 1.28 & 1.02 & .85 \\ 1 / 21 & .65 & .54\end{array}$


HLF, HTA
HMM
SPACE SAVER HOLDER

## SOLDERLUG TERMINAIS

HLF and HMM are 1-5/8" long, extend 29/32 behind panel front. HTA types are $1.25 / 32$ long. extend $1^{1 "}$ behind panel front. All mount in $1 / 2^{\text {. }}$ hole except HLF requires $5 / 8^{\prime \prime}$ mounting hole. HMM has screwdriver slot knob.

| Stock | Buss | Prices Each |  |
| :---: | :---: | :---: | :---: |
| No. | No. | $1-5$ | $6-99$ |
| 100 Up |  |  |  |
| $12 A 8189-9$ | HLF | $81^{\circ}$ | $65^{\circ}$ |
| $12 A 8192-3$ | HMM | $84^{\circ}$ | $65^{\circ}$ |
| $12 A 8370-5$ | HTA | $84^{\circ}$ | $65^{\circ}$ |

$1 / 4$ QUICK CONNECT TERMINALS
$\begin{array}{lccc}\text { Stock Buss } & 1-5 & 6-99100 ~ U p \\ \text { No. } & \text { No. Each Each Each }\end{array}$ $\begin{array}{llrrr}\text { No. } & \text { No. } & \text { Each } & \text { Each } & \text { Each } \\ 12 A 8364-8 & \text { HTA-HHH } & 94^{\circ} & 75^{\circ} & 63^{\circ}\end{array}$

## LAMP INDICATOR

## FUSEHOLDER



Panel mtg. for $1 / 4 \times$ $11 / 4^{\prime \prime}$ fuses. Shows
light when fuse is blown. HKL clear neon indicator for 90 .
250 volt circuit. HKR has amber incandescent indicator for 22-33 volt circuit. Mounts in $5 / 8^{\prime \prime}$ hole. overall length $2^{\circ 1} / 6^{\prime \prime}$

Stock
 $\begin{array}{llrrr}12 A 8128-7 & \text { HKL } & \$ 3.59 & \$ 2.87 & \$ 2.35 \\ 12 A 8129-5 & \text { HKR } & 5.79 & 4.63 & 3.86\end{array}$

BUSS IN-LINE HOLDERS
20MM, foreign equipment. size 5MM stock number and amps.

## Stock

## 12 AB048-7 

Amps $1.5{ }^{\text {Boxes of Five }} 6$


## MALE FUSE CLIP ADAPTOR

 disconnect for adding an accessory to existing circuit. Use with clips.12A2878-3. 1-99 Each

$100-498$ Each … $55^{4} 500$ Up E


Consists of fuse and holder with insulated $19^{\prime \prime}$ wire loop. For $1 / 4^{\prime \prime}$ fuse *Fits all $1 / 4 \times 11 / 4^{\prime \prime}$ fuses.

| Stock No. | Buss No. | Fuse |
| :--- | :---: | ---: |
| 12A8124-6 | HRF | SFE4 |
| 12A8125-3 | HRH | SFE9 |
| 12A8127-9 | HRJ | *SFE2 |

Your Choice Each
1-5 ..... 84. 6-99..... 67 67 100 Up... 56 ${ }^{\text {6 }}$ UNIVERSAL IN-LINE HOLDER
Fits all fuses from SFE $1 / 2^{\prime \prime}$ through 3AG $11 / 4^{\prime \prime}$ by selecting proper length spring supplied with each holder. HRK,
12A881-9 1-5 Each
6-99 Ea. ......... $60^{\text {i }}$
100 Üp Each ...... 51.00
$50^{\circ}$

## FUSE MOUNTINGS



(2) Spring Cliss for any length $1 / 4.4$ dia. fuse
$100-499 \mathrm{Ea}^{2} . . .5^{\circ} \quad 500 \mathrm{Up}$
(1) 12A8362-2. Buss iA1119-10 tor PCO.... 4




## FUSE ASSORTMENTS

With handy inventory feature. Has all fuses normally needed When box is removed label shows what size fuse needs reordering. No 12 A8193 Fuse Assortment, 30 different sizes. Wt. 33/M lbs. 133 Special Electronic Fuse Assortment, 26 different sizes. $\$ 60.18$ 133 Special Electronic Fuse Assortment, 26 different sizes. $\$ 30.80$
No.12A8194-9.Mfg. No. 130. Each............................................ $\$ 30$.

Fuses Sold Only In Boxed Quantities Above

# Wro printed circuit materials 

Standard Etching Kit S101A. A complete assortment of material used for manually producing a bosic printed $3 \times 6 \times 1$ "", 1 perforated $3 \times 6 \times 1$ " copper clad unsensitized phenolic sheet etching resist, etching solution, plastic phenolching tray, etc, with step-by-step instructions, So simple that anyone can successfully produce printed circuit 12 pords. $10-3$. S101A Kit. Wt. $13 / 4 \mathrm{Lbs}$. Net Egch .. $\$ 5.15$ 249611-1
S101A-G. Same kit with glass base material. . . . . . \$6.85 Professional Etching Kit P101A. An etched circuit kit 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 is developed and etched, Contains three sensitized
 boards the same size, etch solution, wand developer, printing trame, trays, etc. with instructions. W $\mathrm{f} .23 / 4 \mathrm{lbs}$. 12 A9612-9
Pl01A Kit. Net Eacb
$\$ 7.60$
12A9613-7. P101A-G
 Same Kit with Class Material................................. $\$ 9.60$
NP-303A Enamel Nameplate \& Panel Kit. Produces professional high contrast blue and aluminum panels. Kit supplies pressure sensitive opaque letters and numerais in 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
$\$ 9.45$



## NAMEPLATE AND PANEL SUPPLIES

| Stk. | Kepro No. | Description | Shpg. Wt. | Each |
| :---: | :---: | :---: | :---: | :---: |
| 9-7 | NP-EP810 | Sensitive Enamel Plate $8 \times 10$ | 6 Ozs . | \$2.30 |
| 2A10281-0 | NPD-1 | Q | 5 Lbs . | 3.7 |

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. 2-10×24" reversing film, chemicals, and instructions included. Shpg. wt. $11 / 2 \mathrm{lbs}$. 12A9665-7. Each
$\$ 9.35$

## MASTER PHOTO LAYOUT KIT PL-200A

## Produce professional PC artwork accurately and rapidly without inking and lettering. Includes: $2-18 \times 24^{\prime \prime}$ Matte Surface Mylar; $2-18 \times 24^{\prime \prime}$ Mechanical Negative; $4-17 \times$ $21^{\prime \prime}$ Graph Paper; $1-18 \times 24^{\prime \prime}$ Master Mylar Grid Sheet; $112-1 / 8^{\prime \prime}{ }^{\prime \prime}$ Term. Dots $224-1 / 6^{\prime \prime}$ Term. Dots; $288-1 / 4^{\prime \prime}$ 18 Yds , each of $1 / 16$, $1 / 22,1 / 3,1 / 16$ and $1 / 4^{\prime \prime}$ conductor strips; 1-8×10" sheet of letters; Bow Compass, Blue Drawing Dot Cutter, Tweezers, Bottle Opaquing Fluid, Brush and

 instructions. Shpg. wt. 4 lbs .
## 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, and lettering. Reduced layout time by use of pressure-sensitive tapes; dots, letters and numerals. Contents: $96-1 / 4^{\prime \prime}$ Tape Dot Terminations, $108^{\prime \prime \prime}-1 / 8^{\prime \prime}$ Tape
Conductor Strips, $216^{\prime \prime}-1^{\prime \prime}$
Tape
Conductor Strips, I Sheet ${ }^{\circ}$ letfers and Conductor Strips, $216^{\prime \prime}-1^{\prime \prime}$ Tape Conductor Strips, $8 \times 10^{\prime \prime}$ Sheet letters and $8 \times 10^{\prime \prime}$ sheets of Graph paper and instruction sheet. Wt . 1 lb . $\$ 5.15$ 12A9603-8. PL-2A. Each
\$5.15
Printed Circuit Lab L505A. Meets all circuit board development needs of the industrial, laboratory or serious experimenter. Contains 15 sensitized boards, 3 copper clad unsensitized boards (1 perforated), trays for developing and etching, safelite, photoflood lamp, photo layout kit PL2A, $4 \times 10$ mechanical negative, etch and developer solutions with accessory items. With instructions. Wt. 21 lbs.
12A9608-7. L505A Kit With XXXP
12 B960. Each.
$\$ 45.15$


Electroless PC Board Tin Plating Kit ITP-801A. Simple immersion process deposits thin coating of essentially pure tin to etched copper circuit to protect from oxidation and to provide exceptional solderability. A chemical process requires no expensive electroplating equipment. Tin solution is heated to 160 degrees $F$. in high-temperature glass tray and circuit board is immersed for $3-5$ minutes. Board is removed from tray, rinsed 3 minutes under running hot water, then another 3 minutes under running cold water. Includes glass ray, accommodating board sizes up to $7 \times 10^{\prime \prime}$; board handling rack; thermometer; qt. immersion tin solution (sufficient for plating patterns on pprox. $25 \mathrm{sq} . \mathrm{ft}$. of etched panels) and complete instructions.
No. 12A9706-9ITP-801A Kit. Shpg. wt. 10 lbs Each
$\$ 15.35$
No. 12A10282-8. ITP-1QT. Immersion Tin Solution. Wit. 4 ibs. Each. $\$ 9.25$ No. 12A9708-5. ITP-1G. 1 Gal. Immersion Tin Solution. Wt. 11 lbs . Ea.
\$28.95

## ETCHED CIRCUIT COPPER CLAD MATERIALS

 in $1_{6}$ " XXXP paper base phenolic, $1 /{ }_{6}$ " C-10 glass epoxy and $1 /{ }^{\prime \prime}$ " polyester sensitized (sen.) for photo processed boards. Photosensitized materials are laminate. All copper clad materials meet standard NEMA grade tolerances, ready for exposure with no other sensitizing required.

MATERIAL 5 PIECES PER PACKAGE ARE BULK PACKED-NOT INDIVIDUALLY SEALED IN SINGLE PACKAGES. XXXP PAPER BASE PHENOLIC, 1 OZ. (.00135) COPPER CLAD


Mixed random cut unsensitized copper clad laminates consisting of XXXP, G-6. Over $50 \%$ of the laminates are $1 / 16^{\prime \prime}$ thick with a thickness range of $1 / 32^{\prime \prime}$ G-10, etc. materials, 1 and 2 oz . copper, 1 and 2 sides. All pieces will measure a thru $1 / 8^{\prime \prime}$. Shpg. wt. 10 lbs . minimum of $2^{\prime \prime} \times 4^{\prime \prime}$ in overall size..

No. 12A10292-7. Model RS-10. Each
$\$ 10.95$
etched circuit processing chemicals and photo layout supplies

| Stock <br> No. | Kepro <br> No. |  | Description |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

# quikeclircults 



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 spe cial 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 circui changes. Quik-circuit sub-elements are pre-drilled on $.100^{\prime \prime}$ grid to match pre-punched boards, re quire no drilling and no terminals.

| Stock | Mfg. <br> Type | Fig. | Pcs. <br> Per |  | Pkg. |
| :--- | :---: | :---: | :---: | :--- | ---: |


| WRE SENSITIVE COPPER TAPE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12A10060-8 | 9105 | W | 1 | $031 \times 48^{\prime \prime}$ long | \$1.29 |
| 12A10061-6 | 9106 | W | 1 | $040 \times 48^{\prime \prime}$ long | 1.29 |
| 12A10062-4 | 9101 | W | 1 | $062 \times 48^{\prime \prime}$ long | 1.39 |
| 12A10063-2 | 9102 | W | 1 | $100 \times 48^{\prime \prime}$ long | 1.59 |
| 12A10064-0 | 9103 | W | 1 | $125 \times 48^{\prime \prime}$ long | 1.69 |
| 12A10065-7 | 9104 | W | 1 | $250 \times 48^{\prime \prime}$ long | 2.99 |
| PRESSURE SENSITIVE INSULATION TAPE ROLLS |  |  |  |  |  |
| 12A10066-5 | 9151 | W | 1 | $100 \times 10 \mathrm{ft}$. long | 1.39 |
| 12A10067-3 | 9153 | W | 1 | $200 \times 10 \mathrm{ft}$. long | 1.69 |
| PRESSURE SENSITIVE COPPER DONUT PADS |  |  |  |  |  |
| 12A10068-1 | 9202 | Y | 100 | $2500 \times .04010$ | 2.69 |
| 12A10069-9 | $9203$ | Y | 100 | $18700 \times .04010$ | 2.69 |
| 12A10071-5 | 9209 | Y | 100 | Assortment | 2.69 |
| PRESSURE SENSITIVE COPPER SHEETS |  |  |  |  |  |
| 12A10072-3 | 9252 | AA | 2 | $3^{\prime \prime} \times 4^{\prime \prime}$ | 1.79 |
| 12A10073-1 | 9251 | AA | 2 | $5^{\prime \prime} \times 6^{\prime \prime}$ | 3.49 |
| PRE-PUNCHED EPOXY-GLASS BOARD MATERIAL |  |  |  |  |  |
| 12A10076-4 | 9301 | B8 |  | $8.5^{\prime \prime} \times 17^{7} \times .062$ | 12.95 |
| 12A10077-2 | 9302 | B8 | 1 | $4.25^{\prime \prime} \times 8.5{ }^{\prime \prime} \times .062$ | 4.95 |
| 12A10078-0 | 9303 |  |  | $4.5^{\prime \prime} \times 5^{\prime \prime} \times .062$ | 3.49 |
| 12A10079-8 | 9304 | BB | 1 | $2.5^{\prime \prime} \times 4.5^{\prime \prime} \times .062$ | 2.19 |
| PRE-PUNCHED PHENOLIC |  |  |  |  |  |
| 12A10080-6 | 9343 | B8 | 1 | $4.5^{\prime \prime} \times 5^{\prime \prime} \times .062$ | 2.29 |
| 12A10081-4 | 9345 | 88 | 1 | $4.5 \times 17^{\prime \prime} \times 062$ | 4.95 |
| 12A10082-2 | 9346 |  |  | $6^{\prime \prime} \times 17^{\prime \prime} \times .062$ | 5.95 |
| PRE-PUNCHED/PRE-SHAPED EPOXY-GLASS BOARDS |  |  |  |  |  |
| $\begin{aligned} & \text { 12A10083-0 } \\ & \text { 12A10084-8 } \end{aligned}$ | $\begin{aligned} & 9402 \\ & 9405 \end{aligned}$ | $\begin{aligned} & \mathrm{CC} \\ & \mathrm{CC} \end{aligned}$ |  | "A"-4.5, "B"-6.5 "C"- 22 pins | 6.95 5.95 |
| PLAIN/PRE-SHAPED EPOXY GLASS BOARDS |  |  |  |  |  |
| 12A10085-5 | 9452 | CC |  | "A"-4.5, "B"-6.5, "C"-22 pins | 3.95 |
| 12A10086-3 | 9455 |  |  |  | 3.19 |
| CONNECTORS - .156" SPACING |  |  |  |  |  |
| 12A10091-3 | 9501 | EE | 1 | 15 Pins | 3.95 |
| 12A10092-1 |  | EE | 1 | 22 Pins | 4.95 |
| PROTO-TYPE KITS |  |  |  |  |  |
| 12A10093-9 | $9952$ |  |  | Mini-Kit Mounts 16 Components Midi-Kit glass epoxy board mounts 2 transistors. 1 DIP. 8 discrete components Maxi-Kit, 3 PC boards, mounts 10 transistors. 6 DIP 's. 16 discrete components Super-Kit mounts over 60 components. Enough material for many projects. In carrying case. | 5.95 |
| 12A10094-7 | $9953$ |  | 1 |  |  |
|  |  |  |  |  | 7.95 |
| 12A10095-4 | 9954 |  | 1 |  |  |
|  |  |  |  |  | 18.95 |
| 12A10096-2 | 9955 |  | 1 |  |  |
|  |  |  |  |  | 29.95 |

## PRINTED CIRCUIT ARTWORK SYMBOLS FROM CENTRON ENGINEERING, INC.


(Illustrations are not to scale)

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Stock No. \& \[
\begin{aligned}
\& \text { Mfr's } \\
\& \text { Type } \\
\& \hline
\end{aligned}
\] \& Desc \& tion \& Symb. Per Pkg. \& Price \& \& \& \& \& \& \& \\
\hline 12A9819-0 \& 2001 \& \multicolumn{2}{|l|}{TO-18 \(2 \times 3\) Lead TO-5 \(2 \times 3\) Lead} \& 250
250 \& \$7.45 \& \multicolumn{7}{|c|}{DONUT PADS (BLACK)} \\
\hline 12A9826-5 \& 2007 \& \multicolumn{2}{|l|}{T0-5 \(2 \times 8\) Lead} \& \multirow[t]{2}{*}{250} \& 7.45
7.45 \& \multirow[t]{2}{*}{Stock
No.} \& \multicolumn{2}{|l|}{Mrr's} \& \multirow[b]{2}{*}{I.D.} \& \multirow[t]{2}{*}{Per. Pkg.} \& \multicolumn{2}{|r|}{\multirow[t]{2}{*}{Price Roll}} \\
\hline 12A9825-7 \& 2010 \& \multicolumn{2}{|l|}{T0-5 \(2 \times 10\) Lead} \& \& 7.45
7.45 \& \& Type \& O.D. \& \& \& \& \\
\hline 12A9828-1 \& 2020 \& \multicolumn{2}{|l|}{14 Lead DIP 2x} \& 250 \& 8.25 \& 12A9899-2 \& P7100 \& \& \& \multicolumn{2}{|l|}{} \& \$3.30 \\
\hline 12A9830-7 \& 2026 \& \multicolumn{2}{|l|}{16 Lead DIP 2x} \& 250 \& 8.25 \& \multirow[t]{2}{*}{12A9901-6} \& \& . \(120{ }^{\prime \prime}\) \& . \(0311^{\prime \prime}\) \& \& \multicolumn{2}{|r|}{\multirow[t]{2}{*}{\[
2.20
\]}} \\
\hline 12A9831-5 \& 2029 \& \multicolumn{2}{|l|}{14 Lead DIP 2x} \& 250 \& 8.25 \& \& P7140
P7190 \& \begin{tabular}{l}
\(125{ }^{\prime \prime}\) \\
156 \\
\\
\hline 15
\end{tabular} \& .031" \& 500
500 \& \& \\
\hline 12A9833-1 \& 2034 \& \multirow[t]{2}{*}{16 Lea
14
14} \& DIP \(2 x\) \& \multirow[t]{2}{*}{250} \& 8.25 \& 12A9904-0 \& P7190
P7220 \& \(156 "\)
.156 \& . \(062^{\prime \prime}\) \& 500
500 \& \multicolumn{2}{|r|}{2.20
2.20} \\
\hline 12A9832-3 \& \multirow[t]{2}{*}{} \& \& 14 Lead DIP \(2 x\) \& \& 8.25 \& 12A9905-7 \& \[
\begin{aligned}
\& \text { P7220 } \\
\& \text { P7250 }
\end{aligned}
\] \& .156" \& . \(031{ }^{\prime \prime}\) \& 500
500 \& \multicolumn{2}{|r|}{2.20
2.20} \\
\hline 12A9834-9 \& \& \multicolumn{2}{|l|}{16 Lead DIP 2x} \& 250 \& 8.25 \& 12A9906-5 \& P7260 \& 187* \& .040" \& 500 \& \multicolumn{2}{|r|}{2.20
2.20} \\
\hline 12A9835-6 \& 2080 \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{Connector Strip .125 spacing \(2 x\)}} \& \multirow[b]{4}{*}{30
30} \& \multirow[t]{2}{*}{} \& 12A9907-3 \& \multirow[t]{2}{*}{} \& 187* \& . \(0622^{\prime \prime}\) \& 500 \& \multicolumn{2}{|r|}{\multirow[t]{2}{*}{2.20
2.20}} \\
\hline \& \& \& \& \& \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& \text { 12A9908-1 } \\
\& \text { 12A9909-9 }
\end{aligned}
\]} \& \& 200" \& . \(031{ }^{\prime \prime}\) \& 500 \& \& \\
\hline \multirow[t]{2}{*}{12A9836-4} \& \multirow[t]{2}{*}{2081} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{Connector Strips 156 Spacing. 2 x}} \& \& \multirow[t]{2}{*}{} \& \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& \text { P7300 } \\
\& \text { P7320 }
\end{aligned}
\]} \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 200^{\prime \prime} \\
\& 200^{\prime \prime}
\end{aligned}
\]} \& \multirow[t]{2}{*}{. 040 -} \& 500 \& \multicolumn{2}{|r|}{2.20
2.20} \\
\hline \& \& \& \& \& \& 12A9910-7 \& \& \& \& \multirow[t]{2}{*}{500} \& \multicolumn{2}{|r|}{2.20} \\
\hline Above 2000 symbols are twice actual size ( 2 X scale). \& symbols a \& \multicolumn{4}{|l|}{e twice actual size ( 2 X scale).} \& \multirow[t]{2}{*}{} \& P7320 \& .200" \& . \(0662^{\prime \prime}\) \& \& \multicolumn{2}{|r|}{2.20} \\
\hline \multicolumn{6}{|c|}{REGISTRATION TARGETS (250/Roll)} \& \& P7390 \& \({ }^{2180}{ }^{\circ}\) \& . \(0682^{\prime \prime}\) \& \multirow[t]{2}{*}{500
500} \& \multicolumn{2}{|r|}{2.20
2.20} \\
\hline 12A9814-1 \& \multirow[t]{2}{*}{\[
\begin{aligned}
\& 1003 \\
\& 1009
\end{aligned}
\]} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\(.500-\) diameter
625

diameter}} \& \multicolumn{2}{|r|}{\multirow[t]{2}{*}{\[
$$
\begin{array}{r}
\$ 7.45 \\
7.45
\end{array}
$$

\]}} \& | 12A9913-1 |
| :--- |
| 12A9914-9 | \& \[

$$
\begin{aligned}
& \text { P7400 } \\
& \text { P7420 }
\end{aligned}
$$

\] \& \& \[

.040^{\circ}
\] \& \& \multicolumn{2}{|r|}{2.20

2.20} <br>

\hline 12A9817-4 \& \& \& \& \& \& \multirow[t]{6}{*}{| 12A9915-6 |
| :--- |
| 12A9917-2 |
| 12A9919-8 |
| 12A9921-4 |
| 12A9923-0 |
| 12A9926-3 |
| 12A10277-8 |} \& | P7420 |
| :--- |
| P7460 | \& \[

$$
\begin{aligned}
& 250^{\prime \prime} \\
& .300^{\prime \prime}
\end{aligned}
$$
\] \& \multirow[t]{2}{*}{. $0662^{\prime \prime}$} \& \multirow[t]{2}{*}{500

500} \& \multicolumn{2}{|r|}{2.20
2.75} <br>
\hline \multicolumn{6}{|c|}{$90^{\circ}$ ELBOWS (PACKAGED 250/ROLL)} \& \& P7500 \& $312^{\prime \prime}$ \& \& \& \multicolumn{2}{|r|}{2.75
2.75} <br>

\hline Stock No. \& \multicolumn{2}{|r|}{Mfr's Type} \& \multicolumn{2}{|l|}{Line Width P} \& Price/Roll \& \& \multirow[t]{3}{*}{$$
\begin{aligned}
& \text { P7540 } \\
& \text { P7600 } \\
& \text { P7720 } \\
& \text { P7790 }
\end{aligned}
$$} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& .375^{\prime \prime} \\
& .400^{\prime \prime} \\
& .500^{\prime \prime} \\
& .600^{\prime \prime} \\
& \hline
\end{aligned}
$$

\]} \& . 062 " \& 500 \& \multicolumn{2}{|r|}{\multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 2.75 \\
& 3.60 \\
& 4.25 \\
& 4.90 \\
& \hline
\end{aligned}
$$
\]}} <br>

\hline 12A9849-7 \& \multicolumn{2}{|r|}{\multirow[t]{4}{*}{| E912 |
| :--- |
| E914 |
| E916 |
| E920 |}} \& . 062 \& \& \$2.20 \& \& \& \& \multirow[t]{3}{*}{\[

$$
\begin{aligned}
& .062^{\prime \prime} \\
& .062^{\prime \prime} \\
& .050^{\prime \prime}
\end{aligned}
$$

\]} \& \multirow[t]{3}{*}{\[

$$
\begin{aligned}
& 500 \\
& 500 \\
& 500
\end{aligned}
$$
\]} \& \& <br>

\hline 12A9850-5 \& \& \& 080 \& \& 2.20 \& \& \& \& \& \& \& <br>
\hline 12A9851-3 \& \& \& 09 \& \& 2.20 \& \& \& \& \& \& \& <br>
\hline 12A9852-1 \& \& \& 100 \& \& 2.20 \& \& \& \& \& \& \& <br>
\hline \multicolumn{13}{|c|}{TEES (PACKAGED 250/ROLL)} <br>
\hline Stock No. \& \multicolumn{2}{|r|}{Mfr's Type} \& \multicolumn{2}{|l|}{Line Width P} \& rice/Roll \& \multicolumn{7}{|l|}{CIRCUIT ARTWORK TAPE (BLACK) 20 YARD ROLLS} <br>

\hline 12A9857-0 \& \multicolumn{2}{|r|}{\multirow[t]{4}{*}{$$
\begin{aligned}
& \text { T962 } \\
& \text { T964 } \\
& \text { T966 } \\
& \text { T970 } \\
& \hline
\end{aligned}
$$}} \& \multicolumn{2}{|l|}{\multirow[t]{4}{*}{$.062^{\prime \prime}$

$080^{\prime \prime}$
$.093^{\prime \prime}$
$100^{\prime \prime}$}} \& \multirow[t]{4}{*}{$\$ 2.20$
2.20
2.20
2.20} \& \multirow[t]{10}{*}{Stock
No.
12 A9864-6
$12 A 9865-3$
$12 A 8966-1$
$12 A 9867-9$
$12 A 9868-7$
$12 A 9869-5$
$1298870-3$
$12 A 9871-1$
$12 A 9875-2$
$12 A 9877-8$} \& \multirow[t]{10}{*}{Mr's Type Blk. Crepe CT 100-031 CT $100-040$ CT 100-050 CT 100-062 CT 100-080 CT 100-093 CT 100-100 CT 100-125 CT 100-200 CT 100-250} \& \multirow[t]{10}{*}{Stock
No.
12A9882-8
12A9883-6
12A9884-4
12A9885-1
12A9886-9
12A9887-7
12A9888-5
12A9889-3
12A9892-7
12A9894-3} \& \multirow[t]{10}{*}{Mifr's Type
Bik. Matte
MT 200-031
MT 200-040
MT $200-050$
MT 200-062
MT 200-080
MT 200-093
MT 200-100
MT 200-125
MT 200-200
MT 200-250} \& \multicolumn{3}{|l|}{\multirow[t]{3}{*}{}} <br>
\hline 12A9858-8 \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 12A9859-6 \& \& \& \& \& \& \& \& \& \& \& \& <br>

\hline 12A9860-4 \& \& \& \& \& \& \& \& \& \& \multicolumn{3}{|l|}{\multirow[b]{2}{*}{| .040 |  |  |
| :--- | :--- | :--- |
| 050 | 1 | .85 |}} <br>

\hline $90^{\circ}$ NESTED ELBOWS (PACKAGED $250 /$ ROLL) \& \multicolumn{5}{|l|}{ELBOWS (PACKAGED 250 /ROLL)} \& \& \& \& \& \& \& <br>
\hline Stock No. \& Mfr's Type \& \multicolumn{4}{|l|}{Line Smallest No. Rings Price/ Width Radius in Nest Roll} \& \& \& \& \& \multicolumn{3}{|l|}{$\begin{array}{lll}.062^{\prime \prime} & 1 & .85 \\ .080^{\prime \prime} & 1 & .85\end{array}$} <br>
\hline 12A9842-2 \& \multirow[t]{4}{*}{NE862
NE864
NE866

NE870} \& \multirow[t]{4}{*}{| $.062^{\prime \prime}$ |
| :--- |
| $.080^{\prime \prime}$ |
| $.093^{\prime \prime}$ |
| $.100^{\prime \prime}$ |} \& . 062 \& , Nest \& \multirow[t]{4}{*}{\[

$$
\begin{array}{r}
\$ 3.30 \\
2.75 \\
2.75 \\
2.75 \\
\hline
\end{array}
$$
\]} \& \& \& \& \& \multicolumn{3}{|l|}{.093" 1.85} <br>

\hline 12A9843-0 \& \& \& 062 \& 4 \& \& \& \& \& \& \multicolumn{3}{|l|}{\multirow[t]{3}{*}{| $125^{\prime \prime}$ | 1 | .85 |
| :--- | :--- | :--- |
| $200^{\prime \prime}$ | 1 | .85 |
| $250^{\prime \prime}$ | 1 | .90 |}} <br>

\hline 12A9844-8 \& \& \& 062 \& 4 \& \& \& \& \& \& \& \& <br>
\hline 12A9845-5 \& \& \& 062 \& 3 \& \& \& \& \& \& \& \& <br>
\hline
\end{tabular}

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 . $\mathbf{1 0 0}$-INCH GRID
TO MATCH PRE-PUNCHED BOARD MATERIAL - REQUIRES NO DRILLING AND NO TERMINALS

| Stock No. | Mfr's Type | Per <br> Fig. Pkg. | Sub-Element Description | Price |
| :---: | :---: | :---: | :---: | :---: |
| T0-5 \& 10-18 Sub-Elements |  |  |  |  |
| 12A9713-5 | 1001-010 | A 10 | TO-18 or T0-5 3 Lead | \$3.00 |
| 12A9717-6 | 1021-010 | C 10 | T0-5 3 Lead | 3.00 |
| 12A9721-8 | 1023-010 | E 10 | T0-5 6 Lead | 4.00 |
| 12A9723-4 | 1024.010 | F 10 | T0-5 8 Lead | 4.00 |
| 12A9725-9 | 1025-010 | G 10 | T0-5 10 Lead | 4.00 |
| 12A9727-5 | 1026-010 | H 10 | T0-5 12 Lead | 4.76 |


| Stock No. | Mtr's Type |  | Sub-Element Description | Price |
| :---: | :---: | :---: | :---: | :---: |
| Dual-In-Line Package Sub-Elements |  |  |  |  |
| 12A9737-4 | 1202-005 | U | 6 DIP's/Strip. 14/16 Lead, pwr. and gnd. avail. | \$10.50 |
| 12A9739-0 | 1204-005 | V 5 | 6 DIP's/Strip. 14 Lead, pwr. and gnd. pins 7/14 | 7.50 |
| 12A9741-6 | 1206-005 | W 5 | Universal, 30 DIP's on 5 strips | 9.00 |
| 12A9743-2 | 1208-005 | $\times \quad 5$ | 6 DIP 's/Strip. 14 Lead | 7.50 |
| Plug-In Connector Strips "Hard Gold over Nickel Plate" |  |  |  |  |
| 12A9755-6 | 1355-005 | Y | 15 Pin. $156^{\prime \prime}$ Spacing. Component Side | 10.50 |
| 12A9756-4 | 1356-005 | Y | 15 Pin, 156" Spacing, Circuit Side | 10.50 |
| 12A9761-4 | 1365-005 |  | 22 Pin, 156" Spacing. Component Side | 12.50 |
| 12A9762-2 | 1366-005 | z | 22 Pin, 156" Spacing. Circuit Side | 12.50 |
| Discrete Component Strips |  |  |  |  |
| 12A9745-7 | 1302-005 | AA 5 | 16 Discrete, Component Strip, mounts 80 | 7.50 |
| 12A9746-5 | 1311-010 | BB 10 | Universal Strip. mounts 80 discretes | 8.00 |
| Distribution Strips |  |  |  |  |
| 12A9747-3 | 1321-010 | CC 10 | $100^{\prime \prime}$ wide | 5.00 |
| 12A9957-8 | 1325.010 | GG 10 | Single Row 100" hole spacing | 5.00 |
| 12A9958-6 | 1326-010 | HH 10 | Double Row 100" hole spacing | 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. | Mr's Type | Fig. Pkg. | Sub-Element Description | Price |
| :---: | :---: | :---: | :---: | :---: |
| 12A9764-8 | 2001-010 | 010 | T0-18 3 Lead | \$2.50 |
| 12A9768-9 | 2021-010 | E 10 | T0. 533 Lead | 2.50 |
| 1249774 | $2024-010$ | $F 10$ | T0-5 8 Lead | 3.00 |
| 12 A9776-2 | $2025-010$ | $610$ | T0-5 10 Lead | 3.00 |
| 12A9778-8 | $2026-010$ | $\text { H } 10$ | TO-5 12 Lead | 3.50 4.50 |
| 12A9780-4 | $2101-010$ | 110 | DHP 14 Lead | 4.50 |
| 12A9783-8 | 2367-005 | J 5 | 22 Fin Connector | 9.50 |

12A9784-6 2368-005 J 5 22 22 Pin Connector
156 Spacing Circuit Side

| COPPER TAPE, (Pressure Sensitive Adhesive) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. | Mfr's Type | Fig. | $\begin{aligned} & \hline \text { Per } \\ & \text { Pkg. } \\ & \hline \end{aligned}$ | Description | Price |
| 12A9959-4 | 7105 | P 1 |  | W. $\times 9 \mathrm{ft}$ | 2. |
| 12A9960-2 | 7106 | P 1 | 040 | W $\times 9 \mathrm{ft}$ | 2.00 |
| 12A9961-0 | 7107 | P 1 |  | $W \times 9 \mathrm{ft}$ | 2.00 |
| 12A9788-7 | 7101 | P | 062 | W. $\times 9 \mathrm{ft}$ | 1.75 |
| 12A9789-5 | 7102 | P |  | W. $\times 9 \mathrm{ft}$ | 2.00 |
| 12A9790-3 | 7103 | P 1 | 125* | $W \times 9 \mathrm{ft}$ | 2.25 |
| 12A9791-1 | 7104 | P 1 | 250" | W. $\times 9 \mathrm{ft}$ | 3.7 |
| MYLAR TAPE (Insulative). (Pressure Sensitive Adhesive) |  |  |  |  |  |
| 12A9792-9 | 7151 | P |  | W. $\times 30 \mathrm{ft}$ |  |
| 12A9793-7 | 7152 | P 1 | $150{ }^{\prime \prime}$ | W. $\times 30 \mathrm{ft}$ L |  |
| MATERIALS (Pressure Sensitive Adhesive) |  |  |  |  |  |
| 12A9796-0 | 7201 |  |  | "" diameter pa | 5.00 |
| 12A9797-8 | 2202 | R |  | diameter | 5.50 |
| 12A9798-6 | 7203 | R |  | ${ }^{\prime \prime}$ " diameter | 6.00 |
| 12A9799-4 | 7204 |  |  | $0^{\prime \prime}$ diameter pa | 6.50 |
| 12A9800-0 | 7251 |  |  | per Sheet, $5^{\prime \prime}$ | 6.00 |

DUAL IN LINE I.C. SOCKETS

| Stock No. | Type | Fig. | Description | Price |
| :---: | :---: | :---: | :---: | :---: |
| 12A10198-6 | CS7-SL14-G | 2 | 14 Pin Low 100/300 | \$0.37 |
| 12A10199-4 | CS7-SL16-G | $z$ | 16 Pin Low 100/300 | . 65 |
| 12A10200-0 | CS7-SP14-6 | $z$ | 14 Pin 100/300 | 38 |
| 12A10201-8 | CS7-SP16-G | 2 | $\begin{aligned} & 16 \text { Pin } \\ & .100 \% .300 \end{aligned}$ | . 65 |

## CONNECTORS, WIRE WRAP AND SOLDER EYELET TYPES

 Stock No. Type Fig. Description Each

## PROTOTYPE KIT

Contains 24 types of CIRCUIT-STIK standard materials (\$110.00 value), makes many circuit boards. Provides a convenient desk or work bench stock when individual parts are replaced on a one by one basis.


|  |  |  |  | J |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. | $\begin{aligned} & \hline \text { Mfr.'s } \\ & \text { Type } \end{aligned}$ |  | Contacts | Contact Type | Price Each |
| 12A10262-0 | CS7.-PS11CS7-PS12CS7-PS14CS7.-PS20CS7.PS25CS7-WS11CS7-WS12CS7-WS14CS7-WS20CS7-WS25 |  | 11 | P. $C$. | S0.55 |
| 12A10263-8 |  |  | 12 | PC | . 56 |
| 12 A10265-3 |  |  | 20 | C. | 1.35 |
| 12A10266-1 |  |  | 25 | PC | . 96 |
| 12A10267-9 |  |  | 11 | W.W. | 72 |
| 12A10268-7 |  |  | 12 | W.W. | . 76 |
| 12A1026g-5 |  |  | 14 | W.W. | 1.04 1.40 |
| 12A10270-3 |  |  | 20 25 | W.W. W.W. | 1.40 |
| TERMINAL PINS |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Stock No. | $\begin{aligned} & \text { Mfr's } \\ & \text { Type } \end{aligned}$ | Fig. | Description |  | $\begin{array}{r} \hline \text { Pkg. of } \\ 100 \\ \hline \end{array}$ |
| 12A10272-9 | 7541-100 | J | Flanged P | in, Round | \$3.25 |

## PRINTED CIRCUIT MATERIALS . . . CASES



CC - Copper clad on alternating

- 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: $062^{\prime \prime}$ thick, 1 oz. copper, FR-4 Epoxy glass.
(AA) - DRILLED FR-4 EPOXY-GLASS

| Steck No. | Mir's <br> Type | Size <br> leches | Each |
| :--- | :---: | ---: | ---: |
| $12 A 9801-8$ | $000-7301$ | $81 / 2 \times 17$ | $\$ 10.95$ |
| $12 A 10216-6$ | $000-7305$ | $41 / 217$ | 4.85 |
| $12 A 10217-4$ | $000-7306$ | $6 \times 17$ | 6.45 |
| $12 A 10218-2$ | $000-7307$ | $41 / 2 \times 61 / 2$ | 2.70 |


| $\begin{aligned} & 12 A 10219-0 \\ & \text { 12A10220.8 } \\ & \text { 12A10221-6 } \\ & \text { 12A10222-4 } \\ & \hline \end{aligned}$ | $001-7301$ $001-7305$ 001.7306 00 001-7307 | $\begin{aligned} & 81 / 2 \times 17 \\ & 4 / 1 / \times 17 \\ & 6 \times 17 \\ & 41 / 266^{1 / 2} \end{aligned}$ | $\begin{array}{r} \$ 13.50 \\ 6.50 \\ 8.60 \\ 3.60 \end{array}$ |
| :---: | :---: | :---: | :---: |

## (AA) - DRILLED FR-4 EPOXY-GLASS

| $\begin{aligned} & 12 A 10224-0 \\ & 12 A 110225-7 \\ & \text { 12A10226-5 } \\ & \hline \end{aligned}$ | $\begin{aligned} & 002.7301 \\ & 002.7305 \\ & 002.7306 \\ & 002-7307 \end{aligned}$ | 81/2x17 $41 / 2 \times 17$ <br> $41 / 2 \times 61 / 2$ | $\begin{aligned} & 7.00 \\ & 9.35 \\ & 3.99 \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| (BB) - CUT \& PEEL - PLAIN COPPER ON DRILLED EPOXY-GLASS - 1 SIDE |  |  |  |
| $\begin{aligned} & 12 A 10228-1 \\ & 12 A 10229.9 \\ & \text { 12A10230-7 } \\ & \hline \end{aligned}$ | $\begin{aligned} & 003-7301 \\ & 003-7305 \\ & 003-7306 \\ & 003-7307 \\ & \hline \end{aligned}$ | $\begin{gathered} 41 / 2 \times 17 \\ 6 \times 17 \\ 4 \times 1 / 261 / 2 \\ \hline \end{gathered}$ | 4.50 7.00 3.35 |


| (BB) - CUT \& PEEL - PLAIN COPPER ON |
| :--- |
| DRILLED EPOXY-GLASS 2 SIDES |


(CC) - DRILLED \& ETCHED.
X GRID PATTERN I SIDE

| $12 A 10239-8$ | $006-7301$ | $81 / 2 \times 17$ | $\$ 17.95$ |
| :--- | :--- | :--- | ---: |
| $12 A 10240-6$ | $006-7305$ | $4 / 2 \times 17$ | 9.20 |
| $12 A 10241.4$ | 006.7306 | $6 \times 17$ | 12.20 |
| $12 A 10242-2$ | $006-7307$ | $41 / 2 \times 61 / 2$ | 5.10 |


(EE) - PLAIN FR-4 EPOXY-GLASS

| COPPER CLAD 1 SIDE |  |  |  |
| :--- | :--- | :---: | ---: |
| $12 A 10248-9$ | $001-7351$ | $6 \times 12$ | $\$ 4.25$ |
| $12 A 10249-7$ | $001-7352$ | $12 \times 18$ | 11.95 |
| $12 A 10250-5$ | $001-7353$ | $4 \times 6$ | 1.75 |

(EE) - PLAIN FR-4 EPOXY-GLASS

| COPPER CLAD 2 SIDES |  |  |  |
| :---: | :---: | :---: | :---: |
| $12 A 10251-3$ | $002-7351$ | $6 \times 12$ | $\$ 4.75$ |
| $12 A 10252-1$ | 002.7352 | $12 \times 18$ | 12.95 |
| $12 A 10253-9$ | 002.7353 | $4 \times 6$ | 2.00 |

## (FF) - PLAIN CUT \& PEEL COPPER FR-4 EPOXY-GLASS, 1 SIDE

| FR-4 EPOXY-GLASS, 1 SIDE |  |  |  |
| :---: | :---: | :---: | ---: |
| $12 A 10254-7$ | $003-7351$ | $6 \times 12$ | $\$ 4.75$ |
| $12 A 10255-4$ | 003.7352 | $12 \times 18$ | 13.50 |
| $12 A 10256-2$ | $003-7353$ | $4 \times 6$ | 2.00 |

## (FF) - PLAIN CUT \& PEEL COPPER,

| $12 A 10257-0$ | $004-7351$ | $6 \times 12$ | $\$ 5.75$ |
| :--- | :--- | :--- | :--- |
| $12 A 10258-8$ | $004-7352$ | $12 \times 18$ | 15.50 |


| $12 A 10258-8$ | $004-7352$ | $12 \times 18$ | 15.50 |
| :--- | :--- | :--- | ---: |
| $12 A 10259-6$ | $004-7353$ | $4 \times 6$ | 2.25 |



## KEYSTONE PRE-PUNCHED BOARDS

K/6" with $.062^{\prime \prime}$ holes spaced .187 x .187 center to center. UNCLAD XXXP NATURAL PHENOLIC



KEYSTONE PUSH-IN TERMINALS


Made to fit perforated boards. Sub-miniature size for $.062^{\prime \prime}$ in. Beryllium copper, silver plated.
12A2309-9. 'Flea" Clips, Keystone 1500 (212A2310-7. "Imp" Terminal. Keystone
100 For.....................
1000 For $\qquad$



# GC CALECTRO PRINTED CIRCUIT MATERIALS 

PRINTED CIRCUIT "LIFT-IT" KIT

Complete kit for making finished PC boards from anv ink base circuit drawing. Apply "Lift-lt" 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 tume consuming drawing or photographing of circuts and produces an exact circurt reproduction.
Kit Contains: 2 oz Lift-It transfer emulsion, 2 oz PC contact film developer, 3 oz. etch resist sensitizer. $1 / 202$, etch resist lacquer, 202 . PC board stripping solution, 1 , $10 \times 12^{\prime \prime}$ contact film, 1 -plas-
tic developing tray, and 2 -aluminum developing trays. Shpg wt. 2 lbs . tic developing tray, and 2 -aluminum developing trays. Shipg. wt. 2 lbs .
No. 12A10283-6. GC J4-828. Each
$\$ 16.50$
Etch Resist Sensitizer - Photo sensitizes printed circuit boards. Air dries in seconds. 3 oz . aerosol. No. 12A10286-9. GC J4-622. Each ..................................................... $\$ 2.95$ Stripping
process
Solution
02
bottle Removes remaining etch resist, dye, and lacquer from PC board after etching process. 2 or bottle. No. 12A10287-7. GC J4-626. Each
Developing Solution - Develops a perfect pattern in approximately one minute making PC board non-sensitive to light 1602 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 $-10 \times 12^{2}$ sheet- $10 \times 12$
No. 12A10289-3. GC J4-829. Each
"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 or. bottle. No. 12A10290-1. GC J4-830. Each ..................................................... $\$ 3.95$ Printed Circuit Contact Film Developer - For developing circuit patterns on PC contact film. 6 oz bottle. 12A10291-9. GC J4-831. Each
Experimenters Prototype Boards. Tough phenolic with $.03^{\prime \prime}$ punched holes. Size: $63 / 6^{\prime \prime} \times 33 g^{\prime \prime}$
Ouad Land Pattern: four holes per land, mount four components per solder connection. No. 12A10284-4. GC J4-609. Package of 2 Boards
Single Land Pattern: One hole per land.
No. 12A10285-1. GC J4-610. Package of 2 Boal
No. 12A10285-1. GC J4-610. Package of 2 Boards
$\$ 1.50$

PHENOLIC UNPUNCHED PANELS

| Stock No. | LAMINATED | XXXP | Natural $1 / 6{ }^{\prime \prime}$ | THICK | 100-240 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $1-19$ | 20-99 |  |
|  | No. | Size | Each | Each | Each |
| 12A9621-0 | - 1973 | $4.5 \times 6.5$ | \$0.50 | \$0.46 | \$0.44 |
| 12A9623-6 | 61976 | $9 \times 12$ | 1.60 | 1.54 | 1.49 |



## PROFESSIONAL QUALITY PHENOLIC CASES AND PANELS

Matching panels recess mount. Model 220 has 4 PHENOLIC CASES 4 faped $4-36$ holes for panel screws. Others have $6-32$ tapped brass inserts. Davies except * which are Keystone.

(2) BLACK PHENOLIC PANELS


|  |  |  | 1.19 | 20-99 | 100-249 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5A5500-9 | 2044 | Fits 220 Case | . 50 | . 45 | 39 |
| 5A5502-5 | 2046 | Fits 240B Case | . 68 | 55 | 46 |
| 5A5504-1 | 2047 | Fits 260 K Case | 84 | . 72 | 68 |
| 5A5507-4 | 2048 | Fits 702 Case | 1.26 | 1.10 | 96 |

## FAHNESTOCK CLIPS

Positive contact clips. Aveiage shpg. wt. 5 ors., per 100

| Stock |  |  | Max | Mtg. | $\mathbf{1 0}$ | $\mathbf{1 0 0}$ | 1000 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Length | Width | Wire | Hole | For | For | For |
| 12A1089-8 | $1^{\prime \prime}$ | $36^{\prime \prime}$ | $\# 10$ | $\# 8$ | $\$ 0.69$ | $\$ 5.30$ | $\$ 47.75$ |
| $12 A 1090-6$ | $34^{\prime \prime}$ | $5 / 16^{\prime \prime}$ | $\# 14$ | $\# 6$ | .40 | 3.40 | 30.98 |

## Vectot kits, plugbords and access.



Big $8.5 \times 17 \times 1 / 22^{\prime \prime}$ pre-punched phenolic Vectorbord 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 patchcords, 2 spools hook-up wire and switch plus asst. nuts, screws, spacers, lugs, brackets, etc. No. 20A196-2. Each $\qquad$ \$24.78

## 31X EXPERIMENTERS KIT

## FOR IC CIRCUITS

$4.5^{\prime \prime} \times 17^{\prime \prime}$ 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
Each

## 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 on $4.5 \times 6.5 \times 1 / 10$ phenolic two sided copper clad board, one $4.5 \times 2.73 \times 16{ }^{\prime \prime}$ phenolic one sided copper clad board plus $7 \times 5 \times 1 / \mathbf{s}^{\prime \prime}$ glass plate and a supply of chemicals and art Work. 12A10276-0
$\$ 9.40$


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 meitable insulation - no suringing. Three times aster than conventional mea surng. wire-cutting and stripping methods. Complete red solder-thru wire, plus threading loop and complete instructions.
37A3432-9. P173 Wiring Pencil.
$\$ 9.50$
Forming Knife Tool with chisel end to cut off wire against board. Opposite blunt end holds wire against board to provide slack
3/A3433-7. P183. Each ..
$\$ 1.95$
SOLDER-THRU INSULATED WIRE
PACKAGES OF THREE - EACH WITH 200 FT. ON SPOOL


## VECTOR-PAK

 CARD GUIDE CAGE
$51 /{ }^{"}$ high X 9 " deep X 19 " wide slotted for rack mounting with six heavy extruded aluminum cross members, aluminum side walls. Accommodate cards $3^{\prime \prime}$ to $41 / 2^{\prime \prime}$ wide and up to $7.7 / 8^{\prime \prime}$ in length. Variable connector mounting. Partially assembled for 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 to 9 Each
$\$ 34.07$
10 to 49 Each
No . 12 A9970-1.
$\$ 32.34$
$\$ 2.55$

"D.I.P." VECTOR PLUGBORDS FOR DUAL-IN-LINE IC's
Plug-in mounting boards for 14 or 16 lead dual-in-line integrated circuits. Boards are $1 / 16^{\prime \prime}$ thick epoxy paper material measuring $41 / 2$ " $\times 61 / 2$ " overall with an aluminum frame on 3 sides which fits $1 / 16$ " card guides. Boards have overall " $p$ " pattern of .041 " diameter holes on $0.1^{\prime \prime}$ spaced grid and an X-Y matrix pattern of $.070^{\prime \prime}$ etched copper lines running vertically on board front and horizontally on board 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 Microklip push-in terminals shown on next page make possible speedy circuit construction.
${ }^{3474}$. Di.1.p. Plugbord
Stk. No. Mfg. No. Description
12A9500-6 $347441 / 2 \times 61 / 2^{\prime \prime}, 44$ etched contacts,
$X-Y$ matrix

| $1-19$ | $20-99$ | $100-199$ <br> Each |
| :--- | ---: | ---: |
| Each | Each |  |

12A9502-2 $3474-3 \quad 41 / 2 \times 61 / 2^{\prime \prime}, 22$ etched contacts,
$9.33 \quad 8.40$
7.84

Y matrix back side
3677 SERIES D.I.P. PLUGBORDS
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 $042^{\prime \prime}$ diameter holes spaced $1^{\prime \prime}$ apart, etched buses 1 side for Vce and ground plus 3 hole pad groups and individual pad areas are tinned. FR-4, epoxy glass prr MIL-P.13949, Type FL-GF. Gold plated contacts (2
sides). Mate with R644 Receptacle listed below.

| (1mmin | 1mis |  |  |  |  | 20 | 100-199 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stk. | Mfg. No. | tacts | Length | Width | Each | ach | Each |
| 1249967 | 3677 | 44 | 9.6 | 4.5 | \$10.38 | 9.35 | \$8.73 |
| 12A9968-5 | 3677. | 44 | 6.5 | 4.5 | 9.28 | 36 | 780 |

## 3682 TYPE D.I.P. PLUGBORD

 Will mount up to 54 D.I.P. sockets with 14 pin or 48 units with 16 pins. Overall grid of $042^{\prime \prime}$ diameter holes 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 was ground planeo isolation. FR-4, epoxy glase around each hoie for lead isoiation. FR-4, epoxy glass plated contacts (2 sides) mates with R644 Receptacle listed| Stock No. 12A9971-9 12A9972-7 |  | Contacts 44 44 | $\begin{gathered} \text { Length } \\ 9.6 \\ 6.5 \end{gathered}$ | $\begin{aligned} & \text { Width } \\ & 4.5 \\ & 4.5 \end{aligned}$ | 1-19 Each $\$ 10.97$ 9.81 | $\begin{array}{r} \text { 20-99-99 } \\ \text { Each } \\ \$ 9.88 \\ 8.82 \end{array}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | below.



## VECTOR PLUGBORDS <br> AND RECEPTACLES

Ready to wire Plugbords for prototypes and short runs. All are furnished with over-all grid of pre-punched hos dia holes located on alternate intersections of a $0.1^{\prime \prime}$ grid. Contacts along receptacles. Pre-drilled to accept T-28 receptacles. Pre-drilled to accept $1-28$
miniklips, standard turned terminals,
 or $16^{\prime \prime}$ dia. eyelets. All are
epoxy
paper per MIL-P-22324 or "WE", types are epoxy glass per MIL-P-18177.


## (3) ACCESSORIES FOR ABOVE PLUGBORDS


 $\$ 2.93$
$\$ 5.50$


## H. H. SMITH PRINTED CIRCUIT CARD RACK

Adjusts for card widths $23 / 8$ to $43 / 4^{\prime \prime}$. for card lengths $31 / 2$ to $71 / 4^{3}$, and for connectors with mounting centers $936^{\prime \prime}$ to $4.437^{\prime \prime}$. Card spacing is adjustable in $400^{\prime \prime}$ increments. mini mum spacing is $400^{\prime \prime}$. Card capacity up to 39 cards. Adjustable locking bar holds cards securely against rear connectors. Card guides are prect sion molded plastic. Jeur guides per card for location accuracy. Guides nest together in staggered holes for minimum card spacing. Card guides and connector rairs adjust smoothly on nylon bushings, index marks are stamped on end plates for standard card sizes. Guides fit $1 / 16^{\prime \prime}$ thick cards. Heavy gauge clear anodized aluminum, size $19^{\prime \prime} \mathrm{L} \times 51 / 4{ }^{\prime \prime} \mathrm{H} \times 8^{\prime \prime}$. Fits standard 19 inch equipment racks. Can be stacked in multiples of $51 / 4$. Complete with all hardware, card guides and instructions.
shipped knocked down.
No. 12A10101-0. Smith No. 3050. 1 to 9 Each ........ $\$ 27.9510$ to $\mathbf{2 4}$ Ea........ $\$ 25.95$

# 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; $\dagger$ Epoxy glass; • 202 . copper clad one side
Pattern A-Dimension 1 is . $265^{\prime \prime}$ between centers; Pattern B-Dimension 1 is $.188^{\prime \prime}$ ( $3 / h 6^{\prime \prime}$ ) between centers; Pattern M-Dimension 1 is . $05^{\prime \prime}$ between centers; $P$ Pattern $P$ - Dimension 1 is $.1^{\prime \prime}$ between cen-
ters; Pattern G-Dimension 1 is $2^{\prime \prime}$ between centers; Dimension 2 is. $1^{\prime \prime}$ between centers.

| Stock No. | Mfg. No. | Pattern | Hole Dia. | Size Inches | $\begin{aligned} & 1-19 \\ & \text { Each } \end{aligned}$ | $\begin{array}{r} 20-99 \\ \text { Each } \end{array}$ | $\begin{array}{r} 100 \text { Up } \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A9505-5 | 18 A18 | A | . 093 | $4.8 \times 4.8 \times 1 / 16$ | \$0.46 | \$0.42 | \$0.39 |
| 12A9507-1 | $64 \mathrm{A18}$ | A | . 093 | $16.99 \times 4.8 \times 1 / 6$ | 1.58 | 1.42 | 1.32 |
| 12A9651-7 | $72 \neq 32$ | A | . 093 | $19.11 \times 8.51 \times 1 / 6$ | 2.81 | 2.53 | 2.36 |
| 12A9508-9 | 64AA18 | A | . 093 | $16.99 \times 4.8 \times 3 / 3 / 2$ | 2.03 | 1.83 | 1.70 |
| 12A9509-7 | 64AA32 | A | . 093 | $16.99 \times 8.51 \times 1 / 32$ | 3.47 | 3.12 | 2.91 |
| 12A9514-7 | 85G24 | G | . 062 | $16.99 \times 4.8 \times 1 / 16$ | 1.84 | 1.65 | 1.54 |
| 12A9515-4 | *85G24EP | G | . 062 | $16.99 \times 4.8 \times 1 / 16$ | 2.74 | 2.46 | 2.31 |
| 12A9516-2 | †42G24WE | G | . 062 | $8.51 \times 4.8 \times 1 / 6$ | 2.37 | 2.12 | 1.98 |
| 12A9517-0 | 45B30 | B | . 062 | $8.51 \times 5.69 \times 1$ \% | 1.04 | . 93 | 88 |
| 12A9518-8 | †85G24WE | G | . 062 | $16.99 \times 4.8 \times 1 / 6$ | 4.76 | 4.27 | 4.00 |
| 12A9519-6 | 90 B 30 | B | . 062 | $16.97 \times 5.69 \times 1 / 16$ | 2.28 | 2.00 | 1.91 |

MICRO-VECTORBORD FOR MOUNTING D.I.P.'S AND FLAT PACKS
 UNPUNCHED VECTORBORD - $20 Z$ COPPER CLAD ONE SIDE - EPOXY GLASS


VECTOR "ZIP" TERMINALS AND TOOLS


a
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 over. Nickle plated.
Fig. Stk. No. Mfg. No.

| (1) | $12 A 2210-9$ | $T 9-4$ |
| :--- | :--- | :--- |
| (1) | $12 A 2211-7$ | $T 9-4$ |
| (2) | $1222212-5$ | T 28 |
| (2) | $12 A 2213-3$ | T 28 |
| (2) | $1222214-1$ | $\mathrm{~T} 42-1$ |

Fits .093 holes

Pkg. Quantity Per Pkg.
5 Pkgs. Ea. Fits 093 Holes
Miniklip Fits. 062 Holes
Miniklip Fits. 062 Holes
Microklip Fits. 042 Holes 100
1000 $\$ 1.74$
12.43 $\$ 10.44$ $\begin{array}{lr}1000 & 12.43 \\ 100 & 1.90 \\ 100 & 12.61 \\ 100 & 2.01\end{array}$ SPRING CLIP PUSH-IN TERMINALS Provides fast, reliable circuit set-ups without soldering, bending or crimping component leads.


TRW CINCH INSULATOR WAFER
Anodized aiuminum for use with TO-3 power transistors Combines high dielectric insulation with high thermal conductivity to thie heat sink. 4 hole type
No. 12A53-5. 2W-1. 1-249 Each
250-499 Each
$\$ 1.05$
$70^{:}$


VECTOR I.C. SOCKETS FOR DUAL-IN-LINE PACKAGES Tabs fit "p" pattern Micro-Vectorbord or "DJP" Plugbords. Castings are glass filled nylon with phosphor bronze nicke gold piated contacts on wire wrap type, and tin plated con-

| Stk. No . | $\mathrm{Mfg} . \mathrm{No}$. | Contacts | Terminals | Each | Pkg. of 5 | S5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 129048- | R714. | 14 | PC. Solder | 9: |  | \$5.20 |
| 12 A5049 | R716-1 | 4 | Wire Wrap | 69. | . 52 |  |
| 12A9664 | R716 | 16 | Wire Wrap | 79 | 3.73 |  |

## TRW CINCH DIP SOCKETS

Socket leads on same centers as DIP leads. Solder in PC board or use $4.40 \mathrm{X} 1 / 4$ Fillister head screw for chassis mount. Insulation: (1) G.P. Black Phenolic:
Diallyl Phthalate: (3) Black Glass Nylon: (4) White Glass Nylon lead Plating: Diallyl Phthalate: (3) Black Glass Nylon; (4) White Glass Nylon Lead Plating: (5)
Electro-tin (6) Gold Electro-tin. (6) Gold.
STANDARD THROAT SOLDER TYPE $.017^{\prime \prime} \mathrm{X} .033^{\prime \prime} \mathrm{X} .170^{\prime \prime}$ Tails

| Insulation |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type | No. of | \& Lead | 1.24 | 25-49 | 50-99 | 100 Up |
| 1401 P | Conts. | Plating | Each | Each | Each | Each |
| 140 PP -1 | 14 | (2). 6 ) | \$1.02 | \$0.8? | \$0.68 | \$0.55 |
| 16019 | 16 | (1). 5 | 1.37 | 1.09 | 92 | . 74 |
| 16019.1 | 16 | (2). 61 | 1.13 | . 91 | 76 | 61 |
| 24DIP | 24 | (1). 5 | 1.70 | 1.20 | 1.01 | 81 |
| 2401P-1* | 24 | (2), 61 | 2.05 | 1.65 | 1.40 | . 114 |
|  | $\begin{array}{lllll}\text { WIRE WRAP TYPE } & 1.65 & 1.40 & 1.14\end{array}$ |  |  |  |  |  |
| 14W-DIP | 14 | (3). 51 | \$1.01 | \$0.82 | \$0.69 | \$0.55 |
| 14W-DIP-1 | 14 | 4. 5 ) | 1.01 | 82 |  |  |
| 16 W -DIP | 16 | (3).5) | 1.24 | 99 | 83 | . 67 |
| 16 W -0iP-1 | 16 | (4) (5) | 1.24 | . 99 | 83 | . 67 |

## HERMAN H. SMITH DIP IC SOCKETS <br> 

## TRW CINCH INTEGRATED CIRCUIT SOCKETS

T0-5 case IC sockets. Molded diallyl phthalate type SDG per MIL-M-14. Contacts are .00003 gold plated beryllium copper.

| Stock | Type |  | 1-24 | 25-49 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Cont. | Each | Each | Each | Each |
| 12A5051-4 | 6 ICS |  | \$0.75 | \$0.61 | \$0.53 | S0.46 |
| 12A5052-2 | 8 ICS |  | . 91 | 74 | 63 | 52 |
| 12A5025-8 | 10 ICS | 10 | 1.01 | . 80 | 69 |  |

## Stock No WORKMAN/IR TO-5, 12 PIN I.C. SOCKET <br> 

## TRW CINCH TRANSISTOR SOCKETS


(1) RECTANGULAR TRANSISTOR SOCKETS. Low loss phenolic with push-on mtg. ring ontacts are beryilium copper, silver plated

| Stk. | Type $\mathrm{No}_{0}$ | Prongs | 1-24 Ea. | 25-49 Ea. | 50-99 Ea. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 H 3 |  | \$0.46 | 0 | S0. 3 |  | $\begin{array}{rrrrrrr}12 \mathrm{~A} 5002-7 & 2 \mathrm{H} 5 & 5 & \$ 0.46 & \$ 0.40 & \$ 0.35 & \$ 0.28\end{array}$ (2) CINCH UNIVERSAL SOCKET. For use with all transistors with 3 or 4 leads. Gold plated con$\begin{array}{llllll}\text { per contacts. Snap-in P..mount. } & 1.33 & 1.07 & 91 & 74 \\ 12 A 5122-3\end{array}$ 3) CINCH ALL-MOLDED SOCKET. Fits triangular base $2 \times 11^{\prime \prime}$ centers. or 3 -contact in-line, 048

 (4) POWER TRANSISTOR SOCKETS. Wafer type for IU-3 transistors with $7 \mathrm{y}^{2}$ spacings. Size
 12A5004-3 2TS
Same above except has two mtg eyelets for easier chassis mounting
12A5005-0
(5) MOLDED PHENOLIC SOCKET. Phosohor bronze contacts Mounting ctrs. $425^{22} .13$
12 A5006-8
12A5006-8

## WORKMAN/IR POWER TRANSISTOR SOCKETS



XP phenolic wafer with nylon top plate. Supplied with mounting screws and template.
stock Mig.

| Stock | Mig . |  | 1-4 | 5-9 | 10-24 | 25 Up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No . | For | Each | Each | Each | Each |
| 12A5173-6 | SH131 | T0-3 | 30 c | 27c | 24 c | $22^{\circ}$ |
| 12A5174-4 | SH132 | T0-66 | 30 c | 27 c | 24 c | $22^{\circ}$ |

## 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 pins to accept ieads to size 24 . Inside Pins fit DIP sockets or perforated board with hole spacing of $1^{\prime \prime} \times 11^{\prime \prime}$.
12A2556-5
1-4 Each
1.4 Each


## AUDIO CONNECTORS AND TERMINALS



Interchangeable with Canon XLR-3, XLR-4 and Amphenol 91-850 series. Professional style audio connectors made for rugged service. Connectors are polarized with exfinish. Inserts are of high-impact plastic. Wall plates are brushed stainless steel and fit standard electrical outlet boxes.


SWITCHCRAFT AUDIO CONNECTOR ADAPTORS


Adapts male or female three conductor Switchcraft (above) or Cannon plugs to standard $1 / 4^{\prime \prime}$ phone plugs and jacks or mike connectors.

> Prices Each

| Fig. | Stk. No. | Mfg. No . | Description | Each | 2-9 | $\begin{aligned} & \text { Price } \\ & 10-24 \end{aligned}$ | $\begin{aligned} & \text { Each } \\ & 25-49 \end{aligned}$ | 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 | 383A | Female A3F to $1 / 4^{\prime \prime}$ Jack | 5.90 | 4.72 | 3.54 | 3.25 | 2.95 |
| (4) | 12A6095-0 | 384A | Male A3M to $1 / 4^{\prime \prime}$ Jack | 5.45 | 4.36 | 3.27 | 3.00 | 2.73 |
| 5 | 12A6096-8 | 386A | Female A3F to $1 / 4^{\prime \prime}$ Plug | 5.80 | 4.64 | 3.48 | 3.19 | 2.90 |
| 6 | 12A6097-6 | 387A | Male A3M to 1/4" 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 91850 or Switchcraft mike connectors, providing DPDT switching by sub-miniature slide switch.
$\begin{array}{lll} & & \text { Prices Each }\end{array}$ $\begin{array}{rcccc}\text { Each } & \text { 2-9 } & 10-24 & 25-49 & 50-99 \\ \$ 9.50 & \$ 7.60 & \$ 5.70 & \$ 5.23 & \$ 4.75\end{array}$


MIKE STAND CONNECTOR
Simplify mounting of most mikes to gooseneck or stem. $5 / 8 \times 27$ female stand threads.

00
$\begin{array}{lr}24 & 25-49 \\ \$ 1.65\end{array}$
SCOTCHLOK SELF-STRIPPING ELECTRICAL CONMECTORS


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.

## (1) TAP CONNECTORS

Provides tap connection to an existing line.

|  |  | Wire Range | 5 | 100 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. | Mig | Tap Line | For | For | For |
| 12A5217-1 | 801 | $14-18$ to 14-18 | 39. | \$5.99 | \$51.25 |
| 12A5218-9 | 902 | $14-18$ to $10-12$ | 59 | 8.52 | 72.42 |
| 12A5219-7 | 903 | 10-12 to 10-12 | $59^{\circ}$ | 8.52 | 72.42 |
| 12A5220-5 | 905 | $18-22$ to 14-18 | $39^{\circ}$ | 5.99 | 51.25 |
| 12A5221-3 | 558 | 16-22 to 16-22 | $49^{\circ}$ | 6.13 | 52.62 |
|  |  | (2) PIGTAIL CON | OR |  |  |
| Provides connection of 2 separate lines |  |  |  |  |  |
| Stock No. 12A5222-1 | Mfg. No. 557 | Wire Range 16-22 | 5 For $49^{\circ}$ | $\begin{gathered} 100 \text { For } \\ \$ 6.13 \end{gathered}$ | $\begin{array}{r} 1000 \text { For } \\ \$ 52.62 \end{array}$ |



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.

| Wire Size | Stud Size | Noninsulated Stock No. | 20 | 100 | $\begin{gathered} 1000 \\ \text { For } \\ \hline \end{gathered}$ | Insulated <br> Stock No. | $\begin{aligned} & 20 \\ & \text { For } \\ & \hline \end{aligned}$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ | $\begin{gathered} 1000 \\ \text { For } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22-18 | 4 | 12A2312-3 | S0.89 | \$3.09 | \$21.59 | 12A2316-4 | \$1.69 | \$5.99 \$43.99 |  |
| 22-18 | 6 | 12A1804-0 | . 89 | 3.09 | 21.59 | 12A1811-5 | 1.69 | 5.99 | 43.99 |
| 22-18 | 8 | 12A2313-1 | . 89 | 3.09 | 21.59 | 12A2317-2 | 1.69 | 5.99 | 43.99 |
| 22-18 | 10 | 12A1805-7 | 89 | 3.09 | 21.59 | 12A1812-3 | 1.69 | 5.99 | 43.99 |
| 16-14 |  | 12A1808-1 | 89 | 3.09 | 21.59 | 12A1815-6. | 1.69 | 5.99 | 43.99 |
| 16:14 | 8 | 12A2314-9 | 89 | 3.09 | 21.59 | 12A2318-0 | 1.69 | 5.99 | 43.99 |
| 16-14 | 10 | 12A1809-9 | 89 | 3.09 | 21.59 | 12A1816-4 | 1.69 | 5.99 | 43.99 |
| 12-10 | - | 12A2315-6 | 1.09 | 4.19 | 29.89 | 12A2319-8 | 2.04 | 7.74 | 56.86 |
| 12-10 | 10 | 12A1810-7 | 1.09 | 4.19 | 29.89 | 12A1817-2 | 2.04 | 7.74 | 56.86 |
| (2) SPADE TONGUE TERMINALS |  |  |  |  |  |  |  |  |  |
| 22-18 | 4-6 | 12A1818-0 | 89 | 3.09 | 21.59 | 12A1823-0 | 1.69 | 5.99 | 43.99 |
| 22-18 |  | 12A2320-6 | . 89 | 3.09 | 21.59 | 12A2323-0 | 1.69 | 5.99 | 43.99 |
| 22-18 | 10 | 12A1819-8 | . 89 | 3.09 | 21.59 | 12A1824-8 | 1.69 | 5.99 | 43.99 |
| 16-14 |  | 12A1820-6 | . 89 | 3.09 | 21.59 | 12A1825-5 | 1.69 | 5.99 | 43.99 |
| 16-14 |  | 12A2321-4 | 89 | 3.09 | 21.59 | 12A2324-8 | 1.69 | 5.99 | 43.99 |
| 16-14 | 0 | 12A1821-4 | 89 | 3.09 | 21.59 | 12A1826-3 | 1.69 | 5.99 | 43.99 |
| 12-10 |  | 12A2322-2 | 1.09 | 4.19 | 29.89 | 12A2325-5 | 2.04 | 7.74 | 56.86 |
| 12-10 | 10 | 12A1822-2 | 1.09 | 4.19 | 29.89 | 12A1827-1 | 2.04 | 7.74 | 56.86 |
| (3) FLANGED SPADE TERMINALS |  |  |  |  |  |  |  |  |  |
| 22-18 | 4.6 | 12A1828-9 | 89 | 3.09 | 21.59 | 12A1832-1 | 1.69 | 5.99 | 43.99 |
| 22-18 |  | 12A2326-3 | 89 | 3.09 | 21.59 | 12A2328-9 | 1.69 | 5.99 | 43.99 |
| 22-18 | 10 | 12A1829-7 | 89 | 3.09 | 21.59 |  |  |  |  |
| 16-14 |  | 12A1830-5 | 89 | 3.09 | 21.59 | 12A1834-7 | 1.69 | 5.99 | 43.99 |
| 16-14 |  | 12A2327-1 | 89 | 3.09 | 21.59 | 12A2329-7 | 1.69 | 5.99 | 43.99 |
| 16-14 | 10 | 12A1831-3 | 89 | 3.09 | 21.59 | 12A1835-4 | 1.69 | 5.99 | 43.99 |
| (4) BUTT CONNECTORS |  |  |  |  |  |  |  |  |  |
| 22-18 |  | 12A1836-2 | 99 | 3.59 | 23.99 | 12A1839-6 | 1.89 | 7.19 | 52.89 |
| 16-14 |  | 12A1837-0 | . 99 | 3.59 | 23.99 | 12A1840-4 | 1.89 | 7.19 | 52.89 |
| 12-10 |  | 12A1838-8 | 1.69 | 5.99 | 42.59 | 12A1841-2 | 2.49 | 9.59 | 70.99 |
| (5) MALE QUICK DISCONNECTS-PUSH-ON TYPE |  |  |  |  |  |  |  |  |  |
| 18-14 | $.187$ |  | 89 | 3.09 | 21.59 | 12A1844-6 | $1.79$ | $5.99$ | $43.99$ |
| 18-14 | $250$ | 12A1843-8 | . 89 | 3.09 | 21.59 | 12A1845-3 | $1.79$ | $5.99$ | $43.99$ |
| (6) FEMALE QUICK DISCONNECTS-PUSH-ON TYPE |  |  |  |  |  |  |  |  |  |
| 26-20 | 110 | 12A2514-4 | . 99 | 3.59 | 23.99 |  |  |  |  |
| 22-18 | 250 | 12A2515-1 | . 99 | 3.59 | 23.99 |  |  |  |  |
| 18-14 | 110 | 12A2513-6 | . 99 | 3.59 | 23.99 | 12A2516-9 | 2.04 | 7.74 | 56.86 |
| 18-14 | 187 | 12A1846-1 | . 99 | 3.59 | 23.99 | 12A1848-7 | 1.79 | 5.99 | 43.99 |
| 18-14 | 250 | 12A1847-9 | . 99 | 3.59 | 23.99 | 12A1849-5 | 1.79 | 5.99 | 43.99 |
| (7) NYLON INSULATED CLOSED-END CONNECTORS |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 20-14 \\ & 16-10 \end{aligned}$ |  |  |  |  |  | $\begin{aligned} & 12 A 1850-3 \\ & 12 \Delta 1851-1 \end{aligned}$ | $\begin{aligned} & 1.29 \\ & 1.99 \end{aligned}$ | $\begin{aligned} & 4.99 \\ & 7.29 \end{aligned}$ | $\begin{aligned} & 35.59 \\ & 52.00 \end{aligned}$ |

## SMITH <br> HEAVY DUTY CRIMPER BOLT SLICER, WIRE CUTTER AND WIRE STRIPPER <br> S700



Made of heavy gauge, heat treated steel. Insulated handles. Adjustable tension screw. Crimps insu lated and non-insulated terminals. Strips and cuts wire sizes 10-22 AWG. Shears bolt sizes 4-40, 6 37 A343i, $10-24$ and $50-32$. Shing. wt. 2 lbs.
......... $\$ 7.006$ 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. Shpg. wt. 3 lbs
37A3031-9 Type 4982. Each
$\$ 15.95$

TAP-OFF TERMINAL
Pierces through insulation of, 10 to 18 stranded wire for solid electrical contoct. 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 $\$ 1.39$ $\$ 1.39$
$\$ 13.19$
$\$ 13.19$

## GMTMEXGEAFT PLUGS AND JACKS



Fits standard $1 / 4^{\prime \prime}$ phone jack, except Nos. S-250, S-260 and S-280 which have a ${ }^{206 \prime \prime}$ 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; $15 / 8^{\prime \prime}$ long, $1 / 2^{\prime \prime}$ dia.*Screw terminals, others solder terminals. Shpg. wt. 2 ozs.

Mfg. $\mathrm{No}^{240}$
$\mathrm{C}-240 *$
C-245*
$\mathrm{C}-245 *$
250
$\mathrm{~S}-250$
255
270
$\mathrm{C}-270$
280
$\mathrm{~S}-280$
2 CONDUCTOR TYPES


## SWITCHCRAFT "FLAT PLUGS"

$1 / 4^{\prime \prime}$ phone plugs except S-230 is $.206^{\prime \prime}$ 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 CONDUCTOR TYPES

(1)


Rugged jacks feature cable anchor. "/h6" 0.0. 2-5/32" long: 121 and 131 are $1 / 2 \times 21 / 2^{\prime \prime}$. All for $1 / 4^{\prime \prime}$ plugs. *Screw terminals, all others are soider terminals.


## (4) THICK PANEL JACK

Standard $1 / 4^{\prime \prime}$ phone jack with extra long threaded bushing for panels up to $11 / 4^{\prime \prime}$ thick. Overall length $21 / 4^{\prime \prime} \times 5 / 8^{\prime \prime}$ dia. Mounts in $15 / 2^{\prime \prime}$ hole. Open circuit type Solder terminals.


## SHIELDED PHONO JACKS \& PLUGS


"TINI PLUG" and "TINI JAX" MINIATURE PLUGS \& JACKS


ONLY $1 / 3$ THE
(2)

"Tiny Plug" is $3 / 8^{\prime \prime}$ dia. X $15 / 8^{\prime \prime}$ overall length, $9 / 64^{\prime \prime}$ dia. finger. *Screw terminal, others solder.


## "MICRO" PLUG AND JACK

Ultra-miniaturized version of Tini-Plugs above. Plug is $11 / 4^{\prime \prime}$ long, $1 / 4^{\prime \prime} \quad$ O.D. with $.097^{\prime \prime}$ dia. finger. Jack is $1 / 1 / 2^{\prime \prime}$ long mounts in $Y_{1} 6^{\prime \prime}$ hole on panels up to $z_{2} 2^{\prime \prime}$ thick. For 2 cond. cable up to $\%_{4^{\prime \prime}}^{\prime \prime}$ dia. Jack is closed circuit.


## SWITCHCRAFT HI-D JAX



Military Type Plugs. Meets MIL specs. No. MIL-P.642A. High quality black plastic Military Type Plugs. Meets MIL specs. No. MIL-P-642A. High quality black plas
handle, with lug terminals attached internally with brass screws. Wt. 2 ozs.

Mil No. Shaft No. Prices Each


(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.

"POWER-PLUG" AND "POWER-JAX"


Miniature 2-Conductor Plug mates with power sockets of portable radios, tape recorders, etc. Part \#760 has $218^{\prime \prime}$ O.D. with . 100" I.D. center hole. S-760 same except $.080^{\prime \prime}$ I.D. center hole.

| Fig. 1 1 | $\begin{aligned} & \text { Stk.No. } \\ & 12 A 623-8 \\ & 12 A 6225-3 \end{aligned}$ | $\begin{array}{r} \text { Mig. } \mathrm{No} \\ 760 \\ \mathrm{~S}-760 \end{array}$ | Handle Black Black | $\begin{array}{r} \text { Each } \\ \$ 1.15 \\ 1.20 \end{array}$ | $\begin{gathered} \text { \$0.9 } \\ \text { \$0.92 } \\ \hline 96 \end{gathered}$ | $\begin{gathered} 10-24 \mathrm{Ea} \\ \$ 0.69 \\ \hline 12 \end{gathered}$ | $\begin{gathered} \text { Prices Each } \\ \text { a. } 25-49 \text { Ea. } \\ \$ 0.63 \\ .66 \end{gathered}$ | $\begin{array}{r} 50-99 \\ 50.58 \\ . \quad .50 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Power Jack for electrical equipment. 712A, 722A mate with 760 and S-760 above. 712A, 722A mount in 5/16" hole.
$\begin{array}{lrrrrrrr}\text { Fig. } & \text { Stk.No. } & \text { Mig. No. } & \text { Each } & 2-9 & 10-24 & 25-49 & 50-99 \\ 2 & 12 A 6227-9 & 712 A & \$ 1.20 & \$ 0.96 & \$ 0.72 & \$ 0.66 & \$ 0.60 \\ 2 & 12 A 6229-5 & 722 A & 1.20 & .96 & .72 & .66 & .60\end{array}$

## SWITCHCRAFT CABLES, CONNECTORS \& ADAPTORS




## 


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 vinyt.

| Stock No. | Switcheraft No. | Terminations End 1 End 2 | Lgth. | 1-9 | Prices Each | 5-49 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A6237-8 | 25AC25 | 44 | $11 / 2 \mathrm{ft}$. | \$1.24 | \$0.93 | \$0.85 |
| 12A6238-6 | 25 AF 25 | $4 \quad 4$ | 3 ft . | 1.36 | 1.02 | . 94 |
| 12A6239-4 | 25AK25 | $4 \quad 4$ | 6 ft . | 1.72 | 1.29 | 1.18 |
| 12A6240-2 | 25AN25 | $4 \quad 4$ | 10 ft . | 2.40 | 1.80 | 1.65 |
| 12A6241-0 | 25AU25 | $4 \quad 4$ | 25 ft . | 4.24 | 3.18 | 2.92 |
| 12A6242-8 | 25 AF 82 | 45 | 3 ft . | 1.52 | 1.14 | 1.05 |
| 12A6243-6 | 25AK82 | $4 \quad 5$ | 6 ft . | 2.04 | 1.53 | 1.40 |
| 12A6244-4 | 25AN82 | 45 | 10 ft . | 2.40 | 1.80 | 1.65 |
| 12A6245-1 | 25 AU82 | 45 | 25 ft . | 4.24 | 3.18 | 2.92 |
| 12A6247-7 | 25AK30 | 43 | 6 ft . | 1.72 | 1.29 | 1.18 |
| 12A6248-5 | 25AN30 | 43 | 10 ft . | 2.40 | 1.80 | 1.65 |
| 12A6248-3 | 25CK84* | 410 | 6 ft . | 1.00 | 75 | . 69 |
| 12A6250-1 | 25 AC84 | 410 | $11 / 2 \mathrm{ft}$. | . 88 | . 66 | . 61 |
| 12A6251-9 | 25 AF84 | 410 | 3 ft . | 1.04 | 78 | 72 |
| 12A6252-7 | 25AK84 | 410 | 6 ft . | 1.32 | . 99 | 91 |
| 12A6253-5 | 25AN84 | 410 | 10 ft . | 1.88 | 1.41 | 1.29 |
| 12A6254-3 | 25AU84 | 410 | 25 ft . | 3.88 | 2.91 | 2.67 |
| 12A6255-0 | 25CK86* | 49 | 6 ft . | 2.08 | 1.56 | 1.43 |
| 12A6256-8 | 25WN25*+ | 44 | 10 ft . | 1.56 | 1.17 | 1.07 |
| 12A6257-6 | 25WT25*+ | $4 \quad 4$ | 20 ft . | 1.76 | 1.32 | 1.21 |
| 12A6258-4 | 25WN82*+ | $4 \quad 5$ | 10 ft . | 1.76 | 1.32 | 1.21 |
| 12A6259-2 | 25WT82*+ | 45 | 20 ft . | 1.92 | 1.44 | 1.32 |
| 12A6260-0 | 25WM84* + | 410 | 10 ft . | 1.24 | . 93 | . 85 |
| 12A6261-8 | 25WT84*+ | 410 | 20 ft . | 1.68 | 1.26 | 1.16 |

## Amphenol \& TRW sockeTs \& ACCESS.

## AMPHENOL SOCKETS AND MOUNTS



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 .

| Fig. | Stock <br> No. | Amphenol <br> Number | Pins | Mtg. |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: |
| Hole |  |  |  |  |

"S" SOCKET MOUNTINGS. Fits " S " type sockets. CP Plugs and 61 M and 61 F AC connectors Steel mtg. plate has slotted holes with $1-1 / 2^{\prime \prime}$ to $1-7 / 8^{\prime \prime}$ centers. Above surface mount Type 23-1S raises socket $13 / 16^{\prime \prime}$ above surface, $1-3 / 4^{\prime \prime}$ dia. Below surface mount Type 61-61 extends 1-3/16 below surface. Mounts in $1-7 / 16^{\prime \prime}$ hole on $1-3 / 4^{\prime \prime}$ centers.


Any plug in this group mates with any socket with same number of pins. 78 series mount in $5 / 8^{\prime \prime}$ hole with push-on spring ring. Can be chassis mounted or wired to
 chassis socket. Avg. shpg. wt. $1 / 2 \mathrm{ozs}$.

| Fig. | Stk. No. | Type | Pins | 1-5 | $\begin{array}{r} \mathrm{Pr}_{1} \\ 6-49 \\ \hline \end{array}$ | $\begin{aligned} & \text { sch } \\ & 50-99 \end{aligned}$ | 100-Up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | 12A140-0 | 78-33S | 3 | 26 | 21 | . 17 | . 15 |
| (1) | 12A141-8 | 78-S4S | 4 | . 39 | 30 | 25 | 23 |
| (1) | 12A125-1 | 78-S5S | 5 | . 41 | 32 | 27 | 24 |
| (1) | 12A118-6 | 78-S6S | 6 | 44 | 35 | 23 | 25 |
| (2) | 12A138-4 | 86-CP3S | 3 | .43 | 34 | 28 | 25 |
| (2) | 12A139-2 | 86-CP4S | 4 | 40 | 31 | 26 | . 24 |
| (2) | 12B171-5 | 71-5S | 5 | . 39 | . 30 | 25 | . 22 |
| (2) | 128172-3 | 71-6S | 6 | 45 | 34 | 29 | 25 |
| (3) | 12A148-3 | 91-MPF3L | 3 | . 86 | 71 | 57 | 50 |
| (3) | 12A149-1 | 91-MPF4L | 4 | . 93 | 71 | 60 | 53 |
| (4) | 12A142-6 | 91-MPM3L | 3 | . 71 | 54 | 46 | . 41 |
| (4) | 12A143-4 | 91-MPM4L | 4 | . 79 | . 63 | . 53 | . 45 |
| (4) | 12B22-0 | 91-MPM5L | 5 | . 79 | . 63 | . 53 | 45 |
| (4) | 12823-8 | 91-MPM6L | 6 | . 81 | . 66 | . 57 | 51 |

## AMPHENOL STANDARD "CP'" plugs made of black $1 \rightarrow 2$ <br> 3 <br> 

 PF connectors are molded black bakelite with steel shell Rubber grommet in hole. Avg. shpg. wt. 1 oz.| Fig. | Stk. No. | Type | Pins | 1-5 | $\begin{array}{r} P_{1} \\ 6-49 \end{array}$ | $\begin{aligned} & \text { Each } \\ & 50-99 \end{aligned}$ | 100-Up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | 12A58-4 | 86-CP4 | 4 | 52 | 40 | 34 | 30 |
| (1) | 12A63-4 | 86-CP8 | 8 | . 56 | 44 | 37 | 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 |
| (2) | 12A86-5 | 78-PF9 | 9 | . 83 | . 64 | . 60 | . 53 |
| 2 | 12A87-3 | 78-PF11 | 11 | . 90 | 70 | . 66 | . 57 |
| (3) | 12A72-5 | 86-PM4 | 4 | . 93 | 72 | . 67 | . 59 |
| 3 | 12A74-1 | 86-PM6 | 6 | . 97 | 75 | . 69 | 61 |
| $3)$ | 12A77-4 | 86-PM8 | 8 | . 98 | 75 | 71 | 62 |
| 3 | 12A78-2 | $86-\mathrm{PM} 9$ | 9 | . 99 | 77 | . 72 | . 63 |
| (3) | 12A79-0 | $86-\mathrm{PM} 11$ | 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.


Octal. Type XS. 8


TRW CINCH AC SOCKET
Fits standard, AC plugs. UL listed. Rated 15 A., 110 V. Mounts in standard AC plugs. Un listed. Rated 15 A., 110 No. 12AB99-1.1-5 Ea


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
100-249 Each
$\$ 3.78$
$\$ 3.40$
(2) 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. 2C153-3 146-103 Top Mtg. No Tie Points $\quad \begin{aligned} & \text { Description } \\ & 12 \mathrm{C} 154-1 \\ & 146-104\end{aligned}$ Top Mtg. 4 Tie Points 2C155-8 146-203 Bottom Mtg. No Tie Points 12C156-6 146-204 Bottom Mtg. 4 Tie Points


## TRW CINCH SOCKETS AND SHIELDS

(1)

(2)

(3)

5
7.PIN MINIATURE SOCKETS

Unshielded types are bottom mount. Shielded types are top mount. Both mount in $53^{\prime \prime}$ hole with $7 / 8^{\prime \prime}$ mtg . center. Letters in Type numbers indicate body material: "B" - Bakelite, "M" - Mica. "C" Ceramic.

(3) TUBE SHIELD FOR 7-PIN MINIATURE SOCKETS

Durable steel shields with "J-Slot" for locking on to base. Tube holding spring in top

| Stk. |  |  |  |  | Prices Each |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Type | Size | 1.5 | 6-24 | 25-49 | 50-99 | 100-249 |
| 12A5026-6 | 753 | 134"L. | \$0.52 | \$0.40 | \$0.31 | \$0.26 | \$0.24 |
| 12A5046-4 | 754 | 21/4" | . 66 | . 51 | . 41 | . 37 | 29 |

## g-PIN MINIATURE SOCKETS

Unshielded type are bottom mount, shielded type are top-mount. Mounts in $34^{\prime \prime}$ hole with $11 /{ }^{\prime \prime} \mathrm{mtg}$ center "B" - Bakelite. "M" - Mica. "C" - Ceramic

| Fiq. Stock | Type | 1-5 | 6-24 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) 12A5012-6 | $9 E B$ | \$0. 29 | \$0.23 | \$0.18 | \$0.17 | \$0.15 |
| (1) 12A5013-4 | 9EM | . 36 | . 28 | 21 | 20 | 19 |
| (2) 12A5014-2 | $9 \times 8$ | 44 | . 34 | 29 | 26 | 23 |
| (2) 12A5015-9 | 9XM | 47 | 36 | 31 | 25 | 22 |
| (2) 12A5016-7 | 9XC | 74 | . 57 | 46 | 38 | 33 |



## TRW CINCH NUVISTOR \& COMPACTRON SOCKETS <br> 

(1) 5-Pin Nuvistor Socket with steel saddle mount. Top mounting
 (2) 12 -Pin Compactron Socket all molded black phenolic. Top or bottom mounting

Each
. 22 ${ }^{\text {® }} 50$ Each ....
19: 100 Each
$18^{-}$

## 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 |
| $12 A 5035-7$ | $7 P C-B$ | $\$ 0.24$ | $\$ 0.19$ | $\$ 0.16$ | $\$ 0.14$ | $\$ 0.13$ |
| $12 A 5034-0$ | $9 P C-B$ | .28 | .22 | .17 | .16 | .14 |

## NU-WAY SNAP CONNECTORS

For Permanent or Temporary Circuits Permits quick simple connection of wires. Nickel plated brass. Terminals snap together making positive contact. Any number of snaps can be shown ot right). Shpg. wt. 2 oz .
(1) Snaps- Snaps together or to studs below

With crimp-on solder tuo
With crimp-on solder lug.
12A642-5. Ea. $29^{\circ} \quad 100$ For. $\$ 12.49 \quad 1$ M For. $\$ 99.40$ (2) Studs- Use with snaps above.
Mounts in chossis or panel. I Ma4643-3. Ea. 25'100 For.. \$8.29 1M For.. $\$ 66.00$
Direct Telephone Line to B-A's Industrial Department (816) 756-2525

## PLUGS, JACKS AND CONNECTORS

AMPHENOL MICROPHONE AND SHIELDED CABLE CONNECTORS


Standard single contact pressure type connectors with $5 / 8-27$ male or female thread as illustrated. Made of brass, chrome plated. Type $75-\mathrm{MCIF}$ has a removable coupling ring (see inset) and will mate with both male and female fittings. Shpg. wt. $10 z$.

Equipped with threaded coupling ring to prevent accidental disconnection. Brass chrome-plated 2 contact cable connector has ${ }^{3} / 8^{8}$ spring cord protector, 4 -contact has $3 / 8^{\prime \prime}$. Type 6 chassis connector mounts in $58^{\prime \prime}$ hole. Type 9 mounts in 27/32" hole. Shpg. wt. 102


## SWITCHCRAFT "MINI-CON" MINIATURE MICROPHONE CONNECTORS

About $1 / 2$ the size of standard microphone connectors. Accepts single conducto About $1 / 2$ the size of standard microphone connectors. Accepts single conductor shielded cables up to
removable for quick change of female to male type. 5501 MP mounts back side of removable for quick chro
panet in 1 No. 12A2857-7 $5501 F$. Univ. Male or Female Connector
${ }_{1-9} \mathrm{Ea}$........ $\$ 1.00$ 10-24 Ea. ........... $60^{\circ} \quad 25-49 \mathrm{Ea} . . . . . . . .$.



| Prices Each |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1.5 | 6.49 | 50.99 | $100-249$ |  |
| $\$ 1.48$ | $\$ 1.16$ | $\$ 0.96$ | $\$ 0.83$ |  |
| 1.58 | 1.24 | 1.03 | .89 |  |
| 1.26 | .99 | .82 | .71 |  |
| 1.95 | 1.53 | 1.27 | 1.09 |  |
| 1.96 | 1.54 | 1.28 | 1.11 |  |
| 1.27 | 1.00 | .85 | .74 |  |
| .84 | .66 | .55 | .46 |  |


|  |  |  |  |  |  | 9 | $50-9$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{Fig} \\ & 4 \end{aligned}$ | $\begin{aligned} & \text { Stk. No. } \\ & \text { 12A320-8 } \end{aligned}$ | 80MC2M | Cont. |  | $\$ 1.48$ | P-49 S1.16 | \$0.9 | O-249 $\mathbf{S 0 . 8 3}$ |
| 5 | 12A321-6 | 80 MC 2 F |  | Female, Cable | . 58 | 1.24 | 1.03 | 89 |
| 6 | 12A323-2 |  |  | Female, Chas | 26 | 99 | 82 | 71 |
| 7 | 12A326-5 | 91-MC4M | 4 | Male, Cable | . 95 | 1.53 | 1.27 | 1.09 |
| 8 | 12A327-3 | 91-MC4F | 4 | Female, Cable | 1.96 | 1.54 | 1.28 | 1.11 |
| 9 | 12A331-5 | 91-PC4F | 4 | Female. Chassis | 1.27 | 1.00 | 85 | 74 |
| 10 | 12A332-3 | 91 -CCC-3 |  | Dust Cover for 91 | . 84 | .66 | 55 | 46 |

## RCA TYPE <br> PHONO

 CONNECTORS| FOR MORE PHONO |
| :---: |
| PLUGS AND JACKS |
| SEE PAGE 148 |

## $215=$



## 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 pan-

Please specify both B-A Stock number and color. Avg. shpg. wt. 12 ozs. per 100
Stock No.

12-01048-4-002-5 12-01048-4-010-9 $12-00581-3-002-6$ 12-00681-3-010-9 $12-01047-6$
$\qquad$

| Mig. Type | Mtg . <br> Hole | Overall Length | Color | Description |
| :---: | :---: | :---: | :---: | :---: |
| HS205 | 5/6" | 21/32" | Red | BJ, Insulated Head |
| HS205 |  | 21/32' | Black | Bj, Insulated Head |
| EJ108 | 21/64" |  | Red | BJ, 1, Nylon 900 Series |
| EJ108 | 21/64" | $15 / 60^{\circ}$ | Black | BJ, 1, Nylon 900 Series |
| HS109 HS100 |  | ${ }_{1-1 / 32^{\prime \prime}}$ | NP | BJ, Brass Nickel Plate |
| HS204 |  | $11 / 16^{2}$ | Red | BP, I, Solderless Screw |
| HS204 |  | 1 "h6" | Black | BP, I, Solderless Screw |
| EJ108 |  | 13\%" | Red | BP. L, Nylon 300 Series |
| E108 |  |  | Black | BP, I, Nylon 300 Series |
| HS103 HS211 |  | ${ }^{1-11 / 32^{\prime \prime}}$ | $\begin{aligned} & N P \\ & \text { Ref } \end{aligned}$ | BP, Brass NP $6 / 32$ Thread BP, , Solder or Solderless |
| HS211 |  | 159\% | Black | BP. I, Soider or Solderiess |
| HS202 | 3/6" | 1-1/64" | Red | TJ, I, Phospher Bronze Cont. |
| HS202 | 5/8' | 1-1/64" | Black | IJ, 1, Phosphor Bronze Cont. |
| EJ105 | 1/4. | $1^{1 / 16}$ | Red | TJ, 1, Nylon 800 Series |
| EJ105 | 1/4" | 1'/6" | Black | TJ, I, Nylon 800 Series |
| HS206 | 1/4" | 1-11/32" | Red | IJ \& BJ, I, Combination |
| HS206 | $1 / 4{ }^{-1}$ | 1-11/32 | Black | TJ \& BJ, I, Combination |
| HS200 |  | $21 /{ }^{1 / \prime}$ | Red | TP. I, Solderiess |
| HS200 |  | 21/4" ${ }^{1} /{ }^{\prime \prime}$ | Black Red | TP, I, Solderless <br> TP' I, Nylon 300 Series |
| EJ105 |  | 1 1/6" | Black | TP, I, Nylon 300 Series |
| HS235 |  | 11/" | Red | TP, I. Meter Type |
| HS235 |  | $11 /{ }^{1 / 4}$ | Black | IP. , Meter Type |
| HS295 |  | $1{ }^{13} / 6_{6}{ }^{\prime \prime}$ | Red | BP. L, Solderless |
| HS295 |  | $11 / 6^{\prime \prime}$ |  | BP, I, Solderless |
| HS 158 HS324 |  | ${ }^{15} / 6^{\prime \prime}{ }^{3}$ | $\begin{aligned} & N P \\ & \text { Red } \end{aligned}$ | Std. Phone Tip. NP Brass |
| HS324 HS324 |  | 134." | Red Black | BP, I, Solderless Stackable BP, I, Solderless Stackable |
| HS210 |  | $13 /{ }^{\text {a }}$ | Red | Double BP, I, Solderless |
| HS210 |  | 13/" |  | Stackable |
|  |  |  | Black |  |
| EJ105 |  | 4/10" | Red | Horizontal Jack, 1, 750 Series |
| EJ105 |  | 4/10" | Black | Horizontal Jack, 1, 750 Series |
| EJ105 | .052'. |  | Red | Vertical Jack, , 850 Series |
| EJ105 |  |  | Black |  |
| EJ105 |  |  | Red | TP. i, 770 Series |

## AC RECEPTACLES AND PLUGS


(1)

(2)


## (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 $11 / 6 X^{11} / h^{\prime \prime}$ hole and two $1 / 3^{\prime \prime}$ dia. holes Rated 6 amp 250 VAC. UL and CSA listed.
 $\qquad$ $\begin{array}{lll}10-24 \text { Each } \ldots \ldots \ldots . . . & 83^{\circ} & 25-49 \mathrm{Ea} \\ 50-99 \text { Ea. } & \text { 100-249 Ea. }\end{array}$
$\qquad$
(2)BELDEN AC LINE CORD
$71 / 2$ 18/3 Black SVT. Meets CSA specifications and UL listed. Rated 10 amps. 125 VAC . Shpg. wt 802
No. 41 A446-6. Type 17250 . Each No. 41 A446-6. Type 17250. Each
10 Ea. ............. S2.0.
S.

## (3) AMPHENOL AC RECEPTACLE

Molded of high dielectric black bakelite. UL listed, rated 15 A. 110 volts. Mounts in $1^{1} / 6^{"}$ hole on $11 / 2^{\prime \prime}$ mto ctrs.
No. 2 . $2354-7$ Type 61-MIP-61F 1-5 Each.
No. 12 A354-7 Type 61-MIP-61F. 1-5 Each
6-49 Ea. 100-249 Each

## AMPHENOL POLARIZED AC CONNECTORS

(2)


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 $15 \mathrm{amp}, 125 \mathrm{~V}$. Type $160-2$ receptacle mounts in $1-9 / 32^{\prime \prime}$ hole,
has $112^{\prime \prime}$ mto centers. Cable type are $15 / \mathrm{s}^{\prime \prime}$ long with cable clamp. less prongs. Avg. shpg. wt. 2 ozs.
Fig
1
1
2
3

## TRW CINCH CONNECTORS



## TRW CINCH "JONES" SERIES 300 CONNECTORS

 insulation rated at 730 RMS volts. 302 numbers below have $21 / 22^{\prime \prime}$ dia. case, all UL and CSA listed. Average shipping weight 4 ozs. others are rectangular. Plug prongs $5 / 32^{\prime \prime}$ wide $\times 1 / 64^{\prime \prime}$ thick

Specify B-A Stock No. and Type No. when ordering


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. S202CCT mates with P202B.
Specify Stock No. and Type No. when ordering.


Stock No.
12-00181-4-001-8
$12-00181-4-002-6$
$12-0181-4-002-6$
$12-00181-4-003-4$
$12-00181-4-004-2$
$12-00181-4-005-9$

SCREW TERMINAL STRIPS WITH SOLDER LUGS
 vent removal. Terminals spaced on $1 / 6^{\prime \prime}$ centers. Avg. shipg. wt. 1 oz .


2


CABLE TYPE WITH CLAMP-LOCKING
(5) PLUGS WITH LATCH
(5) plugs with latch Prices Each

100-24


| $12-00183-0-106-5$ |
| :---: |
| $12-00183-0-108-1$ |

Stock No

| Type | $1-24$ | Prices Eac |
| :--- | :--- | :--- |
| No. |  |  |

## 300 SERIES PLUGS \& SOCKETS CABLE TYPE WITH CLAMP

## Stock No.

Stock No.
$12-00179-8-102$ $12-00179-8-102-4$
$12-00179-8-103-2$ $12-00179-8-104-0$
$12-00179-8-106-5$ $12-00179-8-106-5$
$12-00179-8-108-1$ 12-00179-8-110-7 $12-00179-8-112-3$ $12-00179-8-115-6$
$12-00179-8-118-0$ $12-00179-8-118-0$
$12-00179-121-4$
$12-00179-8-124-8$ $12-00179-8-124-8$
$12-00179-8-127-1$
12 $12-0179-8-130-5$
$12-00179-8-133-9$


|  | (1) PLUGS |  | Prices Eac |
| :---: | :---: | :---: | :---: |
| Cont. | Type | No. | 25-49 |

300 SERIES PLUGS \& SOCKETS
CABLE TYPE WITH CLAMP


|  |
| :---: | P302CCT

P303CCT
P304CCT
P306CCT
P308CCT
P310CCT
P312CCT
P315CCT
P318CCT
P321CCT
P324CCT
P327CCT
P330CCT
P333CCT 1.24
50.87
97
1.01
1.12
1.25
1.36
1.46
1.95
2.28
2.71
3.19
3.65
4.10

4.54 | $5-49$ | $50-99$ |
| ---: | ---: |
| $\$ 0.69$ | $\$ 0.58$ |
| 78 | .62 |
| .81 | .67 |
| .92 | .78 |
| 1.00 | .84 |
| 1.08 | 1.92 |
| 1.18 | 1.00 |
| 1.56 | 1.33 |
| 1.82 | 1.53 |
| 2.19 | 1.82 |
| 2.55 | 2.15 |
| 2.90 | 2.43 |
| $\mathbf{3 . 2 7}$ | 2.73 |
| 3.63 | 3.03 | KETS

.89
.99
1.03
1.20
1.34
1.51
1.72
2.18
2.46
2.90
3.36
3.81
4.30
4.74
Hiciminizox ininimig

## NECTORS <br> SERIES <br> 400

400 Series. Heavy duty polarized connectors for high power applications, Rated 1200 RMS volts at 15 amps. Cadmium plated brass. Plug prongs are $1 / 4^{\prime \prime}$ wide and wt. 602 s . Specify B-A Stock No. and Type No. when ordering.

| (1) CABLE TYPE PLUG WITH CLAMP |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. 12-00176-4-102-4 | Cont. | + ${ }_{\text {No. }}$ | $\begin{aligned} & 1-24 \\ & 51.73 \end{aligned}$ | 25-49 $\mathbf{\$ 1 . 3 8}$ | 50-99 | $\begin{array}{r} 100-249 \\ 50.92 \end{array}$ |
| 12-00176-4-102-4 | 2 | P402CCT | \$1.73 | \$1.38 | \$1.14 |  |
| 12-00176-4-104-0 | 4 | P404CCT | 1.96 | 1.57 | 1.33 | 1.05 |
| 12-00176-4-106-5 | 6 | P406CCT | 2.25 | 1.80 | 1.52 | 1.22 |
| 12-00176-4-108-1 | 8 | 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 | 12 | P412CCT | 3.12 | 2.50 | 2.08 | 1.70 |
|  | (2) CABLE TYPE SOCKET WITH CLAMP |  |  |  |  |  |
| 12-00176-4-202-2 | 2 | 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 | 6 | S406CCT | 2.70 | 2.18 | 1.80 | 1.44 |
| 12-00176-4-208-9 | 8 | S408CCT | 3.05 | 2.47 | 2.06 | 1.63 |
| 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) CHASSIS TYPE PLUG WITH BRACKET |  |  |  |  |  |
| 12-00177-2-102-4 | 2 | P402AB | 1.04 | . 84 | 70 | . 56 |
| 12-00177-2-104-0 | 4 | P404AB | 1.29 | 1.03 | . 86 | 67 |
| 12-00177-2-106-5 | 6 | P406AB | 1.51 | 1.20 | 1.02 | 81 |
| 12-00177-2-108-1 |  | P408AB | 1.74 | 1.38 | 1.14 | . 92 |
| 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 |
|  | (4) CHASSIS TYPE SOCKET WITH BRACKET |  |  |  |  |  |
| 12-00177-2-202-2 |  |  |  |  |  |  |
| 12-00177-2-204-8 | 4 | S404AB | 1.56 | 1.25 | 1.04 | 84 |
| 12-00177-2-206-3 | 6 | S406AB | 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 $1 / 16^{\prime \prime}$ copper clad PC board. Glass filled diallyl phthalate insulation.



For replacement or making extensions on auto radio antenna cables. Designed for use with nearly all radios and antennas.
(1) 12A1406-4. Male Motorola Cable Plug. Each.......... 29 c 25 © Ea.......... 24c (2) $12 \mathrm{C} 170-7$. Female Motorola Cable Plug. Each... $\begin{array}{r}29 \\ . \quad 29 \\ \hline\end{array}$ 29c 25

## TRW-CINCH BARRIER \& TERMINAL STRIPS


3



JONES BARRIER STRIPS
PRICES BELOW ARE FOR ONE TYPE ONLY-NOT ASSORTED
(1) SERIES 140. Base $1 / 8^{\prime \prime}$ W. $\times$ 年 $2^{\prime \prime} H$. overall, $1 / 4^{\prime \prime} \mathrm{H}$. to terminal bottom. $3 / 8^{\prime \prime}$ centers. Uses $5-40 \times$ Kic $_{6}{ }^{\prime \prime}$ binder head screws. Avg. shpg. wt. 3 oz .

| Stock No. | $\begin{gathered} \hline \text { Terms \& } \\ \text { Type } \\ \hline \end{gathered}$ |  | Fact. Part No. | $\begin{aligned} & 1-24 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & \text { 25-49 } \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 50-99 \\ & \text { Each } \end{aligned}$ | $\begin{array}{r} 100-249 \\ \text { Each } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A1526-9 | 2.140 | 353 | 1102001 | \$0.32 | \$0.28 | \$0.23 | \$0.19 |
| 12A1527-7 | 3.140 | 353 | 1103001 | ${ }^{3} .36$ | S. 31 | . 27 | 21 |
| 12A1528-5 | 4.140 |  | 1104001 | . 48 | . 36 | . 32 | 28 |
| 12A1529-3 | 5.140 6.140 | 353 353 | 1105001 | . 57 | 47 | . 37 | . 33 |
| 12A1474-2 | 7.140 |  | 1107001 | .66 | . 64 | . 47 | 36 42 |
| 12A1531-9 | 8.140 | 353 | 1108001 | . 87 | 71 | 58 | 48 |
| 12A1475-9 | 9.140 | 353 | 1109001 | 98 | 78 | . 62 | 53 |
| 12A1532-7 | 10.140 | 353 | 1110001 | 1.05 | 86 | 74 | . 57 |
| 12A1476-7 | 11.140 |  | 1111001 | 1.13 | 92 | 78 | . 60 |
| 12A1533-5 | 12.140 | 353 | 1112001 | 1.28 | 1.01 | 84 | . 66 |
| 12A1477-5 | 13.140 |  | 1113001 | 1.35 | 1.07 | 92 | 75 |
| 12A1534-3 | 14.140 | 353 | 1114001 | 1.45 | 1.16 | 99 | . 79 |
| 12A1478-3 | 15-140 |  | 1115001 | 1.54 | 1.26 | 1.03 | 83 |
| 12A1535-0 | 16.140 | 353 | 1116001 | 1.63 | 1.32 | 1.07 | 88 |
| 12A1536-8 | 18.140 | 353 | 1118001 | 1.83 | 1.47 | 1.25 | 99 |
| 12A1537-6 | 20.140 | 353 | 1120001 | 2.02 | 1.62 | 1.36 | 1.07 |
| 12A1481-7 | 21-140 | 353 | 1121001 | 2.14 | 1.72 | 1.43 | 1.11 |

(2) SERIES 140-Y. Like above except with thru panel solder lugs.

| Stock No. | Terms. <br> \& Type |  | $\begin{gathered} \text { Fact, } \\ \mathrm{N} \end{gathered}$ | Part <br> No. | $\begin{aligned} & \hline 1-24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} \hline 25-49 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 50-99 \\ & \text { Each } \end{aligned}$ | $\begin{array}{r} 100-249 \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A2264-6 | 2.140 Y | 353 | 18 | 02001 | \$0.39 | \$0.32 | \$0.29 | \$0.23 |
| 12A2265-3 | 3 -140Y | 353 | 18 | 03001 | . 50 | . 39 | . 33 | . 31 |
| 12A2266-1 | 4.140 Y | 353 | 18 | 04001 | . 65 | . 54 | 49 | 35 |
| 12A2267-9 | 5 -140Y | 353 | 18 | 05001 | . 80 | 63 | . 55 | 45 |
| 12A2268-7 | 6 -140Y | 353 | 18 | 06001 | 99 | 79 | 65 | 54 |
| 12A2269-5 | $7.140 Y$ | 353 | 18 | 07001 | 1.07 | 87 | 75 | 57 |
| 12A2270-3 | 8.140 Y | 353 | 18 | 08001 | 1.24 | .99 | 83 | 65 |
| 12A2271-1 | $9.140 Y$ | 353 | 18 | 09001 | 1.37 | 1.08 | . 93 | 76 |
| 12A2272-9 | 10-140Y | 353 | 18 | 10001 | 1.51 | 1.24 | 1.02 | . 82 |
| 12A2273-7 | 12.140Y | 353 | 18 | 12001 | 1.80 | 1.43 | 1.23 | . 98 |
| 12A2277-8 | 20-140Y | 353 | 18 | 20001 | 2.91 | 2.33 | 1.94 | 1.54 |

(1) SERIES 141. Base $11 / \mathbf{s}^{\prime \prime}$ W. $\times 1 / 2^{\prime \prime} \mathrm{H}$. overall, Y Y " H. to terminal bottom. K/6" centers. Uses $6.32 \times 1 / 4^{\prime \prime}$ binder head screws. Avg. shpg. wt. $50 z$

(3) SERIES 141-Y. Like above except with thru panel solder lugs.

| Stock No. | $\begin{gathered} \hline \text { Terms \& } \\ \text { Type } \end{gathered}$ | Fact. Part No. | $\begin{aligned} & 1-24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 25-49 \\ \text { Each } \end{gathered}$ | $\begin{gathered} \text { 50-99 } \\ \text { Each } \end{gathered}$ | $\begin{array}{r} 100-249 \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A2250-5 | 2.141Y | 3541802001 | \$0.50 | S0.37 |  |  |
| 12A2252-1 | 4.141Y | 3541804001 | . 80.87 | \$0.37 | \$0.32 | \$0.30 |
| 12A2254-7 | $6.141 Y$ | 3541806001 | 1.21 | 98 | 82 | 62 |
| 12A2256-2 | 8-141Y | 3541808001 | 1.57 | 1.28 | 1.05 | . 86 |
| 12A2258-8 | 10-141Y | 3541810001 | 1.94 | 1.54 | 1.31 | 1.04 |
| 12A2259-6 | $12.141 Y$. | $\begin{array}{lllll}354 & 18 & 12 & 001\end{array}$ | 2.30 | 1.84 | 1.53 | 1.25 |
| 12A2261-2 | 16.141Y | 3541816001 | 3.07 | 2.46 | 2.06 | 1.63 |

(1) SERIES 142. Base $15 / 6^{\prime \prime}$ W. $\times 5 / 8^{\prime \prime} \mathrm{H}$. overall, $3 / 6^{\prime \prime} \mathrm{H}$. to terminal bottom. K/6 centers. Has $8.32 \times$ Kith $^{\prime \prime}$ binder head screws. Avg. shpg. wt. 6 oz .

| Stock No. | $\begin{gathered} \text { Terms \& } \\ \text { Type } \end{gathered}$ | Fact. Part No. | $\begin{aligned} & 1-24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 25-49 \\ \text { Each } \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { Each } \end{gathered}$ | $\begin{array}{r} 100-249 \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A1566-5 | 2.142 | 3551102001 | \$0.42 | \$0.33 | S0. 29 | \$0.23 |
| 12A1567-3 | 3.142 |  | . 50 | . 45 | . 36 | . 31 |
| 12A1568-1 | 4-142 |  | 75 | . 58 | 51 | 39 |
| 12A1569-9 | 5-142 | 3551105001 | 88 | 71 | 58 | 50 |
| 12A1570-7 | 6-142 | 3551106001 | 1.03 | 83 | 71 | 56 |
| 12A1571-5 | 8-142 | $\begin{array}{llll}355 & 11 & 08 & 001\end{array}$ | 1.35 | 1.07 | 91 | 74 |
| 12A1572-3 | 10-142 | 3551110001 | 1.67 | 1.33 | 1.09 | 88 |
| 12A1573-1 | 12-142 | 3551112001 | 1.95 | 1.55 | 1.32 | 1.03 |
| 12A1423-9 | 14-142 |  | 2.27 | 1.82 | 1.52 | 1.24 |
| 12A1425-4 | 16.142 | 3551116001 | 2.60 | 2.07 | 1.75 | 1.38 |

(3) MARKER STRIPS
used to number terminals for identification. Mounts under terminal strips.
TYPE MS 140 Y for either 140 or $140-Y$ barrier strips.

| Stock No. | $\begin{gathered} \text { Terms \& } \\ \text { Type } \end{gathered}$ | Fact. Part No. | $\begin{aligned} & 1-24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 25-49 \\ \text { Each } \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { Each } \end{gathered}$ | $\begin{array}{r} 100-249 \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A2294-3 | MS4-140Y | 3631204011 | \$0.20 | \$0.16 | S0.13 | \$0.12 |
| 12A2295-0 | MS5-140Y | 3631205011 | 23 | . 17 | 15 | . 13 |
| 12A2296-8 | MS6-140Y | 3631206011 | 23 | . 17 | .15 | 13 |
| 12A2297-6 | MS7-140Y | 3631207011 | . 23 | . 17 | .15 | 13 |
| 12A2298-4 | MS8-140Y | 3631208011 | 23 | . 17 | . 15 | 13 |
| 12A2300-8 | MS $10-140 Y$ |  | 25 | 20 | 17 | . 15 |
| 12A2301-6 | MS12-140Y |  | . 25 | 20 | 17 | . 15 |
| 12A2305-7 | MS20-140Y | 3631220011 | . 35 | 27 | 23 | 19 |

TYPE MS 141Y. For either 141 or 141-Y barrier strips.

| 12A2280-2 | MS4-141Y | 364 | 1204011 | $\$ 0.23$ | $\$ 0.17$ | $\$ 0.15$ | $\$ 0.13$ |  |  |
| :--- | :--- | ---: | :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| 12A2282-8 | MS6-141Y | 364 | 1206 | 011 | .23 | .17 | .15 | .13 |  |
| 12A2284-4 | MS8-141Y | 364 | 12 | 08 | 011 | .25 | .20 | .17 | .15 |
| 12A2286-9 | MS10-141Y | 364 | 12 | 10 | 011 | .28 | .23 | .19 | .16 |
| 12A2287-7 | MS12-141Y | 364 | 12 | 12011 | .31 | .25 | .21 | .17 |  |
| 12A2289-3 | MS16-141Y | 364 | 12 | 16011 | .36 | .30 | .24 | .20 |  |
| 12A2291-9 | MS20-141Y | 364 | 12 | 20 | 011 | .39 | .31 | .27 | .21 |

(1) ADAPTER SOLDER TERMINALS FOR BARRIER STRIPS
$\gamma^{\prime \prime}$ lugs for wiring below the chassis. Avg. shpg. wt. 3 oz per 100 . C-J Factory $\mathrm{N}_{\mathrm{N}}$. has 933 suffix on terminals.

| Stock No. | Type | $\begin{aligned} & \text { Fit } \\ & \text { Strip } \end{aligned}$ | Fact. Part No. |  |  | $\begin{aligned} & \hline 1-24 \\ & \text { Each } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 25-49 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} \text { 50-99 } \\ \text { Each } \end{gathered}$ | $\begin{array}{r} 100-249 \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1281329-8 | Y | 140 | 495 | 1211 |  | \$0.23 | \$0.19 | \$0.18 | S0.16 |
| 1281330-6 | y | 141 | 495 | 1211 | 012 | ${ }^{23}$ | 19 | . 18 | 16 |
| 12B1331-4 | Y | 142 | 495 | 1211 | 011 | 23 | 19 | . 18 | 16 |

(3) JONES NO. 2000 TERMINAL STRIPS

Terminal $.019^{\prime \prime}$ brass, tin-plated-all terminals insulated from mounting. Insulation: phenolic base and mounting brackets: steel, cadmium plated. Terminals spaced on Kin" centers.

| Stock No. | Terms \& Type | Fact. PartNo. |  |  |  | $\begin{aligned} & 1.24 \\ & \text { Each } \\ & \hline \end{aligned}$ | $\begin{gathered} 25-49 \\ \text { Each } \end{gathered}$ | $\begin{gathered} 50-99 \\ \text { Each } \end{gathered}$ | $\begin{array}{r} 100-249 \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A1584-8 | 4.2004 | 326 | 20 | 04 | 001 | \$0.22 | \$0.21 | \$0.19 | \$0.18 |
| 12A1586-3 | 6-2006 |  | 20 | 06 |  | 25 | 22 | 20 | , |
| 12A1460-1 | 7-2007 |  | 20 | 07 |  | 25 | 22 | 20 | 19 |
| 12A1587-1 | 8-2008 |  | 20 | 08 | 001 | 29 | 24 | 21 | 20 |
| 12A1588-9 | 10.2010 |  | 20 | 10 |  | 32 | 25 | 22 |  |
| 12A1589-7 | 12-2012 | 326 | 20 | 12 | 001 | 35 | 27 | 25 | 22 |

SOLDERING LUG STRIPS
$\begin{array}{ll}0 \\ 0 & \\ 0 & \end{array}$


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Phenolic strips handy for all types of circuit wiring. Solder coated steel lugs are spaced on $38^{\prime \prime}$ centers. Mtg feet have $140^{\prime \prime}$ 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. | $\begin{gathered} \hline \text { Type } \\ \text { No. } \end{gathered}$ |  | ct. No. No. |  | No. of lugs | $\begin{aligned} & 1-24 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 25-49 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 50-99 \\ & \text { Each } \end{aligned}$ | $\begin{array}{r} 100-249 \\ \text { Each } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A1256-3 | 1 | 51 F | 11 | 02 | 013 | , | S \$0.18 | \$0.15 | \$0.14 | \$0.11 |
| 12A1261-3 | 2 | 51 | 11 | 02 | 001 | 1 | . 15 | . 13 | . 10 | . 08 |
| 12A1267-0 | 2 | 52 | 11 | 03 | 028 | 2 | 17 | . 14 | 11 | . 09 |
| 12A1264-7 | 2 | 53 E | 11 | 04 | 068 | 3 | 16 | . 14 | 12 | 10 |
| 12A1265-4 | 2 | 54 B | 11 | 05 | 092 | 4 | 18 | . 15 | 14 | 11 |
| 12A1269-6 | 3 | 54 | 11 | 06 | 088 | 4 | 20 | . 18 | 16 | . 12 |
| 12A1262-1 | 4 | 51 A | 14 | 02 | 001 | 2 | . 15 | . 13 | . 10 | . 08 |
| 12A1268-8 | 4 | 52A | 14 | 03 | 010 | 3 | . 17 | . 15 | 12 | . 09 |
| 12A1275-3 | 4 | 53 F | 14 | 04 | 022 | 4 | . 16 | . 14 | . 12 | 10 |
| 12A1282-9 | 4 | 54 C | 14 | 05 | 034 | 5 | . 18 | . 16 | . 14 | 11 |
| 12A1274-6 | 5 | 53A | 14 | 05 | 031 | 5 | 18 | .16 | 14 | 11 |
| 12A1257-1 | 5 | 54 A | 14 | 06 | 032 | 6 | 21 | 18 | 16 | 12 |
| 12A1259-7 | 5 | 56A | 14 | 08 | 045 | 8 | 22 | . 19 | . 17 | 13 |

## Mueller CLIPS, ELECTRONIC HARDWARE

MUELLER CLIPS AND INSULATORS
SCREW OR LUG CONNECTIONS -NO SOLDER NEEDED. TYPES MARKED WITH ASTERISKS (*) ARE COPPER. OTHERS ARE OF STEEL (CodmiumPloted). "S" AFTER TYPE NUMBER INDICATES SCREW CONNECTORS. †SOLDER TYPE. Shpg. wt. 2 oz.
$\ddagger$ Meshing Teeth on All 3 Sides of Jaws. * Solid Copper

(1)

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(1) 34 SERIES MICRO-GATOR CLIPS

Has microscopic tip, no larger than a pin head. Makés firm connection on printed circuits, transistors and other tiny terminals. use No. 36 insulators, listed below.


| Red or Black | Color | Ty |  | Open | 1.9 | 10.99 | $\theta \mathrm{Up}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12-01008-8-002-6 | Red | 60 HS | 2.11/32. | 3/h" | \$0.32 | \$0.16 | \$0.13 |
| 12-01008-8-010-9 | Black | 60HS | 2-11/32 | '/6" | . 32 | 16 | 13 |
| 12-01009-6-002-6 | Red | *60CHS | 2-11/32 | 16 | 46 | 23 | 18 |
| 12-01009-6-010-9 | Black | * 60CHS | 2-11/32 ${ }^{\prime \prime}$ | 1/6" | 46 | 23 | 18 |
| 12-01638-2-002-6 | Red | 63 | 2 | $1 / 4^{\prime \prime}$ | 46 | 23 | 18 |
| 12-01638-2-010-9 | Black | 63 | $2{ }^{\prime \prime}$ | 1/4" | 46 | 23 | 18 |
| 12-01639-0-002-6 | Red | * 63 C | 2 " | 1/4" | . 54 | 27 | 22 |
| 12-01639-0-010-9 | Black | *63C | 2 | 1/4" | . 54 | 27 | 22 |


(8) "70" SERIES ALLIGATOR CLIPS Utilizes cord strain relief ears to prevent breakage of lead wire.

(10) FLEXIBLE VINYL INSULATORS ONLY

Red or black, specify colors wanted.

| lock No. <br> 2-00674-8-002-6 <br> -00674-8-010-9 <br> -00673-0-002-6 <br> 01016-1 <br> 01016-1-010-9 <br> 01037-7-002-6 <br> 01037-7-010-9 <br> 01071-6-010-9 <br> 01014-6-002-6 |
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| Stock | Keystone | Holds No. |  |  |  | 100 Up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No . | of Cells | Fig. | Each | Each | Each |
| 12A2015-2 | 139 | 1 | (1) | \$0.26 | \$0.23 | \$0.21 |
| 12A2016-0 | 140 | 2 | (2) | 42 | . 37 | 34 |
| 12A2335-4 | 171 | 3 | 3 | . 58 | 53 | 46 |
| 12A2336-2 | 182 | 4 | (9) | . 74 | 66 | 59 |
| 12A2339-6 | 192 | 4 | (3) | 74 | 62 | 59 |
| 12A2340-4 | 193 | 6 | ( | 1.07 | 94 | 87 |


$12 \mathrm{~A} 217-173$ "C" CELL HOLDERS

$$
\begin{array}{llllr}
\text { 12A2017-8 } & 173 & 1 & \text { (1) } & .35 \\
12 A 2018-6 & 174 & 2 & (2) & .42 \\
12 A 2244-6 & 196 & 4 & (3) & .74 \\
12 A 2345-3 & 197 & 6 & ( & 1.07
\end{array}
$$

$$
\begin{array}{ll}
.31 & .27 \\
.37 & 34 \\
.62 & .59 \\
94 & 87
\end{array}
$$

"D" CELL HOLDERS

$\begin{array}{lll}9 & \text { 9 V. CELL } \\ 12 A 2351-1 & 203 P & 1\end{array}$
35

## H.H. <br> SMIT INSULATORS <br>  <br>  . A s

 THRU-PANEL TYPEFurnished with nickeled brass hardware for mounting in panels up to $1 / 2^{\prime \prime}$ thick. Dimension shown is height above panel. Average weight 12 ors. Steatite except type 9545 , Porcelain

| Stk.No. | Type | Fig. | Top | Hdwe. | 1.9 | $10-99$ | $100-\mathrm{Up}$ |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: |
| 12A262-2 | 9540 | 1 | $11 /{ }^{\prime \prime}$ | $10-32$ | $\$ 1.40$ | $\$ 1.20$ | $\$ 1.00$ |
| $12 A 266-3$ | 9544 | 1 | $58^{\prime \prime}$ | $6-32$ | .76 | .65 | .54 |
| $12 A 267-1$ | 9545 | 2 | 178 | $10-32$ | 1.54 | 1.32 | 1.10 | For $1 /{ }^{\prime \prime} \mathrm{mtg}$. hole, 6-32 hdwe. STEATITE FEED-THRU BUSHINGS

$\begin{array}{llllllrr}\text { Stk.No. } & \text { Type } & \text { Fig. } & \text { Hgt. } & \text { Dia. } & 1-9 & 10-99 & 100-\mathrm{Up} \\ \text { 12A248-1 } & 9555 & 3 & 1 / 4 & 3.4 & .67 & .58 & .48\end{array}$ STAND-OFF TYPE
Type 66 has Cadmium steel base: Average wt 12 azs


## DATAK INSTANT LETTERING DRY TRANSFERS

 Not a decal looks like printing. Transfers drytly proc tically any surface-metal, wood, glass, plastic, paper. Lettering is clean, crisp and opaque, with no background film. Applies to panels, chassis, meter faces, etc., by rubbing over lettering os it oppeors on see-thru backing sheet, giving professional oppearance to equipment.
## - Type used (Shown actual size) <br> ASTIGMATISM



SPECIFY COLOR.
Titles for Electronic Equipment. Contains $223 \times 5^{\prime \prime}$ sheets with hundreds of titles plus one alpha et and one numeral sheet.
2-02471-7-009-1 - White Your
12-02471-7-010-9 - Black Choice Each …............................................. $\$ 6.49$
$12-02472-5-009-1$ - White Refill Alphabet. 12 sheets $3 \times 5$
$12-02472-5-010-9$. Black Refill Alphabet. 12 sheets $3 \times 5$
12-02472-5-010-9 - Black Refill Alphabet. 12 sheets $3 \times 5$
$12-02473-3-009-1$. White Refill Numerals. 12 sheets $3 \times 5$
$12-02473-3-010-9$. Black Refill Numerals. 12 sheets $3 \times 5$ nerals
12-02474-1-009-1 - White Your
12-02474-1-010-9. Black Choice Each ................................................... $\$ 6.49$ 12A2475-8. Meter \& Dial Marking Kit. Contains $1243 / 471 / 4$ sheets with patterns, arcs, graduation lines, letters and numerals. Asst d. Black, White and Red. ........................ $180^{\circ}{ }^{\circ}$. 6.49 12A2476-6. Protective Coat. Will not crack or chip, affords complete protection to 180 F .102. 12A2477-4. 16 Oz. Gilossy Spray
12A2478-2. 16 Oz. Matte Spray

## SAFE-T-KLIP

Nylon insulated, safe operation to 600 volts. Insulation cov ers outside of clip thoroughly protecting against accidental shorts or contact with power leads. For screw or soider connection. Strain relief built-in 2 13/16" long.
Packed in Pairs - 1 Red and 1 Black
Burstein-Applebee Co., 3199 Mercier St., Kansas City, Mo. 64111

## KNOBS, BELT KITS AND VARIABLE CAPACITORS



## ALCO KNURLED ALUMINUM KNOBS

Solid machined aluminum with diamond shaped knurl on side. 2 Allen Knobs have Black pointer line, Black Knodized knobs have White pointer line.

| Stock | Alco |  |  |  | 1-99 | 100-249 | 0-499 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Dia. | High | Color | Each | Each | Each |
| 12A2371-9 | KD500A | . 500 | . 625 | Natural | \$1.05 | \$0.95 | S0.89 |
| 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 | 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 | (1250 |  |  | Black |  |  | 13 |



## MOLDED KNOBS



Dress up knobs for panels and equipment. Precision molded of tough black plastic, gloss finished. All have $1 / 4$ "hole and set screw. Figure 1 has spun silver inlay. Figure 3 for dual shaft concentric controls. Has white filled pointer line.

| $\mathrm{Fig}_{1}$ | Stock No. 12A1216-7 12A117-5 12A1218-3 12A1229-0 12A1222-5 12A1228-2 | Type No. 2892 2894 2895 2397 |  | $\begin{array}{r} 1.99 \\ \text { Each } \\ \$ 1.11 \\ 1.94 \\ 1.22 \\ 1.49 \\ 1.20 \end{array}$ | $\begin{gathered} 100-499 \\ \text { Each } \\ \$ 0.93 \\ .78 \\ 1.01 \\ 1.24 \\ .48 \\ .99 \end{gathered}$ | $\begin{gathered} \text { 500-999 } \\ \text { Each } \\ \text { So.78 } \\ .66 \\ .85 \\ 1.05 \\ .41 \\ .84 \end{gathered}$ | $\begin{gathered} 1000 \text { UD } \\ \text { Each } \\ \text { S0.68 } \\ .77 \\ .74 \\ .91 \\ .36 \\ .73 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

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Gloss black. Set screw knobs for $1 / 4^{"}$ shaft. Figures 1 and 4 have brass insert. "For $1 / 8^{\prime \prime}$ shaft.

| Fig. 1 1 1 2 3 4 4 | Stock No. $12 A 34-5$ $12 A 35-2$ $12 A 36-0$ $12 A 1227-4$ $12 A 1236-5$ $12 A 1205-0^{\circ}$ $12 B 433-9$ | Type <br> 2200 <br> 2202 <br> 2246 <br> 2883 2232 |  | $\begin{array}{r} 1.99 \\ \text { Each } \\ \text { So.79 } \\ .91 \\ 1.26 \\ .22 \\ .22 \\ .52 \\ .65 \end{array}$ | $\begin{gathered} 100-499 \\ \text { Each } \\ 50.66 \\ .76 \\ 1.05 \\ .18 \\ 18 \\ .44 \\ .54 \end{gathered}$ | $\begin{gathered} \text { 500-999 } \\ \text { Each } \\ 50.55 \\ .63 \\ .88 \\ 15 \\ .15 \\ .37 \\ .45 \end{gathered}$ | $\begin{array}{r} 1000 \text { Up } \\ \text { Each } \\ \text { S0.48 } \\ .55 \\ 77 \\ 13 \\ 13 \\ .32 \\ .39 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |



Lustrous black molded bakelite with white filled pointer line. For $14^{\prime \prime}$ shaft. * indicates brass bushing insert. All are set screw type.

|  | Stock | Type |  | 1.99 | 100-499 | 500-999 | Up |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fig. | ${ }_{12 \text { No. }}$ | No. ${ }^{2} 250$ | $\begin{aligned} & \text { Size } \\ & 11 / x^{3} / 56^{\prime \prime} \end{aligned}$ | Each | Each ${ }^{28}$ | Each | Each |
|  | $12 \mathrm{~A} 27-9$ | 2252 |  | 44. | $37^{\circ}$ | $31^{\circ}$ | $27^{\circ}$ |
| 3 | 12AS19-7 | 2265 | 29/32x19/32" H | $39^{\circ}$ | $33^{\circ}$ | $28^{\circ}$ | $24^{\circ}$ |
| 4 | 12A920-5 | 2267 | $1^{1} / 6^{-2} \times 3 /{ }^{3 / 8}$ | $32^{\circ}$ | $27^{\circ}$ | $23^{\circ}$ | $20^{\circ}$ |
| 5 | 12A692-0 | 2244 | $1 \times 1 / 2{ }^{2} \mathrm{H}$ | $31^{\circ}$ | $25^{\text {a }}$ | $22^{\circ}$ | $16^{\circ}$ |
| 6 | 12A45-1 | 2220 | $11 / x^{5 / 6}{ }^{\text {c/ }} \mathrm{H}$ | 25. | $21^{\circ}$ | 17. | $15^{\circ}$ |
| 6 | 12A1033-6* | 2223 |  | 37 | $30^{\circ}$ | $26^{6}$ | $22^{\circ}$ |
|  | 12A43-6 | 2226 | $2 x^{5} 6^{\prime \prime} \mathrm{H}$ | $44^{\circ}$ | $37^{\circ}$ | 31. |  |
| 7 | 12A1034-4* | 2228 | $2 x^{5} / 8^{\prime \prime} \mathrm{H}$. | $63^{\circ}$ | $52^{*}$ | $44^{\circ}$ | $38^{\circ}$ |



## 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 belts.

Round Rubber Drive Belt Kits. Model ORK-1. Contains 1-2 gram tube of cyanoacrylate adhesive, 1-1 fl . oz. bottle of cleaning fluid, 28 - 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, 23 - ft . pieces of $1 / 32 \times 7 / 32,1 / 16 \times$ $3 / 16,1 / 16 \times 1 / 4,28$-ft. pieces of $3 / 64 \times 3 / 64,1 / 16 \times 1 / 16$ and 18 ft . piece of $3 / 32 \times 3 / 32$ flat belt stock, a jig for making controlled cuts and a blade for cutting. Shpg. wt. 2 lbs .
No. 12A2855-1. Each
$\$ 19.95$

## JOHNSON TYPE U

CAPACITORS
Requires less than .2 square inch mounting area. Screwdriver adjust550 except 19.3 and higher are 500
Cap. Pfd.

Stk.No PANEL MTG. | MEL MTG. No. |  |
| :--- | :--- |
| Mif. 5 Ea. |  |

1-5 Ea. 6 U Ea (3) P.C. MOUNTING
Ea. Stk.No. Mfg. No. 1-5 Ea. 6 Up Ea. $\begin{array}{rrrrrrrrrr}9.2 & 1.4 & 12 A 2499-8 & 189-563-1 & \$ 1.48 & \$ 1.23 & 12 A 2506-0 & 189-503-5 & \text { S0.89 } & \mathbf{\$ 0 . 7 0} \\ 14.1 & 1.7 & 12 A 2501-1 & 189-565-1 & 1.48 & 1.23 & 12 A 2508-6 & 189-505-5 & .99 & .75 \\ 24.5 & 2.4 & 12 A 2505-2 & 189-569-1 & 1.48 & 123 & 12 A 2512-8 & 189-509-5 & 109 & .04\end{array}$

## CERAMIC TRIMMERS AND PADDERS

With low loss ceramic base and clear mica dielectric.


No. ARCO PFD. Fig. $1-24 \quad 25-99 \quad 100 \mathrm{Ea}$ $\begin{array}{lll}\text { 12A1951-9 } & 461 & 2.7-40 \\ \text { 12A1952-7 } & 463 & 10-180\end{array}$ $\begin{array}{lll}\text { 12A1952-7 } & 463 & 10-180 \\ \text { 12A1953-5 } & 464 & 25-280\end{array}$ $\begin{array}{lll}12 A 1953-5 & 464 & 25-280 \\ \text { 12A1954.3 } & 466 & 75-480 \\ \text { 12A1955-0 } & 303 & 65-340\end{array}$


| $\mathbf{S 0 . 9 1}$ | $\mathbf{S 0 . 7 8}$ | $\mathbf{S 0 . 3 6}$ |
| ---: | ---: | ---: |
| 1.09 | .98 | .43 |
| 1.24 | 1.06 | .51 |
| 1.50 | 1.29 | .55 |
| 2.45 | 2.45 | 1.46 |
| 2.71 | 271 | 1.51 |

DIAL ACCESSORIES, $\frac{1}{4}{ }^{\prime \prime}$ COUPLINGS, SHAFTS
(1)


$)^{(4)}$
(5)


High quality American made $1 / 4$ " shaft accessories. " $M$ " items are Millen; " J " Johnson:


(1) H. H. Smith No. 266. $1 / 2^{\prime \prime}$ dia. bakelite head, $8 / 32$ brass threaded insert. No. 12-00619-3-002-6. Red Choice 100
No. 12-00619-02-6 Red Choic
1000
No. 12-00619-3-010-9 - Black Each ............. 39: For .. \$30.00 Per 100 \$24.00 (2) H. H. Smith No. 386. 5-way connection insulated post of molded Butyrate. $1 / 2^{\prime \prime}$ dia. Mounts in $1 / 4^{\prime \prime}$ hole, 15 amp.

(8) Millen 37001 HV. Bakelite insulated bushing extends through chassis. (3) Millen 37001 HV. Bakelite insulated bushing extends through chassis.
Single conductor fully enclosed. $1 / 2^{\prime \prime}$ dia. mtg. hole. Single conductor fully enclosed. $1 / 2^{\prime \prime}$ dia. mtg. hole.
No. 12-02334-7-002-6 - Red
Each......................................... $\$ 2.39$ (9) 5-Way Combination Post. Smith No. 269 Dual. Molded black styrene. Mounts in two $1 / 2^{\prime \prime}$ holes, $3 / 4^{\prime \prime}$ centers. 15 amp. rating.
No. 128744-9
 (3) 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 $1 /{ }^{\prime \prime}$ to $1 / 4^{\prime \prime \prime}$
thick. Has $10-32$ threaded stem with 2 hex nuts. Overall length $11 / 1 / 6^{\prime \prime}, 5 / 8^{\prime \prime}$ thick. Has
dia. Specify color:
No. 12-00600-3-002-6 - Red
N .12 .
Your Choice
Your C
No. 12-00600-3-006-7 - Blue
No. 12-00600-3-009-1 - White
No. 12-00600-3-010-9-Black
20-99
No. 12-00600-3-010-9-Black
12A2397-4 $11 / 2^{\prime \prime}$ Dia. Black-1/4 ${ }^{\prime \prime}$ Shaft.
$\begin{array}{ll}12 \text { A2398-2 } & 1^{\prime \prime} \text { Dia. Black- } 1 / 4^{\prime \prime} \text { Shaft } \\ 12 \text { A2399-0 } & 3 / 4^{\prime \prime} \text { Dia. Black- } 1 / 8^{\prime \prime} \text { Shaft. }\end{array}$

BLACK CONTROL KNOBS
WITH WHITE POINTER LINE
PLASTIC HOLE WITH SET SCREW

## THE FINEST IN ELECTRONIC HARDWARE

NUTS AND MACHINE SCREWS

(2) (3)

(27) Please indicate B-A Stock Number and Quantity desired when ordering. Average wt. per 100 808.



METAL AND FIBRE WASHERS


SHAKEPROOF WASHERS

| (3) EXTERNAL TYPE |  |  |  |
| :---: | :---: | :---: | :---: |
| Stock Fits No. Screw | $\begin{aligned} & 20 \\ & \text { For } \end{aligned}$ | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ | $\begin{aligned} & 1000 \\ & \text { For } \end{aligned}$ |
| $\begin{aligned} & 12 A 1897-4 \# 4 \\ & 1221898-2 \# 6 \\ & 12 A 1899.0 \end{aligned}$ | $\begin{array}{r} \$ 0.34 \\ .34 \\ .37 \end{array}$ | $\begin{array}{r} \$ 0.68 \\ .68 \\ 74 \\ \hline \end{array}$ | $\begin{aligned} & \$ 5.44 \\ & 5.44 \\ & 5.92 \end{aligned}$ |
| (4) INTERNAL TYPE |  |  |  |
| $\begin{aligned} & 12 A 1900-6 \# 4 \\ & 12 A 1901-4 \# \#^{2} \\ & 12 A 1902-2 \# 8 \\ & 12 A 1903 \# 10 \\ & \text { 12A1904-87 } 10 \\ & \hline \end{aligned}$ | $\begin{aligned} & .35 \\ & .37 \\ & .37 \\ & .97 \\ & \hline \end{aligned}$ | $\begin{array}{r} .70 \\ .74 \\ .74 \\ .74 \\ 1.94 \\ \hline \end{array}$ | 5.60 <br> 5.92 <br> 5.92 <br> 5.92 <br> 15.41 |

 | No. | O.D. Size | O.D. | For | For | For |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 A2065-7 | 5/4 | 6 | 219 | .98 | 1.96 | 15.73 | $\begin{array}{rrrrrrr}12 A 2065-7 & / 16^{\prime \prime} & 6 & 219 & .98 & 1.96 & 15.73 \\ 12 A 2066-5 & 30^{\prime \prime} & 8 & 250 & .98 & 1.96 & 15.73 \\ 12 A 2067-3 & 166^{\prime \prime} & 10 & 281 & 1.00 & 2.00 & 16.00\end{array}$

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 length. Made in Japan. Shpg. Wt. 0 ors.
12A2487-3. ${ }^{2} \times 4 \mathrm{MM} .50$ Assorted. $\begin{array}{lll}12 A 2488-1 & 2.6 \times 6 \mathrm{MM.} 50 \text { Assorted. } \\ \text { 12A2489-9. } & 3 \times 8 \mathrm{MM} .50 \text { Assorted. }\end{array}$

## GROMMETS, PLUGS AND BUMPERS


 ment, with $10^{\prime \prime}$ wire leads.
Each
ment, with
Each....
0
1



3


## (1) CABLE CLAMPS

Heavy gauge steel, nickel plated. $3 / 8^{\prime \prime}$


 (3) NYLON CABLE CLAMPS
Hold their shape under severest stress. Stands temp. of -60 to 300 degrees F. do not support combustion. All are $78^{\prime \prime}$ wide except ${ }^{1} / 6^{\prime \prime}$ and larger are $1 / 2^{\prime \prime}$ wide - white color.


## 0 BRASS CADMIUM PLATED

## Dound <br> (2) Hexagonal

Ideal for use in raising sub panels, transformers, spacing switch decks, mounting sockets and other components, etc.

## NON-THREADED

(1) $1 / 4^{\prime \prime} \mathbf{0} . \mathrm{D}$.-Hole for \#6 Screw Stk. No. Lgth. Each 10 For 100 For | $12 A 1173-0$ | $1 / 4^{\prime \prime}$ | S0.15 | $\$ 1.05$ | $\$ 7.00$ |
| ---: | ---: | ---: | ---: | ---: |
| $12 A 1174-8$ | $3 / 3^{\prime \prime}$ | .19 | 1.26 | 8.40 | $\begin{array}{rrrrr}12 A 1173-0 & 1 / 4^{\prime \prime} & .19 & 1.26 & 8.40 \\ 12 A 1174-8 & 3 /^{\prime \prime} & .21 & 1.41 & 9.40 \\ 12 A 1175-5 & 1 / 2^{\prime \prime} & .33 & 2.17 & 14.50 \\ \text { 12A1176-3 } & 34^{\prime \prime} & .42 & 2.79 & 18.60 \\ \text { 12A1177-1 } & 1^{\prime \prime} & .42 & & \end{array}$




TAPPING SCREW ASSORTMENT

2 Lbs. often needed self-tapping screws. Big variety of sizes and lengths. Hex, Phillips. Round
$12 \mathrm{~A} 2356-0.2 \mathrm{Lb}$. Asst. PACKAGE Off-The-Shelf Delivery From B-A's Large Electronic Parts Inventory

MOUNTING SPACERS THREADED FOR 6.32 SCREW

| (1) Round $1 / 4^{\prime \prime} 0.0$. |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| stk. No. Lgth. Each 10 For 100 For |  |  |  |  |  | Stk. No. Lgth, Each $\frac{121459-21 / 4^{\prime \prime}}{\$ 0.18} \$ 120$ For


| 12A1469-2 | $1 / 4$ | \$0.18 | \$1.20 | \$ 8.00 |
| :---: | :---: | :---: | :---: | :---: |
| 12A1470-0 | 3/8" | . 22 | 1.43 | 9.50 |
| 12A1471-8 | $1 / 2^{\prime \prime}$ | 28 | 1.86 | 12.40 |
| 12A1472-6 | 3/4" | 40 | 2.70 | 18.00 |
| 12 121473-4 | 1" | 47 | 3.15 | 21.00 |
| (2) $1 / 4^{\prime \prime}$ Hexagonal |  |  |  |  |
| 12 | $1 / 4^{\prime \prime}$ | 20 | 1.30 | 8.70 |
| 12A1387-6 | 3/81 ${ }^{\prime \prime}$ | 24 | 1.59 | 10.60 |
| 12A1388-4 | $1 / 2^{\prime \prime}$ | 28 | 1.86 | 12.40 |
| 12A1389-2 | 3/4" | 43 | 2.89 | 19.30 |
| 12A1390-0 | $1^{\prime \prime}$ | 51 | 3.42 | 22.80 |

RADIO
ELECTRONIC HARDWARE ASSORTMENT
Nuts. washers, springs. clamps. eyelets, screws,
etc. to fill practically any need. Over 600 pieces. etc. to fill practically any need. Over 600 pieces. Wt 2 tbs.
$12 A 2005-3$
12A2005-3. Each

## PROJECTOR LAMPS, LAMPS \& REMOTE SWITCHES



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.


66A6021-1 FAL

## NORELCO PROJECTOR LAMPS (ALL CLEAR)

| CHave Pyrex brand envelopes. |  |  |  |  |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| 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: Otner 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 VACNow 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) 41 A4142-7. Model C F-11. For Motor Appliances up to 50 watts. 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
$\$ 2.00$
$\$ 2.00$

(1) FLUORESCENT DECK LAMPS MODEL 604C

Feather-touch control allows adjustment of arms to ANY position, smoothly, noiselessly and without effort; 36 " tofal length of arms with "universal joints at base, center and shade. Shade with on-off switch on top, is 8 " ong, $41 / 2$ wide, has high light output reflector. Smooth baked enamel finish. UL approved. With cord, less lamps.
Easily clamped to edge of any desk or table up to $2 \frac{1}{4}$ " thick. Wt. 10 lbs . $\begin{array}{ll}\text { 41A8037-5. -Royal Gray } & \text { Your Choice } \$ 35.12 \text { Each } \$ 31.60 \\ 41 A 8038-3 \text {. -Walnut Brown } \\ \text { Each }\end{array}$ 41A8038-3. -Walnut Brown Each $\$ 35.12$ Each $\$ 31.60$
41A8019-3. 15-Watt Lamp. Each INCANDESCENT LIGHT
(2) CLAMP-ON INC
Has balanced parallel acting support arms. Moves with a flick of the finger and stays put! Glide arms extend $45^{\prime \prime}$ 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.
Each ...... \$22.60 Each
\$20.34

## (3) INSPECTION LAMP-MAGNIFIER MODEL BBM-9

Lamp head can be rotated and tilted to any position. Arm extends up to $45^{\prime \prime}$
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 waft circline lamp around $5^{\prime \prime}$ distortion free lens. Wt. 10 lbs. Less Lamp.
No. 41A8039-1 - Gray 3 (a)
Net Each
39-1 - Gray
$\$ 44.80 \underset{N(1)}{\substack{3 \\ \text { Net } \\ \text { Each }}}$
$\$ 40.32$
41A8026-8. 22-Watt Lamp. Each
$\$ 5.30$

## 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, dis-
plays too. Adjustable brackets. Prefocused re-
flectors with switch. Made in U.S.A. Complete
flectors with switch, Made in 115 V . AC. Wt. I
lb .
(1) 41A6002-1. 7-Inch

Brass Finished Light
(2) 41 A6003-9. $141 / 2$-inch

Brass Finished Light
$\$ 7.95$
$\$ 8.95$


## PHOTOELECTRIC SWITCH

## Protects Your Home At Night

Portable. Simply place "eye" in window 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. Complefely silent operation. Uses less power than an electric clock. Simply plug-in connection with U/L approved cord set. Handies lamp load up to 600 watts. Wt.
tion with 12 ozs.
 41 A40.
$\$ 8.99$


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 transmitter sends a signal on the existing AC wiring to the receiver, furning the power on or off as you wish. Transmitter and receiver each are only $5^{\prime \prime}$ long, $31 / 4$ " wide, $13 / 4$ " 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.
Complete

## TIMERS AND DIMMERS

 ZNTERMAtic
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 $21 / 2$ 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: $2^{3 / 4} 4^{\prime \prime} \mathrm{x}$ outlet for co
3
$3 / 4^{\prime \prime}$
$\times 14^{\prime \prime}$
$31 / 4{ }^{\prime \prime} \times 13 / 47$ -
No. 41 A4077-5
Each
$\$ 9.95$

## INTERMATIC DELUXE "TIME ALL"

Turns appliances, etc. "on" and "off" at any selected time from 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 "TimeAll." Handles up to 1875 Watts. Champagne white housing with walnut wood-grain panel. Wt. 2 lbs . No.-41A4021-3
Model E911. Net Each....... $\$ 11.95$


## INTERMATIC 7-DAY "SKIPPER" TIME SWITCHES

 Omit Saturday, Sunday or Other Days. Turns "On" and "Off", up to 12 operations, each 24 hours-plus allowing you to omit operation on Saturdays, Sundays or any other selected days of the week by adding skipping screws to day dial. Has time dial and day dial. Ratings and case same as T1 (below ). UL listed. Wt. 3 lbs. For 125 V .60 Hz AC . 41A4023-9. T171. SPST Each ……...................... \$26.10 41A4025-4. T175. SPDT, Each. \$28.08 41A4026-2. 79T8A. Skipping Screws. Package of 341A4010-6. Set of On-Off Trippers. 50 c


## INTERMATIC 24 HOUR SUPERVISOR

Features Rapid Set-Up "ON \& OFF" Repeats 1 to 96 operations every 24 hours for precise aus 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. $73 / 4 \times 5 \times 3^{\prime \prime}$ deep. Gray hammertone. Switch is SPDT, snap action rated 20 A. 120 V . AC.
Shpg wt. 4 ibs
41A4046-0.
Type T-1975. Each
$\$ 37.62$


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. recogniz 41A431-8. Leviton 6250-3. Brown. Choice 41A431-8. Leviton $6250-3$. Brown. Choice $\$ 7.95$
(3) LEVITON HI-LO DIMMER

Low cost light control-two lighting moods from an ordinary bulb. Fullbright 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 $300 \mathrm{~W}-120 \mathrm{VAC}$.

41 A30-0. Leviton 419, Brown. Choice
$\$ 1.75$
(3) LEVITON MINIATURE CORD SWITCH

Smart styling, Kwik-Wire contact pins for fast connections without stripsmart styling, Kwik-wire cont
41A434-2. Leviton 413I Ivory. Choice
41A434-2. Leviton 4131 Ivory. Choice

## LEVITON BULB-LIFE SAVER

 SOCKET ADAPTERFits any medium base lampholder. Reduces light output by approx. $50 \%$, but wattage can be restored as needed by subapprox. $50 \%$, but wattage can be restored as needed by substituting a argereases bulb life more than 30 times. Cuts bulbs portionately. increases bulo where bulbs burn continuously. All changing , Rated 150W-120V AC Inonly 41 A432-6. Leviton 6154.
Each
$\$ 1.75$

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 $1-\frac{5}{6 \prime \prime}$ from original position. Rated 200W-120V AC. Incandescent only. UL Listed. 41A433-4. Leviton 6153.
$\$ 1.75$
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 odjustable on-off trippers; others easily odded without removing dial. Heavy duty 40 omp switch. Gray steel cabinet with hinged door and wiring knockouts. $73 / 4^{\prime \prime} \mathrm{H}, 5^{\prime \prime} \mathrm{W} 3^{\prime \prime} \mathrm{D}$. For 115 $\checkmark .60 \mathrm{~Hz}$. $A C$. Wt. 3 lbs.
41A4008-0. Each
$\$ 19.22$
41A4009-8. As above with DPST
switch. Each . . . . . . . . . . . \$21.29 Set of On-Off Trippers
41A4010-6. Per Set


## ELECTRICAL CORDS, PLUGS \& DEVICES

## 5

belden two conductor ac repair cords Finest quality, U/L tisted. For lamps, radios, clocks, appliances, tools. At-
tached molded AC plugs, stripped ends. Avg. wt. 8 oz . 6 Ft . 18-2 Parallel tached molded AC plugs stripped ends. Avg. wt. 8 oz. 6 Ft. $18-2$ Parallel Belden 17106


HEAVY DUTY MULTIPLE OUTLET BOXES FOR 115 VOLT AC POWER DISTRIBUTION FOR SHOP, BUSINESS, HOME


Will safely and conveniently distribute power for appliances, test equipment, shop machinery, office and factory equipment, etc., literally hundreds of uses around the home, office, farm and business. Heavy
duty construction all components U/L approved. Fused for 15 amps. 115 V. AC. Average shipping weight 3 lbs .
(1) 41 A4000-7. 6 Standard Outlets with Pilot Light and Master Switch. 1 to 5 Each ..... . . . . . . . . $\$ 10.606$ Up Each ................. . . . $\$ 9.59$ (2) 41A4017-1. 4 Standard Outlets with 4 Separate Switches.

1 to 5 Each
$\$ 12.206$ Up Each
$\$ 10.99$
(3) 6 "U-Ground" Outlets with Pilot Light and Master Switch. 41A4001-5.
1-5 Each.
$\$ 13.806$ Up Each
$\$ 12.49$
4 "U-Ground" Outlets with 4 Separate Switches. Not shown.
41A4118-7.
1-5 Each
$\$ 14.206$ Un Each
\$12.79
U/L ATTACHMENT PLUGS AND CURRENT TAPS

U/L listed. Ends dangling cord nuisance, allows free movement of appliance or tool. Black SJO neoprene. Attached parallel prong U-ground plug. Stripped ends. "No plug. 6" straight portion each end.

|  | Belden |  |  |  | Shpg wt. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stk. No. 41A362-5 | $\begin{gathered} \mathrm{No} \\ 1747 \end{gathered}$ | Gauge | Retracted 12 | Extended 6 Ft . | wt. <br> 1 lb | Each $\$ 3.89$ | $\begin{aligned} & 10 \mathrm{Ea} \\ & \mathrm{SO} \\ & \hline 9 \end{aligned}$ |  |
| 41A339-3 | 17448 | 16 | 12 | 6 Ft . | 1 lb . | 4.12 | 3.14 | 2.80 |
| 41A340-1 | 17449 | 16 | 24 | 12 Ft . | 2 lss . | 5.73 | 4.37 | 3.90 |
| 41A448-0 | -8602 | 18 | 12 | 6 Ft . | 1 tb . | 5.20 | 3.97 | 3.12 |

APPLIANCE CORD SET -PLUGS BOTH ENDS

Standard miniature appliance plug has $1 / 2^{\prime \prime}$ pin spacing. Fits coffee makers. HPN neoprene. Avg, shpg. wt. 8 ozs.
41 A327-8 6 Ft . 18 -2. Leviton $2814-6$. Each.... $\$ 1.49 \quad 10$ Each.... $\$ 1.33$ 6 FT. COILED APPLIANCE CORD SET - $18-2$ HPN NEOPRENE

$\cdots \frac{1}{1}=$
(1)

(13)


First quality U/L approved devices for home, shop or commercial use. Bakelite items are furnished in brown only. When ordering other items specify color choice where given. Avg shpg. wt. 2 oz . (Fig. II Recpt. 8 oz .)

(14) FUSED PLUG

Use with $1 / 4^{\prime \prime} \times 11 / 4^{\prime \prime}$ fuses to 20 amp . Fuses can be replaced without opening plug. Less Fuses.
h . . . . . . . . . . . 89 10 For
$\$ 8.01$
3-WIRE PARALLEL BLADE - U GROUND DEVICES

(15)

(15)
(1)

(1)
(1) 41A315-3 Vinyl 3-Prong Grounded Adoptor for single Each receptacle. Parallel Blades, $U$ ground 41A319-5-009-1 - Ivory 15 Amp Receptacle $\quad 1.39$ 1.49
.09
.49
1.39
1.39 8.90
19.75 19.75
12.10 12.10
12.10 12.10
159

## belden wire And CABLE

MIL-W-76 TYPE MW VINYL HOOK-UP WIRE - 1000 V. $80^{\circ} \mathrm{C}$ Tinned copper conductors. Specify color: Brown, Red, Orange, Yellow, Green, Light Blue, Violet, Gray, White
*Stocked in Red, Green, White and Black only.

| Stock | Belden | AWG \& | 0.D. | Insulation | Wt. | $\begin{aligned} & 25 \mathrm{Ft} \\ & \text { Length } \end{aligned}$ | $100 \mathrm{Ft}$ | 1000 Ft . |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | ${ }^{\text {No. }}$ | Stranding | Inch | Thickness |  |  |  |  |
| $2 \mathrm{M} 13-1$ | $\begin{aligned} & 8525 \\ & 8524 \end{aligned}$ |  | $\begin{aligned} & .058 \\ & .064 \end{aligned}$ | $\begin{aligned} & .017 \\ & .017 \end{aligned}$ | 3 | \$126 | \$2.49 | S13.95 16.35 |
| 2M32-1 | 8523 | 20 (10x30) | . 070 | . 017 | 5 | 1.51 | 3.26 | 18.6 |
| 2M07-3 | 8522 | 18 (16)30) | . 080 | . 017 | 8 | 1.63 | 3.89 | 24.9 |
| 2M15-6 | 8521 | 16 (26x30) | . 098 | . 019 | 12 |  | 5.40 | 35.8 |
| 2M67-7* | 8520 | 14 (41×30) | . 111 | . 02 | 18 |  | 7.60 | 56.1 |
| 2M68-5 | 8527 | 12 (65×30) | . 130 | . 02 | 26 |  | 11.65 | 81.00 |
| 2M69-3 | 8538 | 24 (Solid) | . 054 | . 017 | 3 |  | 2.39 | 11.2 |
| 2M34-7 | 8530 | 22 (Solid) | . 059 | . 017 | 4 | 1.21 | 2.39 | 16. |
| 2M2-4 | 8529 | 20 (Solid) | . 066 | 017 | 5 |  | 2.82 3.69 | 6.0 |

MIL-W-16878 TYPE B VINYL 600 V. $105^{\circ} \mathrm{C}$
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. $100^{\prime}$ stocked in all colors, 1000 stocked as shown Please specify color.

| Please sp | ecify col |  |  |  |  |  | Stock |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Belden | AWG \& | O.D. | Wt. 1 M |  |  | Colors |
|  | No. | Stranding | Inch | Ft. |  |  |  |
| $2 \mathrm{M151-9}$ | 8500 | 16 (19x29) | . 077 | 10 | \$4.76 | \$32.25 | All colors |
| 2M152-7 | 8501 8502 | 18 20 20 $(7 \times 28)$ | . 058 | 8 | 3.75 $\mathbf{3 . 5 0}$ | 24.30 19.05 | All colors |
| 2M154-3 | 8503 | 22 (7x30) | . 050 | 4 | 2.86 | 15.75 | 3,4.8. |
| 2M155-0 | 8504 | 24 (7×32) | . 044 | 3 | 2.54 | 14.40 |  |
| 2M400-0 | 8505 | 26 (7×34) | . 039 | 2 | 2.54 | 15.45 | 2 |
| 2M492-7 | 8597 | 28 (7X36) | 035 |  | 2.56 | 14.25 | 2, 5, 6, 10 |


\section*{PRIMARY WIRE - MARINE AND AUTO <br> S.A.E. TYPE G.P.T. <br> For high current with minimum voltage drop for mobile electrical systems. Vinyl insulated to withstand heat, oil, abrasion. <br> | Stock | Belden | AWG \& | 0.D. |  | ${ }_{100}^{\text {Wt. }}$. | $\begin{aligned} & 25 \\ & 5 t \end{aligned}$ | $\begin{gathered} 100 \\ \text { Ft. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Stranding | Inch | Color |  |  | Ft. |
| 28127-9 | 8685 | 16 (19X29) | . 102 | Black | $\frac{1}{1}$ | \$2.49 | \$6.20 |
| 28126-1 | 8684 | 14 (19x27) | . 117 | Green | 2 | 3.36 | 8.40 |
| 28129-5 | 8683 | 12 (19x25) | . 142 | Red | 3 | 5.09 | 12.70 |
| $2 \mathrm{C} 130-3$ | 8682 | 10 (19x23) | . 175 | White | 4 | 7.29 | 18.20 |
| C132-9 | 8681 | 8 (19x21) | . 219 | Chrome | 7 | 10.10 | 25.0 |

## $\longrightarrow$

## HI-FI CONNECTING CABLE

Belden 8421. Size 25 (7×33) 3 strands tinned copper and 4 tinned Copperweld cellular Polyethylene


## 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 stocked in
Stock Belden Cond.
Con

 \begin{tabular}{llllllllll}
$2 M 9893-7$ \& 8898 \& 18 \& $(65 \times 36)$ \& .230 \& 29 KV \& 10 KV \& 4 Lbs. \& 3.92 \& 10.25 <br>
\hline 20.90

 

$2 \mathrm{M} 80-0$ \& 8890 \& 24 \& $(45 \times 40)$ \& .066 \& 10 KV \& 1 KV \& $1 / 2 \mathrm{Lb}$. \& 1.99 \& 4.89 <br>
\hline
\end{tabular} 2A421-6 7 Ft. Each of Red and Black 8899 above. $\qquad$ -

HIGH VOLTAGE CRT LEAD
For replacement anode lead and high voltage experimental projects. Tinned copper, polyethylene insulated. Red vinyl jacket overal

$\begin{array}{cccc}\text { Working } & \text { Breakdown } & 25 & 100 \\ \text { Voltage } & \text { Voiltage } & \text { Ft. } & \text { Ft. } \\ 25,000 & 50,000 & \$ 2.63 & \$ 6.65 \\ 40,000 & 110,000 & 3.99 & 11.40\end{array}$

## SOUND SYSTEM, ALARM

 OR SPEAKER EXTENSIONVinyl insulation. 2 conductor is brown with one conducVinyl insulation. 2 conductor is brown with
tor tinned. 8483 is coded Gray. Brown, Tan.

| Stock | Beld | AWG \& |  |  | Wt. | Per | 0 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Stranding | Cond. | 0.0. | 100 | Ft. | t. | Ft. |
| 2A9876-2 | 9151 | $2277 \times 30$ | 2 | . 108 |  | S0.06 | \$3.46 | \$26.65 |
| 2A9875-4 | 9152 | 20(10x30) | 2 | 125 | $11 / 2 \mathrm{Lbs}$ | 07 | 4.10 | 31.35 |
| 2A9889-5 | 8492 | 19 solid |  |  |  |  | 5.25 | 38.10 |
| 2A9890-3 | 8483 | 19 solid | 3 | . 132 | 2 Lbs. | 11 | 6.90 | 47.40 |

$\square$ NOOOR ANTENNA WIRE
Belden 8014. Size 25 ( $13 \times 36$ ) stranded tinned copper. .010 wall of chrome vinyl plastic insulation. O.D. . 044

COPPER ANTENNA WIRE
Excellent for antenna requirements; as bus bar hookup wire; for winding coils, etc. Poly-Thermaleze type is non-corrosive.


## MICROPHONE CABLES

Designed to withstand the flexing and normal abuse of studio, lab and home usage. Plastic jacket cables have polyethylene insulated consulated conductors.


| Stock Belden | Cond. |  |  | AW | $\begin{aligned} & \text { ET } \\ & \text { Cap. } \end{aligned}$ |  | 25 | 100 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2A9906-7 8401 | Cond. | 200 | Hi Imp |  |  |  |  |  |  |
| 2A9907-5 8411 | 1 | . 144 | Lapel Mike |  |  |  | \$3. | \$11.65 | 83.55 |
| 2A9908-3 8422 | 2 | .231 | Low Imp. | 22 $22(16 \times 34)$ | 32 Pf . | 4 | 3.12 | 16.40 | 124.65 |
| 2A9935-6 8404 | 4 | . 255 | Low Imp. | 20 (26x34) | 40 Pf . | 6 | 10.00 | 25.00 | 197.10 |
|  |  |  | BLACK RU | ER JAC | OVERA |  |  |  |  |
| 2A9894-5 8410 |  | . 245 | Hi Imp. | 25 (7x33) | 33 Pf . | 4 | 00 | 50 | 179.10 |
| 2A9895-2 8412 | 2 | . 268 | Low Imp. | 20 (26x34) | 68 Pf . | 5 | 7.60 | 25.00 | 203.85 |
| 2A9909-1 8423 | 3 | . 277 | Low Imp. | 20 (26x34) | 85 Pf . | 6 | 7.60 | 25.00 | 230.25 |
| 2A9910-9 8424 | 4 | . 295 | Low 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 to sunlight, ozone, water, oin and chemicas, $\begin{aligned} & \text { it suitable for outdoor applications. Brown color }\end{aligned}$ it suitable for outdoor applications. Brown colt grounds. Useful for shielded power cables up to 600 V . 25

$\begin{array}{ccccc}68 \mathrm{Pf} . & 6 & \$ 0.39 & \$ 7.45 & \$ 25.00 \\ \text { (COILED) } & \$ 110\end{array}$

## BELDEN RECTRACTILE (COILED) MIKE



SINGLE CONDUCTOR with spiral tinned copper shield. Size 24. No. 8499 stranded ( $45 \times 40$ ). No. 8605 ( $19 \times 136$ )


 3 CONDUCTOR with Beldfoil shield with drain wire on one conductor. Size 23 ( $21 \times 36$ )
 No. 29A3052-5. Belden 9417, 15 ft . retracts to $30^{\prime \prime}$. Each $\$ 6.50$
....... $50 \mathrm{Ea} . ~$
$15 \mathrm{Ea} \$$.5.40 Wt. $1 / 2 \mathrm{lb}$. 4 CONDUCTOR unshielded. Size $23(21 \times 36)$ stranded. Dia. $250^{\prime \prime}$
 $50 \mathrm{Ea} . \$ 2.57$
15 Ea.
$\$ 5.30$ beLDen retractile (COILED) TELEPHONE CORDS
Spade terminals each end, strain relief one end. Vinyl insulated. Black vinyl jacket. size $23(21 \times 36)$ stranded. Unshielded. Length-41/2 ft ., retracts to 10 inches. Wt. $1 / 2 \mathrm{lb}$.
2A401-8. Belden 8495. 3 Conductor. Each.

## BELDEN 2-WIRE SPEAKER \& INTERCOM CABLE

Stranded copper parallel conductor, coded, 1-tinned, 1-copper. Sip apart vinyl insulation.
No. 2M19-8. Belden 8782. Size 24 ( $7 \times 32$ ). . $058 \times .115$ 0.D. Wt. per 1000 ft .6 lbs .
 2M16-4. Belden 8649 . Size 20 ( $7 \times 28$ ) . $073 \times .146$ 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.

| Stk. No. | Belden | AWG \& Stranding | O.D. | Wt. 100' | Per Ft. | 100 Ft . | 1000 Ft . |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2A9930-7 | 8205 | 20 (10x30) | . 190 | 2 lbs . | \$0.10 | \$6.70 | \$42.15 |
| 2A9931-5 | 8461 | 18 (7x26) | . 226 | 3 lbs . | . 13 | 9.05 | 62.55 |
| 2A9932-3 | 8471 | 16 (19x29) | . 256 | 4 lbs . | 16 | 10.50 | 84.75 |

## BELDEN PARALLEL LAMP CORD



Two flexible stranded 18 ( $41 \times 34$ ) copper conductors. Brown color. U.L. listed. Wt. 3 lbs per $100^{\prime}$. Maximum spool size 250 ft .
$\begin{array}{lllllll}\text { Stk. No. Belden No. AWG \& Stranding } & \mathbf{0 . D} . & 25^{\circ} & 100^{\prime} & 250^{\prime}\end{array}$


## HEAVY DUTY PORTABLE RUBBER CABLE



For extra hard use such as portable tools, battery chargers and heavy equipment when up to uired.
Stranded copper conductors wrapped and color coded with rubber insulation. Black rubber jacket overall. UL listed.

| Stock | Belde | AWG \& | No. | UL |  | Lb | Per | 100 | 250 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Strande | Cond | Type | 0.D. | 100 |  | ft. |  |
| 2 A | 8452 | 18 (41×34) | 2 | V' | . 245 |  | \$0.21 | \$12.90 | 24.7 |
| 2A9964-6 | 8453 | 18 (41×34) |  | V | . 265 |  | 29 | 17.50 | 31.7 |
| 2A9966-1 | 8479 | 14 (41) $\times 30$ ) | 3 |  | . 380 | 10 | 45 | 25.00 | 60.55 |
| 27-1 | 8472 | 16 (65x34) | 2 | J" | . 325 |  | 30 | 19.60 | 39.30 |
| 9911-7 | 8454 | 18 (41×34) | 4 |  | . 265 |  | 32 | 19.90 | 0.0 |
| 2AS1-7 | 84552 | \#18(41) ${ }^{\text {a }}$ | 3 | \#20(26x34) | . 280 | 5 | 33 | 20.60 | 2.4 |

## 8-CONDUCTOR POWER CABLE

Belden 8418. Conductors are size $20(26 \times 34)$ tinned coppe 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 overail. 0.0 . 386. Wt. per 100 ft .12 lbs .
 $\$ 14.95$
$\$ 123.00$

# belden WIRE AND CABLE 

## 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 beldioil shield. Others, stranded copper cond.

SINGLE CONDUCTOR
No. No.

2A9973-7 9452*
2A9941-4 8761
2A9941-4 8761
2A99443-0 8762
2A9943-0 8760
2A238-4-8
2A9944-8 8720

* Color black.

2A9945-5 8771
2A9946-3 8772
2A9947-1 8770
$\begin{array}{lllllll} & & \text { Wt. } & \text { Per } & 25 & 100 & 1000 \\ \text { Size } & 0 . B & 100^{\prime} & \mathrm{Ft} & \mathrm{Ft} & \mathrm{Ft} & \mathrm{Ft}\end{array}$ $\begin{array}{llllllll}\text { Size } & 0.0 . & 100^{\circ} & \mathrm{FFt} & \mathrm{Ft} \\ 2577 \times 331 & { }_{140} & 1 & \$ 0.24 & \$ 2.86 & \$ 8.35 & \$ 61.84\end{array}$ two conductors
THO THREE CONDUCTORS

2A9947-1 8770

Beldfoil shield, each pair individually - STRANDED CONDUCTORS Sto Belden No.
No.
No.
No.

| Stk. Belden | No. | Size | 0.D. | $\mathrm{W}_{\mathrm{t}}$. | $\mathrm{Per}$ | 25. | 100 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2A9954-7 8723 | 2 | $22(7 \times 30)$ | 165 | 2 | ${ }^{18}$ | 3.69 |  | 1.50 |
| 2A9925-7 8777 | 3 | $22.7 \times 30$ | 270 | 6 | . 34 | 6.79 | 22.40 | 179.55 |
| 2A9955-48725 | 4 | $20(7 \times 28$ | 360 | 8 | . 64 | 11.15 | 38.25 | 357.90 |
| 2A9956-2 8778 | 6 | $22(7 \times 30)$ | 394 | 9 | . 68 | 11.35 | 38.95 | 376.80 |

PAIRED CABLE-SOLID CONDUCTORS
All vinyl insulated except * which has Geosol (solderable, no stripping required) coat ing and white vinyl jacket.

| $\begin{array}{ll} \text { Stk. Belden } \\ \text { No. } & \mathrm{No} . \end{array}$ | No. <br> Pr. Size | 0.D. | $\begin{aligned} & \text { Wt. } \\ & 100 \end{aligned}$ | Per $\mathrm{Ft}$ | $25$ | 100 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2A9957-0*8640 | 128 Solid | 090 | 1 | \$0.09 | \$1.7 | \$5.49 | \$42.80 |
| 2A9958-8 8767 | 322 Solid | . 279 | 5 | 34 | 6.19 | 19.90 | 154.50 |
| 2A9959-6 8768 | 622 Solid | 394 | 9 | . 58 | 10.45 | 34.75 | 322.50 |
| 2A9960-4 8764 | 922 Solid | 440 | 14 | 80 | 14.16 | 47.20 | 458.40 |
| 2A9961-28765 | 1122 Solid | . 485 | 14 | . 94 | 17.05 | 56.80 | 544.05 |
|  | 10 CONDUC | MIN | ATUR | AUDI | CABLE |  |  |
| 2A9962-0 8450 | 22 Solid | 118 | 2 | 14 | 2.49 | 8.00 | 49.45 |
| 2A9920-88451 | $22(7 \times 30)$ | .135 | 2 | 15 | 2.59 | 8.55 | 57.60 |

## DUAL CHANNEL AUDIO CABLE

Individual shielded conductors for language Labs. etc. Size 25 (xa3) stranded color coded chrome vinyl zip with spiral 0.D. . 106 X .213 .

No. 2A38-8. Belden 8416. Wt. $100^{\prime} 2 \mathrm{lbs}$


## SHIELDED SOUND CABLES

2 Conductor, spiral shield-size 18 (7X26), tinned copper stranded, copper spiral wrapped shield, chrome vinyl jacket. Recommended for long cable runs. . 231 0.D.


1000 Ft .. $\$ 97.95$
Tinned copper size 22 ( $7 \times 30$ ) stranded conductors, vinyl plastic insulated and color coded chrome vinyl jacket overall.
8735 has tinned copper braid shield over entire cable. 8 cablor only. 8737 has spiral wrapped shield over entire cable.

| Stock | Belden | No. |  | Wt. | Per | 100 | 1000 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Cond. | 0.D. | $100^{\prime}$ | Ft. | Ft. | Ft. | | No. | No. | Cond. | O.D. | 100 | Ft. | Ft. | Ft. |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2 A 9897-8$ | 8734 | 3 | .194 |  | 3 | $\$ 0.16$ | $\$ 10.95$ | $\$ 76.20$ |
| $2 A 9896-0$ | 8735 | 3 | .199 | 3 | .18 | 11.85 | 85.50 |  |


| $2 A 9896-0$ | 8735 | 3 | .199 | 3 | $\$ 0.16$ | $\$ 10.95$ | $\$ 76.20$ |
| :--- | ---: | :--- | ---: | ---: | ---: | ---: | ---: |
| $2 A 86-7$ | 8737 | 2 | .170 | 2 | .13 | 11.85 | 85.50 |

## BROADCAST AUDIO CABLES.

2 solid conductors size 22 with vinyl jacket overall. *Indi-
cates drain wire.

| stock No. | $\begin{aligned} & \text { Belden } \\ & \text { No. } \end{aligned}$ | Color | Shield | O.D. | $\begin{gathered} \text { Wt. } \\ 100 \mathrm{Ft} \text {. } \end{gathered}$ | $\begin{aligned} & \text { Per } \\ & \text { Ft. } \end{aligned}$ | $\begin{gathered} 100 \\ \text { Ft. } \end{gathered}$ | $\begin{gathered} 1000 \\ \text { Ft. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2A9891-1 | * 8437 | Black | Braid | 200 | 3 lbs . | S0.15 | \$9.95 | \$83.25 |
| 2A9898-6 | 8739 | Chrome | Spiral Wrap | . 160 | 2 lbs. | . 12 | 8.00 | 57.45 |

## SMALL DIAMETER FLEXIBLE WIRES

FOR PHONO ARMS. PIGTAIL LEADS. ETC. Wt. 100 Ft. 1 Lb.
Shielded Single Conductor \# 24 (16X36). 0.D . $0955^{\prime \prime}$ brown cotton braid overall.
No. 2 A103-0. Beiden $8431.10 \mathrm{Ft} \ldots \ldots . . \$ 1.77 \quad 25 \mathrm{FL} \ldots . . \$ \$ 2.89 \quad 100 \mathrm{Ft}$....... $\$ 9.30$





FISH PAPER
High grade fibre sheet paraffined for insulation purposes. 240 square inches No. 17A7038
 10,000 VOLTS
Prevents grounds and shorts on field coils, transformers, resistors, condensers, wires, etc. Dry, yellow varnished Cambric in rolls
of over 210 so of over 210 sq. inches.

Call B-A's Sales Department (816) 756-2525

MULTIPLE CONDUCTOR UNSHIELDED CABLE
All conductors are size 22, ( $7 \times 30$ ) stranded tinned copper except size 7,8 , and 9 conductor cables in which 2 of the conductors are plastic insulated, and cabled together with gray vinyl jacket overplast
all.
 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.

| Stock No. | $\begin{gathered} \text { Belden } \\ \text { No. } \end{gathered}$ | Pairs | O.D. | $\begin{aligned} & W \mathrm{Wt} \\ & 100^{\prime} \end{aligned}$ | per <br> Ft. | $\begin{gathered} 100 \\ \mathrm{FL} . \end{gathered}$ | $\begin{gathered} 1000 \\ \text { Ft. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2A9899-4 | 8740 | 1 | . 150 | 2 | \$0.08 | \$4.92 | \$30.15 |
| 2A9900-0 | 8741 | 2 | . 201 | 3 | . 12 | 8.25 | 56.55 |
| 2A9901-8 | 8742 | 3 | . 240 | 3 | . 16 | 10.95 | 78.90 |
| 2A9902-6 | 8743 | 6 | . 305 | 6 | 27 | 17.95 | 139.20 |
| 2A9903-4 | 8744 | 9 | . 354 | 8 | . 39 | 25.00 | 8.35 |
| 2A9927-3 | 8753 | 11 | . 384 | 10 | 49 | 28.45 | 268.50 |
| 2A9904-2 | 8745 | 15 | . 420 | 12 | . 64 | 38.55 | 359.25 |
| 2A9905-9 | 8746 | 27 | . 550 | 17 | . 98 | 67.00 | 621.00 |

## STRANDED CONDUCTORS

Size 22 ( $7 \times 30$ ) more flexible and easier to pull through conduit. Color coded and cabled in pairs.

| Stock <br> No. | Belden <br> No. | Pairs | O.D. | Wt. <br> 100 | Per <br> Ft. | 100 <br> Ft. | 1000 <br> Ft. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2A9974-5 | 9744 | 2 | .230 | 3 | $\mathbf{S 0 . 1 3}$ | $\$ 8.35$ | $\$ 66.60$ |
| 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 | .42 | 28.60 | 260.55 |
| 2A9977-8 | 9747 | 12 | .440 | 12 | .58 | 42.20 | 358.50 |
| 2A9929-9 | 8749 | 15 | .455 | 14 | .70 | 46.35 | $\mathbf{4 3 8 . 1 5}$ |
| 2A185-7 | 8750 | 27 | .595 | 21 | $\mathbf{1 . 3 2}$ | 99.40 | $\mathbf{8 2 8 . 0 0}$ |

UNSHIELDED CONTROL AND AUDIO CABLES
Vinyl plastic insulated, chrome vinyl jacket. Suggested working voltage 8466 and 8467400 V ., all others 600 V .

| Stock No. | Belden No. | No. Cond. | Size | O.D. | $\begin{gathered} \text { Wt. } \\ 100^{\prime} \end{gathered}$ | $\begin{aligned} & \hline \text { Per } \\ & \text { Ft. } \end{aligned}$ | $\begin{aligned} & 25 \\ & \mathbf{F t} . \end{aligned}$ | $\begin{array}{r} 100 \\ \mathrm{Ft} . \end{array}$ | $\begin{array}{r} 1000 \\ \mathrm{Ft} \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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.(19)29) | . 455 | 13 | . 58 | 11.20 | 38.35 | 342.00 |
| 2A9951-3 | 8622 | 12 | 16 (19X29) | . 600 | 21 | 95 | 18.25 | 62.50 | 577.00 |
| 2A9952-1 | 8623 | 15 | 16 (19829) | . 650 | 27 | 1.32 | 25.50 | 87.45 | 829.00 |
| 2A9953-9 | 8627 | 4 | 14 (19827) | . 495 | 14 | . 56 | 10.90 | 37.30 | 339.90 |

TINNED COPPER SHIELDING
Electrostatic and interference shield for wires. Very flex-
ible. Expands to nearly double its original diameter, reduc ing length about $25 \%$. Extensively used in mobile radio instaliations for shielding and bonding.

| Stock No. | Belden No. | I.D. | Wt. $100^{\prime}$ | 10 Ft . | 50 Ft . | 250 Ft . |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2A134-5 | 8660 | 1/8 | 1 lb . | \$1.89 | \$5.60 | \$23.05 |
| $28139-4$ | 8668 | 11/4 | 2 lb . | 2.56 | 7.10 | 27.15 |
| 2A135-2 | 8661 | 3/8 | 2 lb . | 2.61 | 8.35 | 34.00 |
| $28140-2$ | 8669 | 1/2 | 3 lb . | 4.06 | 17.25 | 69.30 |
| 2A136-0 | 8662 | $25 / 32$ | 8 lb . | 5.75 | 24.25 | 100.35 |

## 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 $750^{\circ} \mathrm{F}$. without stripping. IEEE thermal rating $130^{\circ} \mathrm{C}$. Use Poly-Thermaleze where tougher, higher temperature wire is needed. $180^{\circ}$ C. Belden Nyiclad. For motors, solenoids, transformers rated

| POLY-THERMALEZE-1 Lb. Spool |  |  |  |  | BELDSOL- $1 / 2$ Lb. Spool Except $\dagger$ are $1 / 4$ Lb. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Size | Stock No. | Belden No. | $\begin{aligned} & \text { Ft. per } \\ & \text { Snopor } \end{aligned}$ | Each | Size | Stock No. | Belden No. | $\begin{aligned} & \text { Ft. per } \\ & \text { Spool } \end{aligned}$ | Each |
| 14 | 2A6000-2 | 8073 | 80 | \$5.15 |  |  |  |  |  |
| 16 | 2A6001-0 | 8074 | 126 | \$5.15 | 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 |
| 24 | 2A6005-1 | 8078 | 793 | 5.80 | 24 | 2A6016-8 | 8052 | 404 | 3.33 |
| 26 | 2A6006-9 | 8079 | 1260 | 6.05 | 26 | 2A6017-6 | 8053 | 645 | 3.49 |
| 28 | 2A600;-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 | 2.12 |
| 36 | 2A6011-9 | 8084 | 12400 | 11.50 | $36+$ | 2A6028-3 | 8044 | 3200 | 3.00 |
| 38 | 2A6024-2 | 8085 | 19400 | 13.40 | $38 \dagger$ | 2A6029-1 | 8045 | 5070 | 3.68 |
| 40 | 2A6012-7 | 8086 | 32100 | 17.45 | $40 \dagger$ | 2A6021-8 | 8046 | 8050 | 5.05 |

## COAXIAL CABLE, STRIPPER \& CONNECTORS

## BELDEN COAX CABLE

Highest quality coax cable used for com-
mercial, amateur, military or citizens
band transmitting or receiving. Eliminates
"stray" fields and confines signal within
cable. Vinyl jacket overall for temperatures from $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$, 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. |  | Cap: | Size Center | Wt. | Per | 100 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{2}{ }^{\text {No }}$ O994-3 | No. | No. | Ohms |  | Pt. Ft. | Conductor | Ft. | Ft. | Ft. | Ft. |
| 2A99994-3 | 9251 | RG8A/U | 52 | . 405 | 29.5 | $7 \times 21$ | 11 S | \$0.47 | \$28.20 | \$219.75 |
| 2A9984-4 | 8237 | RG8U | 52 | . 405 | 29.5 | $7 \times 21$ | 11 | 40 | 25. | 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" | 3 | 21 | 10.05 | 71.10 |
| 2A9989-3 | 8262 | RG58C/U | 50 | . 195 | 30.8 | 19x.007" | 3 | 24 | 11.60 | 84.15 |
| 2A9990-1 | 8241 | R659U | 73 | . 242 | 21.0 | \#22 | 4 | 21 | 10.65 | 71.25 |
| 2A9877-0 | 9243 | †RG59U | 75 | 242 | 17.3 | \# 20 | 4 | 16 | 7.64 | 54.60 |
| 2A9991-9 | 8263 | RG59B/U | 75 | 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 |  | 14.25 | 103.35 |
| 2A9878-8 | 9268 | RG62A/U | 93 | 264 | 14.5 | \# 22 | 4 | 28 | 17.75 | 128.85 |
| 2A4016 -0 | 8216 | *RG174/U | 50 | 100 | 30.8 | $7 \times 34$ | 1 | 15 | 7.90 | 49.50 |
| 2A9993-5 | 8218 | Sub Minax | $\times 75$ | 150 | 20.5 | $7 \times 35$ | + | 20 | 9.10 | 67.35 |
|  |  |  | Ellular | POL | YETHYL | ENE INSULAT | Ition |  |  |  |
| 2A9999-2 | 8214 | 8/U | 50 | 405 | 26.0 | $7 \times 19$ | 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 |
|  |  |  | TF | E TEF | LON IN | NSULATION |  |  |  |  |
| 2A4021-0 | 83265 | 178B/U | 50 | . 070 | 29.0 | 7×38 | 1 | 37 | 20.10 | 173.25 |
| 2A4022-8 | 83266 | 180B/U | 95 | . 140 | 15.0 | $7 \times 38$ | 2 | 76 | 45.55 | 409.20 | $\begin{array}{lllllll} & & & & & \\ \text { 2A4021-0 } & 83265 & 178 B / U & 50 & .070 & 29.0 & 7 \times 38 \\ 2 A 4022-8 & 83266 & 180 B / U & 95 & .140 & 15.0 & 7 \times 38\end{array}$

*Does not conform to MIL-C-170.
$\ddagger$ Duofoil shield, others have copper braided shields.
BELDEN 8228 DUOFOIL 82-CHANNEL COAXIAL CABLE
Signal attenuation is less than regular 590 , lighter weight and lower cost. 75 ohm impedance, $0.0 .242^{\prime \prime}, 17.3 \mathrm{Pf} / \mathrm{Ft}$. capacitance. Size 18 solidcopper conductor, black PVC jacket. Wt. $100^{\prime} 21 / 2$ lbs.

| $249983-6$ | Per Ft | $15^{\circ}$ | 100 Ft |  | $\$ 10.25$ | 1000 | Ft. |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## PRECISION COAX CABLE STRIPPER

For the communications buff or professional instatler. Strips cable in seconds with a uniform trim 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.


## AMPHENOL UHF PANEL RECEPTACLE

Panel receptacle requires only one $5 / 8^{\prime \prime}$ 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 c $\quad 100$ 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. $\$ 1.39100$ up Ea $\$ 1.14$
"BLITZ BUG" COAX CABLE LIGHTNING ARRESTOR Added lightning protection for receiving and transmitting equipment, ham gear, citizens coaxial antenna lead. Shpg. wt. 1 lb.

No 10A3001-3. Cushcraft LAC-1. Threaded for standard PL259 connector one end, S0239 connector
$\$ 4.50$ No 10A3038-5. Cushcraft LAC-2. Threaded for PL259

## COPPERWELD ANTENNA WIRE

 Tensile strength 3 times that of ordinary copper. Minimum stretch or sag. Electrical properties are the same as copper at high frequencies. All are solid conductors.

| Stk. | Size | 100 Coil |  |  | Coil | 500' Coil |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | (AWG) |  |  | 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 | $1 / 2 \mathrm{lb}$. | 2.50 | $11 / 2 \mathrm{lbs}$. | 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-
sired. Temperature range: $-105^{\circ}$ to $+215^{\circ} \mathrm{F}$. sired. Temper
Natural color.

| Stock No. | O.D. | Max Cable Dia. | Per Ft . | 100 Ft | 00 Ft . |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2A8038-0 |  | Max $1 / 2^{\prime \prime}$ | \$0.09 | \$6.12 | 55.08 |
| 2A8039-8 |  |  | 14 | 9.86 | 89.25 |
| 2A8040-6 |  | "' | 23 | 16.15 | 42.80 |
| 2A8041-4 | $1 / 2^{\prime \prime}$ | $4^{\prime \prime}$ | . 26 | 18.85 | \$161.20 |



## AMPHENOL COAX CONNECTORS


(2)


UHF SINGLE CONTACT CONNECTOR
(8)

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 Amphenol Military
Description
Cable Plug
Cable Plug
Cable Plug
$.257^{\prime \prime}$ I.D. Reducer
$.207^{\prime \prime}$ i.D. Reducer
Panel Receptacle
$.345^{\prime \prime}$ I.D. Hood
$155^{\prime \prime}$ I.D. Hood
Right Angle
Double Female Adapt.
Feed Thru
Tee
For
RG
Cable

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.

| $\begin{gathered} \text { Fig. } \begin{array}{c} \text { Stock } \\ \text { No. } \end{array}, ~ \end{gathered}$ | Amphenol No. | $\begin{aligned} & \text { Military } \\ & \text { No. } \end{aligned}$ | Description | For RG Cable | $1-24$ <br> Each | $\begin{aligned} & 25.99 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 100- \\ & 499 \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (8) 12A1965-9 | 31-002 | UG88U | Cable Plug | 58 | \$1.06 | \$0.83 | 8 |
| (\%) 12A1966-7 | 31-018 | UG88B/U | Cable Plug | 58 | 1.22 | . 95 | . 78 |
| (8) 12A1967-5 | 31-202 | UG88C/U | Cable Plug | 58 | 1.10 | . 86 | 70 |
| (9) 12A1968-3 | 31-012 | UG260U | Cable Plug | 59, 62 | 1.36 | 1.06 | 87 |
| (\%) 12A1969-1 | $31-212$ | UG260B/U | Cable Plug | 59,62 | 1.26 | . 98 | 81 |
| (11) 12A1970-9 | 31-005 | UG89U * | Cable Receptacle | 58 | 1.70 | 1.33 | 1.09 |
| (1) 12A1971-7 | $31-015$ | UG261U* | Cable Receptacle | 59, 62 | 1.96 | 1.53 | 1.25 |
| (II) 12A1972-5 | 31.003 | UG290U* | Panel Receptacle |  | 1.30 | 1.01 | 83 |
| (ii) 12A1973-3 | $31-203$ | UG290A/U* | Panel Receptacle |  | 1.10 | . 86 | 70 |
| (1) 12A1974-1 | 31-102 | UG657U * | Recept. 1-Hole Mtg. |  | 1.60 | 1.25 | 1.02 |
| (11) 12A1975-8 | 31-001 | UG291U* | Recept. Rear Clamp | 58 | 3.04 | 2.37 | 1.95 |
| (14) 12A1976-6 | 31-219 | UG914U* | Dbl. Female Junct. |  | 1.64 | 1.28 | 1.05 |
| (1) 12A1977-4 | 31-008 | UG274U* | Tee |  | 3.62 | 2.82 | 2.32 |
| (16) 12A1978-2 | 31.830 | UG201U | BNC Jack to N Plug |  | 3.68 | 2.87 | 2.36 |
| (16) 12A1979-0 | 31-028 | UG273U | BNC Jack to UHF Plu |  | 1.92 | 1.50 | 1.23 |
| (ii) 12A1980-8 | 31-217 | UG349A/U | BNC Plug to N Jack |  | 3.72 | 2.90 | 2.38 |



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. 米Female connectors mating with all others in the N series.

| Fig. Stock | Amphenol No. | Military No. | $\begin{array}{ll}\text { Fescription } & \begin{array}{c}\text { For RG } \\ \text { Cable }\end{array}\end{array}$ | $1-24$ <br> Each | $\begin{aligned} & 25.99 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 100- \\ & 499 \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) 12A1981-6 | 82-61 | UG21B/U | Male Cable Plug 8 | \$2.38 | \$1.86 | \$1.52 |
| (19) 12A1982-4 | 82-63 | UG23B/U* | Female Cable Jack | 2.90 | 2.26 | 1.86 |
| (21) 12A1983-2 | 82-24 | UG58U* | Panel Recept. | 1.6 | 1.28 | 1.05 |
| (17) 12A1984-0 | 82-101 | UG29B/U* | Dbl. Recept. Junction | 3.14 | 2.45 | 2.01 |
| (12) 12A1985-7 | $82-100$ | UG57B/U | Dbl. Plug Junction | 3.18 | 2.48 | 2.04 |
| (2) 12A1986-5 | 82-213 | UG27C/U* | Right Angle | 4.00 | 3.12 | 2.56 |
| (24) 12A1987-3 | 82-99 | UG28A/U * | Tee | 5.80 | 4.52 | 3.71 |



For connecting PL-259, S0-239 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 No.12A1988-1. Net Each
M-42. Converts phono plug on lead to SO-239 on set.
No.12A1989-9. Net Each $\qquad$
M-43. Converts Motorola type pin plug on lead to phono Jack on set. No.12A1990-7. Net Each $\$ 3.69$ M-44. Converts PL-259 on lead to phono Jack on set. No. 12A1991-5. Net Eacb $\qquad$ Mo. Converts phono plug on lead to Motorola type pin Jack on set. No.12A1992-3. Net Each M-46. Converts PL-259 on lead to Motorola type pin Jack on set No.12A1993-1. Net Each.

## HEAT GUNS, ALPHA TUBING \& TAPE



## MASTER MITE HEAT GUN

Compact, light weight $8-7 / 8^{\prime \prime}$ 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 $650^{\circ}$ F, 475 watts, recommended for PVC, FEP, Neoprene and other most common shrink materials. Complete with deflector adaptor-baffle. Shpg. wt. 2 lbs .
37A9120-4. Model 10008 with Silver nozze and baffle. Each . ............................. \$41.95 3 Eac

| Heating element nozule Stk. No. Model No. | Color | or Mite. | Watts |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37A9121-2 20012 | Blue | $500^{\circ} \mathrm{F}$ | W25 | Mor | Each | 3 Each |
| 37A9122-0 20013 | Silver | $650{ }^{\circ} \mathrm{F}$ | 475 | PVC, FEP | 5.49 | 55.00 |
| 37A9123-8 20014 | Black | $800^{\circ} \mathrm{F}$ | 525 | TFE, Teflon | 5.49 | 5.00 |
| 37A9124-6 40061 | Pinpoin | zzie Ada |  |  | 3.29 | 2.95 |

## UNGAR PRINCESS

## HEAT GUN

Specially designed for electronics assembly. Compiete with 4 baffles for all heat shrink materials. Air stream at nozze is only $3 / 8$ diameter Case designed for gun to stand on workbench if desired. Convenient hot-off-cold 3 -way swith at
trigger position. Case of Ul tecognized glass trigger position. Case of UL recognized glass plug. Rated 250 watts, 120 VAC. $750^{\circ}$ to 850 piug Rate air flow temperature, Shicg. wt. 3 tos.
Each 140 -2 Model 6966C
Each

## WIRE TIES



Self Locking-All Nylon-No Metal Parts-Permanently ties wire bundles, must be cut off for removal-natural color.


[^4]$$
\$ 2.50 \quad 3 \text { Each. }
$$
$$
\text { \$7.80 } 3 \text { Each }
$$

## ALPHA PVC-105 PLASTIC TUBING

For all electronic, electrical and aircraft applications. Conforms to Mil-1-6310. ASTM-D876 and D922 specs. High dielectric strength, non-flammable and resistant to
oils and corrosion. Flexible from $-20^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$. Stocked in clear only, Available on special order in slack whit Avariable Red, Green colors. Minimu, special order Red,

$$
\text { amount is } \$ 25.00 \text {. Size } 1 \mathrm{wt} .1 .2 \mathrm{lb} \text {. per } 100^{\circ} \text {. }
$$



| Stock No. | Size | 1.D. | $\begin{aligned} & 25^{\prime} \\ & \text { For } \end{aligned}$ | $\begin{aligned} & 50^{\prime} \\ & \text { For } \end{aligned}$ | $\begin{aligned} & 100^{\prime} \\ & \text { For } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 250^{\circ} \\ & \text { For } \end{aligned}$ | $\begin{gathered} \hline 500^{\prime} \\ \text { For } \end{gathered}$ | $\begin{gathered} 1000^{\prime} \\ \text { For } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2A8002-6 | 24 | . 022 | \$1.26 |  | \$ 3.61 |  |  | \$18.03 |
| 2A8003-4 | 22 | . 027 | 1.31 |  | 3.75 |  |  | 18.76 |
| 2A8005-9 | 19 | . 038 | 1.39 |  | 3.83 3.97 |  |  | 19.12 |
| 2A8006-7 | 18 | . 042 | 1.44 |  | 4.12 | $\cdots$ |  | 19.85 20.59 |
| 2A8007-5 | 17 | . 047 | 1.49 | $\ldots$ | 4.26 | $\cdots$ |  | 21.32 |
| 2A8808-3 | 16 | . 053 | 1.54 | $\ldots$ | 4.41 | $\ldots$ |  | 22.06 |
| 2A8010-9 | 14 | . 066 | 1.73 |  | 4.67 |  | \$13.33 |  |
| 2A8811-7 | 13 | . 076 | 1.84 | .... | 4.96 | $\ldots$ | 14.17 |  |
| 2A8014-1 | 10 | 106 | 2.06 | .... | 5.54 |  | 15.83 |  |
| 2A8015-8 |  | 118 133 | 2.73 2.93 | $\ldots$ | 7.36 | $\ldots$ | 21.03 |  |
| 2A8017-4 | 7 | . 148 | 2.93 | $\cdots$ | 8.88 | $\ldots$ | 22.50 |  |
| 2A8018-2 | 6 | . 166 | 3.27 | $\ldots$ | 8.82 | $\cdots$ | 25.20 |  |
| 2A8019-0 | 5 | . 186 | 3.49 | $\ldots$ | 9.40 |  | 26.87 |  |
| 2A8020-8 | 4 | 208 | 3.70 | $\ldots$ | 9.79 | \$21.75 |  |  |
| 2A8021-6 | 3 | 234 | 4.04 | … | 10.69 | 23.75 |  |  |
| 2A8022-4 |  | .263 294 | 4.46 | ... | 11.81 | 26.25 | .... |  |
| 2A8025-7 | 0 | . 330 | 5.51 | ... | 14.58 | 28.95 32.40 |  |  |
| 2A8024-0 | B/6" | . 312 |  |  |  |  |  |  |
| 2A8026-5 | H2 | . 375 | 7.76 | $\ldots$ | 20.54 | 45.65 | $\ldots$ |  |
| 2A8027-3 | ${ }^{16}{ }^{6}{ }^{\text {c/ }}$ | . 438 | 8.30 | $\ldots$ | 20.75 |  |  |  |
| 2A8028-1 | 1/2" | . 500 | 9.40 | .... | 23.50 | $\ldots$ | ... |  |
| 2A8039-7 | 5/88 | . 6625 | 12.40 | $\ldots$ | $\begin{array}{r}31.00 \\ 33.90 \\ \hline\end{array}$ |  |  |  |

## ALPHA HEAT SHRINK TUBING

FIT-221 IRRADIATED POLYOLEFIN TUBING
Application of $225^{\circ}$ to $255^{\circ}$ 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 4 Ft .

| Stock No. | Size | Original i.b. | ID After Heating | $\begin{gathered} \text { Wall } \\ \text { Thickness } \end{gathered}$ | Per Foot | Net Per $20 \mathrm{Ft}$ | $100$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 02-08001-8-001-8 | 3/64* | 046 | 023 | 016 | \$0.29 | 4.28 | \$17.80 |
| $02-08001-8002-6$ $02-08001-8-003-4$ | $1 / 6{ }^{\prime}$ <br> $3 / 32$ | . 063 | . 031 | 017 | . 30 | 4.50 | 18.90 |
| 02-08001-8-004-2 |  | . 125 | . 062 | . 020 | . 35 | 5.19 5.54 | 21.85 23.20 |
| 02-08001-8-005-9 | 66 | 187 | 093 | . 020 | . 45 | 6.76 | 28.30 |
| 02-08001-8-006-7 | 1/4. | 250 | 125 | . 025 | . 57 | 8.48 | 35.70 |
| 02-08001-8-007-5 | 3/" | 375 | . 187 | . 025 | . 63 | 9.38 | 39.60 |
| 02-08001-8-008-3 <br> 02-08001-8-009-1 | $\begin{aligned} & 1 / 201 \\ & 34^{\prime \prime} \end{aligned}$ | 500 750 | . 250 | . 025 | . 71 | 10.68 | 44.65 |
| 02-08001-8-010-9 | $1{ }^{1}$ | 1.00 | . 500 | 035 | 1.33 | 19.93 | 84.10 |

FIT-105 POLYVINYLCHLORIDE TUBING
Requires higher heat $\left(325^{\circ} \mathrm{F}\right)$ 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 ib | ID After Heating | Thicknes | $\begin{array}{r} 25 \\ \text { ss } \quad \mathrm{Ft} \\ \hline \end{array}$ | $\begin{aligned} & 100 \\ & \mathrm{Ft} \end{aligned}$ | $\begin{aligned} & 200 \\ & \mathrm{Ft} \end{aligned}$ | $\begin{gathered} 500 \\ \text { FL. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 02-08042-2-001-8 | 3/64" | 046 | 023 | 020 | \$ 4.70 | \$15.44 |  | \$67.84 |
| 02-08042-2-002-6 $02-08042-2-003-4$ |  | . 062 | . 031 | 020 | 4.97 | 16.32 |  | 71.91 |
| 02-08042-2-004-2 | 3/32 | . 125 | . 046 | 025 | 5.63 5.94 | 18.58 19.90 | $\$ 36.12$ 38.80 |  |
| 02-08042-2-005-9 | 3/16" | 187 | 093 | 025 | 1.14 | 24.10 | 47.16 |  |
| 02-08042-2-006-7 | $1 / 4$ | 250 | 125 | 025 | 8.77 | 30.06 | 59.10 |  |
| 02-08042-2-007-5 | $36^{\prime \prime}$ | 375 | 187 | 030 | 9.70 | 33.20 | 65.36 |  |
| 02-08042-2-008-3 | 1/" | 500 | 250 | . 030 | 10.90 | 37.02 | .... |  |
| 02-08042-2-010-9 | $1{ }^{3 /}$ | .775 1000 | 375 500 | . 045 | 14.48 | 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. | $\begin{aligned} & \text { Alpha } \\ & \text { No. } \end{aligned}$ | Tubing Size Range | Lengths in Package | $\begin{gathered} \text { Per } \\ \text { Package } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| 2A8035-6 | FlT221 MS-1 | $3^{3} 6^{\prime \prime}$ "thru 3 /6" | 30 |  |
| 2A8036-4 | F1T221 MS-2 | $1 / 4^{\prime \prime}$ thru 3/4 ${ }^{\prime \prime}$ | 16 | 13.23 |
| 2A8037-2 | FIT221 MS-3 | $1^{\prime \prime}$ thru 4" | 10 | 11.58 |

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. mils thick. Dielectric strength 10.000 volts. $17 \mathrm{~A} 7000-4.66 \mathrm{Ft} .1 / 4$ inches wide. Roll Each
17A7001-2. 20 Fí. \% inches wide. Roll Each Rolls Each weather 8.5 mils thick pastic electrical tape. Makes splices easy in cold wether 0.5 mils rick Remains pliable at temperatures down to 0 F
eiectric strength 9350 voits.
17A7003-8. 65 Ft . $1 /{ }^{\prime \prime}$, wide. Roll Each.
17A7004-6. $20 \mathrm{Ft} 3 / 4^{\prime \prime}$ wide. Roll Each. $\qquad$
$\qquad$

$\| E$
RELAY RACKS, PANELS, CABINETS
(1) BUD DELUXE RELAY RACKS

Attractive rounded corner design with recessed panel supports for flush panel mounting. Racks of 16 gauge steel. $7 / 64^{-1}$ 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. $17-1 / 8^{\prime \prime}$ deep. Supp
Hammertone Gray finish.

| Stock | Bud | Hgt. | Panel | W |  | 10-1 | 15-19 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Ins. | Space | Lbs. | Each |  |  |
| 5A7514-8 | CR1774 | 421/6 | $363 / 4^{\prime \prime}$ | 32 | \$100.85 | S90.75 | 880.70 |
| 5A7500-7 | CR1771 | 47\% 6 |  | 115 | 114.05 14285 | 128.65 | ${ }^{91.25}$ |
| 5A7515-5 | CR1772 | 66\% | 611 | 115 | 142.85 16450 | 128.55 148.05 | 1131.60 |
| 5A7516-3 | CR17 |  |  |  |  | 148.05 | 131.60 |

 $5 \mathrm{~A} 310-8$. Wt. 6 ozs . (Requires 4 )
1-24 Each ............ \$1.90 25-49 Each
\$1.70 50-99 Each
$\$ 1.50$
(2) BUD TELEPHONE TYPE RELAY RACKS

Uprights $7 / 4^{\prime \prime}$ steel channels, $3^{\prime \prime}$ deep. Chassis type base. Stocked in Hammertone

| Stock | Bud | Hgt. | Panel | Wt. | 1-9 | 10-14 | 5-19 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Ins. | Space | ths. |  |  |  |
| 5A7509-8 | RR1264 | 703\% 4 | $6612^{\prime \prime}$ | 46 | \$52.10 | \$46.90 | \$41.70 |
| 5A7510-6 | RR1364 | 755\%/4 | $713 / 4^{\prime \prime}$ | 48 | 54.80 | 49.30 | 3.85 |
| 5A7511-4 | RR1366 |  | 77" | 50 | 59.85 | 53.85 | 47.90 |

## (3) TABLE MOUNT TELEPHONE RACKS

For desk or bench mtg. of equipment, permitting easy access for building or operating. Panel supports are recessed for flush panel mounting. Hammertone gray,
 $\begin{array}{llllllll}\text { 5A7519-7 } & \text { RR1248 } & 24 & 21^{\prime \prime} & 15 & \$ 20.95 & \$ 18.85 & \$ 16.75 \\ \text { 5A7520-5 } & \text { RR1249 } & 31 & 28^{\prime \prime} & 18 & 24.70 & 22.25 & 19.75\end{array}$

## (4) 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 $22^{\prime \prime}$ wide, $1434^{\prime \prime}$ deep. Stocked in Hammertone Gray. Buy panels from listings at right.

| Stock | Bud | Hgt. | Panel | Wt. | 1.9 | 10-14 | 15-19 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Ins. | Space | Lbs. | Each |  |  |
| 5A7503-1 | CR1741 | 10\%6 | 83/4" | 28 | \$41.85 | \$37.65 | \$33.50 |
| 5A7501-5 | CR1740 | 12\%/60 | 101/2" | 31 | 49.10 | 44.20 | 39.30 |
| 5A7504-9 | CR1742 | 14\%6 | $121 / 4^{\prime \prime}$ | 32 | 50.50 | 45.45 | 40.40 |
| 5A7502-3 | CR1739 | 151\%/6 | $14^{\prime \prime}$ | 35 | 68.55 | 61.70 | 54.85 |
| 5A7506-4 | CR1743 | 19\%6 | $171 /{ }^{\prime \prime \prime}$ | 40 | 70.30 | 63.25 64.85 | 56.25 |
| 5A7507-2 | CR1727 | 2211/6 | $21^{\prime \prime}$ | 43 | 72.05 | 64.80 | 62.05 |
| 5A7512-2 | CR1744 <br> CR1728 | $\begin{aligned} & 281616 \\ & 33 \% \end{aligned}$ | $261 / 4^{\prime \prime}$ $311 / 2^{\prime \prime}$ | 58 | 88.50 | 14.15 | 65.90 |
| 5A7513-0 | CR1745 | 361\%6 | $35^{\prime \prime}$ | 63 | 86.65 | 78.00 | 69.30 |



## BUD SHADOW CABINET

Front panel bevelled and recessed $1^{\prime \prime}$. Front and back panel as well as the bottom are removable. 18 gauge steel with 16 gauge panels. Rubber feet. Light gray Hammertone.

(1) BUD SLOPING FRONT CABINETS for miniaturized equipment. Hammertone gray. Size $41 / 2^{\prime \prime}$ deep $\times 41 / 2^{\prime \prime}$ high. One-piece detachable back and sides.
Stock Bud Wi. Wt 1-4

| Stock | Bud |  | Wt. | 1-49 | 50-99 | 100-149 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Width | Lbs. | Each | Each | Each |
| 5A224-1 | AC1610 | $4^{\prime \prime}$ | 1/2 | \$4.00 | \$3.60 | \$3.20 |
| 5A225-8 | AC1611 | 5' | $1 / 2$ | 3.90 | 3.50 | 3.1 |
| 5A226-6 | AC1612 |  | 3/4 | 4.35 4.75 | 4.30 | 3.80 |
| 5A228-2 | AC1613 | $7{ }^{\prime \prime}$ | 3/4 | 4.75 | 4.30 | 3.80 |

Punched for $2^{\prime,(3)}$ meter with easily removable knock-out ring to increase hole size Punched for $2^{\prime \prime}$ meter with easily removable knock-out rwg $3 / \mathrm{s}^{\prime \prime}$ knock-outs in top for installing insulators, etc. Gray hammertone. $4 \times 4 \times 41 / 4^{\prime \prime}$.


(5) ALUMINUM RELAY RACK PANELS

All panels are $19^{\prime \prime}$ wide, $1 / 8^{\prime \prime}$ thick. Notched to RMA specification which fits all standard racks. Hammertone Gray finish.

| Stock | Bud | Height | Wt. | 1-49 | 50-99 | 100-149 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Inches | Lbs. | Each | Each | Each |
| 5A5550-4 | PA1101 | 13/4 | 1/4 | \$2.75 | \$2.50 | \$2.20 |
| 5A5551-2 | PA1102 | $31 / 2$ | 3/4 | 3.85 | 3.45 | 3.10 |
| 5A5552-0 | PA1103 | $51 / 4$ |  | 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 | 7.35 |
| 5A5556-1 | PA1107 | 121/4 | $23 / 4$ | 10.60 | 9.55 | 8.50 |
| 5A5557-9 | PA1108 | 14 | 3 | 12.10 | 10.90 | 9.70 |
| 5A5558-7 | PA1109 | 153/4 | $31 / 2$ | 13.45 | 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 |

(5) 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 install. Standard notching, 19 . width, $1 / 0$ wher

| Stock. | Bud | Height | wt. | 1-24 | 50-99 | 100-149 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | Inches | Lbs. | Each | Each | Each |
| 5A5559-5 | SFA1831 | 13/4 | 1/4 | \$2.35 | \$2.10 | \$1.90 |
| 5A5560-3 | SFA1832 | $31 / 2$ | 3/4 | 3.90 | 3.50 | 3.10 |
| 5A5561-1 | SFA1833 | $51 / 4$ | 1 | \$5.10 | \$4.60 | 4.10 |
| 545562-9 | SFA1834 | 7 | $13 / 4$ | 6.25 | 5.65 | 5.00 |
| 5A5563-7 | SFA1835 | $83 / 4$ |  | 7.25 | 6.55 | 5.80 |
| 5A5564-5 | SFA1836 | 101/2 | $21 / 2$ | 9.45 | 8.50 | 7.55 |
| 5A5565-2 | SFA1837 | 121/4 | $23 / 4$ | -10.85 | 9.75 | 8.70 |
| 5A5566-0 | SFA1838 | 14 | 3 | 12.20 | 11.00 | 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 acces or testin and mainfenance. All have $17^{\prime \prime}$ chassis length and $5 \%$ "' depth. Notched for mounting with $19^{\prime \prime}$ relay rack panels. Made of $060^{\prime \prime}$ 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 | 54.15 |
| 5A322-3 | CB1372 | $51 / 4$ | $11 / 2$ | 5.85 | 5.25 | 4.70 |
| 5A323-1 | CB1373 |  | 2 | 6.50 | 5.85 | 5.20 |
| 5A324-9 | CB1374 | 83/4 | $21 / 4$ | 7.95 | 1.15 | 6.35 |

## (1) ADJUSTABLE BUD TEM-STAT

Tem-stat thermostat mounted in an enclosure. Responds quickly to gradual or sudden temperature changes. Actuates warning devices or turns Blowers on and off. Adjustable temp. range. $21 / 41 \times 1 \times 1 / 1 / 2^{\prime \prime}$. UL listed.
Stock
No.
Bud
No.
Adjustable
Temp. Range
1-9 Prices Each
No.
5C146-6
TS-15
Temp. Range
80 to $170^{\circ} \mathrm{F}$.
$\begin{array}{ll}\$ 8.70 & \$ 7.85\end{array}$
$15-19$
$\$ 6.95$

## BUD FUTURA CABINETS

Modern rectangular modular cabinets. One-piece top and sides remov

号Modern rectangular modular cabinets. One-piece top and sides re 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.


## 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 oe
removed if necessary. Stocked in light gray Hammertone finish.

| Stock | Bud |  | Inch | s | Use | Wt. | 1-24 | 25-49 | 50-99 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | H. | W. |  | Chassis | Lbs. | Each |  |  |
| 58135-9 | C1584 | $61 / 2$ | 71/6 | 7\%6 |  | $21 / 2$ | \$7.75 | \$ 7.00 | \$ 6.20 |
| 58136-7 | C1585 | $61 / 2$ | 91/6 | 7916 |  | 31/20 | 8.50 | 7.65 |  |
| 58139-1 | C1586 | $61 / 2$ | 111/6 | 7\%6 |  | $31 / 2$ | 9.75 | 8.80 | 980 |
| 5A134-2 | C1588 | 8 | 101/6 |  |  |  | 11.25 |  | 10.55 |
| 58142-5 $54130-0$ | ${ }_{\text {C18922 }}$ | 8 | 1316 |  | AC407 AC409 | $51 / 4$ | 13.20 11.75 | 11.90 10.60 | 10.40 |
| 5A130-0 | ${ }_{\text {C1894 }} \mathrm{C} 1896$ |  | 1816 | $\begin{aligned} & 81 / 8 \\ & 81 / 2 \end{aligned}$ | AC425 |  | 11.75 16.70 | 15.05 | 13.35 |
| 5B144-1 | C1893 | 10 | 181/6 | $101 / 2$ | AC415 | $81 / 2$ | 17.20 | 15.50 | 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 prote̊cts knobs, dials, etc. Clearance lid to panel 11 s/3 $2^{\prime \prime}$, RubTextured vinyl gray finish.


Stock Bud Size Inches Wh 9





## BUD PORTACAB

High styled housings for instrumentation or other equip ment, Body is one piece . 050 aluminum. Removable panel is 062. Flexible recessed handle, detachable rubber feet.
Gray Hammertone finish only,

## TILT-A-VIEW CABINET



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 | Bud | Size Inches |  |  | Wt. | $\mathbf{1 - 1 4}$ | 15-24 | 25-34 |
| :---: | :---: | :---: | :---: | :---: | :---: | ---: | ---: | ---: |
| No. | No. | H. | W. | D. | Lbs. | Each | Each | Each |
| $5 A 3029$ | -1 | TV2155 | $41 / 2$ | 15 | 10 | $81 / 2$ | $\$ 14.60$ | $\$ 13.15$ |
| $5 A 3030-9$ | TV2156 | $61 / 2$ | 16 | 12 | 13 | 17.10 | 15.40 | 13.70 |
| $5 A 3031-7$ | TV2157 | $81 / 2$ | 17 | 14 | 17 | 24.80 | 22.30 | 19.85 |

## BUD MINIATURE UTILITY CABINETS ALUMINUM TYPE



A highly useful housing for all types of electronic equipment. Both fron and back panels are removable for easy accessibility. Aluminum alloy $5005 \mathrm{H}-14$, are available with natural or light grey hammertone (HG) finish.

| $\begin{aligned} & \overline{s i z} \\ & \text { H. } \end{aligned}$ | $\begin{aligned} & \text { e Inc } \\ & \text { W. } \end{aligned}$ | d. | Wt. | Bud No. | Stk, No. | $\begin{array}{r} \text { Natu } \\ 1-49 \mathrm{E} \end{array}$ | Finish 50-99 Ea. | 100-199 | stk. No. | ${ }_{1}^{\text {Grey Ha }}$ | mertone 50-99 Ea. | 100-199 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | 4 | 2 | 1/4 | AU1083 | 5A3015-0 |  |  |  | 5A3032-5 | \$3.75 | \$3.40 |  |
| ${ }_{6}^{4}$ | 5 | ${ }^{3}$ | 1/4/ | ${ }_{\text {AU1028 }}{ }^{\text {AU1029 }}$ | 5 | 3 3 3 3 | 3.00 3.40 | 2.70 3.00 | 5A3032-3 | 4.25 4.50 | 3.85 4.05 | 3.40 3.60 |
| 6 | 6 | 6 | $3 / 4$ | AU1039 |  |  |  |  |  |  |  |  |
| 9 |  | 5 | 1 | AU1040 | 5A265-4 | 6.20 | 5.60 | 4.95 | 5A267-0 | 7.50 | 6.75 | 4.75 |



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 $.040^{\prime \prime}$ aluminum.

## BUD COWL-TYPE MINIBOX



## BUD ALUMINUM MINIBOXES

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 sections are held together by the engagement of four circular pro-
jections 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 selftapping screws furnished. Made of .040 aluminum, except $7^{\prime \prime}$ and longer are $.050^{\prime \prime}$. Available in natural finish or light gray Hammertone. Please specify when ordering.


| $\begin{aligned} & \text { size Inches } \\ & \text { L. W. H. } \end{aligned}$ | $\begin{aligned} & \text { Wt. } \\ & \text { Lbs. } \end{aligned}$ | $\begin{aligned} & \text { Natural } \\ & \text { Bud No. } \end{aligned}$ | Jinish ${ }_{\text {Stk. }}^{\text {Sta. }}$ | $\begin{aligned} & 1.49 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & \hline 50-99 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 100.149 \\ \text { Each } \end{gathered}$ | Hammert Bud No . | one Grey Stk. No. | $\begin{gathered} 1.49 \\ \text { Each } \end{gathered}$ | $\begin{aligned} & 50.99 \\ & \text { Each } \end{aligned}$ | $\begin{gathered} 100.149 \\ \text { Each } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $23 / 4 \times 21 / 8 \times 15 / 8$ | $1 / 4$ | CU3000 | 5A3005 |  | \$1.15 | \$1.00 | CU2100A | 5A3018-4 | \$1.50 | \$1.35 | 0 |
| $31 / 4 \times 21 / 8 \times 11$ | 1/4 | CU3017A | 5A3014-3 | 1.40 | 1.25 | 1.10 | CU2117A | 5A3025-9 | 1.75 | 1.60 | 1.40 |
| 31/4×21/915/8 | 1/4 | CU3001A | 543006-9 | 1.25 | 1.15 | 1.00 | CU2101A | 543019-2 | 1.50 | 1.35 | 120 |
| $4 \times 2 \times 23 / 4$ |  | CU3015A | 543012-7 | 1.60 | 1.45 | 1.30 | CU2115A | 5A3023-4 | 1.75 | 1.60 | 1.40 |
| $4 \times 21 / 6 \times 15 / 8$ | $1 / 4$ | CU3002A | 5A3007-7 | 1.40 | 1.25 | 1.10 | CU2102A | 5A3020-0 | 1.60 | 1.45 | 1.30 |
| $4 \times 21 / 4 \times 21 / 4$ | 1/4 | CU3003A | 5A3008-5 | 1.60 | 1.45 | 1.30 | CU2103A | 5A3021-8 | 1.75 | 1.60 | 1.40 |
| $41 / 4 \times 21 / 8 \times 11 / 2$ | 1/4 | CU3016A | 5A3013-5 | 1.60 | 1.45 | 1.30 | CU2116A | 5A3024-2 | 1.75 | 1.60 | 1.40 |
| $5 \times 21 / 4 \times 21 / 4$ | $1 / 4$ | CU3004A | 5A3009-3 | 1.60 | 1.45 | 1.30 | CU2104A | 5A3022-6 | 1.90 | 1.70 | 1.50 |
| $5 \times 4 \times 3$ | 1/2 | CU3005A | 5A3010-1 | 1.75 | 1.60 | 1.40 | CU2105A | 5A333-0 | 2.40 | 2.15 | 1.90 |
| $51 / 4 \times 3 \times 21 / 8$ | $1 / 4$ | CU3006A | 5A3011-9 | 1.75 | 1.60 | 1.40 | CU2106A | 5A334-8 | 2.10 | 1.90 | 1.70 |
| $6 \times 5 \times 4$ | 3/4 | CU3007A | 5A271-2 | 2.40 | 2.15 | 1.90 | CU2107A | 5A335-5 | 3.00 | 2.70 | 2.40 |
| $7 \times 5 \times 3$ | $3 / 4$ | CU3008A | 5A272-0 | 3.00 | 2.70 | 2.40 | CU2108A | 5A336-3 | 3.40 | 3.05 | 2.70 |
| $8 \times 6 \times 31 / 2$ | 1 | CU3009A | 5A273-8 | 3.85 | 3.45 | 3.10 | CU2109A | 5A337-1 | 4.45 | 4.00 | 3.55 |
| $10 \times 2 \times 15 / 8$ | 1/2/4 | CU3013A | 5A277-9 | 2.35 | 2.10 | 1.90 3 | CU2113A | 5A282-9 | 2.50 | 2.25 | 2.00 |
| $10 \times 6 \times 31 / 2$ | $11 / 4$ | CU3010A | 5A274-6 | 4.20 | 3.80 | 3.35 | CU2110A | 5A279-5 | 4.85 | 4.35 | 3.90 |
| $12 \times 7 \times 4$ | 13/8 | CU3011A | 5A275-3 | 5.75 | 5.20 | 4.60 | CU2111A | 5A280-3 | 6.60 | . | . |
| $17 \times 5 \times 4$ | 21/4 | CU3012A | 5A276-1 | 5.75 | 5.20 | 4.6 |  |  |  |  |  |

## UTILITY TYPE CABINETS

Sturdy spot welded steel. Removable front and back covers for complete accessibility. Stocked in Hammertone gray only.

| Stock Bud |  | Size In. |  | Wt. | 1-49 | 50-99 | 100-149 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | H. | W. | D. | Lhs. | Each | Each | Each |
| 5A78-1 CU-883 | 4 |  | 2 | 3/4 | \$2.50 | \$2.25 | \$2.00 |
| 5A79-9 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 |
| 5A10-4 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 | 3.10 |

## CABINETS AND CHEMICALS



## BUD SLOPE

 ENCLOSURES

## BUD LINEAR ENCLOSURES

The one-piece cover can be easily removed for convenient access to interiors. No visible fasteners on panel area. Base is $1 / 8^{\prime \prime}$ aluminum; cover . 057 aluminum. Comes in a combination of black texture and smooth white enamel. Rubber feet furnished.

1-24 $\quad$ 25-49 $\quad 50-99$

Stock No.
Stock No. Bud No.
5A3094-5 RC-11100 $3^{1 / 4^{\prime \prime}} \mathrm{H} \times 5^{\prime \prime} \mathrm{W} \times 10^{\prime \prime} \mathrm{D}$ 5A3095-2 RC-11101 $8^{\prime \prime} \mathrm{H} . \times 12^{\prime \prime}$ W. X $10^{\prime \prime}$ D.

## 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, golt clubs, fishing rods, tools, blueprints, etc. Seals TV antennas photos, blueprints, errosion. Fast drying. Shpg. wt. 1 lb .


17A1316-0. \#1302-For Radio \& TV 16 Oz. Can 17A1317-8. \#1303-For Graphic Arts Your Choice

1-5 Each
$\$ 2.09$
6-11 Each ............................ \$1.79 12 Up Each
cleans without washing or
(2)Krylon Electric Motor Cleaner. Just spray on 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. 132716 Oz . Spray Can
1-5 Each..... \$1.99 6-11 Each
\$1.69 12 Up Each
$\$ 1.49$
NAVAL JHLLY
MAKES RUST DISAPPEAR

- No More Sandblasting!
No More
Wirebrushing
Times its Weight In Wust.
- No More

Scraping!

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: Removes gun blue and is ill depending upon thickness and condition of 'the rust.
17A1384-8. 8 oz. Introductory Bottle. Each. $\qquad$
17A1385-5. 2 lbs. Net Each.
. $\$ 3.95$

## GENERAL ELECTRIC <br> 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, sliding doors bathtub enclosures, etc. Lubricates almost any material. Won't melt, run or "gum up" from - $70^{\text {e }}$ to 400 f Highly effective rust and corrosion preventalive, Paintable faces to be painted. 6 oz .
17A1402-8. 6 Oz . Can Each
17A1432-5. 16 Oz. Can Each $\$ 3.19$
GENERAL ELECTRIC SILICONE SEAL
Super Clue. $100 \%$ rubber. Bonds securely to glass, ceramics, metal, wood, fabrics, masonry, painted surfaces, most plastics, and rubber. Permanent Caulik. Will not shrink, crack or dry stretch over $100 \%$ Originally developed for sealing space vehicles, Guaranteed 10 years to sealing space vehicies. Guaranced Return tube to perform as descric for refund or replacement if not satisfied.
Stock No. 3 Ounce Tubes Each 5 Each 17A1345-9 White Seal \$2.56 \$2.44 17A1342-6 Transparent Seal $\quad 2.56 \quad 2.44$ $\begin{array}{llll}17 A 1344-2 & \text { Black Seal } & 2.56 & 2.44 \\ 17 A 1341-8 & \text { Aluminum Seal } & 2.56 & 2.44\end{array}$ 17A1341-8 Aluminum Seal with standard 12 ounce cartridges for use with standard caulking gun.
17A1378-0 White Seal $\$ 4.99 \quad \$ 4.50$
17A1379-8 Transparent Seal $4.99 \quad 4.50$


Best enclosure we have seen for builders' projectsvery professional appearance. Heavy extruded alumi num. 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 $3-5 / 8 \times 2-3 / 4 \times 1-3 / 4^{\prime \prime} \mathrm{H}$. Shpg. Wt. 402 . 5A3043-2 Each
$\$ 2.99 \quad$ Each
\$2.69
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, black and white, Hi-Gain, nuvistors.
17A1427-5. 8 Oz . Spray Can
$\$ 1.69$
(2) B-A Tuner \& Control Cleaner $G$ Lubricant. Just spray funer 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.
17A1300-4. $6 \mathrm{Oz}, \quad \$ 1.09 \quad 17 \mathrm{Al301-2}$.16 Oz .................. $\$ 1.99$ (3) B-A Color Cleaner 6 Lubricant. Non-drift tuner cleaner developed for sensitive color tuners. Cleans and lubricates. Will not detune tuner-will not harm plastics.
 (4) B-A Super Freeze Aid. For Thermal Intermittent Components. Just spray on circuit, to locate intermittent component while circuit is in operation Freezes immediately and leaves no liquid residue. Saves valuable time.
17A1303-8. 6 Oz. Spray Can.. $\qquad$
(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 o FET's, on carpets, car seats, etc. Will not stain. Non-toxic, non-flammable. 17A1407-7. 16 Oz . Can.
$\$ 5.00$

(1) C-C Spra-Kleen. Just spray it on to clean and lubricate all electrical $17 \mathrm{~A} 1321-0.6 \mathrm{Oz}$. Spray Can...\$1.18 117A1323-6.16
3A in C-C Zero Mist. Locates trouble instantly, Spray electronic components in operation, cools instantly pin-pointing faulty components, cold solder and oxidized junctions, due to temperature variances. Saves valuable time 7A1322-8. CC8667. 16 Ox. Can............................... \$2.63 3 Audio-Video Magnetic Tape Head Cleaner. "Safe for all types of Recordng heads." Quickly removes dirt and oxide build-up; won't harm tape, tape coating or paint finish. Will not interfere with transmission and may be used on running tape. $6^{\prime \prime}$ spray extension is furnished with each can for pin-
17A1363-2. CC10-620. 16 Oz. Aerosol Can.
. $\$ 2.82$
(9) Slip-Stop. For Record Changers and Tape Recorder drives. Will restore the a Slip-Stop. For Record Changers and Tape Recorder drives. Will restore the
gripping surface of old and hardened phono drives and beits. Prevents slippage to insure uniform speed. Fast drying, will not harm rubber. 2 oz . bottle with felt applicator.
17A1304-6. Each
$\$ 1.19$

(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.

## 17A1441-6. 6 Oz. Spray Can

\$2.69
(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.
17A1440-8. 6 Oz. Spray Can
\$2.59
(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 sliding parts. Safe for plastics.
17A1442-4. 6 Oz. Spray Can

TECH
SPRAY


## TELEVISION SERVICE CHEMICALS


(1) 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.
$17 \mathrm{~A} 1436-6.12 \mathrm{Oz}$. Aerosol Can
\$2.69
(2) Blue Stuff for Tuners. Cleans continuously. Thick concentrated foam clings to contacts and cannot run off. Harmless to base metal contacts. For color, B G W, Hi-gain Nuvistors.
17A1390-5. 8 Oz. Spray Can
$\mathbf{\$ 2 . 5 9}$
(3) 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 Ox. Spray Can
(1) Blue Frost. Instant winter in a can. Colder and has a longer effect than other chilling sprays. Ultimate for troubleshooting intermittents.
17A1392-1.
$\$ 2.19$ 17A1393-9.
20 0 . Spray
Can.
$\$ 3.59$
(3) Rid Arc. Finest red insulating spray. Provides protection against arcing and corona discharge. Dries rapidly to tough permanent film.
17A1395-4. Spray
Can. $\qquad$ $\$ 1.852 \mathrm{Oz}$. Bottle.

(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 $-62^{\circ} \mathrm{F}$.
17A1431-7. 15 Oz. Can
(3) Instant Stripper. Safely and efficiently removes all types of flux deposits from electronic circuitry. Not harmful to nylon, teflon or polyethylene.
17A1434-1. 16 Oz. Spray Can
\$2.85
(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
(5) FD Instant Contact Cleaner. Lifts out microscopic dirt leaving absolutely no residue. Non-conductive, safe for use on 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
$\$ 1.85$
$\$ 2.85$
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, 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. Each . . . . . . . . . . . \$ 1.95
 Cyanoacrylate Cement with Vial of Solvent. Same excellent cement as above but with the only solvent specifically designed to break cement's bonds. 17A1433-3. Shpg. wt. 8 oz . Each ................................... $\$ 2.95$

## ELECTRONIC CHEMICALS \& LUBRICANTS


(1) C-C Contact Burnishing Kit. For servicing relays, switches, etc. Removes xide and corrosion from contact points without removing precious metal. Contains 2 oz. bottle contact cleaner and burnishing tool. $\qquad$ \$1.21 7A1324-4. G-C 9339. Each
$\qquad$ ontacts (2) CC-Relay-Kleen. Excellent for cleaning
\$2.08 17A1312-9. CC8682. 6 Oz. Spray Can.....

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 nonconductive materials. Brush applicator attached to cap. 1/2 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.
Print-Kote Soldering Flux. Non-corrosive liquid flux for easy soldering and repairing of printed circuits. Brush applicator on cap.
17A1373-1. CC-12-2. Each.................................................................... 83 Transistor $\mathbf{Z 5}$ silicone Compound. Maintains efficient heat transfer from 17A1308-7. CC 8101. 1 Oz. Tube.

## E.I.A. COLOR CODING KIT

Kit contains jar each of red, grey, white, black, brown, orange, purple, blue, green and yellow high quality fast drying lacque
brush and color code chart.
17A1347-5. Per Kit...... $\qquad$ \$4.75

## KNOB-PLASTIC REPAIR KIT

SETS ROCK-HARD IN 7 MINUTES
New fast-setting material repairs anything of plastic. Ideal for joining broken or new parts, creating new plastic to match or fill repairs as needed. Completely moldable in setting stage, conforms. to any shape. Once set, it may be sanded, sawed, drilled, tapped or polished. Contains two mixing ingredients plus color kit Shpg. wt. $1 / 2$ ib.
17A1346-7. Each
\$2.75

## GENERAL CEMENT "EPOX" CEMENT

Bond anything to anything. Provides super strength. Bonds to nuetal, ceramics, etc. Resis tant to water, solvent, heat, cold and fungus.
Has very good dielectric properties. Contains two Has very good dielectric properties. Contains two mixing ingredients in $11 / 2 \mathrm{oz}$. tubes.
17A1343-4
CC346. Kit.

## \$2.48



## SAVE ON CEMENTS AND CHEMICALS

SERVICE SOLVENT-Loosens old cement. Also thinner for cement. CC31 7A1328-5 - 2 Oz $\qquad$ $\$ 2.15$ LUCITE CEMENT-For lucite and other acrylic materials. CC40-2 Each ....... 76 17A1331-9-2 Oz. Jar, Each

Q-DOPE (COIL DOPE) - Coats and eals coil windings, etc. Low RF loss deal for Hi -Freg 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 with brush 17A1334-3. G-C $43-8.8 \mathrm{Oz}$. $\$ 1.87$
ANTI-CORONA LACQUER - Has high dielectric strength to prevent corona in TV high voltage. CC 47-2.
17A1336-8-2 Oz. Bottle. Ea... \$1.05 (3) CEMENT LAB KIT
different ${ }^{2}$ oz. bottles cement.


LUBRICATES, PENETRATES, STOPS RUST OUTDOORS

## 2 YEARS OR MORE

DRIES ELECTRICAL SYSTEMS


## 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 irs superio wetts mable non-toxic, and does not react chemically with other mable, non-toxic, and does not react chemically with other 17A1400-2-7 Oz, Aerosol Can Each $17 \mathrm{~A} 1401-0-16 \mathrm{Oz}$. Aerosol Can Each

## \$2 19 Lots

\$2.19 Each.
\$3.98 Each
$\$ 1.46$
$\$ 2.75$

## INSTANT COLD GALVANIZE

Equals hot-dip galvanizing at $1 / 2$ 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
$\$ 3.98$ Each..
Each $\qquad$ $\$ 2.80$
 FRONT PANEL

Filled with high grade lubricating oil. Telescoping spout permits accessibility to difficult places-requiring lubrication.
1-Remove control knob. 2-Thread Cozinta on shaft bushing. 3-Connect spray can to Gozinta and spray.
17A1398-8 Releases one drop at a time. 17A1354-1 Each ...... \$1.38 17A1355-8. Oil Refill Cartridge 77 Each

## WD-40

PENETRATES, LIGHTLY LUBRICATES, PREVENTS RUST AND CORROSION, STOPS SQUEAKS

WD-40 is formulated for ultra-high surface attraction to metal. It is able to drive under surface moisture and establishes a protective barrier between moisture and parent metal. Its ultra-high surface attraction results in a super penetrating action which loosens rust-to-metal bonds and frees stuck, frozen, or rusted metal parts, bolts, connectors, operating controls, and linkages. An excellent lubricant, clean to use, and leaves no messy residue normally associated with old fashioned oils 17A1428-3 3 Oz . Aerosol Can
$\$ 1.25$
17A1429-1 12 Oz. Aerosol Can
\$2.15

## JBT 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$125 \mathrm{MAC}, 31 \mathrm{~Hz}$. Shpg. Wt. $1 / 4 /$ los.
(1) Model 31 ECW-5. Rectangular modern design. Clear
 sels automatically. $31 / 2 \times 3$ H. Mounts in $23 / 4$. dia.
hole. h5A6158-9. Each. $\qquad$ $\$ 27.00$
Model 13-239. Half Bexel Adaptor for mounting meter behind panel. Black metol frame and hdwe. for picture window effect. Outlines $3.83 \times 2.27^{\prime \prime}$ dial area of 3 IECW5 Meter.
No. 35 A6221-5.Each.
\$3.75
(2) Model 31-EX. Registers to $9,999.9$ hours total, then resets to zero automatically. In round $31 / 2^{\prime \prime}$ black molded case. Mounts in $23 / 4^{\prime \prime}$ hole. No. 35A6161-3 Each Each..
\$22.75

## WIDE-NUMERAL ELAPSED TIME METERS

(3) Model 31-EXW 6 Digit.Easy to read wide numerals register to $99,999.9$ hours. Tenths are red on white, units white 3 on black. Resets to zero automatically. Black molded case $31 / 2$. Mounts in $23 / 4^{\prime \prime}$ hole.
$\$ 23.25$

## JBT FREQUENCY METERS

(1) Model 34FC. 9 Reeds $56-64 \mathrm{~Hz}, 100$ to 130 Volts, Accuracy $\pm .3 \%$. Rectangular modern design. Clear plastic front. Power Consumption .9 watts.
Mounts in $23 / 4^{\prime \prime}$ Dia. hole $31 / 2^{\prime \prime} \times 3^{\prime \prime} \mathrm{H}$.
No. 35A3058-4Each
$\$ 40.50$
Model 13-239. Half bezel adaptor for mounting meter behind panel. Black metal frame and hardware for picture window effect. Outlines $3.83 \times 2.27^{\prime \prime}$ dial area of 34FG meter.
\$3.75
(3) Model 34FX. 9 Reeds $56-64 \mathrm{~Hz}$. Accuracy $\pm .3 \% .100$ to 130 volts. 140 ohms per volt. 9 watt power consumption. $31 / 2^{\prime \prime}$ molded case, mounts in $23 / 4^{\prime \prime}$ hole.
No.35A6163-9.Each
\$37.75
(5) Model 31FX. 5 Reeds $58-62 \mathrm{~Hz}, 100-130$ volts. Accuracy $\pm .3 \%$ for measuring frequency of power source. Molded bakelite case $31 / 2^{\prime \prime}$. Mounts in $23 / 4^{\prime \prime}$ hole. $\$ 32.75$
$35 A 6164-7$. Each.................................... $\$ 32.7$


4


SHURITE PANEL METERS


MODEL 850


MODEL 750

Calibrated for non-magnetic panels. Accurate within $5 \%$. White, metal scale, clear plastic face. DC meters polarized-vane solenoid type: $A C$ meters doubte vane reputsion type, jeweled bearings. Shpg. wt. 80 z. Model 850. Front $217 / 32^{-} \mathrm{W} \times 25 / 16$ H. Extends $17 / 16^{\prime \prime}$ behind panel. 2 5/32 dia. hole. all 850 Series have zero screw adjust.

## MODEL 850 21/4" RECTANGULAR METERS

| Range | Stk. No. | Mfr. No . | Each | Range | Stk. No. | Mfo |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 0-1 \\ & 0-3 \\ & 0-5 \\ & 0 .-10 \\ & 0.25 \\ & 0.50 \\ & 0.100 \\ & 0.150 \\ & 0.300 \\ & 0.500 \end{aligned}$ |  | $\begin{aligned} & 83362 \\ & 83012 \\ & 83022 \\ & 83032 \\ & 83052 \\ & 83062 \\ & 83072 \\ & 83082 \\ & 830802 \\ & 83122 \end{aligned}$ | . 95 | $0-3$ | 35A6023-5 |  |  |
|  |  |  |  |  |  | 8810272 | 4.40 |
|  |  |  | 4.35 | 0-10 | 35A6025-0 | 81072 | 4.50 |
|  |  |  | 4.25 | 0-15 | 35A6026-8 | 81082 | 4.50 |
|  |  |  | 4.25 | 0-25 | 35A6027-6 | 81092 | 4.60 |
|  |  |  | 4.40 | ${ }_{0}^{0.50} 0$ | 35A6028-4 $35 A 6029-2$ | 81222 81152 | 4.60 4.80 |
|  |  |  | 4.40 |  |  |  |  |
|  |  |  | 4.50 | $\begin{aligned} & 0-10 \\ & 0-25 \\ & 0-150 \\ & 0-300 \end{aligned}$ | $\begin{aligned} & \text { AC VOLTS } \\ & \text { 35A6030-0 } \\ & \text { 35A6031-8 } \\ & \text { 35A6033.-4 } \\ & 35 A 6034-2 \end{aligned}$ |  |  |
|  |  |  | 4.50 |  |  | $\begin{aligned} & 84032 \\ & 84122 \\ & 84062 \\ & 84072 \end{aligned}$ | $\begin{aligned} & 5.65 \\ & 5.75 \\ & 5.90 \\ & 6.10 \end{aligned}$ |
|  | $\begin{aligned} & \text { DC AMPS } \\ & \text { 35A6014-4 } \\ & 35 A 6015-1 \\ & 35 A 6016-9 \\ & 35 A 6017-7 \\ & 35 A 6018-5 \\ & 35 A 6022-7 \end{aligned}$ |  | $\begin{aligned} & 4.40 \\ & 4.40 \\ & 4.50 \\ & 4.70 \\ & 4.70 \\ & 4.80 \end{aligned}$ |  |  |  |  |
| $\begin{aligned} & 0-5 \\ & 0-10 \\ & 0-15 \\ & 0-25 \\ & 0-50 \\ & 20-0-20 \end{aligned}$ |  | $\begin{aligned} & 82032 \\ & 82052 \\ & 82062 \\ & 82072 \\ & 82082 \\ & 82142 \end{aligned}$ |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 85032 | 5.50 |
|  |  |  |  | 0-10 | 35A6037-5 | 85042 | 5.50 |
|  |  |  |  |  | 3546938.3 | 85082 | 5.50 |
|  |  |  |  | 0.30 | 35A6039-1 | 85052 | 5.65 |

MODEL 750 3 $1 / 2^{\prime \prime}$ RECTANGULAR METERS

| Range | Stock No. | $\begin{gathered} \mathrm{Mig} \\ \mathrm{No} . \end{gathered}$ | Each | Range | Stock No. | $\begin{gathered} \mathrm{Mfg} \\ \mathrm{No} . \end{gathered}$ | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-15 DC Volts | 35A6204-1 | 7108 | \$6.60 | 0-1 DC MA | 35A6210-8 | 7336 | \$6.35 |
|  |  | 7109 |  |  | 35A6212-4 | 7406 | 7.00 |
| $0-50$ DC Volts | 35A6206-6 | 7122 | 6.60 | 0-15 AC Amps | 35A6213-2 | 7508 | 7.35 |
| 0-10 DC Amps | $35 A 6207-4$ $35 A 6208-2$ | 7115 | 6.50 | 0-50 AC Amps $0-10$ ACMA | $35 A 6214-0$ $35 A 6215-7$ | 7506 | 7.05 |
| 0-50 DC Amps | 35A6209-0 | 7208 | 6.60 | 0-10 AC MA | 35A6215-7 |  | 7.05 |

## SIMPSON 311/2" PANEL METERS

Modern "Wide-Vue" $31 / 2$ " Meter Models 1327, 1347, 1357 with 3.14 " scale length. One piece molded clear plastic wrap around cover. Black case $31 / 4$ X $31 / 4^{\prime \prime}$. AlI 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 $23 / 4^{\prime \prime}$ hole. A verage shpg. wt. 12 ozs.


DC MILLIAMMETER

| $\begin{aligned} & \text { Range } \\ & \text { MA } \end{aligned}$ | Model No. | Stock No. | Net Each |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & 0-1 \\ & 0-10 \\ & 0.50 \end{aligned}$ | $\begin{array}{r} 1327 \\ 1327 \\ 1327 \end{array}$ | $\begin{aligned} & \text { 35A6072-2 } \\ & \text { 35A6074-8 } \\ & \text { 35A6076-3 } \end{aligned}$ | $\begin{array}{r} \$ 25.20 \\ 25.20 \\ 26.10 \end{array}$ |
|  | DC MICROAMMETERS |  |  |
| UA | Model | Stk. No. | Each |
| $\begin{aligned} & \hline 0-50 \\ & 0-100 \\ & 0-200 \\ & 0-500 \\ & 500-0-500 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1327 \\ & 1327 \\ & 1327 \\ & 1327 \\ & 1327 \\ & \hline \end{aligned}$ | $\begin{aligned} & 35 A 6082-1 \\ & 35 A 6083-9 \\ & 35 A 6084-7 \\ & 35 A 6085-4 \\ & \text { 35A6086-2 } \\ & \hline \end{aligned}$ | $\begin{array}{r} \$ 32.10 \\ 29.40 \\ 27.00 \\ 26.55 \\ 25.65 \\ \hline \end{array}$ |
|  | DC AMMETERS |  |  |
| Amps | Model | Stk. No. | Each |
| $\begin{aligned} & 0.1 \\ & 0.5 \\ & 0-10 \\ & 0-25 \\ & 0-50 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1327 \\ & 1327 \\ & 1327 \\ & 1327 \\ & 1327 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 35A6087-0 } \\ & \text { 35A6089-6 } \\ & \text { 35A6090-4 } \\ & \text { 35A601-2 } \\ & \text { 35A6092-0 } \end{aligned}$ | $\begin{array}{r} \$ 26.10 \\ 26.10 \\ 26.10 \\ 26.10 \\ 26.10 \end{array}$ |

( 1000 OPV ; 500 V VOLTMETERS 2000 OPV)

| $\begin{aligned} & \text { Range } \\ & \text { Volts } \end{aligned}$ | Model No. | Stock No. | Net Each |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & 0-10 \\ & 0-25 \\ & \mathbf{- 2 5 0} \\ & 0-1.10 \\ & 0.300 \end{aligned}$ | $\begin{aligned} & 1327 \\ & 1327 \\ & 1327 \\ & 1327 \\ & 1327 \end{aligned}$ | $\begin{aligned} & 35 A 6094-6 \\ & 35 A 6095-3 \\ & 35 A 6097-9 \\ & 35 A 6098-7 \\ & 35 A 6099-5 \end{aligned}$ | $\begin{array}{r} \$ 27.00 \\ 27.00 \\ 27.00 \\ 27.00 \\ 27.00 \end{array}$ |

## AC VOLTMETERS

|  |  |  |  |
| :--- | :--- | :--- | ---: |
| 0.15 | 1357 | 35A6103-5 | $\$ 24.75$ |
| 0.150 | 1357 | $35 A 6105-0$ | 26.55 |
| 0.300 | 1357 | 35A6106-8 | $\mathbf{2 6 . 5 5}$ |
| AC AMMETERS |  |  |  |


|  |  |  |  |
| :--- | :--- | :--- | :--- |
| $0-1 A$. | 1357 | $35 A 6107-6$ | $\$ 23.70$ |
| $0-3 A$ | 1357 | $35 A 6108-4$ | 23.70 |
| $0-10 A$ | 1357 | $35 A 6110-0$ | 23.70 |
| $0-25 A$. | 1357 | $35 A 6111-8$ | 24.45 |
| $0-50 A$. | 1357 | $35 A 6112-6$ | 24.45 |

## SIMPSON VOLUME LEVEL INDICATORS

$31 / 2$ " VU Meters. Self shielding meter movement, reference level 1 milliwatt, 600 ohm line. Has " $A$ " scale for monitoring.
35A6184-5.
35A6184-5. เ.Model 1347. Each
$\$ 41.85$

## SIMPSON $41 / 2^{\prime \prime}$ PANEL METERS

4 $1 / 2^{\prime \prime}$ Rectangular Model 59. Large, accurate, open face instruments with
long easy-t0-read scale. Black bakelite case $4.66^{\prime \prime}$ W., $4.20^{\prime \prime}$ H. Mount in
$2 \%$, hole. Scale length $3.9^{\circ}$. Calibrated $\pm 2 \%$. Average shpg. wt. 1 lb.


| Range V. Model | Stk.No. | Each | Range V. | Model | Stk. No. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-150 59 | 35A6135-7 | \$28.20 | 0-300 | 59 | 35A6136-5 | \$28.20 |
| AC AMMETERS |  |  |  |  |  |  |


| Range A. | Model | Stk. No. | Each | Range A. Model | Stk.No. | Each |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| $0-1$ | 59 | $35 A 6137-3$ | $\$ 25.05$ | $0-25$ | 59 | $35 A 6140-7$ | $\$ 26.10$ |
| $0-5$ | 59 | $35 A 138-1$ | 25.05 | $0-50$ | 59 | $35 A 6141-5$ | 26.10 |
| $0-10$ | 59 | $35 A 6139-9$ | 25.05 |  |  |  |  |

## QUANTITY PRICES ON SIMPSON PANEL METERS: 10 or more deduct $10 \%$.

## SHURITE BATTERY TESTERS

No. 4128 BATTERY TESTER. Has two scales, $0-50$ volts and $0-2$ volts. $21 / 4^{\prime \prime}$ diameter, $5 / 8^{\prime \prime}$ thick, bright nickel finished. Shpg. wt. 8 oz . 35A3002-2. Net Each
\$5.99
No. 4123 FOR ALL RADIO AND HEARING AID BATTERIES from 1.5 to 45 volts. Scale has green zones to indicate satisfactory condition of batteries in these voltages 1.5, 15, $22.5,30,33,45$. Tests are made under normal operating load for each battery assuring a true indication of battery condition. Shpg. wt. 8 oz .
\$5.99
 35A3003-0.. Net Each.

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 . 35A3004-8. Net Each
$\$ 5.99$


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. $2^{\prime \prime}$ meter scale with colored battery condition indicators. Places a minimum load of 50 Ma . for accurate readings. Compact high impact case measures $21 / 4$ " $\times 35 / 8^{\prime \prime} \times 11 / 8^{\prime \prime}$. Includes test leads.
35A3123-6
Model 23-154 Each
$\$ 10.95$
MURA THERMY THERMOTESTER INSTANT TEMPERATURE READINGS
Reads out in seconds upon physical contact. Accurate, durable. Use with VTVM or multiing to Fahrenheit or Centigrade degrees on ing to Fahrenheit or Centigrade degrees on cluded. $42^{\prime \prime}$ leads with phone tips. Temperacluded. $42^{\prime \prime}$ leads with phone tips. Tempera-
ture range - $50^{\circ}$ to $200^{\circ} \mathrm{C}$ or $60^{\circ} \mathrm{F}$, to $400^{\circ} \mathrm{F}$ F $-50^{\circ}$ to $200^{\circ} \mathrm{C}$ or $-60^{\circ} \mathrm{F}$. to 35A3064-2. Model TH-2.
Each
$\$ 16.95$

## Simpson TESTERS AND METERS

 360-2
PORTABLE DIGITAL VOM
$31 / 2$ digit, non-blinking, auto-polarity $43^{\prime \prime}$ LED display, 29 popu lar ranges includina 2 "low-pow er" 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.
5 DC voltage ranges 200 MV , $2 \mathrm{~V}, 20 \mathrm{~V}, 200 \mathrm{~V}, 1000 \mathrm{~V}$. Accu-
racy $+25 \%$ of reading + 1 digit. 5 AC voltage ranges $200 \mathrm{MV}, 2 \mathrm{~V}, 20$ $\mathrm{V}, 200 \mathrm{~V}, 600 \mathrm{~V}$. Accuracy $\pm .5 \%$ of reading +1 digit. 6 resistance ranges $\cdot 200 \mathrm{ohm},{ }^{2} 2 \mathrm{~K}$ ohm, 20 K ohm, 200 K ohm, $2 \mathrm{meg}, 20 \mathrm{meg}$. are low power Accuracy $\pm .5 \%$ of reading +1 digit. 7 DC current ranges $20 \mathrm{UA}, 200 \mathrm{UA}$ $2 \mathrm{MA}, 20 \mathrm{MA}, 200 \mathrm{MA}, 2 \mathrm{~A}, 10 \mathrm{~A}$. Accurancy $\pm .5 \%$ of reading +1 digit. 6 AC current ranges $200 \mathrm{UA}, 2 \mathrm{MA}, 20 \mathrm{MA}, 200 \mathrm{MA}, 2 \mathrm{~A}, 10 \mathrm{~A}$. Accuracy $\pm$ $1.0 \%$ of reading +1 digit.
8 hours operating time on fully charged batteries. Operates on 117 VAC $\pm$ 8 hours operating time on fully charged batteries. Opells (not supplied). With leads and AC line cord. $7.2^{\prime \prime} \times 5.4^{\prime \prime} \times 3.75^{\prime \prime} \mathrm{D}$. (not including controls). Shpg. wt. 5 Ibs.

## 35A3150-9. Model 360-2. Each

$\$ 257.00$
35A8074-6. 00815 Carrying Case. Each
$\$ 23.90$
21A194-6. CH1.8. Rechargeable Nickel-Cadmium Batteries
(4 required). Each


## SIMPSON 313-3 SOLID STATE VOM

Operates for over 300 hours on a single set of batteries. Battery condition checked instantly. Selfshielding movement is shockproof and overload protected. All voltage range inputs are fully protected, too. Field Effect Transistor input, $7^{\prime \prime}$ Scale. Voltage Ranges: $\mathrm{DC}: ~ 0-0.3,1,3,10,30,100,300$, 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, RXIK, RX10K, RX100K, RXIM. Frequency response: $\pm 0.5 \mathrm{db}$ from 20 Hz to RX M . Frequency response: $\pm 0.5 \mathrm{db}$ from 20 Hz to
100 K Hz on $0.0 .3,1,3$ volt ranges; $\pm 0.5 \mathrm{db}$ from 100 K Hz on $0-0.3,1,3$ volt ranges; $\pm 0.5 \mathrm{db}$ from
20 Hz to 20 K Hz on $0-10,30,100$ volt ranges. Accuracy: $\mathrm{DC} \pm 2 \%$ of full scale; $A C \pm 3 \%$ of full scale. Re-
sistance: $\pm 3^{\circ}$ of arc. Size: $73 / 4^{\prime \prime}$ W. X $63 / /^{\prime \prime}$ H. X $4-5 / 8^{\prime \prime}$ D. Shpg. wt. 6 lbs .
Complete with batteries, DC/AC probe and operator's manual.
35A3020-4. Model 313-3. Each.
$\$ 162.00$
35A3021-2. 00577 Carrying Case for above. Vinyl with lead storage space. Net Each
35A8024-1. 00191 RF $\mathbf{~ P r o ̛ O B E ~}$

| $\$ 14.45$ |
| :--- |

35A8025-8. 00192 Hi Voltage Probe
$\$ 23.10$

## SIMPSON 160 HANDI-VOM <br> FULL FEATURED . . . YET PALM SIZED!



All the fime saving conveniences and the sensitivity of a fullsized VOM, yet only $4-9 / 16 \times 3-5 / 16 \times 13 / 4^{\prime \prime}$ and weighs only 12 oz. Features self-shielding taut band movement, varistor overload protection to prevent burnout. Accuracy $\pm 2 \%$ FS DC, $\pm 3 \%$ 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, DC microamps 0 50, DC MA 0-1 10, 100, 250,500. Resistance RXI, RX10, RX100, RX1000,'RX10K 30 ohm center scale. DB -20 to +50 in 4 ranges. Shpg. wt. 1 lb . With batteries, leads and instructions. 35A664-2. Model 160. Net Each
$\$ 68.00$ 35A665-9. 2225 Vinyl Carrying Case. Shpg. wt. 1 lib. Each
$\$ 13.40$

## 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: $0.5,10,25,50,100,250 \mathrm{AC}$ 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 $0-300 \mathrm{AC}$ amperes). Rugged construction, and easy to use. Wt. 1 lb . 35A3019-6 Model 150.
Each
Carrying Case for amp. clamp
35A8023-3. 00548. Each
170
$\$ 31.00$
$\$ 9.70$

## 260 SERIES 6 XL VOLT-OHM-MILLIAMETERS



Features 33 ranges with extra voltage, current, resistance and low-power ohms functions. Extra rugged - shock and drop resistant construction with cus-tom-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. Each
$\$ 90.00$
Overload-Protected Meter. Same as above with reset pushbutton. Releases when overload exists. Will not reset until overload condition is eliminated 35A3191-3. Model 260-6XLP. Each
$\$ 125.00$

## WORLD FAMOUS 260, 261, 270 VOLT-OHM-MILLIAMETERS TAUT BAND MOVEMENT RUGGED AND DEPENDABLE MODEL 260-6

High sensitivity ( $\mathbf{2 0}, \mathbf{0 0 0}$ o.p.v. DC Volts; $\mathbf{5 0 0 0}$ 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, $0-1,10,100,500 \mathrm{M} . \mathrm{AL}^{\prime} ; 0-10 \mathrm{Amps} ;{ }^{4} \mathrm{DB}$ ranges from -20 to +50 db ; Resistance readings $1 / \mathrm{s}$ ohm to $20 \mathrm{meg} .5^{\prime \prime}$ 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 fuil scale ledranges; $3 \%$ full scale AC. With combination aligator clip and probe
tip test leads, batteries and manual. $51 / 4 \times 7 \times 31 / \mathrm{s}^{\prime \prime}$. Wt. 5 lbs . 35A60-3. Model 260-6. Each
.$\$ 77.00$ 35B61-1. Model 260-6M. With mirrored scale, knife edge pointer . $\$ 80.00$ 35B51-2. Model 260-6RT. In protective roll top case. Wt. $9 \mathrm{lbs} . . . \$ \mathbf{8 5 . 5 0}$ '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
$\$ 116.50$
HIGH ACCURACY MODEL 261-2
All of the features of the $260-6 \mathrm{M}$ plus special calibration circuits and components for outstanding accuracy. Accuracy $1.5 \%$ full scale most DC ranges, 3\% full scale AC. Wt. 5 lbs.
35B50-4. Model 261-2. Net Each
$\$ 87.00$

## MODEL 270-4 VOLT-OHM-MILLIAMETER

The Extra Quality Laboratory Instrument featuring: - Greater accuracy, special calibration circuit for greater accuracy, overload protected © DC accuracy $11 / 4 \%$ 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 va to 10 amps in 6 ranges. - DC resistance from 0 2000 ( 12 ohms center) to 20 megohms in 3 ranges. Black molded case $2000(12$ ohms center)
$51 / 4 \times 7 \times 31 / \mathbf{n}^{\prime \prime}$. Wt. $51 / 2 \mathrm{lbs}$.
35A41-3. Model 270-4 Net Each
$\$ 96.50$
CARRYING CASE FOR 260-270
35A165-0. Model 00805. Vinyt. Wt. 1 lb. Each
$\$ 21.50$


## tow power orms probe <br> impson

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: $2-11 / 2$ volt "N" cells (supplied). Size $81 / 2^{\prime \prime} \mathrm{X}^{3 / 4}$ ". Shpg. wt. 1 lb. Complete with leads and instructions.
No. 35A8084-5. 00735. Each.
$\$ 30.95$
Replacement Test Leads for Simpson Meters 260, 260-6XL, 270 and 360
No. 35A8085-2. 00115. Each
5KV HICH VOLTAGE PROBE

5000 volt. AC or DC safety probe for use with 260,261 , and 270 Multimeters. | 35A8057-1.. 00505 AC 5 KV Safety Probe. Each..........................................50 |
| :--- |
| $\mathbf{5} .50$ |
| $35 A 8056-3.00506 \mathrm{DC} 5 \mathrm{KV}$ Safety Probe. Each............. | 35A8056-3.. 00506 DC 5KV Safety Probe. Each..

# 川TEST EQUIPMENT 

## TRIPLETT MODEL 6OV 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 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: $0-3,10,30,100,300,1000(5000$ ohm per volt). Ohms ranges: $0-1 \mathrm{~K}, 10 \mathrm{~K}, 100 \mathrm{~K}, 1 \mathrm{M}, 10 \mathrm{M}, \mathrm{DC}$ milliamps: $0-.1,10$, 100,1000 . Decibels: -20 db to +52 db . Batteries - one 9 V . and one 1.5 V . " D " cell. Complete with one year warranty, $48^{\prime \prime}$ safety test leads, insulated alligator clips, batteries, spare $1 / 8 A$ and 1 A fuses, and manual. Size: $51 / 4 \times 71 / 4 \times 31 / 4$ ". Shpg. wt. 3 lbs.
35A3192-1. Model 60 Type 2 Each
$\$ 96.00$


## III <br> 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
AC Volts: $0-.01-.03-1-3-1-3-10-30-100-300-1000$
Ohms: $0.1 \mathrm{~K}-10 \mathrm{~K}, 100 \mathrm{~K}, 1 \mathrm{meg}, 10 \mathrm{meg}, 100 \mathrm{meg}, 1000 \mathrm{meg}, 10$ 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 $\pm 2 \%$ full scale on DC Volts and $\pm 3 \%$ on AC volts $5^{\prime \prime}$ meter. Uses 10 AA penlight cells (included). With $48^{\prime \prime}$ leads, clips, and instructions. Size 3-3/16 $\times 51 / 8 \times 61 / 2$
Shpg. wt. 5 lbs.
35A3011-3. 601 Type 2 Solid State VOM. Net Each
$\$ 205.00$
35A8026-6. 79-270. Hi-Voltage Probe. Each
$\$ 36.20$
$\$ 13.10$
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

Proven dependability over a long period of time 20,000 ohm per volt sensitivity DC and 5000 ohms AC. Accuracy $2 \%$ DC and $3 \% A C$. Voltage ranges $0-3-12-60$. cy $2 \%$ DC and $3 \%$ AC. Voltage ranges
$300-1200-6000$. Ohms $0-1000-10,000$. Megs 0.1 $\begin{aligned} & \text { 300. 1200 - } 6000 \text {. Ohms } 0-1000 \text { - } 10 \text { microamps } 0,60, ~ D C ~ m i l l i a m p s ~\end{aligned} \cdot-1.2 \cdot 12$. 120 at 250 millivolts. DC amperes $0-12$. DB -20 to +51 . Output volts $0-3-12-60-300$. Wt. 5 lbs .
Size $3-11 / 32 \times 51 / 2 \times 71 / 2$
35A170-0. Model 630 Type 3
Complete with leads. Each
$\$ 78.00$

## 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 $11 / 2 \%$ DC and $3 \%$ AC. Ranges: DC volts, 0-.6-3-12-60-300-1200. $3 \%$ AC. Ranges: DC volts, $0-6-3-12-60-300-1200$.
AC volts, $0-3-12-60-300-1200$. Ohms, 0-1K-10K-100KAC volts, $0-3-12-60-300-1200$. Ohms, $0-1 \mathrm{~K}-10 \mathrm{~K}-100 \mathrm{KV}$,
$1 \mathrm{M}-10 \mathrm{M}-100 \mathrm{M}$. DC milliamps, $0.6-60-600$ at 150 mV , $0-1$.2-12-120-1200 at 300 mV . DC amps $0-6$ at 150 $\mathrm{mV}, 0-12$ at 300 mV . Decibels -26 to +51 (" O " DB at 1 mW on 600 ohm line.) Output volts AC, 0-3-12-60300 ( 10,000 0.P.V.) $0-1.5-6-30-150$ (20,000 O.P.V.). Size $51 / 2 \times 3-11 / 32 \times 71 / 2^{\prime \prime}$. Shpg. wt. 5 lbs .
No. 35A3175-6.
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. Erch 1.............. $\$ 21.10$
35 A8010-0. T79-127. Replacement Leads for all 630 series. Each $\$ 4.70$ 35A8010-0. T79-127. Replacement Leads for all 630 series. Each $\$ 4.70$

## WORLD'S MOST POPULAR MINIATURE MULTIMETERS



- Handsize.
- Weighs only 14 oz .
- One selector switch.
- Unbreakable plastic.
- Provision for clamp-on ammeter.


10 Clampon Adaptor

## 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: $0-3$, $1.2,6,30,120,600$ ot 10 megohms. Five $A C$ volt ranges: $0-3,12,60,300,600$ at 5,000 ohms per volt. Four resistance ranges: $0-5 \mathrm{~K}, 500 \mathrm{~K}, 50$ Megohms, 5,000 Megohms, 50 ohms center scale. Two DC current ranges: 0 -.12, 1.2 milliamperes at $300 \mathrm{mV} .23 / 4 \times 41 / 4 \times 1-5 / 16^{\prime \prime}$. With $42^{\prime \prime}$ leads and batteries.
35A3057-6. Wt. 14 oz . Each
$\$ 88.00$

## MODEL 310 TYPE 3 POCKET SIZE V.O.M.

Only $23 / 4 /^{\prime \prime} \times 41 / 4^{\prime \prime} \times 1-5 / 16^{\prime \prime}$. 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 $20 \mathrm{~K} .-200 \mathrm{~K}$. Megohms 0 -2 and $0-20$. Accuracy $3 \%$ DC, $4 \%$ AC. Has $42^{\prime \prime}$ test leads. Complete with test leads and battery. Wt. 14 oz .
35A352-4. Net Each
$\$ 51.00$
35A353-2. Model 369 Carrying Case for 310 Meter. Each
$\$ 6.10$

## ACCESSORIES FOR 310 FET AND 310

Model 10 Clamp-on Adaptor. Adapts Model 310 or 310 FET for checking AC line loads up to 300 amps without breaking circuit or interrupting work. 35A100-7. Complete ready to use. Each
$\$ 24.00$
35A101-5. Model 101 provides line separation and increases ammeter sensitivi-

(1) BUZIT TRANSISTORIZED SIGNAL TRACER

No clips or wires. Used for trouble-shooting AF circuits. IF circuits, RF circuits, continuity Checks.
speakers. etc. EXcellent for transistor radios. Uses speakers. etc. Excellent for transis
"AA" cell battery. Shpg. wt. 8 ozs.
35A3010-5. Workman BZ1A. Each.
$\$ 10.95$
21A327-2. Battery for above. Each
..... $30^{\circ}$
(2) CHEK-IT ELECTRICAL CIRCUIT TESTER Battery operated. Tests with power off. Tests continuity, fuses, switches, buzzers, push-buttons, chimes, appliances, motors, auto ignition and voltage regulators, etc. Less battery. Wt. 8 ozs.
35 A303 1-1. Workman BZ5A. Each
ozs.
ach
Each.
$\$ 3.39$
21A327-2. Battery for above. Each
[2]

## EICO PSI-1 SOLID-STATE SIGNAL INJECTOR PROBE

 Just press the button, the PSI-1's transistoroscillator emits a strong harmonics rich 1 Khz oscillator emits a strong harmonics rich 1 Khz . signal to check audio, IF and RF circuits. (not included) Shipping wt 8 AAA batteries 35A8060-5. Eico PSI-1K Kit. Each \$6.95 35A8061-3.
Eico PSI-1 Factory Wired. Each \$10.95
21A326-4. Battery for above. Each .. $30^{\circ}$
POMONA 42 KV TEST PROBE WITH BUILT-IN METER

## 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 $143 / 4$
Specifications: Range: 42,000 volts DC. Sensitivity: 20,000 ohms/volt ( 50 va ) movement. Accuracy: $\pm 2 \%$ full scale. Multiplier Resistance: 720 megohm $\pm 2 \%$. Material: Handle-high impact thermo plastic. Probe-high impact polystyrene. length $14^{3 / 4} 4^{\prime \prime}$. Shpg. wt. $81 / 4$ 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. $31 / 2 \mathrm{dig}$ it readout with 15 megohm input minimizes 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: $D C$ volts: 0 to $\pm$ 2000 V . in 5 ranges. ( 200 mV autorange only). Accuracy: 200 mV scale, $.1 \% \pm 3$ digits. Other ranges $.1 \% \pm$ digit. AC volts: 0 to 1000 volts in 5 ranges ( 200 mV auto-range only). Accuracy: 200 mV scale, $.5 \% \pm 3$ digits. Other ranges $.5 \% \pm 2$ digits. DC/AC currents: 0 to 200 UA and 0 to 2000 mA in 4 ranges. DC accuracy. $3 \% \pm 2$ digits, AC accura$\mathrm{cy} 1 \% \pm 2$ digits. Low power resistance 0 to 2000 K ohm in 6 ranges. Accuracy
$2 \% \pm 3$ digits. Max. voltage at leads 200 mV . High power resistance 0 to 20 $.2 \% \pm 3$ digits. Max. voltage at leads 200 mV . High power resistance 0 to 20 meg. in 5 ranges. Accuracy $.2 \% \pm 2$ digits. Max, voltage at leads 2 V .1000 volt overload protection on all ranges except 2000 volts on DCV. Has fuse protection to. For $105-130 \mathrm{~V} 50-60 \mathrm{~Hz}$, 7 watts. Size: $51 / 2^{\prime \prime} \times 7-7 / 8^{\prime \prime} \times 9^{\prime \prime}$. Shpg. wt. 8.5 lbs.
35A3203-6. Model DVM38. Each
\$348.00
35A8062-1. HP200 H.V. probe multiplies all ranges $\dot{x} 100$ up to 50 KV Each
$\$ 25.00$


## DVM 32 PORTABLE L-E-D DIGITAL MULTIMETER

$.5 \%$ DC volts accuracy makes it up to 30 times more accurate than conventional $D^{\prime}$ Arsonval meters on critical low level solid state bias measurements. $31 / 2$ digit readout, automatic polarity, decimal, and overrange. DC volts: 0 to $\pm 2,20$, $200,2000 \mathrm{~V}$, accuracy $.5 \%$. Input impedance 15 megohm. AC volts: 0 to 2,20 , 200, 1000, accuracy $1.5 \%$. Ohms-Low power - 5 ranges: 0 to $2 M$. High power 5 ranges: 0 to 20 M . Accuracy $1 \%$ on all ranges. DC current: 0 to 2, 20, 200, 2000 mA , accuracy $1 \%$. AC current: 0 to $2,20,200,2000 \mathrm{~mA}$, accuracy $1.5 \%$. Direct input probe with 200 K 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 aptional power adaptor for AC line. Dropproof cycolac case with handle. With test leads and instructions. Size: $7^{\prime \prime} \times 5^{\prime \prime} \mathrm{X}$ $4^{\prime \prime}$. Shpg. wt. 3 lbs.
35A3195-4. Model DVM32. Each
$\$ 198.00$
35A8062-1. HP200. HV Probe multiplies all ranges $\dot{X} 100$ up to 50 KV .
Each
35A
$\$ 25.00$
35A8087-8. $39 A 90$. $115 / 230$ V Adaptor/Charger. Each
21A314-0. C cell batteries (requires 4). Each

## DVM35 POCKET PORTABLE <br> DIGITAL MULTIMETER


$1 \%$ DC volts accuracy backed by high 15 M input impedance makes the DVM35 up to 10 times more accurate than analog meters. 3 digit display with automatic polarity, decimal, and overrange. $D C$ volts: 0 to $\pm 1000 \mathrm{mV}, 10$ 100,1000 V. accuracy $1 \%$. Input impedance 15 meg ohms. AC volts: 0 to $1000 \mathrm{mV}, 10$ $100,1000 \mathrm{~V}$. accuracy $1.5 \%$ Ohms - low power: 0 to $100,1000,10 \mathrm{~K}$. High power: 0 to $100 \mathrm{~K}, 1000 \mathrm{~K}, 10 \mathrm{M}$. Accuracy $2 \%$ on all ranges: AC/DC current measures total average sum of $A C$ and DC from 0 to $1000 \mathrm{uA}, 10$ $100,1000 \mathrm{~mA}$, accuracy $2 \%$. Measures 2000 V using the X2 isolation button on the probe. Touch-on switch in probe gives long battery life. Diode protected input. Battery operation uses 6 "AA" alkaline cells (listed below) or PA202 power adaptor (listed below) for AC operation. Drop-proof cycolac case. Size: $6^{\prime \prime} \times 4^{\prime \prime} \times 11 / 4^{\prime \prime}$. Shpg. wt. 2 lbs.

> 35A3206-9. Model DVM35. Each
$\$ 124.00$
35A8098-5. PA202 .115V adaptor/recharger for NiCad batteries.
Each $35 A 8062-1$. HP200. HV probe multiplies all ranges $\because$ X 100 up to 50 KV
$\$ 9.95$
$\$ 25.00$
21A5002-6. "AA" alkaline cell for DVM35 ( 6 required) Each
.. $64^{\circ}$

## DVM36 POCKET PORTABLE DVM

Same as above except has $31 / 2$ digit readout, $.5 \%$ DVC accuracy and each range 2 times DVM35 ranges except 1000 V . range. Same accessories as above. 35A3221-8. Model DVM36. Each
$\$ 148.00$


## "LITTLE HENRY" FIELD

 EFFECT MULTIMETERHandy 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: $0-3,30,300,1 \mathrm{~K}$ and 6 K DC Volts full scale plus $0-3,30,300$, and IK AC Volts. Ohms ranges 0-1K, 10K, 1 Meg and 1000 Meg. DC current 0-1 Amp full scale with separate current jack. $31 / 2$ " meter input isolated and diode protected. Uses one 9 V . and 31.5 V batteries.
 35A3127-7. Model FE23.
Each
$\$ 124.00$
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 . . $35^{\circ}$


SENCORE PS163 DUAL TRACE TRIGGERED SWEEP OSCILLASCOPE
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 $\mathrm{mv} / \mathrm{cm}$ direct probe, $50 \mathrm{mv} / \mathrm{cm}$ with low cap probe. Bandwidth of DC to $8 \mathrm{MHz} \pm$ 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. Front 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 $10 \times 10 \mathrm{~cm}$ 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 $130 \mathrm{VAC}, 60 \mathrm{~Hz}, 60$ watts. Size: $12 \times 10 \times 15^{\prime \prime}$. Shpg. wt. 30 lbs . Complete with two low cap probes.

## 35A3107-9. PS163. Each

$\$ 895.00$
PS148A 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 controis are ocared on ear. Vectorgraph screen shows degree 0 of chroma demodulation. Vertical amplifier response 10 Hz to $6 \mathrm{MHz}, \pm 0 \mathrm{ab}$. Vertical sensitivity . $017 \mathrm{Vms} /$ inch. Horizontal sweep 5 Hz to 500 KHz in tive 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 the 10 Hz to 650 KHz ) guarantees linear Horizontal freq. response ( $3 \mathrm{db}, 10 \mathrm{~Hz}$ to 650 KHz ) guarantees linear sweep and positive sync. Inputs for horizontal sweep and external sync on front. Provisions for infensity modulation case with brushed chrome front panel. $11^{\prime \prime} \times 9^{\prime \prime} \mathrm{X} 151 / 2^{\prime \prime}$. Wt. $22 \mathrm{lbs} .105-125 \mathrm{~V} .50-60 \mathrm{~Hz}$. AC. 47 watts.
35A3165-7. PS148A.
Each
$\$ 395.00$
35A8009-2. 39 G 3 . Demodulation Probe. Each

## PS29 MINUTE MAN AUTOMATIC TRIGGERED PUSHBUTTON OSCILLOSCOPE

Have every color and video servicing signal avail50 sweep and vector mode. Automatic triggering with sweep and vector mode. Automatic triggering with tors) for rock solid waveforms - you simply push a button. Vertical input sensitivity . $01 \mathrm{~V} / \mathrm{cm}$ def. accuracy $3 \%$. Vertical amplifier frequency response: $D C$ to $8 \mathrm{MHz} \pm 3 \mathrm{db} ;-4 \mathrm{db}$ at 10 MHz useable to 15 MHz . Horizontal sweep speed: triggered 0.2
 usec $/ \mathrm{CM}$ to $0.1 \mathrm{sec} / \mathrm{cm}$ in 18 ranges with accuracy of $3 \%$. Source selection is internal, external, line, p
sitive, or negative. TV vertical and TV horizontal has built-in TV sync separator with accuracy of $3 \%$ 3.58 MHz color gives fast positive sync on any color signal. 60 Hz line-sweep automatically locks in for response curve in sweep alignment work. Front panel phase adjust control synchronizes scope to sweep generator for exact phasing. Vector used with external input (B-Y), plus regular vertical input (R-Y). Sweep expand is 5 times with accuracy of $5 \%$. Comes with one lo-cap probe. For
 35A3168-1. PS29. Each
35A8079-5. 39G47. BNC to Phono Connector. Each
$\$ 8.00$

## 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 $41 / 8^{\prime \prime} \mathrm{X}$

35A3147-5. Each ..................................................... 990
21A5035-6. TR164 Battery for above (requires 2). each.......... \$3.75
Model CG-169. $100 \%$ digital timed, it just can't bounce. Temperature con: trolled 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 $50 \mathrm{~W} .10 \times 9 \times 4^{\prime \prime} . \mathrm{W} \mathrm{t} .10 \mathrm{lbs}$.
35A3148-3. Each

## MODEL CR-168 BIG MACK CRT TESTER


ates on $105-130$ volts, $50-60 \mathrm{~Hz}$ AC.
35A3154-1. Model CR168. Each

## 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 current 3 complete times, 2 manual restore positions. Internally metered line voltage plus a 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: $12^{\prime \prime} \times 9^{\prime \prime} \times 5^{\prime \prime}$. Wt. 12 lbs. For $105-130$ Volts $50-$ 60 Hz . AC
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 $1000, \mathrm{AC}$ volts peak-to-peak from 0 to 2800 , and 2 nd anode voltage measurements of 10 KV and 30 KV Current scale of 300 MA . Special ${ }^{3} \mathrm{MA}$ range for color TV. Steel case with shock mounted high quality plate
detachable hinged cover. $10 \times 9 \times 31 / 2 \mathrm{~m}$ detachable
Wt .10 lbs.


35A3032-9.
SST37. Each.

## \$150.00

FS134 UHF-VHF-FM SOLID STATE FIELD STRENGTH METER
Built-in attenuators of 0,20 , and 40 db ( X 1
$\times 10$ and $\times 100$ ) enable you to measure signa strength from the amplifier to the last tap-off in the system. Portable, requires no AC cord. Highly sensitive: 30 Microvolts $\pm 3 \mathrm{db}$ on
VHF-FM and 30 Microvolts $\pm 6$
db
UHF. Wt. 9 lbs. $10 \times 9 \times 5^{\prime \prime}$.
35 A3013-9. FS134. Each. $\$ 395.00$ 21A328-0. "C" Battery (9 required) Each... 40

Tests them all including the newest RCA 110 degree color tube and $17^{\prime \prime}$ Japanese trini-
tron. Automatic tracking-you can't make a mistake in calculations. Simply read tracking on the big meter after making emission lests. Filament set insures against high or Small plug-in sockets fit in cover. $6^{\prime \prime} D^{\prime}$. Arsonval meter. Black vinyl covered steel Arsonval meter. Black vinyl covered steel
case. Size $10 \times 9 \times 5^{\prime \prime}$. Wt. 12 lbs . Oper
275.00


CG-169
$\$ 225.00$


## 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 horizontgl output drive signals, 10 KV focus voltage, and 50 KV high voltage for fast, complete sweep high voltage for tast, complete sweep
troubleshooting. Test horizontal and vertitroubleshooting. 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 $15 \mathrm{VP} . \mathrm{P}$ exciting pulse 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 10 KVDC 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 $105-130 \mathrm{VAC}, 50 / 60 \mathrm{~Hz}$, 10 watts. Size: $10^{\prime \prime} \times 5^{1 / 2} /{ }^{\prime \prime} \times 33^{1 / 2 \prime \prime}$. Shpg. wt. 7 lbs .
35A3213-5. Model YF33. Each
$\$ 195.00$
35A8099-3. FP201. 10KV Probe for above. Each
$\$ 15.00$
35A8100-9. 39G89. 50KV Probe for above. Each
$\$ 20.00$

## RC SUBSTITUTORS




## RC-24 FULL RANGE RESISTOR-CAPACITOR SUBSTITU TOR

and want resistors values from 10 ohm to 5.0 megohms. 900 voli lytics 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 a
35A3145-9. Model RC-24.
Each

## 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 me gohms. I watt up to $10 \mathrm{~K}, 1 / 2$ watt over 10K. Capacitors: 10 overlapping capacitors from 100 pf to .5 mfd at 600 volts. Electrolytics: $2 \mathrm{mfd}, 5 \mathrm{mfd}, 10$ $\mathrm{mfd}, 20 \mathrm{mfd}, 50 \mathrm{mfd}, 100 \mathrm{mfd}, 200 \mathrm{mfd}$ at 450 volts. $500 \mathrm{mfd}, 1000$ 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, stc. $71 / 2^{\prime \prime} \times 11^{\prime \prime} \times 5^{\prime \prime}, 7 \mathrm{lbs}$
35A3146-7. Model RC167.
Each
$\$ 99.00$


## PM157 POWER MONITOR

It's a zero to 1150 watt wattmeter to determine if the appliance you are repairing is dissipating too much power. It's an AC line voltage monitor to determine if line voltage is excessive or too low. It's an AC ammeter to determine how much AC line current is being drawn. It's a DC ammeter to check horizontal output fuses, horizontal output tube horizontal output fuses, horizontal output tube amperes. It's a combination AC and DC ammeter to check power dissipation in fuse resistors. Protected by a 10 ampere circuit breaker. Compartment in rear houses test leads and line cord. $41 / 2^{\prime \prime}$ meter. Tilt handle. Wt. 5 lbs.
$\$ 75.00$

MODEL BE-156 7-IN-1 DC BIAS SUPPLY
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. $7 \times 4 \times 2$ ". Wt. 2 lbs. 110 VAC
35A3068-3. Model BE-156. $\$ 49.50$
Each ............................

## sencore AND $B$ Kpmesson 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 o 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, lgss 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: $10 \times 7 \times$ $6^{1 / 2 \prime}$ ". Shpg. wt. 11 lbs. For $105-130 \mathrm{~V} .50-60 \mathrm{~Hz}$ AC.

35A3169-9. TF30. Each

## \$240.00



rauch tone TF26 TRANSISTOR RICKET FET TESTER
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 accuwhen you his oul rately 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:
$85 / 8 \times 53 / 8 \times 33^{1 / 2}$. Shpg. wt. 5 lbs . 35A3152-5. Model TF26. Each ..... \$150.00

## TC2 8 HYBRIDER



## TUBE AND TRANSISTOR TESTER

Tests tubes, fransistors, 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 n 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 $\mathrm{X} 31 / 4$. Black vinyl clad steel case with aluminum panel and trim. For $105-130 \mathrm{~V}, 50-60 \mathrm{~Hz}$. AC.
Size: $14^{3 / 4} \times 41 / 2 \times 12^{\prime \prime}$. Shpg. wt. 15 lbs .
No. 35A3164 TC28. Each
$\$ 275.00$


## (1) MU150 THE CONTINENTAL TUBE CHECKER

The Continental checks tubes accurately with full rated cathode current drawn from every tube. 100 Megohm grid leaknge 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. $18^{\prime \prime} \times 14^{\prime \prime} \times 5^{\prime \prime}$. 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 instant-on action.
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. $10 \times 9 \times 4^{\prime \prime}$. Wt. 9 lbs .
35A3103-8. TC162. Each
$\$ 175.00$

## 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.
$\$ 15.00$ Each
 Each

## BK PRECIIION 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 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 $\pm 1$ 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 $105-125 \mathrm{~V}, 50 / 60 \mathrm{~Hz}$ (may be adapted for $100 \mathrm{~V} / 230 \mathrm{~V}$ ). $9 \times 7 \times 31 / 2^{\prime \prime}$. Shpg. wt. 4 lbs .
35A3160-8. Model 283. Each
........................................ $\$ 170.00$
35A8095-1. BP83 Battery Pack. Each
35A8096-9. PR21 Probe. 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 $\mathrm{AC}, 1000 \mathrm{MA}$ and 10 megohms. DC voltage ranges: $\pm 0.1000 \mathrm{mV}, 10 \mathrm{~V}$, $100 \mathrm{~V}, 1000 \mathrm{~V}$. Input impedance 10 meg . AC voltage ranges: $0-1000 \mathrm{mV}, 10 \mathrm{~V}, 100 \mathrm{~V}, 1000 \mathrm{~V}$. Input impedance: $10 \mathrm{meg} . \mathrm{DC}$ and AC current ranges: 0 $1000 \mathrm{uA}, 10 \mathrm{~mA}, 100 \mathrm{~mA}, 1000 \mathrm{~mA}$. Nominal voltage drop: 100 to 300 mV . AC frequency response: $50-200$ Hz . Resistance ranges: $0-100,1000,10 \mathrm{~K}, 100 \mathrm{~K}, 10$ megohms. Readout 3 LED digits, powered by 4 " $C^{\prime \prime}$ cell batteries (not supplied). Size: $42 / 5^{\prime \prime}$ W. $\times 2^{\prime \prime}$ D. $x$ $62 / 5^{\prime \prime} \mathrm{H}$. Shpg. wt. 3 lbs .

## $\$ 99.95$

35A3181-4. Model 280. Each
$21 \mathrm{~A} 314-0$. " $\mathrm{C}^{\prime \prime}$ Battery. 4 required. Each
${ }^{\text {Charger. Shpg. wt. . . . } 1 \text { lb }}{ }^{4 \mathrm{lb}^{\mathrm{C}}}$
35A8089-4. Model BC-28 AC Adaptor/Battery Charger. Shpg. wt. 1 lb.
35A8090-2. Model íC-28. Carrying Case. Shpg. wt. $\mathfrak{i}$ ib. Each ....... $\$ 6.00$

## B \& K 1040 CB SERVICEMASTER

When used with scope and signal generator measures $\mathrm{S} / \mathrm{N}$ ratio of CB receiver, audio output power and distortion, receiver sensitivity. Check AM modulation, AGC and SSB modulation. Measure SSB power output with true peakreading RF wattmeter; base or mobile antenna SWR. RF Wattmeter: Internal load 50 watt; external load switch-selectable 0 $10,50,100$ watts; accuracy $\pm 5 \%$; 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 $0-100$ $\mathrm{mW}, 1$ and 10 watts; Aux dB scale -20 to +3 dB . Distortion Measurement: $0-$ $30 \%$, THD at $1 \mathrm{KHz}, \pm 10 \%$. Audio Section: Outputs include receiver audio, 1 KHz 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 Hz and 13.8 VDC. $4 \times 31 / 2 \times 11^{\prime \prime}$.
35A3209-3. Model 1040. Shpg. wt. 7 lbs . Each
$\$ 250.00$

## B \& K 2040 PLL CB SIGNAL GENERATOR



## DESIGNED FOR USE WITH ALL CLASS D CB TRANSCEIVERS

 AM AND SSBHas phase-locked loop circuitry, a high accuracy crystal, and regulated power supply. Has provilated power supply. Has provi-
sions for 40 channels with $\pm .0005 \%$ accuracy. Delta frequency adjustment allows variafion 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 100 mV . 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. $71 / 3 \times 10^{3 / 4} \times 18^{\prime}$. Shpg. wt. 19 lbs.
35A3210-1. Model 2040. Each
$\$ 475.00$


BK maceson
DUAL TRACE 5" TRIGGERED SWEEP SCOPES


1471B: For systems development and analysis of microprocessors, minicomputers, computer terminals, video character generators, etc. Troubleshoot TV receivers, video recording systems, CB radios, etc. $8 \times 10 \mathrm{~cm}$ 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 autosquare wave calibration and X-Y Vectorscope capability. Sweep system is auto-
matic or triggered. Rise time: $35 \mathrm{n} / \mathrm{S}$. Input impedance: 1 meg. 22 pf . Sweep time: 1 US to $.5 \mathrm{sec} / \mathrm{cm}$ in 18 ranges. Sweep magnification: 5 X . Horizontal response: DC to 1 MHz . Requires two PR-35 probes (not supplied). For $117 / 234 \mathrm{~V}$, $50 / 60 \mathrm{~Hz} .20 \mathrm{~W} .77 / 8 \times 97 / 8 \times 16^{\prime \prime}$. Shpg. wt. 22 lbs .
35 A3220-0. Model 1471B. Each
$\$ 495.00$ 35A8088-6. PR-35 Probe (requires 2). Each
$\$ 29.50$
1472C. Includes all the features of the 1471 B , but with vertical frequency response of DC to 15 MHz ; rise time of $24 \mathrm{n} / \mathrm{S}$; sweep time is .5 uS to $.5 \mathrm{sec} / \mathrm{cm}$ in 19 ranges. Requires two PR-35 probes (not supplied, listed above). For 100-230 $\mathrm{V}, 50 / 60 \mathrm{~Hz}, 23 \mathrm{~W} .77 / 8 \times 97 / 8 \times 14^{1 / 2^{\prime \prime}}$. Shpg. wt. 22 lbs .
35A3187-1. Model 1472C. Each
$\$ 630.00$
1474. Same as 1472 C PLUS vertical frequency response of $D C$ to 30 MHz ; rise time is $11.7 \mathrm{n} / \mathrm{S}$; sweep time is .2 uS to $.5 \mathrm{sec} / \mathrm{cm}$ in 20 ranges. Features illuminated graticule. Requires two PR-36 probes (not supplied). For $117 / 234 \mathrm{~V}$, $50 / 60 \mathrm{~Hz}, 25 \mathrm{~W} .10 \times 141 / 2 \times 18^{\prime \prime}$. Shpg. wt. 22 lbs .
35A3219-2. Model 1474. Each
$\$ 820.00$
35A8094-4. PR-36 Probe (requires 2). Each
$\$ 35.00$


## B \& K 520B DYNAPEAK TRANSISTOR TESTER

In-circuit, the 520 B 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, FET'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 FET's: Meter scales readable from 0.1 UA to 5 mA for Ice leakage. Applied test currents - collector: 250 mA at $5 \%$ duty cycle, base 125 mA at $5 \%$ duty cycle, test repetition rate $10 / \mathrm{sec}$, leakage test reverse voltage 3.5 V . Limiting in-circuit shunt values, resistance: 10 ohms; capacitance $50 \mathrm{uF} .105-125 \mathrm{VAC}, 50 / 60 \mathrm{~Hz} .8 \times 7 \times 31 / 2$. Shpg. wt. 6 lbs.
35A318 9-7. Model 520B. Each
$\$ 160.00$

## B \& K 510 PORTABLE TRAMSISTOR TESTER

## DYNAPEAK TEST WITH <br> \section*{SELECTABLE HI-LO DRIVE}

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 circuit or out-of-circuit. Hithrive: 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. $33 / 4 \times 6-5 / 8 \times 13 / 4^{\prime \prime}$.
35A3218-4. Model 510. Shpg. wt. 2 lbs . Each
$\$ 90.00$
$35^{\circ}$

## HICKOK TEST EQUIPMENT


$0.1 \%$ of range (add $\pm 0.5 \%$ of reading for 199.9 ohms, $1.999 \mathrm{~K}, 19.99$ meg ranges). DC current -5 ranges: 0 $199.9 \mathrm{uA}, 1.999,19.99,199.9,1999 \mathrm{~mA}$. Accuracy: $\pm 0.5 \%$ of reading $\pm 0.1 \%$ of range (add $\pm 0.5 \%$ of reading on 199.9, 1999 mA ranges). AC current - 5 ranges: $0.199 .9 \mathrm{UA}, 1.999,19.99,199.9,1999 \mathrm{~mA}$. Accuracy $\pm 2 \%$ of reading $\pm 2 \%$ of range. For $105-125 \mathrm{VAC} / 210-250 \mathrm{VAC}, 50-400 \mathrm{~Hz}, 3$ watts. Shielded input probe with 200 K isolation position included. Comes with a rugged, double-wall, polyethylene carrying case. Size: $8 \frac{112}{\prime \prime} \mathrm{~W} . \mathrm{X} 4^{\prime \prime} \mathrm{H} . \mathrm{X}$
$\$ 234.00$

## HICKOK MODEL 270 FUNCTION GENERATOR

This compact precision unit puts stable, calibrated, high quality sine, square, and triangle waveforms from 1 Hz to 500 K Hz at your fingertips. Frequency range: 1 Hz to 1 M Hz in 6 pushbut-ton-selected decade ranges. Frequency accuracy: $\pm 1 \%$ of F.S. up to 200 K Hz . Amplitude flatness: $\pm 0.1 \mathrm{db}$ from 20 Hz to $20 \mathrm{~K} \mathrm{~Hz} ; \pm 0.3 \mathrm{db}$ from 1 Hz to 100 K Hz . Output level: 0 to 24 ness: $\pm$ 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 $0 \mathrm{db},-20 \mathrm{db}$, and -40 db attenuation $\pm 0.5 \mathrm{db}$ accuracy). DC offset: output DC level on all waveforms is variable from -6 V to +6 V (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/ $210-250 \mathrm{VAC}, 50-400 \mathrm{~Hz}, 5$ watts. Complete with rear panel connection, instruction manual, and a rugged, double-wall, polyethylene carrying case. Size: $8^{1 / 2^{\prime \prime}} \times 4^{\prime \prime} \times 6^{\prime \prime}$. Shpg. wt. 6 lbs.
No. 35A3198-8. Model 270. Each
$\$ 189.00$

## HICKOK <br> 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 tickok developed MOS LSI circuit chip providing low component count for high reliability, extremely low battery drain, rock-stable signals from $-50^{\circ}$ to $+150^{\circ} \mathrm{F}$, 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: $53 / 4 \times 3-3 / 8 \times 1-7 / 8^{\prime \prime}$. Shpg. wt. 1 lb .
35 A3170-7. Model 239. Each
21A305-8. 9 Volt Battery for above. Requires 2 . Each
$\$ 125.00$

## HICKOK <br> FULLY AUTOMATIC SEMICONDUCTOR TESTER

MODEL 215


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: $5-3 / 4^{\prime \prime} \times 3-3 / 8^{\prime \prime} X$ $1-7 / 8^{\prime \prime}$, weighs 12 ounces, easy to carry in your pocket. Shpg. wt. 2 lbs.
35A3166-5. Model 215. Each
$\$ 138.00$
21A305-8. Type 216.
9 V. Battery for above. Requires 2 . Each

## HICKOK SEMICONDUCTOR ANALYZER

MODEL 217 s169

MODEL 230
s175

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 inene carrying case and leads. Operates from 120 VAC
cluded). Size: $81 / 2^{\prime \prime} \mathrm{W} . \mathrm{X} 4^{\prime \prime} \mathrm{H}$. X $6^{\prime \prime} \mathrm{D}$. Shpg. wt. 5 lbs . 35A3204-4. Model 217. Each
$\$ 169.00$

## 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 leakáge test, 2 UA sensitivity, impossible withneonleakage tests. Life. shorts. Directly metered H-K leakage test, , UA sensitivity, impossibe with nemenieakage rests. the sew 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 $210-250 \mathrm{~V}, 50-400 \mathrm{~Hz}$. Size: $111 / 4^{\prime \prime} \times 91 / 2 \times 53 / 4^{\prime \prime}$. Shpg. wt. 7 lbs . No. 35A3199-6. Model 230. Each
$\$ 175.00$

## 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: $\pm 1$ count $\pm$ time base stability. Accuracy of power: 10 watts range, $\pm 2 \%$ of scale $\pm 1$ count @ 4 watts, $\pm$ $5 \%$ of scale $\pm 1$ count 1.00 to 10.00 watts. 100 watt range, $\pm 5 \%$ of scale $\pm 1$ count 10 to 100 watts. $\%$ modulation: (sinewave only) $\pm 2 \%$ of scale $\pm 1$ count @ $99 \%, \pm 5 \%$ of scale $\pm 1$ 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 $81 / 2^{\prime \prime}$ W. X $4^{\prime \prime}$ H. X $6^{\prime \prime}$ D. Shpg. wt. 5 lbs.
35A3223-4. Model 388. Each
\$349.00

## HICKOK model 38 DIGITAL CB MONITOR

## \$279

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 $\pm 1$ count $\pm 10 \mathrm{ppm}$. Display 6 LED digits. Power: range 1.0 to 10.0 watts. Accuracy $\pm 2$ digits 3.5 to 4.5 watts. Display 3 LED digits. SWR: range 1.00 to 20.00 . Accuracy $\pm .1$. 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: $7^{\prime \prime}$ W. X $21 / 4^{\prime \prime}$ H. X $6^{\prime \prime}$ D. Shpg. wt. 3 lbs.
35A3226-7. Model 38. Each
$\$ 279.00$

## HICKOK model 380 AUTORANGING FREQUENCY COUNTER

## \$269

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 ( $3^{\prime \prime}$ high LED's). 1 Hz resolution to $10 \mathrm{MHz}, 10 \mathrm{~Hz}$ to 80 MHz . 10 ppm time base meets FCC requirements for CB service. Accuracy is $\pm 1$ count $\pm$ 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 below $10 \mathrm{MHz}, .2$ 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 $105-125 / 210-250 \mathrm{VAC}, 50-400 \mathrm{~Hz}$. Size: $81 / 2^{n} \mathrm{~W}$. X $4^{\prime \prime} \mathrm{H} . \mathrm{X}^{\prime \prime}$ D. Shpg. wt. 5 lbs .
35A3207-7. Model 380. Each
\$269.00
35A3222-6. Model 385. Same as above but with frequency response up to 512 MHz ,
$\$ 499.00$

## 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. $21 / 2^{\prime \prime}$ volt/ammeter with standard 13.8 V . indicafion marked for easy set-up. Meter accuracy: voltage $\pm 2 \%$, current $\pm 3 \%$. Complete with a rugged, double-wall, polyethylene carrying case. For 105-125/210-250 VAC. Size: $8^{1 / 2^{\prime \prime}}$ W. X $4^{\prime \prime}$ H. X $6^{\prime \prime}$ D. Shpg. wt. 14 lbs .
35A3224-2. Model 244. Each
$\$ 125.00$

HICKOK mOdel 256 CB/RF GENERATOR

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. Fre quency coverage from 100 KHz . to 16 MHz in four bands, plus CB channels 1 thru 23 on a separate band. Adjustable internal 1 KHz . 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 $50-400 \mathrm{~Hz}$. Size: $8^{\prime \prime}$ W. X $71 / 2^{\prime \prime} \mathrm{H}$. $X 6^{\prime \prime} \mathrm{D}$. Shpg. wt. 7 lbs.
35A3225-9. Model 256. Each
$\$ 199.00$


## साज口 TEST INSTRUMENTS, WIRED OR KITS

EICO 240 SOLID STATE FET-TVM
The low 1 volt scale allows you to read accurindications down 0.05 volns wist 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.
Specifications: AC RMS Sine Wave and DC voltage ranges: $0-1,3,10,30,100,300,1000$ volts. Peak-to-peak $A C$ voltage range: $0-2.8$, $8.5,28,85,280,850,2800$ volts; Input impedance: DC - 11 meg-ohms. AC - 1 megohm; Freq. resp.: 25 Hz to 2 MHz (up to 250 MHz with PRF probe - below right). Ohmmeter: 0.2 ohms to 1000 megohms in 7 ranges. Meter $41 / 2^{\prime \prime} 200$ UA movement. Power requirements: 105-132 V AC or 39 -volt batteries and 11.5 volt size D cell; 1.4 VA .


Size: $81 / 2^{\prime \prime} \times 5^{3} / 4^{\prime \prime} \times 5^{\prime \prime}$. Wt. 6 lbs
35A709-5. Model 240K. Kit Each
$\$ 79.95$
35A3082-4. Model 240 Factory Wired

## 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 mv; audio - 63 mv ; Hum: better Meter: 200 microamp movement. Power requirethan 60 db below 400 MV . Mefer: 200 mic
ments: $105-132$ volts $\mathrm{AC}, 50 / 60 \mathrm{~Hz}, 5 \mathrm{VA}$.
mize: $71 / 2^{\prime \prime} \times 81 / 2^{\prime \prime} \times 5^{\prime \prime \prime}$. Wt. 6 lbs .

## 35A708-7. Model 150 K . Kit........ Wired

$\$ 79.95$
35A3081-6. Model 150 Factory Wired... $\$ 109.95$
EICO 330 SOLID STATE RF SIGNAL GENERATOR Indispensable for aligning all types of TV sets, 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 $132 \mathrm{v} ., 50 / 60 \mathrm{~Hz} \mathrm{AC}$. 1.7 VA . Size: $71^{1 / 2}{ }^{\prime \prime} \mathrm{H} . \times 81 / 2^{\prime \prime} \mathrm{W} . \times 5^{\prime \prime}$ 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 feedto back circuit using FET.
Spack circuit using FET. 5pecifications: Frequency range: sine wave-
20 Hz to 2 MHz , square wave- 20 Hz to 200 20 Hz
KHz ; Output voltage: sine wave- $-0-7.5$ volts KHz ; Output voitage: sine wave- $0-7.5$ volts
rms into high impedance output, $0-6.5$ volts into 600 onms: square wave- $0-10$ volts peak-to-peak into high impedance, positive direction with zerc grourd; Calibration Ac curacy: $3 \%$ except $\quad 20 \mathrm{~Hz}$ to 100 Hz and 1 MHz to 2 MHz . Maximum distortion across audio range: $0.25 \%$; Rise time at 20 KHz : less than



 35A3080-8. Model 379 Factory Wired.
$\$ 99.95$
EICO MODEL $100 A 4$ MULTIMETER
LABORATORY ACCURACY AND PROFESSI
DC sensitivity of 100,000 ohms/volt and AC sensitivity of 12,500 ohms/volt. Combines minimal circuit loading with wide functional utility in a $\pm 2 \%$ D'Arsonval meter movement; 4-inch mirrorback two-color scale. Matched pair of silicon mirrorprevents overload of meter prevents overload of meter movement. Highconvenient positioning and portability. Highest Quality Import.
DC Voltage: $0-500 \mathrm{mV}, 2.5,10,50,250,500$ and 1000. AC Voltage: $0-2.5,10,50,250$ and 1000 DC Current: $0-10 \mathrm{uA}, 250 \mathrm{uA}, 2.5 \mathrm{~mA}$, 250 mA and 10 amp . Resistance: $0-20,000,200 \mathrm{~K}, 2 \mathrm{meg}$,
20 meg. DB: -20 to +62 in 5 ranges. Size: $71 / 2,1$ $\mathrm{H} . \times 5^{1 / 4^{\prime \prime}} \mathrm{W}$. $\times 3^{1 / 44^{\prime \prime}}{ }^{+6}$. Complete with batteries and test leads. Factory Tested
$35 \mathrm{~A} 3025-3$. Eico 100A4. Each........... $\$ 54.95$
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 10 db steps from 1 to 1000 volts on large $41 / 2^{\prime \prime}$ 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.
239 K Complete Kit
$\$ 59.95$
35A3111-1. 239 Factory wired
21 A305-8.9 Volt Battery
3 required. Each
21A329-8. "D" Cell (1 required) Each

## 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. Frequency 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: VAC. 5 watts. Input Imp
$81 / 2 \times 5 \times 5^{\prime \prime}$. Wt. 5 lbs .
$35 A 281-5$. Model 232K.
Build It Yourself Kit.
$\$ 49.95$
35A282-3. Model 232.
$\$ 74.95$


Factory Wired and Tested


## ACCESSORY PROBES FOR EICO

PRFIIK RF Probe for 11 meg, input.
35B111-4.1. Kit. Accurate to 250 MHz . Kit Each
$\$ 5.95$
UP Uni-Probe. Selector type replacement probe for AC or DC function. Same as used on all Eico 232, 239, etc. VTVM testers.
$35 \mathrm{C} 49-6$. Kit. Each
$\$ 6.95$
HVP-2 High Voltage Probe with 1090 meg. resistor, Use with all 11 meg. input testers. Extends range to 30,000 volts. Wt. 1 lb . 35A329-2. Factory Wired, ready to use. Each \$10.95
Amphenol 75-MCIF Connector Only. Probes supplied less conriector
12A311-7. Each
$\$ 1.29$
EICO MODEL 565 MULTIMETER Specifications: DC Voltage: Ranges $0-2.5,10,50$, $\begin{array}{ll}250,1000,5000 \\ \text { volt. AC/Outp. Sensitivity } & 20,000 \\ \text { Voltage: Rans }\end{array}$ $250,1000,5000$ volts. Sensitivity 1000 ohms/volt, DC Current: $0-100$ ua, $10 \mathrm{ma}, 100 \mathrm{ma}, 500 \mathrm{ma}$, 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:
$41 / 2^{\prime \prime}$ size, 50 ua movement. Size: $63 / 4^{\prime \prime} \times 51 / 4^{\prime \prime}$ $41 / /^{\prime \prime}$ " size, 50 Wa 4 lbs.
$\times 12$
35A203-9. Model 565K.
Complete Ki
35A204-7.
Model 565.
\$39.95
37 A3186-1 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 provided. Provides a rapid selection of resistance values in decade multiples of $15,22,33,47,68$ and 100 providing 15 ohms to 10 meg . variation with standard 12 watt $10 \%$ resistors. 18 capacitors from .000 rat 35 A5 82-6. Model 1140 K Complete Kit. Net Each. $\$ 27.95$ 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 $G$ auto repair-easily finds defects in irons, fans, heaters, TV $\mathcal{F}$ radio tubes, batteries, ignition cols, etc. it an anter, ohmmeter, wattmeter, leakage checker.
Provides "Cood-Bad" readings on 6 V and 12 V rovides cood-Bad readings on permits checking of individual cells,
Specifications: Voltage Ranges: $0-7.5,15,150$, 300 volts ( $\mathrm{AC} / \mathrm{DC}$ ). Current Range: $0-15$ amps. Resistance Range: $\times 33 / 8^{\prime \prime} \times 31 / 2^{\prime \prime}$. Includes leads.
35A386-2.. Model 540K.
Complete Kit
$\$ 21.95$
35A387-0. . Model 540.
Factory Wired. Net.
$\$ 29.95$

## आत्व TEST INSTRUMENTS WIRED OR KITS

EICO 460 WIDEBAND DIRECT-COUPLED $5^{\prime \prime}$ SCOPE


For color and BEW TV servicint and production line testing, excellent for audio and industrial work. Push-pul ( 3 stages) and direct-coupled vertical amplifier. Internal calibration voitage and frequency-compensated decade attenuator, DC or peak-to-peak AC measurements Drift-free positioning centers any part jack, sawtooth (sweep) output jack. ack, sat ontulation ( $Z$ output insut ack, and external capacitor jack for jack, and external capacitor lack 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.
Specifications: Vertical Amplifier: Frequency response: DC to 4.5 MHz (useful to 10 MHz ) sensitivity 5 MV ; input impedance zontal Amplifier: Frequency response 1 Hz to 400 KHz , sensitivity 0.24 V $\mathrm{ms} / \mathrm{cm}$; input impedance 5 M ohm 35 pf . Sweep Ranges: $10-100$, $100-1 \mathrm{~K}$ $1 \mathrm{~K}-10 \mathrm{~K}$, with external capacitor. TV-V position $(30 \mathrm{~Hz})$ and TV-H position sweeps with external capacitor, TV-V position $(30 \mathrm{~Hz}$ and TV-H position
$(7875 \mathrm{~Hz})$ Synchronization: internal,.. external, or line frequency. Power Requirements: 117 VAC , approx. 95 watts. Size: $13^{\prime \prime} \times 81 / 2^{\prime \prime} \times 16^{\prime \prime}$. Weight:

35A335-9. Model 460K Build-lt-Yourself Kit
35A336-7. Model 460
Factory Wired and Tested. Net Each
$\$ 199.95$

## SCOPE PROBE KITS

35A119-7. PSDK Demodulator probe use for signal tracing. Range: $250 \mathrm{MHz} \$ 5.95$ 35A287-2. PDK Direct tracing in low $Z$ circuits eliminates stray pickup $\$ 4.95$ 35A288-0. PLCK Low cadacity for waveform tracing in wide-band circuits $\$ 5.95$


DELUXE SIGNAL TRACER

- Has both visual and aural signal
- RF channel gain permits tracing For RF-IF receiver input.
For RF-IF and audio signal tracing in TV, FM and AM receivers. Visual (tuning eye tube), and aural (speaker), indication of the signal. High RF sensitivity. Noise locator detects noisy resistors, condensers, cold solder ioints. Two probes and ground leads with individual panel receptacles for easy change-over from
$8^{\prime \prime} \times 10^{\prime \prime} \times 434^{\prime \prime} . W t .{ }^{\text {R }}$. 10 audbs. 35A275-7. Model 147K \$64.95 35A276-5, Model 147.
Factory Wired..........


MODEL 324 RF SIGNAL GENERATOR
A low priced, high quality generator, with frequency range for servicing color and BEW MH FM AM radio. Covers 150 KHz to 435 MHz in 7 bands, to 145 MHz on fundamentals, with $\pm 1.5 \%$ accuracy. Has $400 . \mathrm{Hz}$ internal modulat coarse and fine RF attenuators. dial; coarse and fine RF attenuators; external modulator amplifier; Gray wrinkle finished cabinet. $8 \times 10$
$43 / 4$.
For 117 VAC. Wt. 8 lbs.


SINE AND SQUARE WAVE GENERATOR
For servicing, testing and designing amplifiers, speakers, etc., used in Hi -fi amplitiers, speakers, etc., used Uses Wien Bridge oscillator circuit. Ranges; sine wave $20-200,000 \mathrm{~Hz}$, square wave 60 $30,000 \mathrm{~Hz}$. Accuracy $\pm 3 \%$ or 1 Hz , output 10 volts across 1000 ohms, constant output over wide frequency range. For use on $117 \mathrm{~V} . \mathrm{AC} 50-60 \mathrm{~Hz}$. Gray wrinkle steel case. $71 / 8 \times 111 / 8 \times 7$ $5 / 8$, Wt. 13 lbs .
35A586-7. Model 377 Kit Net Each
$\$ 79.95$ 35A587-5. Model 377
$\$ 99.95$


## 950 R-C. BRIDGE \& <br> <br> R-C-L COMPARATOR

 <br> <br> R-C-L COMPARATOR}A professional quality instrument for all resistance 0.5 ohms to 500 meg . and all types of condensers from 10 viltage source of $0-500$ volts tests voltage source of condensers for leaks, power factor, polarity. All resistance-capacity ranges calibrated on panel! Precision comparator range-Bridge type circuit! Maric eye indicator tube. size $10 \times 8 \times 43 / 4^{\prime \prime}$ $\mathrm{W} / \mathrm{t} .8 \mathrm{lbs}$

35 A331-8
$\$ 64.95$
Model 324. Factory wired ready to use. $\begin{array}{ll}35 A 330-0 & \$ 89.95 \\ \text { Net Each }\end{array}$

35A142-9. Model 950K Marts Kit. Net.....ry Wired 35A144-5
Net Each.
$\$ 49.95$


EICO 667 DYNAMIC CONDUCTANCE TUBE AND TRANSISTOR TESTER
-pin nuvistor, 7 pin miniature, $8-$ pin subminiature, octal, loctal, 9 and 10-pin miniature, novar and compactron. Tests many small trans mitting and special purpose tubes and transistors. Twostep test for both npn and pnp signal transistors.
Dynamic conductance fube test is a composite indication of mutual conductance, plate concapability.

Leakage short test is direct-reading of inter-element leakage up to 20 M 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 simulan pilot lamp and fuse. $12^{\prime \prime} \times 15^{\prime \prime} \times 4 \frac{1}{2 \prime}$ ". Weight: 22 lbs.

35B381-3. Model 667. Complete Ki
$\$ 139.95$
35B380-5. Model 667. $\$ 199.95$
Factory Wired Ready to Use.
CRU ADAPTOR for testing color and B \& W picture tubes with Model 667 Tube tester
35 B389-6.
\$24.95


EICO 635 DELUXE PORTABLE TUBE TESTER

Fast check all standard tubes in cluding decals, magnovals, 7 pin nuvistors and popular picture tubes. Tests for dynamic cathode emission, grid leakage, gas and shorts. $31 / 2{ }^{\prime \prime}$ D'Arsonval meter protected against accidental overload or burnout. Long-lasting anticorrosion phosphor bronze sock ets, transformer isolation power supply. Pin straighteners on front panel. With tube manual. Lug, gage carrying case, $4 \times 12^{1 / 2} \times 9$ $\mathrm{Wt} .41 / 2 \mathrm{lbs}$.
\$69.95
35A703-8. 635K Kit
35A3055-0. 635
Wired Ready to Use.
Each
$\$ 99.95$


## 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. $\frac{1}{6}$ to $\%$. Has a two range RC balance dial range maximum $6.3 \mathrm{~V} . A C$. Bar indicator provides sharp accurate readings. Operation 117 volt AC. Has line adjustment, Complete with leads, instructions. $81 / 2 \times 53 / 4 \times 6^{\prime \prime}$. Wt piete
6 lbs.
35B324-3
$\begin{array}{ll}\text { 35B324-3. } & \text { Model } 955 \mathrm{~K} \text { Kit. Net.... } \\ \text { 35B323-5. } & \text { Model } 955 \text { Wired. Net }\end{array}$
$\$ 49.95$
.$\$ 69.95$


## SPRAGUE MODEL TO-6A 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: 135 volts por electroiytic capacitors. 285 for all others. permits safe testing of all low voltage capaci tors Insulation resistance of papers, ceramics and micas directly read on targe meter Leakage current of electrolytics measured directly on meter Three ranges of $D C$ voltage feontinuously vath able within each range) permits testing capacitors at exact rated voltage up to 600 volts Powe 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 " $8-7 / 8^{\prime \prime}$ high $\mathrm{X} 14-5 / 8^{\prime \prime}$ wide. $6-1 / 8$ deep. Only 13 lbs Operates on $115 \mathrm{VAC} / 50-60 \mathrm{~Hz}$
No. 35A3149-1.
Each

# AMPROBE,PRODUCTION DEVICES TESTERS 



Snap around type Volt-Ammeter. Close the probe jaws around conductor of 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

Measures current and voltage, is small in size, convenient to carry and use. Size $21 / 2 \times 43 / 4 \times 1^{\prime \prime}$. Wt. 11 oz . Accuracy $\pm 3 \%$ full scale. Maximum conductor size for current measurements is $1 / 2$ inch. With test leads.
35A3066-7. Model Y550. For 0-50 Amps AC, $0-150-600$ Volts AC,
35A308-6. Model Y500. For $0-100$. Amps AC, $0-150-600$ volts AC. $\$ 27.85$
YOUR CHOICE EACH
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.
35 A3024-6. Model YT25/100.0-25/100 Amps, 0-150/300 Volts AC Your Choice,
$\$ 33.50$

## (2) AMPROBE JR. TESTMASTER KIT IN LEATHER CASE

Measures $0-150 / 600 \mathrm{AC}$ volts, $0-100 \mathrm{AC}$ Amps, and resistance instantly within $3 \%$ accuracy. 25 ohm mid-scale. Ohmmeter measures resistance with (described below), Battery Attachment, safety Test Leads and sturdy case.
WT. I Ib. TM-Y0-500, 0-100 Amps. Net Each............. \$44.85
35A346-6. TM-Y
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 .

Net Each.
\$65.85
Replacement All-Weather Test Leads for RS-3
\$3.45
35A8071-2. VL-11R. Each
(4) Model A45L. Energizer divides Amprobe current reading by 5 X and 10 X 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
$\$ 8.75$

## (5) 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 indi-
cates voltage. Indicates grounded side of line or DC polarity. Frequency 25 to 800 Hz . range. $6 \times 21 / 4 \times 3 / 4$ " with probes retracted. Wt. 50 ozs.
35A8030-8. VT-100 Voltprobe. Each
$\$ 10.45$
Indicates 24, 48, 115, 220, 277, 440, 550 VAC only. Other teatures same as VT-100 above.
35A8070-4. VT-124. Each
$\$ 15.85$
35A8031-6. vc Case. Each
\$3.25

## AMPROBE FASTEMP INDUSTRIAL THERMOMETER

Fast, measures temperature in seconds. Compact fits palm or pocket. Lightweight-weighs only 10 ozs. Ac curate: within $\pm 2^{\circ} \mathrm{F}$ or $\pm 1^{\circ} \mathrm{C}$. Versatile ... check surface, liquid or gaseous temperatures.
Unique "press-fo-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 anv one of them instantly. One universal RBT-12 probe supplied. All probes have 15 ft . lead.
Fahrenheit Model T-150. $-50^{\circ} \mathrm{F}$ to $+50^{\circ} \mathrm{F},+40^{\circ} \mathrm{F}$ $10+150^{\circ} \mathrm{F}$
35A3084-0. Each........................................ \$49.85


35 A8037-3. Universal Surface Probe. RBT-12. Each $\$ 9.95$
35A8036-5. Immersion Probe. RBT-i 1. Each.............................................. $\$ \mathbf{\$ 9 . 9 5}$ 35A8038-1. Air Probe. RBT-13. Each.....................................................95
35A3092-3. FTC Carrying Case. Holds Fastemp and Probes. Each..... $\$ 11.50$ 21A327-2. Penlight Battery (requires 4) Each

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 therMeasures milivoit output of single and multiple Ranges: $+70^{\circ} \mathrm{F}$ to $+1200^{\circ} \mathrm{F},+30^{\circ} \mathrm{C}$ to $+640^{\circ} \mathrm{C}$. Millivolts, $0-50$ and $0-1000 \mathrm{mv}$. Resistance, $0-200$ and $0-2000$ ohms.
Complete with case, thermocouple (iron, type J, 2.18 ohms), lead, clip adaptor. Size 4-13/16" $\times 2-11 / 16^{\prime \prime}$ $x^{1} 1-7^{\prime}\left(8^{\prime \prime}\right.$. Power supply: $3^{~ " ~} A A^{\prime \prime}$ penlight batteries (listed above). Shpg. wt. 1 lb.
35A3176-4. Model T-152. Each
$\$ 64.80$
Pkg. of 2, Each

## CASTLE. ELENCO \& [EMG TESTERS



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 $61 / 2 \times 61 / 2 \times 31 / 4^{\prime \prime}$, Shpg. wt. 3 lbs .
35A3227-5. Mark V. Each
$\$ 169.95$
21A5005-9. 9 Volt Alkaline Batteries for Subbers. 2 required. Each . $\$ 1.59$

## CASTLE MARK IV-C TV TUNER SUBBER

Works with any 40 MHz 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 haz ards. No need to disconnect supply leads from suspected tuner being tested. Substitutes the VHF tuner and tests the UHF to ner. Tunes all 12 VHF channels. LED indi-
 cator 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 $61 / 2 \times 61 / 2 \times 31 / 4$ "
35A3167-3. Shpg. wt. 2 lbs. Each
\$54.95
Mark IV-CUV TV Tuner Subber. Receives all VHF and UHF channels.
35A3202-8. Mark IV-CUV. Each
\$64.95

## Elenco DELUXE DIGITAL COLOR BAR GENERATOR



\$9995
FINEST, MOST PRECISE COLOR TV CONVERGENCE GENERATOR EVER!

Both gated and full rainbow for maximum effect. Four precision crosshatch patterns - 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 $1 / 8^{\prime \prime}$ die-cast alu minum case only $41 / 2 \times 13 / 4 \times 5-7 / 8^{\prime \prime}$. For 120 V .60 Hz . Shpg. wt. 2 lbs .
35A3185-5. Model Elenco SG200. Each
$\$ 99.95$

## EMC 116 SOLID STATE VOLT-OHMMETER



Portable, battery operated, no warm up. With the
features of a VTVM. Instant, accurate readings with up to 500 times the sensitivity of a 20,000 ohm per volt VOM. $4^{4} 1 / 2^{\prime \prime} 200$ microamp meter. Zero center position. Meter and transistors pro-
tected against burnout, FET transistor, 4 silicon tected against burnout, FET transistor, 4 silicon transistors and DC Voltage: 0 to DC Voltage; 0 to $1.2,12,120,1200$ volts, Input resistance 11 megohms. $A C$ voltage: 0 to 1.2 , 12, 120, 1200 volts. Input resistance 1 megohm. Peak-to-peak AC Voltages: to $3.3,33,330$, 1200 voits. Resistance: $0-1 \mathrm{~K}, 0-100 \mathrm{~K}, 0-10 \mathrm{meg}$, $0-1000$ meg, 4 DB ranges: -24 to +56 DB. with batteries and eeads. Bakeilite case with
35A704-6. Model 116
To Build Kit
35A3056-8. Model 116 Factory Wired. $\$ 52.95$

## 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 check er obsolescent proof. With instructions and tube charts. Complete kit in gray leatherette covered wood carrying case. For 117 VAC . Shpg. wt. 5 lbs.
35B417-5. Model 213P Kit. Each
\$33.54

## 35B418-3. Model 213P Factory Wired. Net Each . . . . . . . . . . . . . $\$ 49.70$



EMC 212 TRANSISTOR ANALYZER Tests all transistors in or out of circuit. Measures DC current gain (Beta) in $3^{3}$
ranges to 200. Checks leakage on 3 -color 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 $0-12$ voits, and current $0-80 \mathrm{MA}$, manual. Size $33 / 4 \times 61 / 4 \times 2^{\prime \prime}$. Wt. $11 / 2 \mathrm{lbs}$. 35B521-4. Model 212.
Complete Kit
35B522-2. to Use

## EMC MODEL 801 COMPARATOR BRIDGE

 AND IN-CIRCUIT CAPACITY CHECKERMeasures capacity in four ranges 10 ptd. 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 $10 \times 7 \times 5^{\prime \prime}$. Wt. 7 lbs.
35A159-3. Model 801
Complete Kit. Each 35A158-5. Model 80 Factory Wired. Each

EMC MODEL 502
$\$ 37.61$
 \$60.56


## RF SIGNAL GENERATOR

Covers frequency range for all tuning and aligning requirements of AM and FM radios, second harmonic to 220 MHz . RF accuracy $11 / 2 \%$. Includes 400 Hz internal modulation controlled with off-on switch and provision for external modulation. Uses individual slug tuned coils for each band. Colpitts oscilator and a cathode follower output. Planetary drive permits fine frequency adjustment. Size $65 / 8 \times 65 / 8 \times 4^{\prime \prime}$. Complete with output lead and instructions. For 105-130 VAC. Wt. 4 lbs. 35A424-1. Model 502
Complete Kit
35B425-8. Model 502.
Factory Wired
\$30.38
$\$ 43.76$

## EMC MODEL 102A

## DIODE PROTECTED MULTIMETERS

Has a built-in diode to protect against burn-outs caused by accidental overloads. No more expensive repairs and loss of time when accidentally misused. Has $31 / 2$ inch $2 \% 800$ microamp D'Arsonval type plastic front meter. 5 AC voltage ranges: 0 to $12,120,600,1200,3000$ volts. 5 DC voltage ranges: 0 to $6,60,300,600,3000$ volts. 5 DC voltage ranges: 0 to $6,60,300,600,3000$
volts. 3 AC current ranges: 0 to $30,150,600 \mathrm{MA}$. DC volts. 3 AC current ranges: 0 to $30,150,600 \mathrm{MA}$. DC
current ranges: 0 to $6,30,120 \mathrm{MA}$ and 0 to 1.2 mps . Resistance ranges: 0 to 1000 ohms. 0 to 1 megohms. Siže $3^{3 / 4} \times 6^{1 / 4} \times 2^{\prime \prime}$. Shpg. wt. 2 lbs.
35B40-5. Model 102A. Complete Kit
$\$ 21.13$ 35B43-9. Model 102A. Factory Wired 37A3023-6. Test Leads for 102A. Pair

MODEL WM-541A DUAL TRACER
Two displays on a single-trace oscilloscope for simultaneous viewing of two signals. Applications include com parison tests of gain, frequency, re sponse, distortion, phase shift, and time delay. Display modes include Channe A only, Channel B only, or both A and B channels simultaneously ("chopped" or "alternate"). Frequency response usable DC to 10 MHz . Attenuators: compensated 6 -step (1, 2, 5 ratio) each channel. Input impedance: i megohm shunted by 45 pF . Maximum AC signal input 50 V P-P. Maximum signal output: 1 V P.P. Noise level: less than 10 mV P.P. Switching modes: chopped or alternate. Switching rate: continuously variable in both modes. Sync output: channel A. Variable level, pos. or neg. polarity. Input and output connectors BNC type. For $120 / 240 \mathrm{~V} .50 / 60 \mathrm{~Hz}$. connected for 120 V . Size: $51 / 4^{\prime \prime} \mathrm{X} 81 / 4^{\prime \prime} \mathrm{X}$ $31 / 4^{\prime \prime}$. Shpg. wt. 5 lbs.
No. 35A3201-0.Model WM-541A. Each
$\$ 108.00$
VIZ WV510A SOLID STATE MASTER VOLTOHMYST Solid state designed for stable, drift-free operation. Battery or AC operation. Measures DC voltage from 0.01 to 1500 volts, direct current from 0.01 milliamperes to 1.5 amperes, AC voltage from 0.2 to 1500 volts, $A C$ peak-to-peak voltage of complex waveforms from 0.5 to 4200 volts, and resistance values from 0.2 ohms to 1000 megohms. Seven overlapping ranges are provided for AC, resistance, and current measurements, and eight ranges are provided for DC voltage measurement. Accuracy for all voltage and current functions is $\pm 3 \%$ of full-scale readings. Conanient batfery test.
An input resistance of 21 megohms on all


DC ranges permits accurate test results on even the most critical low impedance circuits. Large, easy-to-read, two-color meter, mirror scale. With 35 A3071-7. Model WV510A. Each $\times 31 / 8^{\prime \prime}$. Wt. 5 lbs . $\$ 145.00$
35A3071-7. Model WV510A. Each.
21A305-8. 9 -Volt Battery ( 4 required) Each......... $89^{\mathrm{c}} \quad 4$ Each....... 71
21A329-8. "D" Battery (1 required) Each ............................ 40 35A8032-4. WG401A Replacement AC-DC Probe, Each.......... $\$ 11.25$ 35A8046-4. WG411A. Hi-Voltage Probe with WG436A Multiplier Resistor. Each

## VIZ AC LEAKAGE TESTER

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)
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. 3/4 lb. 35A3184-8. Model WT-540A. Each
$\$ 33.00$

## WIZ WC-506B TRANSISTOR/DIODE/FET CHECKER

Fast relative gain or leakage tests of NPN or PNP bipolar transistors, power transistors, P-and Nchannel 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 colorcoded test leads or the convenient gold-plated spring connectors on the panel. Requires two 4.5 V . batteries (not supplied). Size: $33 / 4^{\prime \prime} \times 61 / 4^{\prime \prime} \times 22^{\prime \prime}$. Shpg. wt. 1 lb .
No. 35A3054-3. Model WC-506B. Each
$\$ 33.00$
No. 21A5045-5. Battery tor above (requires 2) Each
\$2.29

## VIZ WR-508B MINI CHRO-BAR SOLID-STATE COLOR-BAR GENERATOR

Provides colorbar, dot, crosshatch, and blank raster patterns. All solid-state circuitry, including IC's. Pattern signals, RF output frequency, and color subcarrier all crystal-controlled. Compact size-lightweight. Interchangeable slide-out compartweight .
ment forchangeablery or $A C$ module. Solid pat-terns-no flicker. Three special pattern didjust controls on rear panel for easy reset, if required. Less battery. Size $6^{1 / 2^{\prime \prime}} \times$ $3^{\prime \prime} \times 4^{\prime \prime}$. Shpg. wt. $11 / 2$ lbs.
35A3115-2. Each


## 5 INCH TRIGGERED/RECURRENT <br> SWEEP OSCILLOSCOPE

Two modes of operation - triggered sweep or
recurrent sweep. One-step calibration for simplified voltage measurements. All solid state circui. try. Flat-face $5^{\prime \prime}$ CRT. Regulated power supply prevents trace bounce; excellent stability. DC vertical amplifier; $D C / A C$ input. Usable frequency response to 10 MHz . Preset TV " $V$ " and " $\mathrm{H}^{\prime}$ frequencies for instant lock-in. Line sweep and phase control for use in TV alignment. Sensitivity 15 mV P.P/inch. Rise time 35 ns . Input impedance 1 megohm, 75 pF . With WG-400A Direct/Low Capacitance Probe and cable ground lead; slip-on alligator clip with insulator. Voltage $105-130 \mathrm{~V}$. Frequency $50-60 \mathrm{~Hz}$. Size: $9 \times 11-3 / 8 \times 161 / 2^{\prime \prime}$ Shpg, wt. 25 lbs.
35A3157-4. Model WO-535A. Each
$\$ 349.00$
35A 8048-0. WG302B RF Probe for 5 to 250 MHz . Each
. $\$ 15.00$

## VIZ WC528B

 TRANSISTOR QUICK TRACERUse with any general purpose oscilloscope to make rapid point-to-point checks of transistors (excluding FET'S), Zener diodes and other diodes, capacitors, and resistors. Distinctive quicktrace waveforms indicate at a glance whether the component under test is functioning properly. Has power-
 limiting circuit to prevent damage to semi-conductors under test. Complete with special applications manual containing extensive quicktrace testing information and numerous waveform illustrations. Comes with special "stick-on" fastening material for mounting. Shpg. wt. I lb .
35A3135-0. Eqch
$\$ 19.50$


VIZ WV-551A DUMMY LOAD RF WATTMETER

Use instead of antenna for adjusting and testing of transmitters. Broadband frequency response 3 MHz to 500 MHz . 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 $\pm 10 \%$ of full scale. Input impedance 50 ohms. Size: $3-15 / 16 \times 3-15 / 16 \times 51 / 8$. 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 $\pm 2 \%$ at center scale, $\pm 3 \%$ at scale ends. Moving vane meter gives accurate RMS readings. Fast meter action reveals "bounces" and fluctuations in line voltage. Large rumerals, large pointer, large scale for easy reading. With AC outlet. Holes for wall mtg. $311_{6}{ }^{\prime \prime}$ High, $5^{\prime \prime}$ wide, $31 / 6^{\prime \prime}$ deep.
35A3051-9. Shpg, wt. 2 lbs .
\$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


## VIZ

## MASTER CHRO-BAR

 COLOR BAR GENERATOR SIGNALYSTIC 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 tered on screen. Provides pulse-type wavetorms tor troubleshooting. Also gives
brightness line on leading edge of 3 rd, 6 th, and 9 th 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 $120 \mathrm{~V}, 60 \mathrm{~Hz}$. Comes with shielded cable (BNC connectors), direct adaptor, 300 ohm transformer, cable for gun killer and instruction book. Size $4^{\prime \prime} \mathrm{H} \times 10^{\prime \prime} \mathrm{W} \times 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 7 lbs.
35A3136-8. Model WR-515A Each.
$\$ 199.00$

## SPECTACULAR TEST INSTRUMENT VALUES

FACTORY WIRED, CALIBRATED... READY TO USE


## VIZ/RB/ TECH VOM TESTER 20,000 OHM / VOLT

## MO-STICK TAUT BAND DIODE PROTECTED METER

$\$ 50.00$ features for only $\$ 19.95$
No stick taut band diode protected meter, accurate within $\pm 3 \%$ DC, $\pm 4 \%$ 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 $0.0 .05 \mathrm{~mA}, 25 \mathrm{~mA}, 250 \mathrm{~mA}$. Resistance ranges $0-$ 10K, 100K, 1 megohms. Decibel readings -20 to +22 $\mathrm{db},+22$ to 36 db . Size: $51 / 8 \times 3-5 / 8 \times 2^{\prime \prime}$ Supplied with leads.
35 A3178-0. Model WV547B
Each
21 A3
21 A327-2. Penlight Battery (requires
$\$ 19.95$

## Each



## 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 voltmeter or oscitloscope to measure signal output as low as 5 MA make sensitive noise tests study as dynamic leakage distribution and wave form ing dynamic leakage distribution and wave form inspection
Black plastic case with aluminum panel. Size $61 / 4$ $\times 2 \times 33 / 4 \prime$ " W. Full instructions supplied. Shpg. wt. 2 lbs. Imported at Big Savings!
No. 35A667-5
$\$ 18.90$


3 to 1 VIVM 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: 0.15 uA $1.5 \mathrm{~mA}, 15 \mathrm{~mA}, 50 \mathrm{~mA}, 150 \mathrm{~mA}, 500 \mathrm{~mA}, 5 \mathrm{~A}$; 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. Fre quency response on 5 VAC range is 10 Hz to 100 KHz $\pm 1 \mathrm{db}$. Uses 2 " $\mathrm{C}^{\prime}$ cell batteries, not supplied. Size $71 / 2^{\prime \prime} \times 51 / 4^{\prime \prime} \times 2-3 / 8^{\prime \prime}$. 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 $A C$ sensitivity. Special circuitry protects the meter movement against accidental overload. Specifications: DC Volts: $0-25,1,5$, $25,100,500,2500$ Volts $\pm 3 \%$; AC Volts: $0.5,25$, 100, $250,500,2500$ volts $\pm 4 \%$ volt; Decibels: -20 to +70, DC Current: $0-20,250$ UA $, 0-2.5,25$, $250 \mathrm{~mA} \pm 3 \%$; Ohms: $0-6 \mathrm{Meg}$ in 4 ranges, 40 ohms Center Scale. Powered by One 1.5 V size " $A A^{\prime}$ " battery (included). With test leads and instructions. Size $61 / 2 \times 43 / 4 \times 13 / 4^{\prime \prime}$. Shpg. wt. $2^{1 / 2}$ lbs.


## 35A3228-3. Each

$\$ 39.95$
35A8101-7. Carrying Case. Each
$\$ 3.25$

(1) POCKET-SIZE MULTIMETER

20,000 Ohms Per Volt DC Sensitivity. Exceptionally fine meter featuring a $31 / 2^{\prime \prime}$ easy reading scale. DC volts ranges $0-5,25,125,500,1000$. AC volts ranges $0-10-50-250-1000$. DC current $0-50 \mathrm{va}, \mathrm{O}-250 \mathrm{MA}$. Resistance $0-60,000$ and 0-6 meg. Decibel -20 to +22 . Features recessed range selector switch $D^{\prime}$ 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 $41 / 2^{\prime \prime}$ H. $\times 31 / 4^{\prime \prime}$ W. $\times 1^{\prime \prime}$ deep. With test leads, instructions and battery. Shpg. wt. 2 lbs .
35A618-8. Special Each.
$\$ 24.95$
(2) POCKET-SIZE MULTIMETER

## Built-in overload protection circuit-Burnout Proof

20,000 ohms per volt DC. Pocket multimeter designed for occuracy in the field or on the technician's bench. Easy-to-reod 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: $0-5-25-100-500-1000$. DC current ranges: $0-50 \mathrm{ua}, 5 \mathrm{MA}, 50 \mathrm{MA}, 500 \mathrm{MA}$ Ohms: $0-6,000,600,000 ; 6 \mathrm{Meg}, 60 \mathrm{Meg}$. Expanded low end scale. Decibels: 20 db to +62 db 15 ranges) size, $43 / 4^{\prime \prime} \mathrm{H} . \times 3^{\prime \prime} \mathrm{W} . \times 11 / 4^{\prime \prime} \mathrm{D}$. Heavy duty bakelite case, precision 250 uo 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 . 80

## Ungar

PRECISION SOLDERING IRONS

"Insul-cool handle" ruggedize 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.
Each
$\$ 3.05$
(1) New "clean Room" Handle. Heat stabilized polypropylene grip with airflow cooling keeps handle cool to the touch all day long. Octagon shaped nonslip poly-grip won't collect dust or deteriorate. Efficient, Perfectratures lanced. Supplied in attractive
same as y3067-3. Type 777 (Less Element and Tip)
$\$ 3.05$
TIPS WITH SELF-CONTAINED ELEMENTS
500 STANDARD SERESES-231/2 WATTS

1200 HI-HEAT SERIES- $371 / 2$ Watts
For general service and light to medium production line service. Tellurium Cop-

 $37 A 3073-1 \quad 6 \quad 1239 *$ Chisel $11 / 8 " L \times 3 / 8^{\prime \prime} \mathrm{W} \quad 800 \quad 3.75$ Solid iron silver plated for heavy duty production line use. 4000 SUPER HI-HEAT SERIES - $471 / 2$ WATTS
For all operations formerly requiring a 150 watt iron. Tellurium Copper Tip, iron clad, silver plated.

| 37A3074-9 | 13 | 4033 | Chisel | $1-5 / 8^{\prime \prime \prime} L x^{1 / 4}{ }^{\prime \prime}$ W | 1000 | 5.13 |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- |
| 37A3075-6 | 5 | 4036 | Pyramid | $11 / 8^{\prime \prime} L x 3 / 8^{\prime \prime}$ dial. | 1000 | 5.13 |
| $37 A 3076-4$ | 6 | 4039 | Hvy.ChI. | $11 / 8^{\prime \prime L} L 3 / 8^{\prime \prime} W$ | 1000 | 5.13 |

HEATING UNITS ONLY
new thread on heating units. Use with thread on Mini-tips below. $\begin{array}{lccccc}\text { Std. No. } & \text { Fig. } & \text { Type } & \text { Wattage } & \text { Temp. to Tip } & \text { Each } \\ 37 \text { A 3077-2 } & 14 & 4037 & 50 & 850^{\circ} & \$ 5.13\end{array}$ $\begin{array}{llllll}37 A 3077-2 & 14 & 4037 & 50 & 850^{\circ} & \$ 5.13 \\ 37 \text { A3078-0 } & 14 & 1237 & 42 & 750^{\circ} & 3.75\end{array}$ THREAD-IN HEATING UNITS
Use with Series 300 Copper and Iron Clad Tippets listed below.
 II. II *Indicates Iron Plated DE-SOLDERING DE-SOLDE FOR 4045 HEATING
UNIT
Specially shaped tips makes easy removal of parts from P.C. boards. Fits 4045 heating unit only.
 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
$\$ 1.83$
(1)
4.9.6.4.9.9.9. . . .

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 $3 \mathrm{oz} .5^{\prime \prime}$ long $x{ }^{2 \prime \prime}$ dia. at front. Turquoise color. 120 V . AC/DC.
37A3104-4 Type 6902. 2-Wire Cord
Each

\$5.65
37A3105-1 Type 6903. 3-Wire Cord.
$\$ 8.00$

## (2) INTERCHANGEABLE HEAT CARTRIDGES

Thread into Princess handles with fingertip ease. Heating section is threaded to accept nibs below. You can also use Series 300 Tips at left.


## $1 / 8$ INCH THREAD-IN NIBS (TIPS)



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.

## PRINCESS SOLDERING IRON HOLDER

Equipped with specially processed slit sponge for tip cleaning. Plastic base with swivel mounted metal cage. Wt. 3 oz .
37A3118-4. Type 6990
Each
\$5.52

37A3119-2. Refill Sponge. Type 6991 80 $^{\text {c }}$


## PRINCESS DE-SOLDERING TIPS




## 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.


I
UNGAR IMPERIAL SOLDERING PENCIL AND TIPS
3


COMPLETELY INTERCHANGEABLE HEAT CARTRIDGES \& TIPS TO FIT ANY SOLDERING JOB
Satisfies every demand for a coot, 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 "PPERMA-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 color. (Handle only, less Cord).
37A3131-7. Type 6100. Each.
$\$ 2.65$

## INTERCHANGEABLE PLUG \& CORD SETS

Select the cord that fits your needs, plug on to Perma-Cool Handle. $41 / 2 \mathrm{ft}$, 18 gauge flexible stranded wire, polyvinyl chloride insulation on both wire and female connector. Turquoise color.
$\begin{array}{lll}\text { Stk. No. } & \text { Type } & \text { Description }\end{array}$
$\begin{array}{lll}\text { 37A3133-3 } & 6102 & \text { 2-Wire cord W/Plug } \\ \text { 3-Wire Nema Cord W/Plug } & \text { Each } \\ & 6103\end{array}$

## (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
$2.5^{\prime \prime}$ beyond handle, $110-120$ volts. AC-DC. Each cartridge (except $15-$ watt) has $2.5^{\prime \prime}$ beyond hande. $110-120$ voits. AC-OC. 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, blue band, 6202 green band, 6203 yellow band.

$\ddagger$ Use only irun clad tips.

## 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.


UNGAR SOLDERING IRON HOLDER
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. Shpg. wt. 1 lb .
37A3101-0. 8000 For Standard Ungar 37A3302-4. 6800 for Imperial
Each

## UNGAR 8001 ANTI-SEIZE

Reduces tip thread seizure. Improves heat transfer. 17A7040-0.
$1 / 2 \mathbf{O x}$. Tube

UNGAR IMPERIAL SOLDERING IRON KIT \#6010

Save $\$ 2.00$ over the cost of individual components. Includes the 6100 handle, 6102 2-wire cord set, 620045 W . heat cartridge, and 3 soldering tips . 6318 , 6368 and 6473 . Comes in handy plastic pouch. $W_{t}, 1 \mathrm{lb} .6 \mathrm{oz}$.

37A3384-2
$\$ 15.65$

UNGAR DOUBLE INSULATED SOLDERING IRON

Easy to use, lightweight, compact design with flexivie 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 end is UL listed. Shpg. wt. 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 tiplets.


Each ....... Model 363 with integral chisel tip. $45 \mathrm{~W} .850^{\circ}-950^{\circ} \mathrm{F}$.
TIP ADAPTORS

"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-poihted and solder reof 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
Stk.No.
37A3122-6
37A3300-8

## Type Hole Dia.

$\begin{array}{llll}37 A 3300-8 & 7812 & .033 & \$ 1.63\end{array}$

## 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. Eliminates damaged leads, circuit destruction, burned fingers. Pushdamaged leads, circuit destruction, burned fingers. Push-37A3299-2 6982. DIP IC Extractor.
Each
Each $3745-3.6983$. T0-5 Transistor and ic Extractor
Each $\ldots \ldots \ldots \ldots \ldots \ldots \ldots . .42$
 Each
$\$ 3.42$


## "RE-TIP" <br> SOLDERING <br>  TIP CLEANER

Simply insert hot iron tip into re-fip then withdraw - all contaminants are instantly removed. Prolongs tip life, tips solder faster and longer. Cleans tips up to $1 / 4 /$ diameter uniformly, preventing contaminated solder joints. Carry a retip cartridge in your tool caddy for hand held use.
37A3408-9. Re-Tip Base and Cartridge Shpg. wt. 1 lb .
Each
37A3407-1; Re-Tip Cartridge
\$6.25
Shing. wt. $1 / 2 \mathrm{lb}$. Each
\$2.65

## HUNTER TOOLS HEAT SINKS

Absorb and dissipate heat instantly during soldering, protect delicate components from heat damage. Plastic coated handle. Shpg. wt, 4 oz . 37A3409-7 11/4" Long. Made of Each
37 A3410-5 $\quad 3 \frac{1}{4}, /$ Lona ..... $\$ 1.15$
Each
 Spring Steel, Plated; Copper Jaw Each

# Weller SOLDER TOOLS 

## Weller <br> CORDLESS SOLDERING IRON

THE NEW PORTABLE THAT MAKES
EVERYBODY ELSE'S OLD-FASHIONED!
s19"5

For the technician and hobbyist this is the cordless to do the ob! Heats up in six seconds. Develops tip temperature of $700^{\circ} \mathrm{F}+$. 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 ABOVEIRON



## WELLER MARKSMAN SOLDERING IRON



For hobby, kit, radio ... all general purpose soldering. Small, only $81 / 4^{\prime \prime}$ long $750^{\circ} \mathrm{F}$ tip temperature. For use on 120 volt AC. 25 watts. With instruction booklet. $\$ 4.95$ 37A3346-1. Model SP23. Each
Marksman Soldering Iron Kit. Contains SP23 iron, 2 extra tips, solder and solder aid tool.

```
37A3351-1. SP23K. Each ......................................................... $7.50
37A3362-8. MT-1 Replacement cone tip. Pkg. of 2\(\$ 1.19\)
```


## WELLER PENCIL <br> SOLDERING IRON

```
Ideal for miniature type soldering, kit building and production line work. Small and lightweight-hold it like, a pencil. High efficiency-rapid recovery. Impact esistant plastic handle stays cool. Long life industrial grade tips. Net wt. of ron and tip 13/4 02.
Model WP25--25 watt Professional iron. K/t" screwdriver tip. 2 wire cord. 120 V.
```





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.
37A3355-2 Model DS40. Each ......................................................................................
37 Each 386 -7 Model DS403. Like above with 3 -wire cord. $\$ 14.95$
\$18.25
Each.
3 Each
\$15.45
REPLACEMENT TIPS FOR DS40 and DS403 DESOLDERING TOOLS
37A3356-0
37A3357-8
37 A3358-6
37 A3 $359-4$ DST1-Desoldering tiplet. .038* Ea. ....... $\$ 1.79$ $\begin{array}{lllll}\text { DST2-Desoldering tiplet. } & .046^{\prime \prime} & \text { Ea. } & . . . . . . . \$ 1.79 \\ \text { DST3-Desoldering } & \text { tiplet. } & .059^{\prime \prime} & \text { Ea. } & \text { S } \\ \text { DST }\end{array}$ $\begin{array}{lllll}\text { DST3-Desoldering tiplet. } & .059^{\prime \prime} & \text { Ea. } & \text { S1.79 } \\ \text { DST4-Desoldering } & \text { tiplet. } & .063^{\prime \prime} & \text { Ea. } & \text {...... } 1.79\end{array}$ Get Immediate Shipment From B-A's Large Stocks


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
$37 A 62-7.8200$ Gun Önly.
$\$ 12.75$ 12 Each
$\$ 14.10$
27A2-7 8200 Gun Only. $\$ 12.75$ 12 Each .................. . . . $\$ 11.30$
Each
$\$ 10.90$ 12 Each
$\$ 12.20$
3 Each
REPLACEMENT HOUSING FOR 8200 GUN
37A3449-3. 8200RH. Complete left and right housing set. Each $\$ 3.95$


WELLER HEAVY-DUTY
DUAL HEAT SOLDERING GUN KIT - SOLDERS!

- MENDS!
- SEALS!
s19"s
- 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 secands 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 heavy jobs. Includes 3 handy tips; Long-life soldering tip; Smoothing tip for heatsealing, and mending plastic articles; Cutting tip for cutting plastic tiles, removing hard putty from broken windows, etc., tip changing wrench and all purpose ing hard putty from broken windows, etc.; Instruction booklet gives helpful hints - tells how to do various jobs. solder. Instruction booklet gives helpiul hints - tagis how has handle for easy carrying. Shpg. wt. $61 / 2 \mathrm{lbs}$.
$\$ 19.95$ 37C256-5. D550PK. Each
$\$ 15.95$
3 Each
$\$ 17.9512$ Each
$\$ 16.60$
37B4-9. D-550 Gun Only. Shpg, wt. 4 lbs. Each
$\$ 13.30$
3 Each .O.O. 37A3286-9. Type 7324. Net Each
\$2.95
WELLER SOLDERING TIPS


1 GC SOLDER AIDS
GC SOLDER AIDS Hex shaped Butyrate handles. Tools shed solder. Miniature size for printed circuits. $5^{3 / 4}$ " long. Stk. No. CC No. Description
37A3321-4 9069 Reamer G Scraper Tip \$1.25 (2) 37A3322-2 9073 Brush G Forked Tip... $\$ 1.30$ $\begin{array}{lll}\text { (2) } \\ \text { (3) } 37 A 3323-2 & 9074 & \text { Brush } G \text { Scraper Tip... } \$ 1.25 \\ \text { (3) } 37 A 3324-8 & 9076 & \text { Angle Reamer } G \text { Forked }\end{array}$ (3) 37 A3324-8 9076 Angle Reamer $G$ Forked $\$ 1.39$
 (2) 37A3193-7 9094 Forked Tip ............... $\$ 1.50$
$\begin{array}{lll}\text { (2) 37A3193-7 } & 9094 & \begin{array}{l}\text { Fine Brush G } \\ \text { Scraper Tip } \\ \text { (2) 37A301............. } \$ 1.50\end{array}\end{array}$


$\$ 1.50$

## 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 $700^{\circ} \mathrm{F}$, 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. $8^{\prime \prime}$ long with tip. Wt. 6 ozs.
Black type $\mathbf{7 5 0 0}$ 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.

| 37A3447-7. 0170. Replacement Ni-Cad Batteries. |
| :--- |
| 6.00 |

Pkg. of 2.
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 installed, recharge 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 lso-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 $9^{\prime \prime}$ long, weighs just over 6 ozs . Shpg. wt. 1 lb .2 ozs . 37A3443-6. Type 7800. Each
\$34.95
37A3380-0 12 Volt Auto Charger. Type 7585. Plugs into cigarette lighter receptacle. With 7595 protective carrier. Wt. 3 oz. Each .......... $\$ 4.95$
37 A3381-8 37A3382-6 Regular Tip. Type 7535. Wt. 1 oz. Each ............. $\$ 2.00$ 37A3383-4 Clear Plastic Protective Carrier Tube. Type 7595.
\$2.50
Wf. 14 oz . Each

## ISO ${ }^{\text {TIIP }} \mathbf{6 5 0 0}$ 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. $3^{\prime \prime} \times 11 / 4^{\prime \prime}$ dia.
37A3444-4. Model 6500. Each
37A3445-1. 6550 drill bit. Each $\qquad$

## "MICROFLAME" GAS WELDING TORCH

A completely self-contained gas welding torch that fits in the palm of your hand and produces $5000^{\circ}$ F. pin-point accurate flime. Welds, brazes, solders - hundred of uses in the shop, jewelry repair, de ntal labs, tool and model making .... i ieal for silver soldering and printed ac cuit repair - anywhere precision high leat 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
$\$ 1.90$
37B26-2. Micronox Cartridge, Package of 2

## CUB BUTANE TORCH

Perfect for every handyman and hobbyist, amateur or professional. Delivers controlled heat that allows pinpoint accuracy at $2500^{\circ} \mathrm{F}$. Directional adjustable flame can be rotated $360^{\circ}$ It solders, brazes - an invaluable tool. Complete with windguard and butane Comp
37A3400-6.
Each
$\$ 7.95$
37B33-8.
Butane Cartridge. Pkg. 2 For.. $\$ 1.90$


M3

## 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 triggen control. Handy...right angle styling. Rechargeable nickel cadmium 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. $\$ 19.95$ E Ea... $\$ 15.99$ 37A3390-9 17A19 Replacement tip. Each . . . . . . . . . . . . . . . . $\$ 2.60$

MODEL $450 K 425$ TO 450 WATT SOLDERING KIT $523^{95}$
Full range of heat power, Includes 25-100 watt tine tip 100-200 watt medium tip, 200-450 heavy duty tip and roll of solder. Shpt. Wt. 13 lbs .
37A3312-3 450 K 4 Kit .

37A3313-1 450 Gun only with 200 to 450 watt tip. Ea. ..... $\$ 16.95 \quad 3$ Ea. .... $\$ 13.55$


## 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


WEN 199 SOLDERING GUN 130 WATTS
Heats in just $21 / 2$ seconds, Cools when trigger is released. Small - fits tool kit or pocket, Light-easy to handle, less tiresome to use. $31 / 4^{\text {" }}$ extra long, narrow tip for tight spots. Built-in spotlight. Plastic handle and case are heat and shock resistant. 120 VAC. wt. $21 / 2 \mathrm{lbs}$. 37A329-0 Ea. ..... \$13.95 3 Ea.
$\$ 11.79$

## WEN REPLACEMENT TIPS

| Stk. No. | Description | Tip No. | For Gun Model | Each |
| :---: | :---: | :---: | :---: | :---: |
| 37 A3174.7 | Standard | 75A7 | 75 | \$2.60 |
| 37A3175-4 | Fine Point | 7587 | 75 | 2.60 |
| 37A3316.4 | Light Duty | $45 F 7$ | 222,450 | 3.00 |
| 37A3317-2 | Medium Duty | 45 M 7 | 222,450 | 3.00 |
| 37A3318-0 | Heavy Duty | 45 A7 | 450 | 3.00 |
| 37A3168-9 | Long Reach | 19B4 | 199, 100 | . 60 |
| 37A3169-7 | Standard | 25A4 | 250 | 80 |
| 37A3170-5 | Long Life | $25 \times 20$ | 250 | . 20 |
| 37A3172-1 | Standard | 28 C 4 | 288 | 1.60 |

## UNIQUE 'SOLDER SIPPER' <br> 5239 iach



## REMOVES SOLDER FROM ELECTRICAL TERMINALS

For Safe, Easy Removal of Components. Just heat soldered connection and amazing Solder Sipper "sucks-up" molten 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 .
37A3006-1
1-9 Ea.
$\$ 2.39 \begin{aligned} & \text { Each } \\ & \text { los }\end{aligned}$
\$2.19

## SOLDER AND ELECTRIC POWER TOOLS



## KESTER "44" RESIN <br> 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.

40\% TIN - 60\% LEAD, PRICES PER SPOOL

| Stock <br> No. | $\begin{aligned} & \text { Spool } \\ & \text { Size } \end{aligned}$ | Diameter | $\begin{aligned} & 1.10 \\ & \text { Each } \end{aligned}$ | $\begin{aligned} & 11 \mathrm{Up}_{\text {Each }} \end{aligned}$ | Each | $\begin{aligned} & 3 \mathrm{Up}_{2} \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17A7045-9 | 1 lb | 3/32" (093) | \$4.80 | \$4.32 |  |  |
| $17 A 7046-7$ $17 A 7047-5$ | 5 lb 1 1 lb. | 3/32" ${ }^{\prime \prime}$ (093) | 5.24 | 4.72 | \$23.70 | \$21.33 |
| 17A7048-3 | 5 lb . | 1/16" ${ }^{\circ}$. 0662 |  |  | 25.90 | 23.31 |
| 17A7049-1 | 1 lb | 1/32" (.031) | 6.30 | 5.67 |  |  |
| 50\% TIN - 50\% LEAD, PRICES PER SPOOL |  |  |  |  |  |  |
| 17A7051-7 <br> 17A7052-5 | $\begin{aligned} & 1 \mathrm{lb} . \\ & 5 \mathrm{lb.} \end{aligned}$ | $\begin{aligned} & 3 / 32^{\prime \prime}\left(\begin{array}{l} 093) \\ 3 / 32^{\prime \prime} \\ (093) \end{array}\right) \end{aligned}$ | 5.84 | 5.26 | 28.90 | 26.00 |
| $\begin{aligned} & 17 A 7053-3 \\ & 17 \Delta 755-1 \end{aligned}$ | 1 lb 5 5 lb. | $\begin{aligned} & 1 / 16^{\prime \prime}(.062) \\ & 1 / 16^{\prime \prime}(.062) \end{aligned}$ | 6.22 | 5.60 | 30.80 | 27.72 |
| 60\% TIN - 40\% LEAD, PRICES PER SPOOL |  |  |  |  |  |  |
| $\begin{aligned} & \text { 17A7057-4 } \\ & 17 A 758-2 \\ & 17 A 7094 \\ & 17 A 7059-0 \\ & 17 A 7060-8 \\ & \text { 17A7095-4 } \\ & \text { 17A701.6 } \\ & \text { 17A7062-4 } \\ & \hline \end{aligned}$ | 1 lb | 3/32" (093) | 7.00 | 6.30 |  |  |
|  | 5/2 lb . | 3/32"** $1 / 693)$ |  |  | 34.70 | 31.23 |
|  | 1 lb . | '/6". ${ }^{\text {c/ }}$. 062 | 7.22 | 6.50 |  |  |
|  |  |  |  |  | 35.80 | 32.22 |
|  | $1 / 2 \mathrm{lb}$ | 1/32" 031$)$ |  |  |  |  |
|  | ${ }^{1} \mathrm{l} \mathrm{lb}^{5} \mathrm{lb}$. | $\begin{aligned} & 1 / 32^{\circ} \\ & 1 / 32^{\circ}(.031) \\ & \hline .031) \end{aligned}$ | 8.36 | 7.52 | 39.80 | 35.82 |
| 63\% TIN - 37\% LEAD, PRICES PER SPOOL |  |  |  |  |  |  |
| 17A7073-1 | 1 lb . | /6" (062) |  | 6.80 7.76 |  |  |
| $\begin{aligned} & 17 A 7075-6 \\ & 17 A 7076-4 \end{aligned}$ | ${ }^{1} 1 \mathrm{lb}$. | $\begin{aligned} & 1 / 32^{\prime} \\ & 1 / 32^{\prime \prime} \\ & 031) \\ & 031) \end{aligned}$ | 8.62 | 7.76 | 41.10 | 36.99 |
| 17 A7090-5 | 1 lb . | 015 | 13.56 | 12.20 |  |  |
| 17A7091-3 | 1 lb . | . 020 | 10.88 | 9.79 |  |  |
| 17A7092-1 | 1 lb . | (.025) | 9.02 | 8.12 |  |  |

17A7023-6 1
KESTER TV-RADIO SOLDER
17A7009-5 40\% Tin-60\% Lead.

## SERVI-TUBE DISPENSER

$60 \%$ Tin - $40 \%$ lead with a resin flux core. Feeds easily from the handy Ser-vi-Tube dispenser. Dia. $1 / 16^{\prime \prime} .1 .3 \mathrm{oz}$, net wt

17A7020-2. Kester Soldering Paste. Each
39. 10 Each

## SODER-WICK - 5 FT. SPOOLS



Desolder any connection in seconds. SoderWick absorbs molten solder instantly. Eliminates component damaging heat build-up.

| Stock No. | G.C. No. Width | Application | Each |  |
| :--- | :---: | :---: | :---: | ---: |
| 17A7097-0 | $40-15$ | .025 | .060 and Smaller Pads | $\$ 1.64$ |
| $17 A 7098-8$ | $40-25$ | .050 | .060 to 125 Pads | 1.64 |
| $17 A 7099-6$ | $40-35$ | .075 | .125 to 190 Pads | 1.64 |
| $17 A 7100-2$ | $40-45$ | .100 | .190 and Larger Pads | 1.86 |
| $17 A 7101-0$ | $40-55$ | .130 | Connectors \& Terminals | 1.86 |
| $17 A 7102-8$ | $40-62$ | .190 | Large Connectors \& Terminals | 1.64 |

## "SAL-MET" NON CORROSIVE FLUX

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
$\$ 1.99$
MOTOR SPEED CONTROL JUST PLUG IT IN AND ADJUST SPEED


CONTINUOUSLY VARIES SPEED OF ANY AC-DC MOTOR FROM ZERO RPM TO FULL SPEED
WITHOUT LOSS WITHOUT LOS

Electric tool operations are faster, surer, more precise with this amazing new device. Just "dial" the proper speed for the job, from 0 RPM to full speed. Allows slow speed to start holes when drilling or sawing. Easily saves its cost in drill bits and saw blades alone.
For use on Universal $A C-D C$ or series $D C$ motors. Unbreakable all metal for use on Universal $\mathrm{AC}-\mathrm{DC}$ or series DC motors. Unbreakable all metal
housing size $21 / 4^{\prime \prime} \mathrm{D} . \times 25 / 8^{\prime \prime} \mathrm{W} \times 37 / \mathrm{m}^{\prime \prime} \mathrm{H}$. Clip on back for use on belt housing size
or hanging on wall. On-off switch. $6 / 8$
ft volts AC. Shpg. wt. 2 lbs .
37B28-8. For Up To 5 Amp Loads. Each.
37A9098-2. For Up To 10 Amp Loads. Each
188
$\$ 15.95$

USM ELECTRIC GLUE GUN
 drip check valve stops flow of glue on release of trigger. Bonds ready for use in 60 seconds. No clamping needed.
With three $4^{\prime \prime}$ sticks of alue. Shpg. 2 lbs
37A5594-4. Model 207. Each
37A5595-1. Box of 27 Pieces of $4^{\prime \prime}$ Glue
ELECTRIC GLUE GUN ONE MINUTE FIXING AND FASTENING TOOL \$795

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, wa-ter-proof coulking around bathtubs, shower stalls, etc. With 4 glue sticks, 3 sealer sticks. Operates on 115 V . AC. Shpg. wt. $11 / 2 \mathrm{lbs}$.
37A5521-7. Model 203. Each
37A5553-0. Thermogrip Glue Sticks. Package of i4
37A5553-0. Thermogrip Glue Sticks. Package of 14
37A5548-0. Thermogrip Glue Sticks. Box of 60 ...
$\$ 3.69$
37A5548-0. Thermogrip Glue Sticks. Box of $60 \ldots \ldots \ldots \ldots$
37A5554-8. Thermogrip White Sealer Sticks. Package of is $\qquad$

## BURGESS VIBRO-GRAVER ENGRAVING TOOL



Heavy duty for continuous operation. Comfortable hand-rest design. Delivers 7200 strokes per minute for fast, clean work. Control wheel adjusts "impact" for fine, medium or coarse stroke Unbreakable polypropylene housing Unbreakable polypropylene housing. With ha
Wt. 1 lb .
Model V-74M
37A9015-6. Each
$\$ 17.95$
37A9016-4. 98003. Tungsten Point Each $\because \cdots \ldots . . .{ }^{2}$. $\$ 1.80$ 37A9017-2. 98080 . Diamond Point Each

## BVI ELECTRIC PAINT SPRAYER $\$ 22^{95}$



A totally new airless paint sprayer to take the drudgery out of home painting iobs. Paints faster and easier than brush or roller, - Will spray just Also may be used to spray parden Also may be used to spray garden insecticides. Heavy 6 ft . cord, 24 oz jar.
37 A9096-6. Model $860-5$
Net
Each
\$22.95

## （0⿴囗十inl ）MOTO－TOOLS AND ACCESSORIES

 accommodate all $1 / 8^{\prime \prime}$ 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 fin－ gertip control．Has $34^{\text {＂}}$ 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 $8^{\prime \prime}$ bench－type $360^{\circ}$ 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．
37A9164－2．Model 232．Each
DREMEL MOTO－TOOL ACCESSORIES


WIRE BRUSHES
Handy steel brushes for removing rus and corrosion，polishing metal．
$1 / 8^{\prime \prime}$ shanks．
Fig．Stk．No．Type Net Each

37A9066－9． 442
37A9067－7． 443
MANDRELS FOR ABOVE （4） $1 / 8^{\prime \prime}$ shank．For use with cutting wheels，sanding discs．
37A9080－0．Type 402．Each ．．．．．．．．95 （3）Threaded siud type for polishing wheels．
37A9081－8．Type 424．Each．．．．．．．95
（1）DRUM SANDER For smoothing，polishing． $1 / 8^{\prime \prime}$ shank Replaceable bands．
Stk．No．Type Dia．Net Each 37A9068－5 407 1／2＂$\quad \$ 1.35$ REPLACEMENT BANDS（ 6 Per Pack）

 | $3749070-1.408$ | $1 / 22^{\prime \prime}$ Coarse | $95^{\circ}$ |
| :--- | :--- | :--- |
| $37 A 9071-9.432$ | $1 / 2^{\prime \prime}$ | Fine |
| $95^{\circ}$ |  |  |

 37A9084－2 Type 411．Coarse Sanding Discs．Box 36 \＄1．15
$37 A 9085-9$ Type 412 ．Medium Sanding Discs．Box $36 \$ 1.5$
37A9086－7 Type 413．Fine Sanding Discs．Box 36 37A9086－7 Type

## SILICON

 GRINDING POINTS（1）（2）（3）（4）（3）（1） silicon for working on hard steel， writing on glass and other hard ma－ terials． $1 / 8^{\prime \prime}$ shank．
Fig．Stk．No．Type Net Each


## MOUNTED ALUMINUM OXIDE WHEEL POINTS

## $\int_{(2)} \overbrace{(3)}$ All have $1 / 8^{\prime \prime}$ shank．

 （3）37A9027－1 932 3／8＂ $1 / 2^{\prime \prime}$
（©）POLISHINC WHEELS Used for polishing metals and plastics． Used for polishing metals and plastics．
Fits 402 Mandrel ot left． Stk．No．Type Dia．
 $\begin{array}{ll}3749078-4429 & \text { Felt Each } 95^{\circ} \\ 37 \text { A9079－2423 } \\ \text { I＇Cloth Each } \\ 95^{\circ}\end{array}$


## SANDING DISCS

Fine Sanding Dises．Box $36 \ldots . . \$ 1$ ． 1

## TUNGSTEN CARBIDE CUTTERS

## （1）

For working tool steel．Outlasts steel cutters many times． $1 / 8^{\prime \prime}$ shank．

| Fig． | Stk．No． | Type | Net Each |
| ---: | :--- | :--- | ---: |
| 1） | $37 A 9057-8$ | 9901 | $\$ 5.10$ |
| （2） | $3749058-6$ | 9903 | 5.10 |
| 8 | $3749059-4$ | 9906 | 5.10 |
| （ | $37 A 9060-2$ | 9907 | 5.10 |
| （5） | $37 A 9061-0$ | 9908 | 5.10 |

## HIGH SPEED STEEL

 CARVING CUTTERS
## （1）I（2）｜l（3）（4）$\prod_{\text {For wood，plastics，etc．} 1 / 8^{\prime \prime} \text { shank．}}^{\text {（6）}}$



## DREMEL MOTO－FLEX POWER TOOL

Shape hundreds of your creative ideas with this complete miniature high speed flexible shaft fool．You can expect speed， power and precision whether you work with wood，plastics，gems，rocks，leather glass，metals or ceramics． $1 / 8^{\prime \prime}$ collet will
\＄59．95

## CONSTANT SPEED MOTO－TOOLS

Exciting new concept in space－age electronics．Rugged new industrial type grinder has permanent magnet motor produces 30,000 RPM．Has more than twice the power of previous models， will not stall under normal load．Elec－ trically welded armature is dynamically balanced for vibration－free operation． All models use $1 / 8^{\prime \prime}$ 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 $1 / 8^{\prime \prime}$ collet． Size $6 \times 11 / 2^{\prime \prime}$ ．Net wt． 9 ozs．Shpg． $\mathrm{wt} .11 / 2 \mathrm{lbs}$ ．
37C160－9．Net Each．．．．．．\＄29．95
Model 261．Complete Kit， 260 Tool
37C159－1 W＋ $\mathrm{W}^{1 / 2}$ lbs Each
\＄39．95
37C159－1．Wt． $21 / 2$ lbs．Each
collet．Size
Model 270．Tool Only．More powerful industrial unit with $1 / 8^{\prime \prime}$
$31 / 4 \times 1+\frac{1}{6}$＂．Tool wt． 11 ozs．Shpg．wt． 2 lbs．
37C415－7．Net Each．
$\$ 34.95$
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 cons heavy duty．Tool wt． 11 ozs．Shpg．wt． 2 lbs．
37A9006－5．Net Each．
$\$ 39.95$
Model 281．Complete Kit． 280 Toot and 34 piece accessory kit．
37A9127－9．Shpg．wt． 3 lbs．Net Each
$\$ 49.95$

## 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 $1 / 8^{\prime \prime}$ collet．Size： $1-11 / 16^{\prime \prime}$ diameter $\times 71 / 4$＂long．
Model 380．Tool only with $1 / 8^{\prime \prime}$ collet．Shpg．wt． 2 lbs．
37A9149－3．Each
$\$ 49.95$
Model 381 Complete Kit． 380 Tool and 34 Piece Accessory Kit．
37 A9150－1．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 appli－ ances up to 5 amps ．Shpg．wt． 2 lbs ．
37A9598－1
Each
．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．\＄19．95
Foot Control Model 217．Same as above，except foot pedal operated．Shpg． wt． 2 lbs．
37A9641－9．Each
\＄21．95


## WEN DOUBLE INSULATED POWER TOOLS

## 2-SPEED RECIPROCATING SAW



SHOCKPROOF
Red housings, double insulated against shock hazards. 2 wire cords plug in anywhere. No grounding or 3 prong adaptors required.

## (1) PRO MODEL 801-3/8' $\mathbf{8}^{\prime \prime}$ VARIABLE SPEED DRILL

Powerful 2.6 amp . $1 / 2$ 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. $8^{3 / 4^{\prime \prime}} \times 2-5 / 8^{\prime \prime} \times 6-7 / 8^{\prime \prime} \mathrm{H}$. Shpg. wt. $31 / 2 \mathrm{lbs}$.
37A9584-1. Model 801. Each
$\$ 22.95$

## (2) PRO MODEL 300 - DUAL ACTION SANDER

Powerful 2.6 amp . $1 / 2$ 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. $120 \mathrm{VAC} .9^{\prime \prime} \mathrm{L} . \times 3334^{\prime \prime} \mathrm{W} . \times 63 / 4^{\prime \prime} \mathrm{H}$. Shpg. wt. 4 lbs .
37A9585-8. Model 300. Each
\$22.95

## (3) PRO MODEL 802-3/8"

## VARIABLE SPEED REVERSING DRILI

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 . $1 / 2$ H.P. motor. 120 VAC. $83 / 4^{\prime \prime} \mathrm{L} . \times 25 / 8^{\prime \prime} \mathrm{W} . \times 6 / 8^{\prime \prime} \mathrm{H}$. Shpg. wt. $31 / 2 \mathrm{lbs}$. 37 A9114-7. Model 802. Each
\$29.95
Versatile, compact, lightweight. Ideal for homeowners, contractors, electricians, plumbers. Prunes 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, $2 / 3$ 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 $16^{\prime \prime}$ center studs and joists. Five blades included. Shpg. wt. $61 / 2 \mathrm{lbs}$.
37A9159-2. Model 1600. Each.
\$39.95

## 71⁄4 INCH CIRCULAR 2 HP MOTOR POWER SAW

$$
\$ 34^{95}
$$

## 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. shockproof high impact cycla of cut at $90^{\circ} \quad 23 / 8$ har $4 y^{\circ}$ shockproof high impact cyciolac wousing, lubricated bearings, with extra safe slip clutch. Calibrated rip fence included. With $71 / 4^{\prime \prime}$ combination blade. For $120 \mathrm{VAC}, 60 \mathrm{~Hz}$. Shpg. wt. 11 llss.
37 A $9116-2$. Modet 961 . Each
37A9116-2. Model 961. Each.

## WEN 10" ELECTRIC CHAIN SAW

DOUBLE INSULATED PLUS UNITIZED CONSTRUCTION


- ELECTRIC POWERED! JUST PLUG IT IN AND PULL THE TRIGGER. NO GAS OR OIL TO MIX.
- SUPER POWERED, DYNAMICALIY BALANCED ... 2 HP MOTOR, 11 AMPS, 120 VAC, 5200 RPM.
- BUILT-IN 4 OZ. CAPACITY MANUAL OILER LOCATED ON MAIN GRIP HANDLE.
- EQUIPPED WITH 10" OREGON REVERSIBLE GUIDE BAR AND CHISEL TOOTH CHAIN.

Powerful, lightweight and value-priced $10^{\prime \prime}$ 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 $10^{\prime \prime}$ bar, and chisel tooth chain. Cutter bar is reversible for extended life. 120 VAC, 11 amps, 2 HP. Shpg. wt. 10 lbs.
$\$ 49.95$

## 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 . $1 / 2^{\prime \prime}$ geared Jacobs chuck with $1 / 2^{\prime \prime}$ capacity in steel, $11 / 4^{\prime \prime}$ 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 han-dle-design for perfect balance, auxiliary $1 / 2$ "'pipe handle. Heavy-duty gears, ball thrust and bronze bearings. Double insulated. Value-rated and value-priced-with power to spare. 120 Volt AC, 4 amps. Shpg. wt. 6 lbs.


37A9132-9. Model 953. Each

PERMANENT IDENTIFICATION


ON SHOP TOOLS


ON GLASS


WEN ELECTRIC PENCIL ENGRAVER


Versatile, lightweight, use it like a ballpoint pen. Writes on almost any material where a permanent identification or pattern is desired. For woods, metals, plastics or glass. able 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 hiimpact plastic housing. $7^{-1}$ long. 120 V AC. Wt. 13 ozs.
37A9109-7. EACH
$\$ 7.95$

## $\$ 12^{95}$

Drop handle design for perfect balance and control. New, efficient unitized construction for more reliability and increased performance. Powerful 2.6 amp. $1 / 2$ H.P. motor. 2000 R.P.M. Ball thrust bearings. Jacobs chuck. $120-\mathrm{V}$ A.C. Universal motor-Red housing. $83 / 4^{\prime \prime}$ long $\times 25 / 8^{\prime \prime}$ wide $\times 67 / 8^{\prime \prime}$ high. Shpg. Wt. $31 / 2 \mathrm{lbs}$.
37A9113-9 Wen Pro Model 700. Each...................................... \$12.95
MODEL 919 DOUBLE-INSULATED 3 INCH BELT SANDER
Professional quality three-inch, continuousduty belt sander handles the toughest sanding jobs with ease-1000SFPM. Unique tension design lets you change belts in seconds. Single control tracking adjustment. Lock "ON", quick-release safety trigger. Heavy-duty gears, oversized needle and bronze bearings. Three belts included, one each fine, medium, coarse. Lightweight, only 7 lbs . Convenient contour handle and auxiliary grip. 120 Volt AC, 4 amps . Shpg. wt. 8 lbs .
37 A9130-3 Model 919. Each
$\$ 49.95$
Sanding belts for Model $919.3^{\prime \prime} \times 18^{\prime \prime}$ aluminum oxide cloth back.

| 37A9145-1 | 911. 60 Grit. Ea | \$1.50 | 10 For . . \$ $\mathbf{1 2 . 0 0}$ |
| :---: | :---: | :---: | :---: |
| 37A9146-9 | 914. 50 Grit, Each | \$1.50 | 10 For . . $\$ 12.00$ |
| 37A9147-7 | 915. 80 Grit. Each | \$1.50 | 10 For ... \$12.00 |

## DOUBLE-INSULATED VARIABLE-SPEED SCROLL SABER SAW

Simple turn of the blade-guide knob lets you cut in any direction without turning saw! Locks in four positions: $0^{\circ}$. $90^{\circ}, 180^{\circ}, 270^{\circ}$. Variable-speed switch varies torque and speed as you cut-from 0 to 2800 powerful one-inch strokes per minute. Extra-large shoe-plate adjusts for left or right angle cuts. Shoe moves forward for plunge cuts-backward for flush cuts. 120 Volt AC, 4 amps , Ideal for intricate scroll work. Powerful enough to zip through $2 \times 4^{\prime}$ 's or $4 \times 4^{\prime}$ s at $45^{\circ}$ - or to cut six-inch logs! Cuts two-inch pipe, half-inch steel, all metals-even linoleum, leather, rubber, cardboard! Includes seven assorted blades for every type cut, plus rip-guide, Lightweight-only $5 \mathrm{lbs} ., 2$ ozs. Shpg. wt. 6 lbs .
37A9129-5 Model 531. Each ..................

\$39.95

EXTRA BLADES for 531, 521,511,510,920D,920,909D and 909
 $\$ 3.00$

2.70 37 A9557-7. No. 903 Wood, Aluminum, 8 Teeth Per Inch. Package of 3 . 37 A9558-5. No. 904 Wood, 14 Teeth Per Inch. Package of 3 $37 A 9559-3$. No. 905 Cardboard, Leather, Rubber. $4^{\prime \prime}$ Knife Blade. Pkg. of 3 37A9560-1. No. 906 Steel, 14 Teeth Per Inch. Package of 3. 37A9561-9. No. 907 Sheet Metal, Bakelite, Formica, Tile, etc 37 A9522-1. No. 900 . Package Per Inch. Package of 3. |  |
| :--- | :--- | Use B-A's E-Z Pay Revolving Charge To Buy The Power Tools You Need

37A9154-5. 7 Inch Wheel Guard. Each
\$12.95
A quiet $1 / 2$ H.P. 4 amp . high torque universal motor running at 3550 RPM. Heavy duty precision ball bearings. Dy. namically balanced wheels, coarse and medium grit, $6^{\prime \prime}$ diameter, $3 / 4$ " thickness

WORLD'S FIRST DOUBLE INSULATED MEM BENCH GRINDER! 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.
\$59.95
MODEL 1501 HEAVY DUTY IMDUSTRIAL
WEN 7 INCH GRIWDER/SAMDER

DOUBLE INSULATED, HIGH SPEED

Powerful, rugged, double insulated hi-speed $7^{\prime \prime}$ grinder/sander. Weighs iust 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. $120 \mathrm{VAC}, 2 \mathrm{HP}, 10 \mathrm{amps}$. Shpg. wt. $111 / 2 \mathrm{lbs}$.
37A9152-7. Model 1501. Each
\$69.95
OPTIONAL EQUIPMENT FOR 1501
37A9153-5. 7 Inch Wheel Guard. Each
37A9154-3. $7 \times 1 / 4$ " Wheel, 36 Grit. Each

## VERSATILE SHOP TOOLS



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.

|  | Size | W | Each |  | Size |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37A3032-7 |  | 2 oz | \$4.20 | 37A3046-7 | $11 / 4$ | 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 | 1 | 13 oz . | 6.65 |
| 37A3035-0 | 11/16" | 3 oz . | 4.25 | 37A3246-3 | 1-5/8 | $11 / 4 \mathrm{lb}$ | 8.15 |
| 37A3036-8 | 3/4 | 3 oz . | 4.25 | 37A3247-1 |  | $11 / 4 \mathrm{lb}$ | 9.20 |
| 37A3037-6 | 13/16 ${ }^{\prime \prime}$ | 3 oz . | 4.25 | 37A3248-9 | 1.7 | $11 / 2 \mathrm{lb}$ | 11.40 |
| 37A3038-4 | 7/8' ${ }^{\prime \prime}$ | 3 oz . | 4.25 | 37A3249-7 | $2^{\prime \prime}$ | $13 / 4 \mathrm{lb}$ | 11.95 |
| 37A3039-2 | 15/16" | 6 oz . | 4.70 | 37A3250-5 | 21/8' | 2 lb | 12.90 |
| 37A3040-0 | $1^{\prime \prime}$ | 6 oz . | 4.70 | 37A3251-3 | $21 / 4$ | $21 / 2$ | 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 | $23 / 4$ |  | 30.15 |
| 37A3044-2 | 1-3/16" | 8 oz . | 4.90 | 37A3254-7 | 2-25 | $31 / 2 \mathrm{lb}$ | 21.75 |
| 37A3045-9 | 1-7/32 | 9 oz . | 8.35 | 37A3255-4 |  |  |  |

(2) No. 732 "KEYWAY PUNCH" Makes $11^{\prime \prime}$ " hole with keyway for Amphenol " S " and similar sockets.
37A3259-6. Each $\$ 12.60$
(4) No. 731 SQUARE HOLE


Extra Drive Screws for Above
 $37 A 3257-0$
$37 A 3258-3$
"thru $1 / 1 / 2^{\prime \prime}$

## (3) No. 733 "D" HOLE

For HF and miniature tube sockets such as Amphenol's of a D shape. | Nuch |  |  |
| :--- | :--- | :--- |
| No. Size | Wt. | Each |
| $37 \mathrm{~A} 3260-4$ | $1 / 2^{\prime \prime}$ | 2 oz |
| 129.35 |  |  | $\begin{array}{llr}37 A 3260-4 & 1 / 2^{\prime \prime} & 2 \mathrm{oz} . \\ 37 A 3261-2 & \$ 9.35 \\ 37 & 3 \mathrm{oz} . & 9.95\end{array}$ Make 9.95 (3) NO. 731R RELAY SOCKET PUNCH. Makes clean, accurate finished holes for Potter $\mathcal{G}$ Brumfield Type KHP relay sockets. $1.018^{\prime \prime} \times .861^{\prime \prime}$. Wt. . $\mathbf{\$ 2 3}$ oz.

37 . 326 . 37A3267-9. Each for PGB type KU and KUP, RBM type 93Q. Cuts hole 37A3245-5. 731R. Net Each.
\$34.85

## (8) BALL BEARING REPLACEMENT DRIVE SCREWS

Greenlee punches cut aasier 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. 37A3268-7
37 A3269-5 $37 A 3269-5$
$37 A 3270-3$ 37A3271-1

## Pype AV 22 BB AV V 12 BB <br> AV128B

## AV304BB

## For Punch Sizes $3 / 4, \frac{13}{1}, 7 / 8^{\prime \prime}$

## STEEL LETTER AND NUMERAL STAMP SETS



High alloy square steel stamps, precision made, heattreated and tested. Each stamp satin finished and rust proofed. $1 / 8^{\prime \prime}$ gothic character type sizes letter sets are 27 pieces from $A-Z$ plus " $g$ " sign. Numeral sets are 9 pieces from $1-8$ plus 0 ( 6 and 9 are reversible). Each set packed in attractive carton. 9 PIECE NUMERAL SET. Shpg. wt. 1 lb . 37A3412-1.
\$6.73 27 PIECE LETTER SET. Shpg. wt. 2 lb . 37A3413-9. Hanson 386351. Each


## 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 fubing 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 $125^{\circ} \mathrm{C}$. For $110 / 127 \mathrm{~V} .50 / 60 \mathrm{~Hz}$. Shpg. wt. $11 / 2 \mathrm{lbs}$.
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 $.007^{\prime \prime}$ 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 $3 / 8^{\prime \prime}$ round shank. Holes of infinitely variable diameter can be drilled the further the tool advances, the bigger the hole. Use ther the tool advances, the bigger the hole. Use
on pedestal drilling machines without clamps. Shape allows easy withdrawa on pedestal drilling
from the workpiece.

$$
\text { 37A9160-0. GC 3400. No. } 1 \text { drill only from } 1 / 4^{\prime \prime}-13 / 16^{\prime \prime}(6 \mathrm{~mm}-20 \mathrm{~mm})
$$ Ea.

$\$ 12.95$ 37A9161-8. GC 3405 . No. 2 drill only from $5 / 8^{\prime \prime}-1-3 / 16^{\prime \prime}(16 \mathrm{~mm}-30 \mathrm{~mm})$ Each
Each 97 A9163-4. GC 3425 . Coolant Compound, i fluid Oz. Tube Each .. $\$ 2.50$ 37A9162-6. GC 3420. Set in Plastic Wallet. Includes No. 1 and No. 2 Tools and Coolant - size range $1 / 4^{\prime \prime}(6 \mathrm{~mm}) 1-3 / 16^{\prime \prime}(30 \mathrm{~mm})$. Shpg. wt. 11 lbs . Each
\$34.95


## (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. 37A3212-5. PER SET.
\$18.95

## (2) TAP WRENCH

Sliding handle type. Knurled chuck holds No. 0 to 12 taps.
37A3213-3. Each
$\$ 1.45$
(3) TAPS

Made of high carbon, alloy steel Each Stk.No Size O.D Each

| Stk. No. | Size | O.D. | Each | Stk.No. | Size | O.D. |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 37A3215-8 | $2-56$ | .086 | $\$ 1.55$ | $37 A 3218-2$ | $8-32$ | .164 | $\$ 0.83$ |
| 37A32166 | $4-36$ | 112 | .78 | $37 A 3220-8$ | $10-32$ | 190 | .95 |
| $37 A 3217-4$ | $6-32$ | .138 | .78 | $37 A 3221-6$ | $1 / 4-20$ | .250 | .99 |

## PORTABLE VACUUM VISE S

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 $11 / 2^{\prime \prime}$ and $21 / 2^{\prime \prime}$ jaws. Handy for holding material for shaping or sharpening. Precision crafted in Japan. Wt. 5 lbs.
37A5549-8. Each
$\$ 10.95$

## SPEEDY BEND TOOL

Forms $1 / 4$ and $1 / 2$ 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.
37 A3414-7. Each
$\$ 2.39$
$5^{2}$

## MIS MULTI-PURPOSE <br> Hinter Tools ELECTRICAL TOOL <br> $\$ 758$ <br> 

For use in the shop, home, or service center. This useful tool crimps, strips 12 through 24 AWG wire, cuts wire, cuts 6 sizes of screws. Serrated jaws for gripping and bending wire, $81 / 2$ " long. Shpg. wt. 16 oz .
37A1033-7. Hunter 55A. Each .
$\$ 7.58$


HUNTER STAINLESS STEEL TWEEZERS
(1)37A1017-0.\#CCl15. Needle points. $41 / 4^{\prime \prime}$ long. Each ......... \$4.69
(2)37A1018-8.\#CC17. Curved points. $4 \frac{1}{4}$ " long. Each ......... \$4.33 CARBON STEEL, NICKEL PLATED TWEEZERS
(4) 37 A1019-6. $\mathrm{ECC}-\mathrm{AAA}$. Strong Tweezer, fine points. $4 \frac{1 / 4}{}{ }^{\prime \prime}$ long.

Each
$\$ 1.97$
(3)37A1020-4. \#CC50. Slim Tweezer. 41/4" long. Each .......... \$1.18
(5)37A1021-2. \#CC51. Reverse Tension. $41 / 4^{\prime \prime}$ long. Each
\$1.27
(6)37A1022-0. \#CC53. General Purpose. $61 / 4^{\prime \prime}$ long. Each
\$2.44

(1) HUNTER "SMITTY" HEX KEY SET

Convenient, easy to use. Gives right key size when you want it. Blade sizes 3 $32^{\prime \prime}$ thru $1 / /^{\prime \prime}$ ". Handle acts as lever for higher torque. Hunter \#10191. 37A1028-7. Each
(2) HUNTER ALL PURPOSE KNIFE

Lightweight aluminum handle, steel blade. Diameter $5 / 16^{\prime \prime}$, length $5^{\prime \prime}$.
37A1024-6. Model E20. Each ..............................

37A1026-1. Curved shape for thin materials. 5 Blades $81^{\circ}$ (3) HUNTER HAND SHEARS

Designed to be held in palm of hand to keep fingers free for use. Forged steel, nickel plated. Length, $41 / 2{ }^{\prime \prime}$
37A1023-8. Model F14. Each
. \$6.43

## HUNTER SWISS NEEDLE FILES



Same as used by jewelers, watchmakers, 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 Each
$\$ 17.99$

## SOLDERING AID AND SCRIBER

(1)
(2)

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 - $81 / 2$ "long. Each $\$ 1.35$ (2) 37A3009-5. Combination Scriber and AwI - $8^{1 / 2} 2^{\prime \prime}$ lonq. Each. \$1.35

## HANSON HIGH SPEED



## 13 PIECE DRILL SET

Contains 13 full jobbers length finest quality high speed drills in sizes $1 / 6$ to $1 / 4$ by 64 ths in unbreakable plastic ase. Most popular sizes for general 37A9567-6 Hanson 5 -11

## POPULAR WIRE STRIPPERS


(1) UTICA "STRIPWRIGHT" WIRE STRIPPER

Slim nose design...r reoches into the most closely confined oreas. Just insert wire in end jows and squeeze hondle strips fost and clean. Cailibroted cam action dial adjusts to strip from \#12 to \#26 wire gouge size. Handles Teflon as well os other insulations. Gripping jows hold wires firmly, keeps insulation morkino of on obsolute minimum. Comfortable cushion-grip handles.
$37 \mathrm{~A} 827-3$. Shop. wt.
$\$ 33.42$ 37A827-3. ShDg. wt. 1 lb . Each.
(2) G.C. SPEEDEX AUTOMATIC WIRE STRIPPERS

Strips insulation outomatically from wire eosily and cleanly without crushing it. Just squeeze the handles ond the job is done. Fully outomatic with deloyed return oction-prevents crushing of fine stranded wire. Jows remair open until
$37 \mathrm{~A} 828-1$. Type 766. . For 12 to 20 wire.
37A829-9. TYpe 766A. For 14 to 30 wire. CHOICE EACH
$\$ 8.84$
SPEEDEX WIRE STRIPPER KIT. Deluxe type wire stripper ond 7 different size blades in a special steel box. Strips solid or stranded wire \#8 to \#30, 18 POSJ, and 300 ohm twin leod. Shpg. wt. $21 / 4 \mathrm{lbs}$. 37A830-7. Type 766K Complete.
$\$ 18.45$
Precision tool for stripping and clipping wires 12 to 26 gouge. 8 -stop gauge odiusts instantly to prevent occidental nicking or cutting. Wt. 10 oz. $\$ 1.80$
37A709-3.
Type 760 . Each ..........................................

## K. MILLER WIRE STRIPPERS



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.
$37 A 888-5$. Each
\$2.19
(1) Model 100. Without spring, otherwise same as $101-5$.

37A889-3. Each

## MOODY PRECISION TOOL SETS DESIGNED FOR MINIATURE WORK

Eoch kit is in plastic stand with clear plostic cover. Shpg. wt. 8 ozs. Der kit.

## SC-5 SCREWDRIVER KIT

Contains 4 hardened steel nickel ploted blades, sizes: $100^{\prime \prime}, 080^{\prime \prime}$ $070^{\prime \prime} .055^{\prime \prime}$. plus handy owl; $23 / 4^{\prime \prime}$ knurled steel handle with olostic swivel top. 37A708-5. Per Set
\$2.95

## JEWELERS SCREWDRIVER SET

Perfect for working with jewelry, instruments, small
electronic devices, hobbies, etc. Six hardened steel
replaceable blades, sizes: $100^{\prime \prime}, .080^{\prime \prime}, .070^{\prime \prime}, .055^{\prime \prime}$
$.040^{\prime \prime} .025^{\prime \prime}$. Each unit has hexagon swivel head with thumb rest and knurled steel handle. Threaded chuck firmly holds blade in position. Overall length $33 / 4^{\prime \prime}$. Shpg. wt. $1 / 2 \mathrm{lb}$.
37A845-5. Moody JS-6. Set of 6 Each..... $\$ 6.50$


4-WAY OFFSET SCREWDRIVER ${ }^{\text {A must for driving regular type screws }}$
OFFSET SCREWDRIVER in tight places. Each blade offset at
 in tight places. Each blade offset at slightly different angle. No. 13P
37A1016-2
Each
$\$ 2.15$

## Reflite PROFESSIONAL HAND TOOLS



WITH UNIQUE SLIP-ON TORQUE HANDLES
Provides the grip, reach and power of standard size drivers. Each set in a seethru 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,
 with torque handle and see-thru plastic case.
$\$ 9.53$ 37A701-0. Type PS120. Shpg. wt. 1 lb. Each.

## (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
$\$ 11.41$

## (2) PRECISION SCREWDRIVER SET

All the screwdrivers needed for all servicing jobs in one compact see-thru
 Overall length of each $31 / 2^{\prime \prime}$. Complete with torque handle.
\$6.86

## (3) NUT DRIVER AND SCREWDRIVER SET

Includes 5 nutdrivers $3 / 16,1 / 4,5 / 16,11 / 32$, and $3 / 8^{\prime \prime}, 3$ standard slotted screwdrivers 18, 316 , and $14^{\prime \prime}$, and 2 Phillips screwdrivers $=1$ and $=2$. With torque handle. Shpg, wt. 1 lb .
$\$ 9.10$

## (3) ALLEN HEX TYPE SCREWDRIVERS

Contains 8 midget Allen Hex type screwdrivers in sizes $028, .035,05,1 / 6$, \%6, $1 / 2,7 / 4$ and $1 / 8^{\prime \prime}$. Greater speed and ease in turning than conventional keys. With torque handle and see-through plastic case.
37A861-2. Type PS-89. Each
\$6.86
(3) ALLEN HEX SCREWD RIVERS, METRIC SIZES

Contains $.89,1.27,1.5,2,2.5,3,4,5$ millimeter black handled Allen screwdrivers, otherwise same as PS89 above.
37A1046-9. Type PS90MM. Each
$\$ 7.66$

(4) XCELITE ALLEN HEX SCREWDRIVER SET

Long alloy steel blades provide $4^{\prime \prime}$ working length. Contains: 9 interchangeable blade sizes: .05, 1/6, $5 / 4,1 / 2 / 2 / 64,1 / 8,1 / 4,5 / 52,1 / 6 ; 4^{\prime \prime}$ extension shaft, servicemaster amber colored handle. In pocket-size, see-through plastic case. Shpg. wt. 1 lb . 37A767-1.
Type 99PS-40 Each
$\$ 11.66$
(5) SCREWDRIVER NUTDRIVER SET
 plastic case.
37A863-8. Type 99PS-50. Each.
$\$ 14.26$
(6) METRIC NUTDRIVER SET

Contains 4, 4.5, $5,5.5,6,7,8,9.10,11$ millimeter nutdriver shafts, $4^{\prime \prime}$ extension and handle. Shafts snap in and out of handle easily and are held firmly. In plastic see-through case.
$\$ 14.88$


## 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 12 slotted screwdrivers. Shpg. $\mathrm{wt} .1 / 2 \mathrm{lb}$.
37 A985-9. 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 $516^{\prime \prime}$ set screws and Spline (Bristol) wrenches for set screws up to No. 10 in durable vinyl case.
Shpg. wt. 8 ozs.
$37 A 766-3$. Per Set
10 Sets. Each Per Set


37A865-3. Type 99PS5I MM. Each.


## 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 handles.

> (1) POCKET CLIP STYLE SCREWDRIVER


## SCREWDRIVER SET

6 Screwdrivers. 4 for slotted screws, 2 for Phillips. Contains 1 each: R184. R3166, R144, R5166, X101 and X102. 37A994-1. SRX-33 Each
$\$ 8.66$

LEATHER TOOL POUCH


Fits belt. 5 compartments for pliers,
screwdrivers. etc., snop screwdrivers, ett... snop
for knife. $8 \times 9$.". Finfor knife. $8 \times 9$ ". Finstitched and riveted.

Wt. 1 1b. Xcelite 150 . | 37B174-0. |
| :--- |
| Net Each |
| 10.78 |

 ncludes: $1 / 4^{1}$ and
1P hillisp screwdriver
divel Tye 600
 $\$ 2.54$ 37A707-7. . Eoch $\qquad$ $\$ 2.54$
$\$ 2.27$

##  <br> XCELITE NUTDRIVER SETS

## XCELITE HOLLOW

 SHAFT NUTDRIVERS

Color coded, shockproof, plastic handles.


No. 127 TB . The 7 most popular size No. 147 TB . The 7 most popular hollow nutdrivers. Shockproof, breakproof plas- shaft nutdrivers. Shockproof, breakproof tic handles are color coded for easier plastic handles are color coded for easier selection of sizes. Fully polished 3 selection of sizes. Contains $1 / 4, \frac{1}{3}, \frac{A}{2}$, I2, $7^{\frac{5}{1}}, \frac{11}{h^{2}}$ and $3 / 8^{\prime \prime}$. Molded plastic tray $\frac{11}{12}, 3 / 8,1^{7}$, and $1 / 2^{\prime \prime}$ sizes. In molded for bench, caddy or wall mounting. Wt. plostic tray for berich, tool caddy or
2 lbs . 37A744-0. Per Set.


## XCELITE METRIC NUTDRIVER SET

Contains $4,4.5,5,5.5,6,7,8,10,11,13 \mathrm{MM}$ black handled nutdrivers, all with 31.75 MM depth shaft hole. Packaged in rolled kit (not illustrated). Shpg. wt. 2 lbs.
37 A
37A1045-1. Type 4-13MM. Per Set
$\$ 17.56$

## XCELITE MAGNETIC NUTDRIVERS

Alnico magnet holds fasteners firmly for easy one hand driving. Comtort con tour handle.

| tour handle |  |  |  |  | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. $37 \text { A986-7 }$ | Xcelite No $8 \mathrm{M}$ | Nut Size | Length 7 | Each $\$ 2.22$ | $\begin{array}{r} 2 \text { Each } \\ 2.00 \end{array}$ |
| 37A987-5 | 10 M | 5/16 | 7 | 2.22 | 2.00 |
| 37A988-3 | A8M | 1/4 | 10 | 2.78 | 2.51 |
| 37 A989-1 | AIOM | 5/16 | 10 | 2.78 | 2.51 |
| 37 A990-9 | AABM | $1 / 4$ | $20^{3 / 4}$ | 6.43 | 5.79 |
| 37 A991-7 | AA10M | $5 / 16$ | $20^{3 / 4}$ | 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 $3^{3 \prime}$ " to $1^{\prime \prime \prime} 2^{\prime \prime}$; snop-in screwdriver bits with $3^{3}$ " and ${ }^{\prime \prime}$ " blades; and snap-in screwdrivers with phillips No. and blades. Tools fasten simply-are held securely in handle. Plastic roll case. 37A754-9.
$\$ 15.69$

## XCELITE SERVICE MASTER KIT

Handles $99 \%$ of All Service Calls Versatile set of high-quality tools
 meed.
Set includes: $6^{\prime \prime}$ long nose pliers; $5^{\prime \prime}$ diagonal cutters; $6^{\prime \prime}$ adjustable wrench; 9 regular nutdrivers ${ }^{16}$ " through $1 / 2^{\prime \prime \prime}$ 3 stubby nutdrivers $1 / 4^{\prime \prime}{ }^{\prime \prime} 8^{\prime \prime}$ and $1 / 8$ Phillips screwdriver; $1 / 8^{\prime \prime}-3 / 8^{\prime \prime}$ reamer; $1 / 4^{\prime \prime}-1 / 2^{\prime \prime}$ screwamer: $7^{\prime \prime}$ extension; regular 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.
37 A756-4. Type $99 S M$. Ea. $\$ 44.93$

## XCELITE SEIZER TOOLS

Especially designed for working with mork and will outhold needle nose pliers. Ideal for use as a heat sink, holding leads while soldering, restringing dial cords, etc. All stainless steel ing dial cords, etc. All stainiess steel (1) 37A811-7. Model $42 \mathrm{H}, \$ 7.18$ Straight Nose. Net Each...... \$6.47 (2) 37 A8 $12-5$. Model 43H........................ Curved 2
Nose. Net Each..................... $\$ 7.38$
12ls
 12 Lots Each ELECTRONIC \& PLIERS

## 1



KLEIN PLIERS

- CUSHION GRIP HANDLES
(3)

All have cushion grip handles. Average shpg. wt. 3 oz. * Cannot be assorted


## KLEIN ADJUSTABLE WRENCHES

Chrome plated drop forged alloy steel combines maximum strength, lighter weight with losting beauty.
Stk. No.


| $37 A 739-0500-6$ | 3 oz | $6^{\prime \prime}$ | $3 / 4^{\prime \prime \prime}$ | 9.90 |
| :--- | ---: | ---: | ---: | ---: |
| $37 A 740.8500-8$ | 6 oz | $8^{\prime \prime}$ | 5.33 |  |
| $37 A 741-6500-10$ | 13 oz | $10^{\prime \prime}$ | $11 \mathrm{~m}^{\prime \prime}$ | 5.80 |



CHROME PLATED

## KLEIN ELECTRICIANS' KNIFE

> Standard $23 / 4^{\prime \prime}$ knife blade and a specal screwdriver blade with insulation cutter and wire scraper. Screwdriver blade locks in open position. $33 / 4^{\prime \prime}$ black plastic handle with shacke ring. polished bolsters, and brass linings. Made to government specs. Shpg. wt. 7 ooz. 37 A867-9 $\$ 4.04{ }^{12 \text { Each..... } \$ 3.51}$ Each .... $\$ \$$.


## TOOLS FOR THE SERVICE SHOP

 kinkless Wire 48 to 50 inches long.
(1) Phono Needle Type, Replaceable phono needles in chuck-type collar. Slim $4^{\prime \prime}$ red and black handles. With standard phone tips. Wt. 8 oz.
$\$ 1.49$ 37 A3023-6. Type 613. Pair...
(3) All Purpose Typa Sturdy, slim $6^{\prime \prime}$. plastic handles with sharp point tips. Equipped with banana plugs allowing for interchange of spade lugs, phone tips or alligator clips all supplied. Wt. 8 oz .
\$2.99
37A3024-4. Type 610. Complete Kit.
on pencil
(3) Weston Type. Well made for precision tests. Red and black $4^{\prime \prime}$ long pencil
type plastic handles, $48^{\prime \prime}$ lead, molded finger grip phone tips. $\$ 2.29$ 37A3025-1. Type 625. Wt. 8 oz . Per Pair.
\$2.49
(3) Same as above with banana plugs for Simpson, etc.

37A3186-1. Type 685. Wt. 8 ozs. Pair.
(3) "Slim Jim" $61 / 2$ 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
$\$ 2.29$


## "THE GRABBER" SERIES TEST PROBES AND LEADS

Features clip-on and clip-off with thumb and two fingers. High temperature lexan 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. $1.75^{\prime \prime}$ long. Accepts test lead wire up to $.090^{\prime \prime}$ (1) Micro-Grabbe
dia. Pomona 4233.
dia. Pomona 4233. $\quad$ Your Choice
 (2) Grabber Probe Only. $2.54^{\prime \prime}$ long. Accepts test lead wire up to $.090^{\text {dia }}$ 37A3429-5-Red Your Choice
 (3) Maxi-Gra
Pomona 4225 .

## 37A3452-7-Red Your Choice

37A3453-5 - Black Each
(4) Mini-Test Clip Grabber with $48^{\prime \prime}$ test lead and stacking banana plug on other end. Same size as Grabber Probe. Pomona 3782-48.
37A3454-3-Red Your Choice
37A3455-0 - Black Each . . . . . . . . . . . . . . \$1.89 Each . . . . . . . \$1.70
(4) Mini-Test Clip Grabber with $48^{\prime \prime}$ test lead and stacking phone tip plug on



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.
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 sink.
37A3374-3. CC 9228
$\$ 3.69$


OPENED

## POPULAR SERVICE SHOP TOOLS

(1) Tube and Parts Extractor. Spring steel rubber

(1) 37 A 3197 prong.
(2) G-C Illuminated Inspection Mirror Gets into dark, hard-to-get-at places. Insulated. $7 / 8^{\prime \prime}$ dia. adjustable mirror, lucite rod. Lgth. $121 / 4^{\prime \prime}$. With bulb. Wt. 6 oz .
37A3198-6. G-C 8725
(less batteries). Each
21A327-2. Batteries for above. Each .... \$3.79
(3) Flexible Screwholding and pickup tool. With retractable spring steel jaws. $24^{\prime \prime}$ long.
$3743201-8$. C.C 5089 Wt. 5 oz. 37A3201-8. C-C 5089. Wt. 5 oz.
Net Each
$\$ 2.41$
(1) Universal Fuse Puller. Accommodates all kinas and types of fuses including household screw-in plug types of cartridge fuses up to $1 / 4^{\prime \prime}$ or 100 amps . Made of molded nylon. Wt. 3 ozs.
37A3203-4. G-C 9356. Each
$\$ 1.29$

(1) Phono Needle Type-Tapped re-
(1) Phono Needie Type-Tapped re-
movable chuck holds standard phono needles. Tenolite handle.
37-03026-9-002-6 - Red
37-03026-9-010-9 - Black
Type 317. $5^{\prime \prime}$ L. Each (2) Solderless Type-Tapped remov-
able plug holds wire securely by able plug holds wire securely by 37-03027-7-002-6-Red
37-03027-7-010-9- Black
Type 302. $51 / 2^{\prime \prime}$ L. Each
(3)

PHONO NEEDLES
(3) Hard steel. Used in test prods. 24B333-7. Pkg. of 25
(1) Test Lead Wire-Non-kink flexible wire with live rubber insulation. 5000 volt breakdown.
2A421-6.7' Red, 7' Black. Each \$1.69
49. 2M64-4. 25' Red or Black

## $\$ 1.69$ $\$ 2.40$

$\begin{array}{ll}\$ 1.19 & 10 \\ \text { Each }\end{array}$
99. $\quad 10$

10
Each
$85^{\circ}$
$\$ 1.79 \quad \stackrel{10}{\text { Each }}$
10
$\$ 1.65$

10

## UNIVERSAL <br> \section*{INPUT APPLICATION}

[^5]

Burstein-Applebee Co., 3199 Mercier St., Kansas City, Mo. 64111

## TOOLS FOR THE SERVICE SHOP



## 解Hunter Tools <br> SOCKET SETS

11 PIECE SET
$1 / 4^{\prime \prime}$ SQUARE DRIVE

Contains a square drive reversible ratchet handle, a $6^{\prime \prime}$ spinner handle, an extension and seven 6 -point sockets: $3 / 16^{\prime \prime}, 7 / 32^{\prime \prime}, 1 / 4^{\prime \prime}, 9 / 32^{\prime \prime}, 5 / 16^{\prime \prime}, 11 / 32^{\prime \prime}$ and $3 / 8^{\prime \prime}$ packed in a selector tray in a hinged cover steel storage case. Sockets and atfachments 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 . $5 / 8^{\prime \prime} \times 4 \frac{1}{4} \times 1 \times 1 / 4$
37A1034-5. Hunter W-1000. Shpg. wt. 3 lbs. Each
\$9.02


## 6 Hunter Tools SOCKET SETS

## 21 PIECE SET $1 / 4^{\prime \prime}$ \& $3 / \mathbf{8}^{\prime \prime}$ SQUARE DRIVE

Actually two sets in one. Covers all jobs from electronic assembly to automobiles; Has $3 / 8^{\prime \prime}$ square drive reversible ratchet handle, $3 / 8^{\prime \prime \prime}$ to $1 / 4^{\prime \prime}$ adapter, $1 / 4^{\prime \prime}$ square drive spinner handle, $3^{\prime \prime}$ extension, $5^{\prime \prime}$ extension, $13 / 16^{\prime \prime}$ spark plugs socket with neoprene insert, seven ${ }^{1 / 4}{ }^{\prime \prime}$ square drive 6 -point sockets: $3 / 16^{\prime \prime}$ $7 / 32^{\prime \prime}, 1 / 1^{\prime \prime}, 9 / 32^{\prime \prime}, 15 / 16^{\prime \prime}, 11 / 32^{\prime \prime} 3^{3 / /^{\prime \prime}}$ and seven $3 / 8^{\prime \prime}$ square drive 12 . point sockets: $3 / 8^{\prime \prime}, 7 / 16^{\prime \prime}, 1 / 2^{\prime \prime}, 9 / 16^{\prime \prime}, 5 / 8^{\prime \prime}, 11 / 16^{\prime \prime}$ and $3 / 4^{\prime \prime}$. Packed in a selector tray and hinged over steel storage case. Shpg. wt. $51 / 2 \mathrm{lbs}$.
37A5603-3. Hunter W1201. Each
$\$ 19.72$

## 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. $1 / 2 \mathrm{lb}$.
37A5562-1. - $1^{1 / 4}$ Power, 14" Focal Length CHOICE
37A5561-3. - $21 / 2$ Power, $8^{\prime \prime}$ Focal length EACH
$\begin{array}{lll}\text { 37A5561-3. } & \text { 21/2 Power, } 8^{\prime \prime} \text { Focal Length EACH....... } \$ 16.95 \\ \text { OPIIOUPE MAGNIFIER easily attaches to either eye of mognifier, odds } \\ 21 / 2\end{array}$ power for monacular use.
37A5563-9. Each
\$3.95

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Clear optical glass. 5.0 power and 2 inch focus. 37A5507-6. Shpg. wt. 3 oz. Each

## 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 sym bols (period, comma, etc.) in addition to alphabet and numbers. Cuts tob for removing label backing. Order easy loading cartridge below. Shpg. wt. 1 37A7509-0. Label Maker. Each ... \$3.99 Tape for above. $3 / 8^{\prime \prime} \times 12 \mathrm{ft}$.
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

$99^{\circ}$

## 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 . $20^{\prime \prime}$ long X $13 / 4^{\prime \prime}$ O.D. Shpg. wt. 4 lbs.
37A5605-8. Model FL-15. Each
\$29.90

## 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, $4^{\prime \prime}$ curved and $21 / 2^{\prime \prime}$ straight extensions; clipon mirror (when used with curved extension, makes light around a corner in full $360^{\circ}$ arc). Uses "AA" cells (not included). Comes in soft, fold-up carrying case. Shpg. wt. 1 lb .
37A5606-6. Model LK. Each
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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-
ette roll case,
Made to last and wear for hundreds of jobsan absolute must for every service shop. Includes K-tran tool, channel tools, tool for RF and IF, core aligner, oscillator tool, long reach aligner, universal aligner, duplex aligner and flexible tuning wand, Wt. 1/2 $\mathrm{lb} . \quad \$ 7.65$
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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 37A3022-8. CC8280. Each.
$\$ 11.33$
"LUCKY 13" ALIGNMENT KIT General purpose kit for AM-FM. TV, CB equipment. 13 piece set contains screwdriver, solder-aid, pocket oilette and most 37A3273-7. Each................... $\$ 10.95$


COLOR TV ALIGNMENT KIT
Contains 5 most needed aligners plus one extend-it to make long tools out of short ones. 37A3184-6. CC 8454. Each. $\qquad$ \$3.29


Average wt. 3 oz , each
(1) Narrow Blade "Fibreglas" screwTyper 9291 completely insulated. Type ype 9291 L. X 5/32" dia (2) Long Reach Alignment Screwdrivers 2) Long Reach Alignment Screwdrivers,
Made of "Fibreglas", extra thin $1 / 8$ " Made blades. Screwdriver tips both ends -can be re-ground.
Type $9293,12^{\prime \prime}$ L. X $1 / 8^{\prime \prime}$ dia.
37A3013-7. Each
69:
(3) Molded Double Ender. Del rin plastic molded for Zenith TV's etc. Hex wrench $5.7{ }^{\prime \prime} \times 100^{\prime \prime}$ dia. one end, screwdriver tip other end.
Type 8282 .
Type 8282
37A3015-2. Each
59
(4) Low Loss Plastic Tool. 5" L. $\times 3 / 8^{\prime \prime}$ dia. Recessed blade one end, extended blade other.
Type 8609
37A3189-5. Each
$99^{\circ}$


Just the thing for viewing the TV screen while adjusting controls or servicing in rear of set. Good quality $12 \times 10^{\prime \prime}$ glass mirror does not distort image. Telescoping stand adjusts to the necessary height. Shpg. wt. 4 lbs. G-C 8390.
37A3195-2.
Each
$\$ 9.95$

## MIRROR ONLY 37A3196-0. G-C 8391.

Ea.
(5) Delrin Plastic Hex Wrench, $100^{\prime \prime}$ Hex wrenches both ends, one end undercut to reach bottom slugs in iron cores. 11" long.
37A3016-0. Type 8606L. Each 89 (brimmer and Tuner Adjusting Tool 05 hex one end and screwdriver tip 37 A3185-3. ${ }^{2}$ Type 8605 Each..... 89
(7) Transistor IF Core Aligner. Reaches bottom slugs in iron cores. $5^{\prime \prime}$ long. Delrin one end $06^{\prime \prime}$ square, other $104^{\prime \prime}$ hex with rectangular nib.
37 A3017-8. Type 9440. Each 99

## COLOR

TV DEGAUSSING COIL


Eliminates fuzzy, unwanted stray colors... in just minutes. An absolute necessity for the servicemon Simple for anyone to use ... allows set owner to save many dollars by demagnetizing his own color TV. High-impact plostic, with momentary push button switch. Convenient storage clip for back of set
With illustrated instructions. With illustrated instructions 37 A3001-2. C-C 2592.

## TOOLS, CADDIES, CABINETS \& TOOL BOXES



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> Tungsten carbide bonded to alloy steel forms cutting edge that will cut extremely hard and abrasive materials. Cut glass, glazed tile, bricks, tool steel, marble with very little effort.
Rod Saw. Cuts angles, curves, works in tight spaces. Cuts on forward and reverse strokes. $10^{\prime \prime}$ blade fits any hacksaw.
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## HAND OPERATED NIBBLING TOOL <br> CUTS ANY SHAPE OPENING IN SHEET METAL, COPPER, ALUMINUM, PLASTIC, ETC.

Cut those odd shape holes without distortion or strain in steel, aluminum, copper or plastic. Handles easily and smoothly, cuts rapidly with only one hand operation. Idea for cutting transformer holes, socket holes, etc., in chassis. Capacity: steel, 18 gauge; aluminum, copper, plastic $18{ }^{11}$ 37A3004-6. Shpg. wt. 8 oz.
\$6.95
Net
\$3.95


37 A3007-9. Replacement Punch. Net

## T-HANDLE BURRING REAMER

High grade chrome vanadium burring reamers rapidly remove burrs from chassis cutouts, antenna mast cutoffs, etc. Also handy for enlarging holes. Tapers $1 / 8^{\prime \prime}$ to $1 / 2^{\prime \prime}$
37A821-6.
Each
\$4.99

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37A8047-0. Model TC-400. Each.
\$33.25
(2) TUBE CADDY JUNIOR. Smaller, easy-to-carry size. Holds up to 143 tubes $153, \ldots$ less with tools and meter. Durable, new, grey vinyl covering. Size $153 / 4^{\prime \prime}$ W. $\times 121 / 2^{\prime \prime}$ H. $\times 8^{\prime \prime}$ D. Shpg. Wt. $71 / 4 \mathrm{lbs}$. 37A8046-2. Model TC-200. Each.
$\$ 24.45$

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Crystal clear see-thru break resistant drawers, with backstops and slots for labels. Frames, heavy gauge, welded and primed against rust. Double coat bakedon enamel. Sheives have glides. Dividers and index cards are included.
15 DRAWER CABINET. U-15 cabinet size $6^{\prime \prime} \times 12^{\prime \prime} \times 5 \frac{31}{\prime \prime}$. 5 drawers wide, 3 high, not illustrated. Drawer size $1-3 / 8^{\prime \prime} \mathrm{H} . \times 2^{\prime \prime}$ W. X 5-5/16" D. Wt. $31 / 2 \mathrm{lb}$. 37A8084-3. Each
$\$ 8.19$
Drawer size 1-3/8" H. X $21 / 2^{\prime \prime}$ W. $\times 5-5 / 16^{\prime \prime}$ D.

|  |  | No. of |  | Wt. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fig. Stk. No. 37A8061-1 | M4A. | Drawers | Cabinet Size <br>  | Lbs. | $\begin{aligned} & \text { Each } \\ & \$ 15.99 \end{aligned}$ |
| 37A8062-9 | 36 A | 36 | $161 / 2^{\prime \prime}$ H. $\times 12^{\prime \prime}$ W. $\times 53 / 4{ }^{\prime \prime D}$. | 81/2 | \$21.99 |
| (1) 37A8063-7 | 48A | 48 | $22^{\prime \prime} \mathrm{H} . \mathrm{X} 12^{\prime \prime} \mathrm{W} . \times 55^{3 / 4}{ }^{\prime \prime} \mathrm{D}$. |  | \$28.89 |
| EXTRA DRAWER | VIDE | RS. Full wid | width for 1-3/8"H. X 2 | W. | $16^{\prime \prime}$ |

## EXTRA CAPACITY CABINETS

All cabinets are same frame size to facilitate stacking. Same size as 48 drawer cabinet shown above. All are $22^{\prime \prime} \mathrm{H} . \times 12^{\prime \prime} \mathrm{W} . \times 53 / 4^{4} \mathrm{D}$. Enamel finish.
(3) 37A8075-1. 12 Drawer Cabinet. 12D. Drawer size $31 / 8^{\prime \prime} \mathrm{H} . \times 5-5 / 16^{\prime \prime} \mathrm{W}$. $\times 5-5 / 16^{\prime \prime} \mathrm{D} . \mathrm{W}_{\mathrm{t}} .91 / 2 \mathrm{lbs}$.
37A8076-9. 16 Drawer Cabinet. 16J. Drawer size $21 / 4^{\prime \prime}$ H. $\times 5-5 / 16^{\prime \prime}$ W. X 5 -
$5 / 16^{\prime \prime} \mathrm{D}$. Wt. 10 lbs . Similar to Fig. 4 except 8 drawers high.
(2) 37A8077-7. 24 Drawer Cabinet. 24C. Drawer size $21 / 4^{\prime \prime}$ H. X $31 / s^{\prime \prime}$ W. X $5-5 / 16^{\prime \prime} \mathrm{D} . \mathrm{W}^{\prime} .10^{3 / 4} \mathrm{lbs}$.
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## PROFESSIONAL QUALITY TOOL BOXES

## TWO DRAWER TOOL CHEST $57^{79}$

Spillproot satety stops on drawers Heavy gauge cold rolled steel. Elec tranically welded seams. Full weatherprotection. Nickel-plated hardware drawbolt can be padlocked. Full length welded hinge. Drawers automatically lock when cover is closed Charcoal enamal, red drawers


Size Overall: $201 /$ " $^{\prime \prime}$ long, $83 / 4^{\prime \prime}$ wide, $101 / 4^{\prime \prime}$ high; Till, $201 / 2^{\prime \prime}$ L. $\times 83 / 4^{\prime \prime}$ W, $\times 31 / /^{\prime \prime}$ deep, exclusive of cover; 2 drawers, each $183 / 4^{\prime \prime} \mathrm{L} . \times 77 / 8^{\prime \prime} \mathrm{W} . \times 21 / 2^{\prime \prime}$
D . Shpg, wt. 16 lbs. D. Shpg. wt. 16 lbs.

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## TOOL BOX WITH REMOVABLE TRAY

Finest quality steel with two bolt
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Each
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$\$ 120.00$
51200
A3117-0. 34PNB Noise Blanker. Wt. 2 lbs. Net Each.

 9A3121-2. MMK-3 Mobile Mounting Kit. Wt. 3 lbs. Net Each........ $\$ 7.00$ R-4C RECEIVER. SSB, AM, CW, RTTY. Covers ham bands $80,40,2015 \mathrm{me}$ ters and 28.5 to 29.0 MHz with crystals furnished. 1.5 MHz to 30 MHz in 500 KHz ranges with accessory crystals. VFO has I KHz calibration. Size $51 / 2 \times 10^{3 / 4} \times 11-5 / 8^{\prime \prime}$ deep. Wt. 16 lbs .
9A429-2. 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. 200 W . PEP SSB and AM, 200 W . CW. Requires AC-4 power supply above.
Size $51 / 2 \times 103 / 4 \times 115 \mathrm{~m}^{\prime \prime}$ deep. Wt. 14 lbs .
$\mathbf{\$ 5 9 9 . 0 0}$ 9A430-0. Net Each. $\$ 895.00$

## 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 $51 / 2 \mathrm{H} \times 10^{3 / 4} \mathrm{~W} \times 8^{1 / 2} 2^{\prime \prime} \mathrm{D}$
9A3207-9. Model MN-4. Each . . . . . . . . . . . . . . . . . . . . . . . . \$110.00 Model MN- 2000 for up to 2000 W . PEP. $5^{1 / 2} \mathrm{H} \times 10^{3 / 4} \mathrm{~W} \times 14^{3 / 4}$ " 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 $0-2000 \mathrm{~W}, \pm 5 \%$ accuracy, $1.8-54 \mathrm{MHz}$. $6^{\prime \prime} \mathrm{H}, 311 / 6 \mathrm{~W}, 4^{\prime \prime}$ deep. 9 A3091-7. Wt. 4 lbs. With Removable Coupler. Net Each............ $\$ 72.00$

## 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 funing ranges on either transmitter or receiv. general coverage thr er . Nor the TR-4.
9A3322-6. FS-4. Each
$\$ 250.00$
9A3335-8. 1523 Interface kit for using FS-4 with SPR-4. Each
$\$ 9.50$


Synthesized, drift cancelling system gives 30 tuning ranges from the 10 MHz cry stal 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 luV 0.5 to $2 \mathrm{MHz}, .3 \mathrm{uV}$ above 2 MHz ; AM $3 u \mathrm{~V} 0.5$ to 2 MHz , $1 u \mathrm{~V}$ above 2 MHz . Selectivity SSB 6 db at $3 \mathrm{KHz}, A M 6 \mathrm{db}$ at 5.5 KHz . 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 $117 / 240 \mathrm{AC}$ supply built in. When AC pane is disconnected automatically switches to batteries. Size: $13^{\prime \prime} \mathrm{W} \times 11^{\prime \prime} \mathrm{D}$ X ine is
$51 / 2^{\prime \prime} \mathrm{H}$
$51 / 2 " H$.
$9 A 542-2$
Shpg. wt 16 lbs . Each
21A315-7. D cell batteries ( 8 required). Each
$\$ 350.00$

## AMATEUR ANTENNAS \& ACCESSORIES

## 8V 14AVQ 18AVT/WB <br> 10-15-20 M

hy-g/ain amateur antennas


MULTI-BAND VERTICALS- 52 OHM COAX FEED

Stk. No. Model
9A153-8 193
9A160-3 385 $\begin{array}{ll}9 A 7029-3 & 386 \\ 9 A 127-2 & 184\end{array}$

Wt. Lbs. Net Each
Coil Loaded, 10 thru 80 M ., $18^{\prime}$ high 10 thru 40 M ., 18 high-Trap design 10 thru 80 M ., $25^{\prime}$ high-Trap design Roof Mount Kit for 14AVQ

Lb

## 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 .
\$tk. No. Model Description Gain Element Lgth. Boom Wt. Each $9 \mathrm{~A} 62-1 \mathrm{l} 34 \mathrm{M} ., 8 \mathrm{El} .14 .5 \mathrm{db}$. $3 \mathrm{Ft.-} 6 \mathrm{n}$. $4 \mathrm{Ft}$. Lbs. $\$ 37.00$

## THUNDERBIRD 10, 15, 20 METER BEAMS

Feature the new frequency stobilized Hy-Q Traps, offering better performance and mechonical reliability. Beta matched 52 ohm coax feed. Handles maximum legal power. $\mathrm{F} / \mathrm{B}$ ratio $20-25 \mathrm{db}$.
Stk. No. Model Description Gain Lgth. Boom Wt. Net Each $\begin{array}{lllllll}9 A 162-9 & 388 & 3 \text { Elements } 8 & \mathrm{db} .28 \mathrm{Ft} .14 \mathrm{Ft} \text {. } 36 \mathrm{Lbs} . & \$ 199.95 \\ 9 A 163-7 & 389 & 6 \text { Elements } & 8.7 \mathrm{db} & 31 \mathrm{Ft} & 24 \mathrm{Ft} & 62 \mathrm{Lbs}\end{array}$ FERRITE BALUN MATCH for $10-80$ Meters.
\$15.95

## 9A23-3. Model 242 Wt. 1 lb. Net Each



Model 710. Compact, versatile and rugged. Easy to hold and thumb-fune 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. $21 / 4 \times 2$ $9 / 16 \times 6.7 / 8^{\prime \prime} . W+3 \mathrm{lbs}$
9A3041-2. Kit with Tubes and Instructions.
Each
$\$ 59.95$
9A3042-0. Factory-wired and tested. Each
$\$ 79.95$
INSULATORS FOR LONG WIRE AND DOUBLET ANTENNAS


Molded high strength Cycolac.
HyGain Cl heavy duty center insulator. Each
$\$ 5.95$
HyCain El heavy duty end insulator. Pair for

## PETERSEN HIGH QUALITY CRYSTALS



Z-9C


Z9C FUNDAMENTAL CRYSTALS
Supplied within the following bands, calibrated integral kilohertz only at oscillator load capacity of 32 pfd. Pin spacing standard . $487^{\prime \prime}$ pin diameters, Z-9C $.093^{\prime \prime}$, Z-6( $3.050^{\prime \prime}$. Specify stock number and frequency wanted. Crystal certificate supplied. Mail to manufacturer. Crystal shipped prepaid, 2-3 weeks.

| Frequency Range | Calibratio |  | librat |
| :---: | :---: | :---: | :---: |
| 1,750 to 2,000 KHz | +250 Hz . | 8,000 to $8,222 \mathrm{KHz}$ |  |
| 3,500 to $4,000 \mathrm{KHz}$ | +500 Hz . | 8,334 to $9,000 \mathrm{KHz}$ |  |
| 7,000 to $7,425 \mathrm{KHz}$ | $+500 \mathrm{~Hz}$ |  |  |
| 9M3272-3. Each | \$3. |  |  |
| 9A3100-6. Z-6A |  |  |  |

9A3100-6. Z-6A. 100 KHz Freq. Standard. Each
$\$ 6.95$

## CRYSTAL SOCKETS

Stk.No Mfg. Type
(5) 12B299-4 Millen 33302
5) 12A5123-1 Millen 33102
(6) 12A5124-9 Cinch 2 KM
(7) 12A5212-2 Connector Corp.

CS109AS
05 D Pins Description
Each

## CD, <br> HAM II ROTOR

AMATEUR BEAM ROTOR SYSTEMS

Heavy duty rotor handles heavy antennas with a wind load up to 7.5 sq. ft . Heavy cast aluminum housing painted gray. Turning torque 800 inch pounds, brake torque 3500 inch pounds. Full $360^{\circ}$ rotation in less than 60 seconds. Mounts on pipe-mast, top tower, or inside tower. Accepts masts tower, or inside tower. Accepts masts
up to $2-1 / 16^{\prime \prime}$ dia. Dual $6^{\prime \prime}$ 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. 29 lbs .
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

$6^{\prime \prime}$ dual race 50 ball bearing rotor assembly. 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 lbs.
9A3302-8. Model Big Talk. Each $\$ 99.95$

## LOW PASS TRANSMITTER TVI FILTERS



## RF COAX SWITCHES AND RELAYS



B \& W COAX SWITCHES. $1 \mathrm{KW}, 52-75$ ohms to 50 MHz . For receiver/transmitter switching to antennas. Dia. $4 \times 2 \frac{1 / 4 "}{4^{\prime \prime}} 1 / 4^{\prime \prime} \times 1^{\prime \prime}$ shaft. Wt. 2 lbs . All have SO-239 coaxial connectors.

Stk. No. Type Net Each $\begin{array}{lll}\text { (1) } 9 A 3047-9 & \text { 550A } & \text { S.P. } 5 \text {-Position, Radial Connectors } \\ \text { (1) 9A3048-7 } & \text { 550A2 } & \text { S.P. 2-Position, Radial Connectors }\end{array}$ $\begin{array}{lll}\text { (2) } 9 \text { A3048-7 } & \text { 550A2 } & \text { S.P. } 2 \text {-Position, Radial Connectors }\end{array}$ (3) 9 A 3240-0. 595 S.P. 6-Position, In-Line Connectors
(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 ( 1 KW CW)
9A3258-2. Net Each
$\$ 17.95$

## 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 intermittent with warning light to signal excessive temperature. Input connector SO-239. Accuracy: Up to $30 \mathrm{MHz}, \pm 5 \%$; up 150 $\mathrm{MHz}, \pm 10 \%$; up to $230 \mathrm{MHz}, \pm 20 \%$. Size: $43 / 4^{\prime \prime}$ X $^{\prime \prime} \mathrm{X}$ $101 / 4^{\prime \prime}$. Shpg. wt. 13 lbs .
9A3232-7. Model 334A. Each
$\$ 175.00$
CRYSTAL BASE ADAPTOR
Adapts readily available HC-25/U crystals to older transceivers
with HC-6/U crystal bases. American Electronics Model 96-001.
12A5223-9. Each


## COMMUNICATIONS ANTENNAS


-hy-gain 2 meter uhf antennas
(1) Colinear Gain Ground Plane. Radials are $1 / 4$ " solid aluminum rod. VSWR less than 1.5:1. Radiator length 4 ft . Radial lengths $19^{\prime \prime}$. Radiator dia. 7/16". Radial dia. $1 / 4^{\prime \prime}$ Mast $1^{\prime \prime}$ to $1-5 / 8^{\prime \prime}$ O.D. SO-239 connector on antenna. Shpg. wt. $21 / 2 \mathrm{lbs}$.
9A7038-4. Hy-Gain No. 338. Each
$\$ 19.95$
(2) Magnetic Mount $148-174 \mathrm{MHz}, 3 \mathrm{db}$ gain magnetically mounted antenna. Holds secure at $90 \mathrm{mph}+$ Stainless steel whip. Alnico magnet. 12' of RG-58U coax and PL259 connector. Shpg. wt. $21 / 2 \mathrm{lbs}$.
9A7040-0. Hy-Gain No. 265. Each
\$29.95
(2) Magnet Mount High Band UHF. Covers the 108 450 MHz range. Comes with 18 ft . of RG $/ 58 \mathrm{U}$ and PL259 connector. Shpg. wt. 2 lbs.
9A7016-0. Hy-Gain No. 262. Each . . . . . . . . . $\$ 24.95$
(3) No-Hole Trunk Lip Mount $130-174 \mathrm{MHz}$, $5 / 8$ wave 3 db gain high band antenna, plus a trunk lip adaptor and $16^{\prime}$ of RG $/ 58 \mathrm{U}$ coax and PL-259 connector. Shpg. wt. $11 / 2 \mathrm{lbs}$.
9A7041-8. Hy-Gain No. 263. Each
\$28.95
(4) $1 / 4$ Wavelength Roof Mount Whip for 108 thru 470 MHz . Furnished with coax and PL-259 connector. Shpg. wt. 2 lbs.
9A7042-6. Hy-Gain No. 261. Each
$\$ 12.95$ 150 MHz . Use either 52 or 72 ohm feed line. Wt. 2 lbs .
10A7036-5. Model TS-1. Net Each
$\$ 14.50$
A147-11 11-ELEMENT YAGIS
Frequency cut for FM operation and vertical polarization. Forward gain 13.2 db. Has 52 ohm coax feed and takes PL259 connector. Boom length 144". Turning radius $7^{\prime}$. Shpg. wt. 7 lbs.
9A7044-2. Model A147-11. Each
\$24.95
A144-7. 7 Element Yagi. 2 meter VHF/UHF. Fwd. gain 11 db . F/B ratio 26 $\mathrm{db} .98^{\prime \prime}$ boom length. Mount vertical or horizontal. Shpg. wt. 5 lbs .
9A7045-9. Model A144-7. Each
$\$ 19.95$
A147-22 22-ELEMENT YAGGI
(5) 6 and 2 Meter Whip Rooftop or Deck. Delivers 3 db gain on 2 meters, $5 / 8$ wavelength, $1 / 4$ wavelength on 6 meters. Comes with $22^{\prime}$ of RG/58U coax and PL-259 connector. VSWR (at resonance) 1.5:1. Max. power 100 watts. Nominal impedance 52 ohms. Overall length $55^{\prime \prime}$ Wt. $21 / 2 \mathrm{lbs}$.
9A7051-7. Hy-Gain No. 264. Each
\$25.95

## 

(6) Fixed station, 4-band, vertical. SWR 1.6 to 1,40 thru 10 meters. Feed with any length 50 ohm coax. Roof mount with radials, ground mount with or without. Mount with vertical support up to $11 / 2$ " O.D. Hardware included. length 21' $5^{\prime \prime}$, legal limit power on SSB and CW. Wind loading 29 lbs. @ 70 mph .
9A7070-7. Model 4-BTV. Shpg. wt. 15 lbs .
$\$ 79.95$

## (7)HUSTLER 54" MASTS

Folds at root line. Mast and resonator assembly is held vertical with sleeve clutch. $54^{\prime \prime}$ mast also serves as $1 / 4$ wavelength 6 meter antenna. Fits $3 / 8^{\prime \prime} \times 24$ mount.
9A7076-4. Model MO-1. For deck or fender mount Shpg. wt. 2 lbs .
9A7077-2. Model MO-2. For bumper mount.
Shpg. wt. $21 / 2$ lbs. Your Choice Each.
$\$ 15.95$
Hustler Resonators for amateur bands. Power rating 400 W. SSB.
$\begin{array}{llll}\text { Stock No. } & \text { Model Band } & \text { Shpg. Wt. Each } \\ 9 A 3343-2 & R M 10 & 10 \text { Meters } & 1 / 215\end{array}$ $\begin{array}{lllll}\text { 9A3343-2 } & \text { RM10 } & 10 \text { Meters } & 1 / 2 \mathrm{Lb} . & \$ 10.75 \\ \text { 9A3344-0 } & \text { RM15 } & 15 \text { Meters } & 1 / 2 \mathrm{Lb} . & 11.75\end{array}$ $\begin{array}{lllll}\text { 9A3344-0 } & \text { RM15 } & 15 \text { Meters } & 1 / 2 \mathrm{Lb} . & 11.75 \\ \text { 9A3345-7 } & \text { RM20 } & 20 \text { Meters } & 1 / 2 \mathrm{Lb} . & 12.75 \\ \text { 9A3346-5 } & \text { RM40 } & 40 \text { Meters } & 1 \mathrm{Lb} . & 15.95\end{array}$ $\begin{array}{lllll}\text { 9A3345-5 } & \text { RM40 } & 40 \text { Meters } & 1 \mathrm{Lb} . & 15.95 \\ 9 \text { PA3347-3 } & \text { RM } 75 & 75 \text { Meters } & 11 / 2 \text { lbs. } & 16.95\end{array}$ $\begin{array}{lllll}\text { 9A3347-3 } & \text { RMM80 } & 80 \text { Meters } & 11 / 2 & \text { lbs. } \\ \text { 9A3348-1 } & \text { RM80 } & 16.95 \\ & & 16.95\end{array}$ MAST ACCESSORIES
9A3328-3. Model SSM-2. Ball mount
9A3328-3. Model SSM-2. Ball mount
for MO-1. .............................
9A3329-1. Model Bumper mount
$\$ 13.50$ for MO-2
24.95

9A3330-9. ᄂ14-240, Cable for MÖ-2 .......... 24.95
10A3144-1. Model QD-1. Quick disconnect for MO-1 and MO-2 ................................... 11.75 9A3332-5. Model RSS-2. Resonator spring for MO-1 and MO-2 ...................................... 5.65
(8) Super Gain 2 Meter Colinear CGT-144 Trunk Lip Mount. 5.2 db gain, 6 MHz bandwidth, 1.5 to 1 SWR. $85^{\prime \prime}$ high and 200 watt power rating. Includes mount with $180^{\circ}$ swivel ball. Install side or edge of trunk lid without drilling. Includes $17^{\prime}$ RG-58-U cable. Shpg. wt. $31 / 2 \mathrm{lbs}$.
9A7071-5. Model CGT-144. Each
$\$ 39.95$
Model CG-144. Same as CGT-144 except fit $3 / 8^{\prime \prime} \times 24$ base. Mount and cable not included.
9A7072-3. Model CG-144. Each
$\$ 26.75$
(9)Standard Gain 2 Meter 5/8 Wavelength BBLT-144 Trunk Lip Mount - 3.4 db gain, typical lowest SWR 1.1 to 1 at resonance. 200 watts power, $47^{\prime \prime}$ length. Installs on side or edge without drilling. Includes $17^{\prime}$ RG-58-U cable. Shpg. wt. 3 lbs .
9A7073-1. Model BBLT-144. Each
\$28.75
Model BBL-144. Same as BBLT-144 except roof mount. Shpg. wt. 3 lbs.
9A7074-9. BBL-144. Each
\$26.95
SF-2 Buck-Buster 2 Meter $5 / 8$ Wavelength. 3.4 db over $1 / 4$ wave ground plane. 100 watts FM . 6 MHz bandwidth for 2 to 1 SWR. $51^{\prime \prime}$ length. Fits $3 / 8^{\prime \prime} \times 24$ mobile mounts. Shpg. wt. 2 lbs .
9A7075-6. Model SF-2. Each
\$12.75

## 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 117 VAC or 12 VDC . With mobile mounting bracket.
1 ACT-C4H
4 channel high VHF band. Frequency range $148-174 \mathrm{mHz}$. Sensitivity . 6 UV . Selectivity 50 dB @ $\pm 32 \mathrm{kHz}$. Max. Frequency separation 8 mHz . Shpg. Wt. 4 lbs . Size: $21 / 4^{\prime \prime} \times 61 / 2^{\prime \prime} \times 63 / 4^{\prime \prime} .120 \mathrm{VAC}$ only.
No. 9A538-0. Each
$\$ 89.95$

## ACT-M-8H

8 channel high VHF band. Frequency range $148-174 \mathrm{MHz}$. Sensitivity 7 uV . Selectivity 50 DB @ $\pm 18 \mathrm{kHz}$. Frequency separation 8 MHz . Audio output 5 watts (a) 4 ohms. Shpg. wt. 7 lbs . Size $21 / 4 \times 51 / 2 \quad 71 / 2^{\prime \prime}$. Not illustrated, similar to $=2$
9A526-5. Each
$\$ 139.00$


SCANFARE PORTABLE 4 CHANNEL SCANNING MONITORS
Rugged solid state 4 channel scanner with flexible "rubber duck" anfenna. 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 re. battery charger. Gses hargeable cells. Gray hi-impact case is only $3^{\prime \prime} \mathrm{W} . X 5.6^{\prime \prime} \mathrm{H} . \mathrm{X}$ chargeable cells. Gray hi-mpact case is only 3 . W . X . 4 . D . For-VHF; $146-175 \mathrm{MHz}$. Weighs only 13 oz . net. 9A530-7. Scanfare VHF. Shpg. wt. 2 lbs. Each $\$ 124.95$ Dual Band Model. Low band ( $30-50 \mathrm{MHz}$ ). High band ( 146 175 MHz ).
9A539-8. Scanfare VHF/HL. Each
$\$ 139.95$
Dual Band Model. VHF (146-175 M $\$ 149.95$
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 $\$ 30^{\circ}$
$\$ 2.76$
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 onepiece connector plugs into power, charger and external speaker iacks on the Scanfare. May be quickly removed for portable operation. Provision for hook-up of an externally mounted antenna.
9A3288-9. SCMA-1. Each
\$37.95
antenna specialists

## MONITOR

PREAMPLIFIERS


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 antennaconnection. Operates on 9 volt battery. 9A3225-1. Mon 25.
\$34.75
Covers high band $148-174 \mathrm{MHz}$. Each
9 A501-8. Mon 26.
Covers high band $148-174 \mathrm{MHz}$ and Low band $30-50 \mathrm{MHz}$. Each ... $\$ 45.95$
9A3226-9. Mon 28. Covers UHF band $450-470 \mathrm{MHz}$. Each ..... $\$ 34.75$
9A3226-9. Mon 28. Covers UHF band $450-470 \mathrm{MHz}$. Each . . . . . $\$ 34.75$
21 A305-8. 9 Volt Battery. Each ...................................... 89

## PROGRAMMABLE SCANNERS

## TENNELEC MODEL MCP-1 MEMORYSCAN

MANY ADVANCED FEATURES!

- EXCLUSIVE SEARCH CAPABILITY.

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 5 KHz 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 $51.655 \mathrm{MHz}, 151.180 \mathrm{MHz}$ 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 $18^{\prime \prime}$ whip antenna. For 110 to 120 VAC 60 Hz . Encased in wood-grain metal cabinet. Size: $4 \frac{1}{2} 2^{\prime \prime} \mathrm{H} . \mathrm{X}^{103 / 4^{\prime \prime}}$ W. X $93 / 4^{\prime \prime} \mathrm{D}$. Shpg. wt. 8 lbs.

9A547-1. Model MCP-1. Each . . . . . . . . . . . . . . . . . . . . . . . . . . \$399.95

## TENNELEC



## MEMORYSCAN MS-2

- 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 $\mathbf{1 6 , 0 0 0}$ frequencies.

Total frequency coverage: low band $31.18-50 \mathrm{MHz}_{\text {; }}$ high band $146-148 \mathrm{MHz}$, $151.18-170 \mathrm{MHz}$ UHF $451.2-470 \mathrm{MHz}(490-580.825 \mathrm{MHz} \dagger)$. Adjacent channel selectivity: $50 \mathrm{db} \pm 25 \mathrm{KHz}$. Modulation acceptance: $\pm 7.5 \mathrm{KHz}$, maximum. Scan rate: 12 channels per second, nominal.

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 lowhigh 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.

PROGRAMMABLE 10-CHANNEL SCANNER

## s329



Whip antenna provided for hi/lo and UHF. Power comsumption: 105-130 VAC 25 W ; mobile (with MKI 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: $4.5^{\prime \prime} \mathrm{H} . \mathrm{X}^{10.75^{\prime \prime} \mathrm{W} . X} 9.75^{\prime \prime} \mathrm{D}$. Wt. 6 lbs.
9D529-9. Each
$\$ 339.95$
9D3271-5. MK 1. Mobile Power Cord and mounting bracket. Each
$\$ 19.95$
+Reception requires refuning.

## SBE OPTI/SCAN 1O-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
The ACT-W 10 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 $50 \mathrm{MHz}, 146 \mathrm{MHz}$ to $174 \mathrm{MHz}, 440 \mathrm{MHz}$ to 512 MHz . Sensitivity .5 uV to 1 uV , except $495-512 \mathrm{MHz} 3 \mathrm{uV}$ (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 $110-130$ V́AC 60 Hz , or $11.5-15 \mathrm{VDC}$. Size: $10^{\prime \prime} \mathrm{W} . \times 4^{\prime \prime} \mathrm{H} . \times 81 / 2^{\prime \prime}$ D. Shpg. wt. 10 lbs.
 in a panel slot where its program is "read" by optical means and the frequencies digitally synthesized. Scans the ten frequencies selected en frequencies selecied
 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: $30 \mathrm{MHz}-50 \mathrm{MHz}, 150 \mathrm{MHz}, 170 \mathrm{MHz}, 450 \mathrm{MHz}-470 \mathrm{MHz}$, $490 \mathrm{MHz}-510 \mathrm{MHz}$. Sensitivity .5 uV . Complete with 2 program cards, mobile bracket and DC power cord. Size: $2.6^{\prime \prime} \mathrm{H} . \mathrm{X} 7.9^{\prime \prime} \mathrm{W} . X 10^{\prime \prime} \mathrm{D}$.
9A536-4. Opti-Scan. Shpg. wt. 8 lbs. Each
\$349.95
See Page 208 For Monitor Antennas

## Midland PORTABLE VHF WEATHER MONITOR

- streamline design with wood-grain accents.
- SENSITIVE, FOLD-DOWN ANTENNA.
- DESK-TOP SIZE - 6 $1 / 2^{\prime \prime}$ 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. Telescoping antenna pulls in signal from 40 miles away depending on local conditions. $11 / 2 \mathrm{in}$. PM speaker. Ivory and brown plastic cabinet has walnut-grain face plate. Push-on, volume, and tuning controls. Size: $61 / 2 \times 3 \times 13 / 8^{\prime \prime} .9$ volt battery included. Shpg. wt. 1 lb.
No. 9A515-8
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. $\$ 39^{95}$
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 $A C$ power fails. $3 \times 5 \times 11 / 4^{\prime \prime}$. Wt. 8 oz . Shpg. wt. 1 lb .


## 9A537-2. Model TA-3. Each

$\$ 39.95$
9A3286-3. Car/Boat Adaptor - plugs into cigarette lighter. Each


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. scopic antenna so fixed antenna may be connected. for external power/charge. Operates on 8 pen cell batteries òr NiCad rechargeable pack listed below. With carrying case. Shpg. wt. 4 lbs .
9A1003-4. Model 1-705. Each ... \$399.95 21A5002-6. MN1500 AA Pen Cell Batteries ( 8
required) Each required) Each 10A3085-6. 2-101B Rechargeable Ni-Cad Battery Pack. Operates 1.705 for 6 to 10 hours, can be recharged up to 900 times. Each ........ \$28.95 10A3086-4. 2-103B Charger. Recharges 2-101B from 115 VAC . Each ...................... $\$ 9.95$

## Royce

## FIBERGLASS <br> MARINE ANTENNA


$81 / 2 \mathrm{ft}$. 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 $20^{\circ}$ slant. 9A1002-6. 2-230A. Each
$\$ 69.95$


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 $93 / 4 \mathrm{X}$ $81 / 2 \times 2-7 / 8^{\prime \prime}$. Shpg. wt. 10 lbs .
$\$ 449.95$

## 9A1000-0. Model 1-700. Each

 9A1001-8. Model 1-701. Same as above but has 24 channel capability.
## ANTENNA SPECIALISTS MONITOR ANTENNA

## (1) Mobile Model MON R16 Antenna $130-174 \mathrm{MHz}, 3$

 db gain on "Quick-Grip" trunk mount. Installs quickly easily. Includes $17^{\prime} 50$ ohm coax cable and PL259 connector. Stainless steel whip and spring.
## 9A7026-9. Each

\$26.50
(3) Model MONR17 Antenna 150-174 Mhz. 3 db gain. Mounts on $11 / 2^{\prime \prime}$ (or less) pipe. Stainless steel radiator; radials, $38^{\prime \prime}$ radiator- $24^{\prime \prime}$ radials. Order cable below
$9 A 7027-7$ Each..................................... $\$ 26.50$ (3) Model MON-1 Mobile Antenna. Universal-location mobile antenna covering the entire $130-174 \mathrm{MHz}$. plus the $450-470 \mathrm{MHz}$ range when cut to approximately $6^{\prime \prime}$ 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 $15^{\prime} R \mathrm{RC}-58$ / U cable.
$947019-4$ Each
$\$ 9.95$
(6) Model MON-3 Base Station Anfenna. Universal antenna for any base application where professional monitoring capability is a must on Aircraft, Business and public safety bands from $150-512 \mathrm{MHz}(450-470 \mathrm{MHz}$ when cut to approx. $6^{\prime \prime}$. Cutting chart included.) Stainless steel radials, rugged construction. Mounts on any pole or mast top to $11 / 4^{\prime \prime}$. diameter-cable not supplied. Termination for PL-259. Order cable below.
9 P7020-2.
Each..................................... $\$ 10.95$ (3)Model MON-13 Antenna. "Quick-Grip" all-band mobile monitor antenna. Features $A / S$ exclusive "Quick Grip" mount for trunk lip installation. No holes to drill, installs in minutes. Frequency range 25-50 and 150-174 MHz . Includes $16^{\prime}$ lead and pin plug connection plus adaptor for SO- 239 connections.
9A7028-5. Each
\$21.95
(6)Model MON-8 Combination Base Station Antenna. Multiple loading coil design for $25-50 \mathrm{MHz}$ and 150 174 MHz . No tuning necessary. Designed for extended omni-directional reception. SO-239 connection. Order cable below. Mounts on $11 / 2^{\prime \prime}$ (or less) pipe.
9A7046-7. Each
$\$ 25.95$
(7) Model MON R12 Gutter Clamp Antenna. Covers $25-$ 50 and $150-174 \mathrm{MHz}, 10 \mathrm{ft}$. lead with pin jack plus adaptor for SO- 239 connections.
9A7047-5. Each ........................... $\$ 15.95$ 9A3191-5. 100 Ft. RG58/U Cable with PL-259 connector each end. Each . . . . . . . .................. \$14.29

## ALL BAND COMBINATION ANTENNAS

(3) Model MON-32. Quick-Grip mount attaches to trunk
lip...no holes required. Provides optimum reception on all three Police and Public Safety bands - 30-50, 150 -$174,450-470 \mathrm{MHz}$. Stainless steel whip with weatherproof phasing coil. $17^{\prime}$ cable and connector. $21^{\prime \prime}$ high. Low profile base.
9A7056-6. Each . . . . . . . . . . . . . . . $\mathbf{\$ 2 2 . 9 5}$ 9A7057-4. Model MON-33 same as Mon-32 but for roof or trunk deck mounting. Requires $3 / 4^{\prime \prime}$ hole.

## Each . . . . . . . . . ...................... $\$ 22.95$

(1) BASE Mode MON-3iClamps to any mast Up to $11 / 2$ " diameter. $18^{\prime \prime}$ radials. Stainless steel radiator with weatherproof phasing coil. Covers $30-50,150-174,450$ 470 MHz . SO- 239 receptacle.
9A7058-2. Each .......................... $\$ 26.50$


Midland
INTERNATIONAL

## 2-CHANNEL 100 MW TRANSCEIVER

Solid-state circuitry provides dependable performance and long-life. Crystals for 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: $7-3 / 16^{\prime \prime} \times 2$ $5 / 8^{\prime \prime} \times 21 / 8^{\prime \prime}$. Shpg. wt. $11 / 2 \mathrm{lbs}$.

## 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

## $\square$ <br> Royoe electronics MODEL 1-402



PROFESSIONAL 2 WATT/3 CHANNEL TRANSCEIVER
You get full 2 -watt transmitter input along with 3 -channel versatility. Automatic noise limiter assures good reception. Features 3 -stage transmitter with a highly efficient modulation system.- AGC circuit cuts fading and blasting, a tuned RF provides excellent selectivity. Fully variable squelch control, telescoping antenna, front-mounted controls, ceramic filter for excellent selectivity. Accessory jacks - external antenna, earphone, external speaker, AC adaptor, battery tenna, earphone, external speaker, $A C$ adaptor, battery
charger or external power. Uses 8 " $A A^{\prime \prime}$ pencell batteries.
 Size: $8 \times 3 \times 21 / 8$. Shpg. Wt. $21 / 2$
10A165-9. Model 1-402. Each
$\$ 59.95$
10A3085-6. Model 2-101B. Ni-Cad Rechargeable Bat tery Pack. Each
$\$ 28.95$ 10A3086-4. Model 2-103B, Charger for above. Each
21A327-2. Pencell. Each


Transmitter features a three stage system using high efficiency modulation. Choose from two power ranges 5 watts or 2 watts. Combined with 6 channel versatility for maximum flexibility, equipped nel versatility for maximum flexibility, equipped
with channel 11 crystals. Sensitivity is 0.75 UV for with channe
odb , electronically automatic noise limiting. AGC reduces fading and blasting of signals. Fully vari able squelch, battery saving push pull audio and $21 / 4^{\prime \prime}$ speaker. Includes built in PA, extra rugged Texon carrying case, 3 way metering, $60^{\prime \prime}$ telescopic antenna, and earphone jack. Chrome front with sil ver and black trim. Uses 8 " $A A^{\prime \prime}$ " pencell batteries. Size: $9^{1 / 4} \times 31 / 8 \times 21 / 8^{\prime \prime}$. 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 $30^{c}$ 10A3086-4. Model 2-103B Charger for above. Each

## 

PROFESSIONAL
5-WATT/6-CHANNEL HAND-HELD TRANSCEIVER

Model 1-408
${ }^{5} 109^{95}$
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 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 " $A A$ " pencell batteries. Size: $9^{1 / 4} \times 3^{1 / 8} \times 2^{1 / 8^{\prime \prime}}$. Shpg. wt. 3 lbs .
104166-7. Model 1-406. Each .... \$89.95 10A3085-6. Model 2-101B. Ni-Cad Rechargeable Battery Pack. Each ................ \$28.95 10A3086-4. Model 2-103B. Charger for above. 21A327-2. Pencell. Each

## E Royce HIGH PERFORMANCE CB TRANSCEIVERS

MODEL 1-614 IN-DASH CB AND AM/FM STEREO

- Full Variable Squelch. $\quad$ Large $1-3 / 8^{\prime \prime} \times 3 / 8^{\prime \prime}$ CB Meter.
- AM/FM lighted tuning dial.
- In-Dash security.
- 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 "GyroLock" (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 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-

## [ 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.
10A124-6. Model 1-590. Each
$\$ 79.95$
10A3020-3. Crystals. Per Channel Pair
MODEL 1-620
[- - ву天e
23-CHANNEL AM BASE STATION TRANSCEIVER


## $\$ 219^{95}$

Sophisticated styling! Walnut wood end caps with charcoal gray top and black control panel. llluminated 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 $12 \times 41 / 2 \times 8^{\prime \prime}$. Shipping wt. 12 lbs.
10A140-2. Model 1-620. Each
$\$ 219.95$
[ Royce
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. MOSFET 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 5 watt 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: $81 / 4^{\prime \prime} \mathrm{W} \times 83 / 4^{\prime \prime} \mathrm{D} \times 21 / 4^{\prime \prime}$ High. Shpg. Wt. 9.0 lbs .
10A169-1. Model 1-635. Each
$\$ 439.95$

## Broyce HICH PERFORMANCE CB TRANSCEIVERS



ROYCE MODEL 1-655

'17995


Truly a dramatic CB breakthrough, Royce promises long-term reliable and pro fessional 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 funed 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.

10A223-6. Model 1-650. Shpg. wt. 5 lbs. Each
$\$ 144.95$

## 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 cord.
- Beautiful, scuff-resistant, vinyl-clad metal cabinet.

10A236-8. Model 1-655. Shpg. wt. 5 lbs. Each
$\$ 179.95$
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 $3^{\prime \prime}$ speaker are just a few more reasons why any Royce Wireless model is a logical choice when you look for the very best in CB.
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 $10 \mathrm{db}(\mathrm{S}+\mathrm{N}) \mathrm{N}$; Selectivity 5 kHz @ 6 db down. All come with microphone, mounting bracket, and DC power cord.

## 1-653 23-CHANNEL MOBILE CB TRANSCEIVER

- Has all wireless features PLUS
- 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 cord.
- Handsome vinyl coated, leather grained, all metal cabinet.

10A224-4. Model 1-653. Shpg. wt. 5 lbs. Each
$\$ 159.95$

## 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.
- Pushbutton PA-CB switch. - Continuous RF gain control.
- Accessory jacks for PA speaker, external speaker, antenna and DC power cord.
- Attractive leather-grained, vinyl-coated scuff-resistant metal cabinet. Shpg. wt. 5 lbs.
10A238-4. Model 1-658. Each
$\$ 199.95$


## 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 switch.
- Vol-U-Mike for receiver volume control from microphone or front panel.
- Variable fine tuning control. Continuous RF gain control.
- Pushbutton ANL switch.
- Pushbutton PA/CB switch.
- Accessory jacks for PA speaker, external speaker, antenna and DC power cord.
- Beautiful, rugged, vinyl-clad cabinet which is scuff-resistant. Shpg. wt. $51 / 2 \mathrm{lbs}$.
10A243-4. Model 1-662. Each
\$239.95

[^6]Ask about B-A's 4-Pavment Credit Plan


ROYCE 1-580 MOD-U-LAR 3-PIECE MOBILE CB TRANSCEIVER

## HIGH PERFORMANCE CB TRANSCEIVERS



## Panasonic

## RJ-3100 23-CHANNEL MOBILE CB TRANSCEIVER

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 offcenter signals. Large S/RF power meter ( $11 / 2^{\prime \prime}$ 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 $10 \mathrm{db} \mathrm{S} / \mathrm{N}$ at 1 KHz of $30 \%$ modulation. Selectivity bandwidth 5 KHz 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: $2-5 / 16^{\prime \prime}$ H. X $6-7 / 16^{\prime \prime}$ W. X $9-3 / 8^{\prime \prime}$ D. Shpg. wt. 5 lbs.
10A235-0. Model RJ-3100. Each
$\$ 149.95$

## ( $(\mathrm{O}))^{\text {CB }} 143$ 23-CHANNEL <br> PACE <br> MINI-SIZE MOBILE



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 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: $1-5 / 8^{\prime \prime} \times 5^{\prime \prime} \times 7^{\prime \prime}$. Shpg. wt, 4 lbs.
10A159-2. Model CB 143. Each
$\$ 144.95$

##  PACE 23-CHANNEL MOBILE TRANSCEIVER



## $\$ 169^{95}$

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 mode indicator lights. PA/CB switch. Squelch control. Full 23 channel synthesized design. Audio output 5 watts. Sensitivity 0.5 uV for $10 \mathrm{db} \mathrm{S}+\mathrm{N} / \mathrm{N}$ adjacent channel rejection 50 db minimum. For positive and negative ground operation 12VDC. Comes complete with dynamic hand microphone. Size: $2^{\prime \prime} \times 61 / 2^{\prime \prime} \mathrm{X}$


## Panasonic

MODEL RJ-3200
23-CHANNEL MOBILE CB

## $\$ 179^{95}$

Quiet operation combined with total power-packed performance makes the RJ3200 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 $\mathrm{S} / \mathrm{RF}$ 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 $10 \mathrm{db} \mathrm{S} / \mathrm{N}$ at 1 KHz 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: $7^{\prime \prime}$ W. X $2^{\prime \prime}$ H. X $9^{\prime \prime}$ D. Shpg. wt. 6 lbs.
10A195-6. Model RJ-3200. Each
$\$ 179.95$

## ((O)) CB161 23-CHANNEL MOBILE PACE 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 eliminating noise.
Features S/RF meter. PA function with front panel control. External speaker and PA jacks. Comes with dynamic plug-in microphone. Sensitivity 0.5 JV for 10 dB $\mathrm{S}+\mathrm{N} / \mathrm{N}$. Adjacent channel rejection 50 dB minimum. Audio output 4 watts. Transmitter power output 4 watts (maximum legal power). For 12VDC positive or negative ground operation. Size: $6-5 / 8^{\prime \prime} \times 1-7 / 8^{\prime \prime} \times 9^{\prime \prime}$.
10A244-2. Model CB 161. Shpg. wt. 5 lbs. Each
$\$ 149.95$

## ((O)) CB166 23-CHANNEL PACE WITH DIGITAL SYNTHESIZER



## $\$ 209^{95}$

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 Inop circuit. Extra range operation from special Class A modulation on transmit. Shaped audio response in transmitter. Fully variable squelch control silences receiver between kalls. 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. Sensifivity 0.5 uV for $10 \mathrm{~dB} \mathrm{~S}+\mathrm{N} / \mathrm{N}$. 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 dynamic hand microphone and mounting bracket. Size: $6.5 / 8^{\prime \prime} \times 1-7 / 8^{\prime \prime} \times 9^{\prime \prime}$
10A245-9. Model CB 166. Shpg. wt. 5 lbs. Each
\$209.95
((p)) CB 145 23-CHANNEL MOBILE
PACE 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 funing 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 0.5 uV for $10 \mathrm{~dB}(\mathrm{~S}+\mathrm{N}) / \mathrm{N}$. Adjacent channel rejection 60 dB minimum. Jacks for external speaker and PA. Dynamic microphone and mobil mounting bracket included. For positive or negative ground operation 12VDC. Size: $21 / 4^{\prime \prime} \times 71 / 2^{\prime \prime} \times 10^{\prime \prime}$. Shpg. wt. 11 lbs.
10A162-2. Model CB145. Each
\$239.95
(())) PACE CB 113 MINI-SIZE PACE CB BASE/MOBILE

## 521995 <br> 

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 receiver with tuned IF filters prevents adjacent channel bleedover. Narrow band receiver with tuned if filters prevents adds to noise reduction. CB 113 can be used as a base or mobile transceiver, 117 VAC 60 Hz or 12 VDC . Fully variable squelch control silences receiver between calls, PA/CB switch. ANL control prevents external noise. Lo$\mathrm{cal} /$ Distant control for receiver range adjustment. S/RF meter. Transmit and receive mode indicator lights. Sensitivity 0.6 uV at $10 \mathrm{~dB} 51 / 2 \mathrm{~N} / \mathrm{N}$. Selectivity 6 KHZ at 6 dB . External speaker and PA jacks. Includes dynamic hand microphone and mobile mounting bracket. Size: $3^{\prime \prime} \times 91^{1 / 2} \times 81 / 2^{\prime \prime}$. Shpg. wt. $51 / 2 \mathrm{lbs}$.
10A234-3. Model CB113. Each
\$219.95

## ((P)) PACE CB1000M 23-CHANNEL PACE 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 1.0 UV AM/0.5uV SSB.
Adjacent channel rejection 50 dB minimum. PA jack. Includes low impedance dynamic microphone and mobile mounting bracket. Size: $21 / 4^{\prime \prime} \times 71 / 2^{\prime \prime} \times 10^{\prime \prime}$. Shpg. wt. 11 lbs .
10A180-8. Model 1000M. Each
\$379.95
((○)) PACE MODEL 2300 23-CHANNEL
PACE MOBILE CB


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. Builtin 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 toud Hailer system. local/Distant control for range adjustment. Squelch control. Sensitivity 0.35 uV for $10 \mathrm{~dB} \mathrm{~S}+\mathrm{N} / \mathrm{N}$. Adjacent Channel Rejection 50 dB . Positive or negative ground operation 12VDC. Includes ceramic plug-in microphone and locking mounting bracket. Accessory jacks for external speaker/hailer. Size: $21 / 2^{\prime \prime} \times$ $6^{3 / 4^{\prime \prime}} \times 8^{\prime \prime}$. Shpg, wt. 6 lbs .
10A163-4. Model 2300. Each
\$249.95

## ((م)) PACE DX2300B 23-CHANNEL PACE <br> CB BASE STATION

## \$279 ${ }^{95}$




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 dual conversion superheterodyne receiver with tuned if filters prevents adjacent 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 0.35 uV for 10 dB $\mathrm{S}+\mathrm{N} / \mathrm{N}$. Adjacent channel rejection 55 dB major image; 40 dB all others. External speaker and accessory jacks. Comes with high impedance ceramic hand minal speaker and accessory jacks. Comes with high impedance ceramic hand mi-
crophone. Classic decorator styling. 117 VAC or 220 VAC . Size: $31 / 4^{\prime \prime} \times 99^{\prime \prime} \mathrm{x}$ crophone. Classic decorato
$13-5 / 8^{\prime \prime}$. Shpg. wt. 14 lbs .
10A164-2. Model DX2300B. Each
$\$ 279.95$

## ((○)) CB1000B 23-CHANNEL AM/SSB PACE 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 117 VAC and 12 VDC 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 $1.0 u \vee \mathrm{AM} / 0.5 \mathrm{JV}$ SSB. Adjacent channel rejection 50 dB minimum. Digital clock has automatic timer/alarm switch. PA ack on CB. Comes with a dynamic hand microphone and mounting bracket.

10A181-6. Model CB1000B. Each
\$489.95

## CB COMMUNICATIONS PRODUCTS

## $\square \mathrm{B}$ - CB CO-PILOT TRANSCEIVERS



Model 14T200 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 0.7 UV for $10 \mathrm{db} \mathrm{S}+\mathrm{N} / \mathrm{N}$, selectivity 6 KHz is $-6 \mathrm{db}, 20 \mathrm{KHz}$ is -50 db . Has squelch control, CB/PA switch, and external speaker jack. For 12 to 15 VDC, positive or negative ground. Size: $61 / 2 \times 21 / 4 \times 7 \frac{1}{4}$ ". Shpg. wt. 5 lbs .

## 10A202-0. Model 14T200. Each

$\$ 169.95$
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
$\$ 124.95$

## C <br> HEAR THE HIGHWAY ACTIONI

BE AWARE OF TRAFFIC AMD ROAD COMDITIOMS. HEAR WHAT TME TRUCKERS SAY AND HOW THEY SAYIT. AVOID TRAFFIC JAMMS. MO FCC LICENSE REQUIRED

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: $4 \times 3 \times 11 / 2^{\prime \prime}$. Shpg. wt. 1 lb .
$\$ 24.95$
10A246-7. Each
21A305-8. 9 volt Transistor Battery for above.
Each

## 23 CHANNEL CB CONVERTER



- WORKS WITH ANY RADIO.
- NOISE BLANKER ELIMINATES INTERFERENCE.
s2995

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. $36^{\prime \prime}$ power lead. $5 \times 3 \times 11 / 4^{\prime \prime}$. Self adhesive mounting strip. Wood grain finish. Shpg. wt. 2 lbs.
10A208-7. Elenco Model CB-23. Each
$\$ 29.95$

## 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. $41 / 2 \mathrm{ft}$. 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 and others.
$\$ 3.75$
10A3138-3. Each
2.5 Coaxial Power Plug. As used on Pace, Fannon-Courier, Lafayette and others.
10A3139-1. Each .............................................. $\$ 2.75$


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: $61 / 2 \times 8-15 / 16 \times 6$ 15/16 D." Shpg. wt. 8 lbs.
10A144-4. Each
$\$ 199.95$
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 $10 \mathrm{db}(\mathrm{S}+\mathrm{N}) / \mathrm{N}$ at 0.5 uV input, SSB 10 db $(\mathrm{S}+\mathrm{N}) / \mathrm{N}$ at 0.35 uV . Selectivity is $4.5 \mathrm{KHz}, \mathrm{min}$. bandwidth at $-6 \mathrm{db}, 30 \mathrm{KHz}$ at 60 db . 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: $7.5 \mathrm{~W} \times 10.7 \mathrm{D} \times 2.4^{\prime \prime} \mathrm{H}$. Shpg. wt. 7 lbs .
10A174-1. Each
\$359.95

'15995

## JOHNSON

## MESSENGER 191

23 channels, full 4 watts output at 13.8 VDC. High Level modulation is assured by electronic speech compression. Receiver sensitivity is 0.5 uV , 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: $6.2 \mathrm{~W} \times 2 \mathrm{H} \times 8.9^{\prime \prime} \mathrm{D}$. Shpg. wt. 7 lbs.
10A248-3. Messenger 191. Each
$\$ 159.95$

## 4 <br> JOHNSON MESSENGER 92 CB TRANSCEIVER \$1 $11^{95}$

Receiver sensitivity 0.5 microvolts. 6 KHz 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: $9^{\prime \prime} \times 3.6^{\prime \prime}$ $\times 1.8^{\prime \prime}$. Shpg. wt. 3 lbs .
10A249-1. Messenger 92. Each
$\$ 169.95$
10A3009-6. Extra crystals for Messenger above. Pair For.
$\$ 4.95$
EDILTEK

## Endrro 23 <br> MOTORCYCLE MOUNT 23-CHANNEL CB TRANSCEIVER

Incredibly compact. It's the toughest, most versatile CB unit ever! Built for most versatile CB unit ever! Buil for
rough-riding equipment. $\pm 0.005 \%$ frequency control from $-22^{\circ}$ to $+140^{\circ} \mathrm{F}$. 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: $91 / 2^{\prime \prime} \mathrm{L} . \mathrm{X}^{\prime \prime}$ W. X $21 / 3^{\prime \prime}$ D. Shpg. wt. 5.5 lbs .
10A237-6. Enduro 23
Each
\$229.9


10A3163-1. Passenger Headset.
ach
$\$ 23.95$
10A7136-3. Antenna with Mounting Bracket and Coax

## CB ACCESSORIES FOR TOP PERFORMANCE



## REGULATED DC

## POWER SUPPLY

Double the use of your CB mobile equipment auto stereo tape player, or car radio. Con verts $115-125 \mathrm{VAC}$ to $13.6 \mathrm{VDC} \pm 1 \%, 3$ amp continuous. Regulated output voltage is free of major variations with line voltage and load charges, Regulator employs a precision integrated circuit and power transis cision integrated circuit and power transistors for long-life and reliability. Foldback
current-limiting 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: $3^{1 / 2^{\prime \prime}} \mathrm{H} \times 5^{1 / 4^{\prime \prime} W} \times 7^{\prime \prime} \mathrm{D}$.
13A8074-2. Model PS-133. Shpg. wt. 6 lbs. Each
\$26.95

## 12 VOLT DC POWER SUPPLY 519"5

## 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 volts DC. Delivers $4 \mathrm{amps}, 6 \mathrm{amp}$ surge. No noticeable hum or voltage dip. Screw terminals. Neon on-off indicator light. Automatic circuit breaker. Shpg. wt. 5 lbs. Size: $3^{1 / 4^{\prime \prime}} \mathrm{H} . X 5^{\prime \prime}$ W. X $5^{\prime \prime} \mathrm{D}$.

## 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. $41 / 2^{\prime \prime} \mathrm{ft}$. long
10A3137-5. For direct wired units. Each end stripped and tinned. Each $\$ 1.80$ Standard 2-Pin Cable. As used on Royce, Robyn, Midland, Lafayette and oth-
10A3140-9. Each
10A3138-3. Standard 3-Pin Cable. As used on Courier, Pearce-Simpson, Cobra, Midland and others. Each . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$3.75 2.5 Coaxial Power Plug. As used on Pace, Fannon-Courier, Lafayette and oth-10A3139-1. Each

## QUICK DISCONNECT CONNECTOR $\$ 199$

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 connectors.
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 $16^{\prime \prime}$ leads. Cut apart or use as wired for extensions.
10A3151-6. 2 wire male \& female. Each
$\$ 1.00$
10A3172-2. 4 wire male \& female. Each

## AUTO RADIO NOISE SUPPRESSORS


(3)

(4)
(1) Master Distributor Suppressor. Sure cure for most all ignition noises. For use separately, or in severe cases, with individual suppressors.
38A8009-9. Net Each....................95c 10 Lots, Each.
.85c
(2) High Efficiency Spark Plug Suppressor.
(3) Alternator Noise Filter. Cures interference in your CB or ham receiver or (3) Alternator Noise Filter. Cures interference in your CB or ham receiver or
stereo player caused by, the alternator. Encapsulated, long life design. Easy stereo player caused by the alternator. Enc
to install. Size $21 / 2 \times 1,6^{\prime \prime}$. Shpg. wt. $1 / 4 \mathrm{lb}$.
to install. Size $21 / 2 \times 1,{ }^{\prime \prime \prime}$. Shpg. wt. $1 / 4 \mathrm{lb}$.
38 A8000-8. Imported. Net Each.
$\$ 3.35$
(1) Generator Filter .5 uf. II 250 Volts for auto radios. Metal encased with
insulated lead. Wt. 2 oz.
15 A5165-9. Spec. Each.
49. 10 Lots, Each.

## AUTO RADIO ICNITION NOISE ELIMINATOR KITS

In handy kits, the needed suppressors, condensers, etc., for a complete inin handy kits, the needed suppressors, Easy to install by anyone.
stallation. Easy to instal wy anyone.
$\mathbf{3 8 A 8 0 1 2}$
$\$ 3.90$

## 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 for hook-up. 38 A8020-6. Each
$\$ 2.33$

## CB ALTERNATOR NOISE FILTERS



Eliminates interference in your CB set caused by the alternator, Easv 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, rather 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, ignifion coils or other automotive accessories.
10A3116-9. CBFT40. For up to 40 amps . $0.5 \mathrm{uf} / 50 \mathrm{VDC}$ Each
10A3 117-7. CBFF60. For up to 60 amps. 0.5 uf $/ 50$ VDC. Each
10A3175-5. CBFT20. For up to $20 \mathrm{amps} .0 .1 \mathrm{uf} / 600 \mathrm{VDC}$. Each ..... $\$ 2.67$
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.
10A3159-9. CBIC100. Each
$\$ 14.95$


## $521^{25}$



## (1) LOW PASS TVI FILTER

A pre-tuned low pass filter, designed to reduce TVI from second and third Hormonics. Cut-off frequency 43 MHz . For up to 1000 watts input. With SO-239 connectors.
10A3158-1. CBTVI-1. Each
\$21.25
(2) ALL PURPOSE FILTER
ce when instalied at the receiver power leads to prevent stray noise. Install as close to the receiver as possible to block out unwanted noise. It has capacifive and inductive elements for maximum effect on 27 MHz . Max rating 24 VDC .
10A3120-1. CBAPF, Each
$\$ 19.75$

## 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, etc. Operates on 10-15 VDC. 50 mA max. either positive or negative ground. Has standard SO239 connectors. Size: $11 / 4 \times 11 / 2 \times 6^{\prime \prime}$. Shpg. wt. 2 lbs .
10A3125-0. BT-20 AM Type. YOUR CHOICE
10 A3126-8. BT-20 SSB Type.
10A3126-8. BT-20 SSB Type.
EACH
\$34.95

## LOW PASS FILTER



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. $11 / 2 \times 21 / 8 \times 12^{\prime \prime}$. Standard SO-239 connectors. With instructions. Shpg. wt. 2 lbs.
10A3127-6. Telco XL-1000. Each
\$34.95
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: $61 / 2^{\prime \prime} \mathrm{X} 4^{\prime \prime} \mathrm{X}$ $21 / 4{ }^{\prime \prime}$. Shpg. wt. 2 lbs.
$\$ 20.46$


## CB ACCESSORIES FOR TOP PERFORMANCE



## (1) COMBINATION 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: $6^{\prime \prime} \mathrm{H} . \times 2^{\prime \prime}$ W. X $2^{3 / 4^{\prime \prime}}$ D. Shpg. wt. 2 lbs.
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 $0-100 \mathrm{Watts}$ ). 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
$21 / 4$ " 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: $51 / 2^{\prime \prime} \times 41 / 4^{\prime \prime} \times 5 \frac{1}{4} 4^{\prime \prime}$. Black cabinet has satin chrome and wood grain trim. Shpg. wt. 3 lbs .
10A3173-0. Each
$\$ 59.95$

## (4) IN-LINE SWR METER

Compact SWR meter for easy in-line measurement. $11 / 2^{\prime \prime}$ scale calibrated 1-1.5-3-5-10. Separate ( $\%$ ) reflected power scale. Calibration control. $2^{1 / 4^{\prime \prime} \times 4^{\prime \prime} \times}$ 3-5-1/. Separate (\%) reflected power scale. Calibration contro
$11 / 2^{\prime \prime}$. SO-239 connectors. Black with silver trim. Shpg. wt. 2 lbs . 10A3174-8. Each
$\$ 13.95$

## (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 coax 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: $1.5-144 \mathrm{MHz}$. For 52,75 ohms. Size: $6 \times 2 \frac{1 / 2}{} \times 2^{1 / 2} 2^{\prime \prime}$. Shpg. wt. 2 lbs.
10A3168-0. Each

## (6) 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.

10A3167-2, Shpg. wt. 1 lb . Each

## 24 HOUR DIGITAL CLOCK

Features big, bold $2^{\prime \prime}$ numerals - can be seen by everyone in a large room. Ideal for offices, factories 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: $111 / 4^{\prime \prime} \mathrm{W} . \times 5^{\prime \prime} \mathrm{D}_{.} \times 61^{\prime \prime} 2^{\prime \prime} \mathrm{H}_{\text {., plus }} 2^{\prime \prime}$ removable base. Shpg. wt. 6 lbs.
47A323-1. Model 801 - White
47A324-9. Model 801 - Red
YOUR CHOICE
47A325-6. Model 801 - Yellow
EACH..

## 24 HOUR DIGITAL ELECTRIC CALENDAR CLOCK

Handsome illuminated clock shows time, day and date ... All automat ically. Accurate noiseless operation Brushed aluminum case. Buitt-in diffused light. $81 / 2 \times 4 \times 3^{1 / 2^{\prime \prime}} \mathrm{U} . \mathrm{L}$. approved. 115 volt $A C .60 \mathrm{~Hz}$
 Shpg. 'wt. 3 lbs
9A3270-7
Each
$\$ 24.95$

TELEX COMMUNICATIONS HEADSETS

(2)

(1) 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" switching where mike input of the transceiver is isolated from the audio output stage by a transistor, tube or relay. Use "non-shorted" switching where mike input is common to the audio output stage. Clothing clip on the switch. 8 ft . cord is unterminated. Gray with black trim. With battery and instructions. Weighs 15 ozs. Shpg. wt. 1.5 lbs.
10A3097-1. Shorted Switching. Your Choice 10A3176-3 Non-Shorted Switching
$\$ 59.95$
(2) Model CB-88 Dramatically better aviation type, lightweight headset. Amplified, noise cancelling, low impedance magnetic mike. Single magnetic receiver matches external speaker output. $8^{\prime}$ cord with in-line push-to-talk switch. $140^{\prime \prime}$ receiver plug and unterminated mike lead. Weighs 6 oz . Shpg. wt. 1 lb . 10A3177-1. Shorted Switching. Your Choice 10A3178-9. Non-Shorted Switching. Each.
$\$ 69.95$

## TRUMPET FOR CB AND PUBLIC ADDRESS

$$
\$ 13^{95}
$$

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 $90^{\circ}$ spread for maximum penetration. Weatherproof re-entrant type, for indoor or outdoor use. $180^{\circ}$ swivel mount with screw flange. 5 watt power rating. 8 ohms. 5 inch horn opening. $5-3 / 8^{\prime \prime}$ long. With wire lead. Shpg. wt. 2 lbs.
49A4008-2. Import Special
$\$ 29.95$
$\$ 10.95$

## HIGH IMPACT PLASTIC HORN $\$ 1795$

8 ohm, 8 watt maximum; weather proof; rust proof. White horn, black bracket. Size $4-5 / 8^{\prime \prime} \mathrm{W} X$ $4-3 / 8^{\prime \prime} \mathrm{H} \times 4-3 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 2 lbs.
49A4051-2. Each
$\$ 17.95$

$\$ 59.95$

## CB EXTENSION 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 jack on transceiver. Durable plastic ack on transceiver. Durable plastic housing with metal grille and metal
swivel bracket. 8 ohm impedance. Size: $41 / 2^{\prime \prime}$ W. X $41 / 2^{\prime \prime}$ H. X $2^{\prime \prime}$ D.
10C3111-0. Each
$\$ 9.95$

## KRIKET MOBILE CB SPEAKER

CB SPEAKER

${ }^{5} 24{ }^{95}$


Gives improved sound from your CB. Snap lock mounting bracket for easy positioning. Black naugahyde covering. 3 oz . ceramic magnet, $31 / 2^{\prime \prime}$ weatherproof cone. $3 / 4^{\prime \prime}$ voice coil, 5 watts RMS 8 obm. 4 ft . cord with miniature phone plug. $4^{1 / 2} \times 5^{1 / 4} \times 4 \frac{1}{4} 4^{\prime \prime}$ deep. Shpg. wt. $11 / 2 \mathrm{lbs}$.
10A3096-3. KC35. Each \$14.95
Kricket Base Station Speaker $5^{\prime \prime}$ weatherproof cone. $51 / 2^{\prime \prime} \times 51 / 4^{\prime \prime} \mathrm{X}$ $41 / 2^{\prime \prime}$ 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
$\$ 15.95$
CRYSTAL CLEAR MOUNT

## \$1995

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.
10A3123-5. Each
$\$ 19.95$

## 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. Miimpact plastic.
10A3169-8. Shpg. wt. 3 lbs . Each
\$12.95
10A3170-6. Top Half Only for mounting in second car, boat, etc., allows instant change from one vehicle to an-

## 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 tope supplied. Shpg. wt. 8 oz .
10A3149-0
Each
$\$ 1.50$
Fit standard microphones equipped with hanger button. Metal. 29A3030-1 Magnetic Each
$\$ 1.09$
29A3077-2 Self Adhesive Each
$\$ 1.09$


## CB MICROPHONE CONNECTORS

10C3107-8. 3-Pin PLUG. Each
10C3090-6. 4-Pin PLUG. Each
10C3090-6. 4-Pin PLUG. Each
10C3091-4. 6-Pin PLUG. Each
10C3091-4. 6-Pin PLUG. Each
CHASSIS MOUNT JACKS


## COAXIAL LIGHTNING ARRESTOR

Lightning protection for your CB antenna. Threaded for standard PL259
10A3128-4 Amphenol 83-23 Each


## 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.
10A3162-3.
Each
$\$ 9.95$

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 vehicle. It a thief attempts to remove
your $C B$ 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 CB or ham radio owner should be withCB or ham radio owner should be with- $21 / 2^{\prime \prime} \times 2-1 / 8^{\prime \prime} \times \quad 11 / 4^{\prime \prime}$. out. Size: 2 lbg
Shpg. wt. 2 lbs.
47A5664-3. Each
\$29.95


| Stk. No. 2A9871-3 | Description <br> 18 inch RG58/U |
| :---: | :---: |
| 2A4000-4 | 3 Ft . RG58/U |
| 2A9867-1 | 5 Ft . RG58/U |
| 2A9870-5 | 12 Ft . RG58/U |
| 2A9866-3 | $12 \mathrm{Ft} . \mathrm{RG} 58 / \mathrm{U}$ |
| 2A9986-9 | $20 \mathrm{Ft} . \mathrm{RG} 58 / \mathrm{U}$ |
| 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 |

"THE NAILER" CB ALARM SYSTEM

## - PROTECTS CB EQUIPMENT FROM

 THEFT.- INSTALLS EASILY, QUICKLY.
- NO SWR LOSS.



## COAXIAL

CABLE ASSEMBLIES
FOR CB-AMATEUR-MONITOR ANTENNA CIRCUITS Finest low-loss polyfoam coax, attached PL259 plugs, factory assembled to save time and money.

| With Pl-259 | Wt. | Each |
| :---: | ---: | ---: |
| Both Ends | 2 Oz. | $\$ 2.85$ |
| Both Ends | 3 Oz | 3.21 |
| One End, Spade Lugs Other End | 8 Oz | 3.22 |
| 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 |
| Both Ends | 6 Lbs. | 10.88 |
| Both Ends | 6 Lbs | 15.55 |
| Both Ends | 11 lbs. | 26.69 |

## 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-totalk 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. $30-7500 \mathrm{~Hz}$ Freq. response. Output -46DB. Uses 9 volt battery (not included). 6 ft . (extended) 4 wire coil cord. Shpg. wt. 3 lbs 29A770-5. Model TUG8-D104 Each
Like above except stand is not amplified 29A769-7. Model UG8-D104 Each
$\$ 48.60$
$\$ 42.60$
Like TUG8-D104 except 6 wire cord.
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.
29A771-3. Model TUG-9-D104 Gold. Each
$\$ 95.40$


## ASTATIC D104-M CB

 MOBILE MIKEField 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: $3-3 / 8^{\prime \prime} \times 2-3 / 8^{\prime \prime}$ X $21 / 32^{\prime \prime}$. Shpg. wt. 1 lb .
29A775-4. Model D104M.
Each .................. \$33.00


## CB ANTENNAS AND MOUNTS

## thuqain

## CB BASE STATION ANTENNAS

## CLR-2

SUPER CLR THE PENETRATOR. The only antenna you can buy that'll outperform the HyGain CLR2. Full $5 / 8$ wave ( $22^{\prime} 91 / 2^{\prime \prime}$ ) 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. Perfeft 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 .
9 A7037-6. 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 $81 / 2$ 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 .
. $\$ 39.95$

## 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 performance.
Features heavy-wall aluminum elements and super strength taper swaged tubing. Elements are optimum spaced on the $2^{2} O . D$ 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 protection. Power multiplication 18.4 , gain
12.3 , front-to-back rotio 31 db ; SWR less than 1.5: 1. Boom length 24 ft . Shpg. wt. 24 than
lbs.

10A7072-0.Model 410.
Net Each
$\$ 89.95$

## CB3 . . . 3 ELEMENT BEAM

An outstanding performer . . . delivers 8.2 forward gain 20 db average $\mathrm{F} / \mathrm{B}$ ratio; and, $40 \mathrm{db} \mathrm{F} / \mathrm{S}$ ratio. Will multiply your transceiver's output power by 6.6 times. Feeds with 52 ohm coax. Full sized $1 / 2$ wave-length elements. Rotates with standard TV rotator. Boom length 8 ft ., longest element 18 ft ., furning radius 4 ft ., and maximum wind survival 80 mph . Weight 7 lbs .
No. 9A7036-8.
Hy-Gain No. 53
3. Net Each ............. \$49.95

(1) Model 100B. 3-way mount bracket for base loaded antenna. 10A3165-6. Shpg. wt. $1 / 2 \mathrm{lb}$. Each

10A3164-9. Shpg. wt. $1 / 2 \mathrm{lb}$. Each . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 8.00$ (4) Model 103. Quick antenna disconnect, chrome plated. Remove antenna with one hand, installs between antenna and mount or spring. Shpg. wt. $1 / 2 \mathrm{lb}$.

## 10A3101-1. Each

$\$ 6.90$
(5) Model 114. Trunk mount assembly, chrome plated. Fast, permanent installation. Shpg. wt. $1 / 2 \mathrm{lb}$.

10A3150-8. Shpg. wt. $1 / 2 \mathrm{lb}$. Each
(7) Model QD-1. Quick disconnect.
$\$ 7.65$
$\$ 5.95$
10A3144-1. Shpg. wt. $1 / 2 \mathrm{lb}$. Each
$\$ 11.75$
(8) Model BM -1. Bumper mount. Fits any size or shape. $180^{\circ}$ adjustable ball. Accepts 3/8" $\times 24$ antennas. Shpg. wt. 3 lbs.
10A7102-5. Each
$\$ 11.95$

MOBILE CB ANTENNAS

(1):0
(1) Two 25" Rain Gutter Mounted Antennas. Fits any size gutter, any vehicle. $180^{\circ}$ swivel balls, $12^{\prime}$ coax phasing harness. Shpg. wt. 3 lbs .
9A7052-5. Hustler DTG. Each
$\$ 31.95$
(2) Super Deluxe Trunk Groove Mount. $48^{\prime \prime}$ stainless steel. Chrome Plated mounts. Swivels $180^{\circ}$. $17^{\prime}$ dual phasing harness. Shpg. wt. 4 lbs .
10A7103-3. Hustler SDTs. Each
$\$ 37.50$
(3) Trunk Lip Mount. "No holes"-Swivel ball, $48^{\prime \prime}$ high. $17^{\prime}$ of RG-58U cable, impact spring. Shpg. wt. 3 lbs.
10A7104-1. Hustler XBLT-4. Each.
$\$ 29.95$
(4) Trunk Lip Mount. "No holes"-180 swivel ball. $17^{\circ}$ of RG-58U cable. $55^{\prime \prime}$ 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 $3^{\prime \prime}$ in diameter, overall length $\mathbf{4 5}^{\prime \prime}$. Includes $16^{\prime}$ of coaxial cable plus PL-259 connector. Shpt, wt. 3 lbs .
10A7120-7. Each
$\$ 19.95$
(9) Valor Model 334. $96^{\prime \prime}$ 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.

10A7110-8. Each.
$\$ 14.95$
(11) Valor Model $3331 / 2,2 \mathrm{ft}$. Fiberglas top-loaded antenna. Shpg. wt. $1 / 2 \mathrm{lb}$.

10A7111-6. Each
$\$ 13.95$
(12) Valor Model VE-027-FR. Electric antenna prevents thefts. $48^{\prime \prime}$ stainless steel. Complete with hardware for front or rear mount, RG-58U cable and PL259. Shpg. wt. 4 lbs.

10A7138-9. Each .
$\$ 89.95$


[^7]
# 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 such noises as airplane flutter, amateur transmission, etc. New $7 / 16^{\prime \prime}$ 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).


## EXCLUSIVE!




USES ONLY ONE LEAD-IN WIRE
ATTACHES TO YOUR VHF MAST

| $\begin{aligned} & \text { Stk. No. } \\ & \text { 7A6547-7 } \\ & \text { TA6548-5 } \end{aligned}$ | $\begin{aligned} & \text { Model } \\ & \text { U-610K } \\ & \text { U-620K } \end{aligned}$ | $\begin{gathered} \text { Elements } \\ 12 \\ 20 \end{gathered}$ | Boom Length 41" $41^{\prime \prime}$ | $\begin{gathered} \text { Shpg. Wt. } \\ 6 \text { lbs. } \\ \text { y los. } \end{gathered}$ | $\begin{aligned} & \text { Egch } \\ & \$ 20.95 \\ & 24.95 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |

UPER TOUGH ANODIZED FINISH

WINEGARD

## FOR

## POWERFUL

## FM \& FM STEREO

Enjoy the ultimate in FM sound by using one of these high gain, highly directional Super Colortrons. Rejects unwanted signals from back and sides. Near perfect 300 ohm impedance match. amplifier housing. Not mailable.


## INDOOR FM DIPOLE ANTENNA

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
$\$ 1.79$

## IT's EASY TO INSTALL A WINEGARD ANTENNA SYSTEM $0 / 7$ winegard <br> WINEGARD MULTIPLE SET COUPLERS

## CHROMSTAR 82-CHANNEL ANTENNA MOUNTED AMPLIFIERS

## BOOST UHF-VHF OR FM ACCORDING TO YOUR LOCAL

 NEED-UP TO 7 TIMES MORE SIGNAL POWERSOLID STATE SIGNAL BOOSTERS EXTEND
RECEPTION RANGE . . STRENGTHEN WEAK CHANNELS AND LET YOU OPERATE SEVERAL SETS AT SAME TIME

## 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 causedby poor match. High isolation between sets pre-


COUPLER by poor march. High isolation between sets prelead for VHF, UHF or FM. Excellent for color as well as black and white TV. 300 ohm input and Outputs. 5 -way brackets for indoor or outdoor Outputs. 5 -way brackets
mounting. Shpg. wt. 1 lb . 7A2519-0. CC-282B for 2 sets. Each 19-0....... $\$ 5.592$ Each ........ $\$ 5.00$ 7A2520-8. CC- 4828 for 3 or 4 sets.
 $7 A 2637.0$. CC. 787 has 75 ohm input, two 75 ohm outputs. Each …..... $\$ 12.292$ Each ....... $\$ 11.00$ 7A2650-3. CC-997 has 75 ohm input, four 75 ohm outputs Each cc.
$\$ 24.95 \quad 2$ Each
\$21.25
SOLID STATE 82 CHANNEL TV-FM BOOSTER/COUPLER

Highly efficient TV-FM signal amplifier with newest overlay silicon transistors and printed circuitry. Delivers full aain 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.


7A2526-5. BC-382,300 ohms in and out, screw connections. $\$ 55.95$. Each $\$ 50.50$ 7A2527-3. BC-782, 75 ohms in and
 Each ….... \$55.95 2 Each
$\$ 50.50$


SOLID STATE VHF-FM BOOSTER COUPLER
$\$ 44^{95}$

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 boost-er-coupler with +10 db gain to each output, or a high input distribution amplifier with +17 db gain and a total output of 66 dbmv ( 2.1 volts). Choice of 75 or 300 ohm input. Output connections are through four 300 ohm "no strip" screw terminals or a single $75 \mathrm{ohm}, \mathrm{F}$ jack. $117 \mathrm{VAC}, 60 \mathrm{~Hz}$. 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

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
$\$ 4.00$

## SOME POPULAR <br> 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.
 PREAMPLIFER


NON-AMPLIFIED

(OR TV OUTLET)


(OR TV OUTLET)


# TV COUPLERS/AMPLIFIERS 

WINEGARD MULTIPLE ANTENNA COUPLERS<br>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
$\$ 9.492$ Each
$\$ 8.50$
TV-FM ANTENNA COUPLER. Couples one TV antenna and one FM antenna together into a single 300 ohm downlead. Same unit is used inside to divide TV and FM signals into separate lines for connection to receivers. 300 ohms in or out. Weatherproof housing with universal mounting bracket.
7A2518-2. Model CA-FMB. Each ........... $\$ 12.952$ Each .. $\$ 11.25$ 7A2573-7. Model CA7-FMB, (75 ohm in and out, connectors included). Each ................... $\$ 13.292$ Each ........................ $\$ 12.50$ 75 OHM COAXIAL LINE SPLITTERS
2 WAY SPLITTER. Divides signals from a single 75 ohm line into 2 separate lines. Avg. insertion loss 3.8 db . AC-DC passive to all outputs. Includes 3 F59 connectors. 7A2641-2. . Model LS-275C.
 4 WAY SPLITYE $R$. Divides signals from a single 75 ohm line into 4 separate lines. Avg. insertion loss 7.6 db . AC-DC passive to all outputs. Includes 5 F- 59 connectors.
7A2642-0. Model LS-475C.
Each ........... \$18.95 2 Each
$\$ 17.00$
WINEGARD 300 OHM VHF-UHF BẢND SEPARATOR
Use with any antenna downiead carrying both VHF and UHF signals to divide signals to separate input terminals on TV set ${ }^{300}$ ohm input and outputs.
$7 A 2504-2$. Model Cs-285. Wt. If. 7 A25 Each 7A2508-3...... \$2.79 2 Each ........... $\$ 2.50$ out). Each ........ $\$ 4.952$ Each.......${ }^{2} \$ 4.50$


7A2639-6. Model CS-380. Connects single 300 ohm downlead to sepa-
rate VHF-UHF and FM terminals on TV and FM receivers.
 rate VHF-UHF and FM terminals on TV and FM receivers. $\$ 5.19$ 2 Each .................... $\$ 4.75$ $\left.\begin{array}{ll}\text { Each } \\ 7 A 2574 & \text { 5 Model Cs-775 } \\ \text { (Separate } \\ 75\end{array}\right)$ ohm inputs for VHF and UHF antennas and single 75 ohm out put). Each .... \$9.95 2 Each .... $\$ 9.25$

## 75 OHM - 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 tt. cord of RG-59/U coax, with " $E$ "" connector and 82 channel band separator for connecting line taps to separate 300 ohm VHF and UHF antenna connections to TV sel.
7A2643-8. Model MSJ-5. Each
$\$ 6.992$ 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
gain, low noise. lightning protected.
Wt. 2 lbs.
Model GA 3000. 300 ohm input and output.
742671-9. 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. Lightning protected. 300 ohm input and output. Shpg. wt. 2 lbs .
7A2673-5. Each
$\$ 50.95$
7 Each
2 Eat
$\$ 50.95$
$\$ 45.25$
Model GA 8700 for VHF-UHF An-
tenna. Same as above but has 75 ohm output for coaxial cable downlead. Connector included. Shpg. wt. 2 lbs .
7A2674-3. Each
$\$ 50.95$
2 Each
$\$ 45.25$


PREAMP POWER SUPPLY

## MODEL FM340 FM SINGLE SET BOOSTER

Solid state 300 ohm FM booster in-
creases signals 18 db .
No. 7A2608-1.
Each
222

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.
Shpg. wt. $11 / 2 \mathrm{lbs}$.
7A2670-1. Model BC 8330. ( 300
ohm in and out). Ea. ..... \$40.95

## 2 Each … ........... $\$ 36.50$

7A2669-3. Model BC 8770 ( 75 ohm in and out)
Each ................ $\$ 40.95$ 2 Each


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 $6 \times 41 / 2 \times 2^{\prime \prime}$. 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 ...................... $\$ 35.75$


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 supolied. Shog. wt. 3 lbs.
No. 7A2528-1.
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, Shpg. wt. 3 lbs. 2 F- 59 connectors supplied. 7A2570-3. Each ....... \$48.99 2 Each
$\$ 46.50$

## WINECARD 30 DB. 82 CHANNEL

## LARGE SYSTEM AMPLIFIER

All Solid State Printed Circuits. 30 db gain on all 82 channels. Separate gain controls 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 0.5 db sync compression and separate 15 db gain controls on each band. Rug. ged commercial extruded aluminum housing. Complete with mounting bracket and 3 F-59 connectors. Shpg. wt. 6 lbs .
7A2645-3. Model DA-830.
Each
$\$ 158.952$ Each
$\$ 151.75$

## CABLEMATE TV SIGNAL SELECTOR

## CHOICE OF 75

OHM OR 300 OHM FROM ANTENNA

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 TV antenna. Works with any Cable TV system, old or new. Special circuitry system, VHF, UHF, Mid-Band and Superlets VHF,
Band signals pass through to your TV set. Special isolation circuitry ( 58 db ) to prevent antenna and Cable TV signals from interfering with each other. Size: $91 / 2 \times 6 \times 2$. 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 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 T77A 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.

| Winegard |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7A2529-9 | T-3 | One TV-FM Set | 300 Ohm Lead | \$2.15 | \$1. |
| 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 | 4.0 |
| 7A2530-7 | TR-7 | One TV-FM \& 5-Wire Rotor | 75 Ohm Cable | 7.49 | 6.5 |
| 7A2576-0 | TP-10 | Replacement Plug ( 300 ohm | lead) | 95 | . 65 |
| 7A2597-6 | SM-1 | Surface Mtg. Box for any | all TV Plate | 1.20 | 1.05 |
| T-77A less cable connectors. Order two F cable connectors listed on page 225 for each plate. |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | 2.20 | . . | \$2 |

## 82-CHANNEL COAX LINE TAPOFFS WITH VARIABLE ISOLATION

"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 befween sets. Terminator should be used on last tap-off on feeder line. Outlet to set is 300 ohms, plug provided. Ivory color. Shpg. wt. 8 ozs. Stk.No. Winegard No. Designed For Input Wiring Each 6 Each 7A2524-0 VTF-73A One TV-FM Set. Flush Mtg. 750 hm 7A264-5 SLTB Terminator
7A2597-6 SM-1
Surface Mtg. Box for any wall TV Plate

## 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.
Ea.
$\$ 8.492 \mathrm{Ea}$.
$\$ 7.50$

## 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
$\$ 8.492$ Each
$\$ 7.50$
(3) Indoor FM Trap with 75 ohm input and out put. Attenuates FM band - 25 db . Includes 2 7A2585-1. Model T-FM7.
Ea. ........ $\$ 10.992$ Ea.
$\$ 10.00$
(4) FM Trap with 300 ohm input and output. Mounts at set or on antenna mast. Attenuates FM band- 25 db
7A2586-9. Model T-FM3
Ea. ........ $\$ 10.992$ 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, UHFVHFF. Includes mounting clip, F-59 connector and boot. 7A2598-4. Model T-28M
\$3.75


Ea. . . ....... \$2.75 2 Ea.
HIDEAWAY TRAVEL TV ANTENNA


## IDEAL FOR TRAILERS, CAMPERS, BOATS

 AND MOBIL HOMES- PICKS UP STATIONS IN ALL DIRECTIONS
- 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 antenno cable with connectors, back-ot-set VHF/UHF band separator and mounting hardware. 7A6588-1. Each
$\$ 39.952$ Each
$\$ 34.75$

## ALL 82 CHANNELS - COLOR/B\&W/ FM STEREO

## B-A DELUXE CITY SUBURBAN ANTENNA OUTFIT $\$ 1295$



Includes 4 ft . tripod mount, $50^{\prime}$ 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. Mailable.
7A6563-4. Net Complete
\$12.95

## MOBILE HOME 82 CHANNEL ANTENNA OUTFIT <br> $\$ 15^{95}$

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.
7A6564-2. Model
OLX-9MHK. Net Each. $\$ 15.95$


## IDEAL SUBURBAN ANTENNA PACKAGE <br> 524"5



For reception of UHF-VHF-FM the CUV்500 uses the multi-driven straight Yagi for VHF and a corner reflector/Yagi UHF section. 15 active elements on a $60^{\prime \prime}$ boom. Complete kit contains antenna, 4 ft . tripod mount, $40^{\prime}$ lead-in, 4 standoffs, all mounting hardware. Separator for back of set.
7A6603-8. CUV500K. Each
\$24.95
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
$\$ 1.596$ 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. $110^{\circ}$ Button Base.
13A8020-5. Model C-222. $110^{\circ}$ Shell Base.
Choice
$\$ 3.59$
6 Ea
$\$ 2.65$

## "COLOR-BRITE" FOR COLOR TUBES

Uses type 501 and 511 where filament boost only is required; $\mathbf{5 0 3}$ and $\mathbf{5 1 3}$ for isolation to overcome picture tube filament-to-cathode short.
For most $70^{\circ}$ base $21^{\prime \prime}$ round color tubes wt. 2 lbs .
13A8032-0. C-501. Boost only. Each .......... $\$ 7.896$ Ea
13A8045-2 C-503 Isolate/Boost Type. Each . $\$ 10.996 \mathrm{Ea}$. .... $\$ 5.85$
For $90^{\circ}$ base $19^{\prime \prime}, 23^{\prime \prime}$ and $25^{\prime \prime}$ rectangular color tubes. Wt. 2 lbs .
13A8034-6. C-5'11. Boost only. Each ......... $\$ 8.29$ 6 Ea. .... $\$ 6.15$
13A8034-6. C-511. Boost only. Each ............. $\$ 8.296$ Ea.
13A8044-5. C-513. Isolate/Boost Type. Each \$10.99 6
SINGLE-BRITE COLOR GUN CONTROL
When a single gun weakens prematurely, this device restores color picture balance.
13A8039-5. Model B-150. Each
\$6.59 6 Each

# ANTENNA INSTALLATION ACCESSORIES 

LEAD-IN INSULATORS (1) WOOD SCREW TYPE
Stk. No. Type Insert Length Each 5 For 100 For $\begin{array}{llllll}7 A 214-0 & \text { For Flat Line } & 31 / 2^{\prime \prime} & 25^{\circ} & 69^{\circ} & \$ 6.67 \\ 7 A 215-7 & \text { Flat or Tubular } & 31 / 2 & 25^{\circ} & 69^{\circ} & \$ 6.67\end{array}$
or Tubular
(2) STRAP-ON MAST TYPE


MOSLEY TV LEAD-IN INSULATORS

(1) UNIVERSAL ROOF-THRU/WALL-THRU. Versatile antenna and rotor leadin entrance accepts all types of cable; coax, shielded, heavy and regular 300 wall of any structure. Molded polystyrene with gasket and hardware. $\$ 2.95$ wall of any structure. Molded poly
$\$ 2.95$ (2) WEATHER-PROOF "WALL-FEED" LEAD ENTRANCE, For entrance into attic, trailer wall, etc. Has molded weather hood and $2^{\prime \prime}$ polystyrene tube 74231 .
\$2.19 7A231-4. Type 626. For all types of lead Net Each (3 WEATHER-PROOF "WALL-THRU" BUSHINC. For all types TV transmis-
sion line and small coax cables. Has anchor points for open wire line. Insion line and small coax cables. Has anchor points for open wire line. In-
stalls through than dia. round hole in walls up to $13^{\prime \prime}$ thick. End plates are 7A232-2. Type 625. Each Net Each.......
\$2.19
FLAT 300 OHM LINE CONNECTORS


2


Description Line Plug - Mates with Fig. 2 Socket
Line Socket-Mates with Fig. 1 Plug Teriminal Adapter-Mates with Fig. 2 loins 300 ohm lead. Solderless

Net Ea. 10 For $79 . \quad \$ 6.00$
Stock No. Mosley No

## ANTENNA ACCESSORIES <br>  <br> UHF-VHF TV Splitter. Divides TV signal from single 300 ohm lead. Connects to UHF and VHF set terminals. <br> 7A2547-1 <br> Special Ea. <br> $\$ 1.90$ <br> TV Cheater Cord. UL approved $6^{\prime}$ cord. Enables plugging in set while back panel is detached or chassis out of cabinet. Wt. 4 ozs. <br> 41A37 1-6 <br> $79^{\circ}$ <br> VHF-TV-FM 2-Set Coupler. For 300 ohm lead. Efficient balun coil type. Very easy to connect. 7A2502-6 Special Ea. <br>  <br> 2-Cond. Socket and Plug. Handy for 300 ohm lead, speakers, intercom, etc. Mounts on surface with screws. 7A2555-4 Per Set ...... \$1.29 <br> AC Line Noise Filter. Plug-in, easily installed. Stops static caused by most elec-7A2594-3 7A2594-3 Special Each $\$ 1.99$ <br> 

## STRANDED GALVANIZED STEEL GUY WIRE

Highest quality, full gauge steel wire, heavily galvanized to prevent rust and corrosion. Specially coiled to minimize kinking and tangling. Approximate breaking strength: 4 strand No. $20,240 \mathrm{lbs}$; 6 strand No. $20,350 \mathrm{lbs} . ; 6$ strand No. $18,640 \mathrm{lbs}$. Approx. shpg. wts. from 13 to 33 lbs . per 1000 ft .

2A6022-6. 50 Ft. Coil. 4 strands No. 20. Per Coil . . . $\$ 1.2910$ Coils $\$ 9.99$ 2A6030-9. 50 Ft. Coil. 6 strands No. 20. Per Coil . . . $\$ 1.7910$ Coils $\$ 13.99$ 2A6023-4. 50 Ft. Coil. 6 strands No. 18. Per Coil . . $\$ 2.9910$ Coils $\$ 22.99$ GALVANIZED HEAVY DUTY GUY CABLE
$7_{10}$ high strength 7 wire pre-formed stranded steel. Rated $2,850 \mathrm{lbs}$. breaking. 2A6031-7. 100 Ft. For
$\$ 14.99 \quad 1000 \mathrm{Ft}$. 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 $46^{\prime \prime}$ long, have $17 / 16^{\prime \prime}$ eye and are 11/16" dia.
Stk. Mfgr's Pull


## 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 lodding 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.

| Tower Height | $\begin{aligned} & \hline 3 \\ & \text { sq. ft. } \end{aligned}$ | 4 5 <br> sq. ft. sq. ft. | sq. ft. | $\begin{aligned} & 9 \\ & \text { sq. ft. } \end{aligned}$ | $\begin{aligned} & 15 \\ & \text { sq. } \mathrm{ft} . \end{aligned}$ | 21 sq. ft. | 23 sq. ft. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 ft . |  | $\begin{aligned} & 4-30 \\ & \$ 146.10 \end{aligned}$ |  | $\begin{aligned} & 9.30 \\ & \$ 194.40 \end{aligned}$ |  | $\begin{aligned} & 21-30 \\ & \$ 303.10 \end{aligned}$ | $\begin{aligned} & 23-30 \\ & \$ 399.65 \end{aligned}$ |
| 40 ft . |  | $\begin{aligned} & 4.40 \\ & \$ 243.90 \end{aligned}$ | $\begin{array}{\|l\|} \hline 7.40 \\ \$ 304.30 \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 9.40 \\ \$ 339.30 \end{array}$ | $\begin{aligned} & 15.40 \\ & \$ 448.00 \end{aligned}$ | $\begin{aligned} & 21-40 \\ & \$ 497.50 \\ & \hline \end{aligned}$ | $\begin{aligned} & 23.40 \\ & \$ 595.30 \\ & \hline \end{aligned}$ |
| 50 ft . |  | $\begin{array}{\|lc\|} \hline 4.50 & 5-50 \\ \$ 340.55 \$ 387.60 \end{array}$ | $\begin{aligned} & 7-50 \\ & \$ 437.15 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 9.50 \\ \$ 483.00 \\ \hline \end{array}$ | $\begin{aligned} & 15.50 \\ & \$ 642.40 \\ & \hline \end{aligned}$ |  |  |
| 60 ft |  | $\begin{aligned} & 4-60 \\ & \$ 485.45 \\ & \hline \end{aligned}$ | $\begin{array}{\|l} 7.60 \\ \$ 630.30 \end{array}$ | $\begin{array}{\|l\|} \hline 9.60 \\ \$ 677.40 \end{array}$ |  |  |  |
| $70 \mathrm{ft}$ | $29.10$ | $\begin{aligned} & 4-70 \\ & \$ 776.45 \end{aligned}$ | $\begin{array}{\|l\|} \hline 7.70 \\ \$ 825.95 \\ \hline \end{array}$ |  |  |  |  |

Hinged bases to be set in concrete.
7A8524-4. Universal No. B-14C Fits 4-30. Each . . . . . . . . . . . . . . . . \$31.10 7A8525-1. Universal No. B-18C fits 4-40, 4-50, $7-40,9-30$. Each ... $\$ 31.10$ 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
7A8527-7. Universal No. B-26B fits $4-70,7-60,7-70,9-60,15-50,21-40,23$ 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 decreose TV signol itself. 7A2535-6. Type TV. 300 -HP. W. 8 oz. Each $\$ 8.95$

## 7/V WINEGARD <br> 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, often 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: $3-7 / 8 \times 2.5 / 8 \times 13 / 4^{\prime \prime} \mathrm{H}$. Shpg. wt. 8 oz 7A2656-0. .VP-3. 300 Ohm in and out. Each .. $\$ 7.49$ 2 Each.. $\$ 6.50$ 7A2657-8. VA-87. 75 Ohm in and out. Each. $\$ 15.95$ 2 Each. $\$ 14.75$

## ANTENNA GROUNDING ACCESSORIES


(1) UNIVERSAL UHF-VHF LIGHTNING ARRESTOR

## For open, flat, or tubular lead-in on both UHF and VHF. Shpg. wt. 12 oz. 7A224.9. Eoch <br> $\$ 1.5910$ Lots, Each

## (2) NO. 8 ALUMINUM GROUND WIRE

Solt drown. Recommended by Notional Electical Code. Wt. 21 lbs. 100 H ${ }_{2829-7}$ Sol. 50 fi. Coil $\ldots$.... 51.99100 Ft
(3) GROUND CLAMP

For attaching ground wire to mast, pipes, etc., , tp to $1-3 / 8^{\prime \prime}$ dia 7A225-6. Each

## 59* 10 Lots, Each

(4) GROUND ROD.

Screw-clamp to hold No. 4 to No. 14 gauge wire. Shpg. wt. 3 lbs $3 / 8^{\prime \prime} \times 4 \mathrm{ft}$.


(1)BELDEN COPPER 300 OHM TWIN LEAD. $\mathbf{8 2 2 5}$. Highest quality brown poly$\begin{array}{ll}\text { ethylene insulated. Wt. } 17 \text { lbs. per M. } \\ 25 \mathrm{Ft} & 50 \mathrm{Ft} \text {. } 100 \mathrm{Ft} . \quad 1000 \mathrm{Ft}\end{array}$ | Stk. No. | 25 Ft | 50 Ft | 100 Ft | 1000 Ft |
| :--- | :--- | :--- | :--- | :--- |
| $2 A 9970-3$ | $\ldots .$. | $\$ 1.44$ | $\$ 2.16$ | $\$ 3.45$ |

BELDEN WELDOHM FLAT 300 OHM TWIN LEAD, 8230. Has $11 / 2$ times mil brown poly. 20 gauge copper coated steel wire. 18 lbs . per M .
Stk. No. 25 Ft . $\quad 50 \mathrm{Ft}$. $\quad 75 \mathrm{Ft} .100 \mathrm{Ft} . \quad 1000 \mathrm{Ft}$. 2A9923-2.. \$1.58 $\$ 2.26$ \$3.03 $\$ 3.77 \quad \$ 28.20$ (3) BELDEN CELLULINE 300 OHM LEAD, 8275. Ideal for color or block 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 .
$\begin{array}{lllll}\text { Stock } \text { No. } & \text { Per } & \text { Ft. } & 100 \mathrm{Ft} & 500 \mathrm{Ft} \\ 2 \mathrm{~F} 9924-0 & 13^{\circ} & \$ 7.75 & \$ 30.45 & \$ 60.90\end{array}$
(1) BELDEN 8290 SHIELDED PERMOHM. The long awated perfect lead-in for all 82 chonnels color or block and white. Eliminates interference caused by line pick-up. Eosy to install . . . no standoffs, tape it to the most, run through gutters, conduit, even underground. No matching transformer needed. Stranded copperweld, 2 conductors, cellular polyethylene oval insulation, Beldfoil shield, polyethylene $1 / 2 \times 5 / 16^{\prime \prime}$ oval jocket overall. In coils os priced.
 50 Ft. For $\$ 9.75$ For .... $\$ 12.90$ For .... $\$ 16.45$ For ..... $\$ 66.00$ BELDEN 9085 LEAD-IN WIRE. Designed for reception in 10 interterence $\begin{array}{lll}\text { suburban areas. } \\ \text { Stock No. } & 25 \mathrm{Ft} . \quad 50 \mathrm{Ft} \text {. } 75 \mathrm{Ft} . \quad 100 \mathrm{Ft}\end{array}$
 BELDEN 9090 LEAD-IN WIRE. Shielded to provide cleaner, stronger signals in high interference metropolitan areas.
Stock No.
25 Ft .
50 Ft
$\$ 6.73$
75 Ft .
100 Ft. 2A.494-3... $\begin{array}{llll} & \$ 5.09 & \$ 6.73 & \$ 8.70\end{array}$

## (1) I-INCH LOW LOSS OPEN LEAD- 450 OHMS

size 18 solid conductor copperweld with $1 / 4^{\prime \prime}$ polystyrene insulators spaced every $6^{\prime \prime}$. Recommended for weak signal areas or where extremely long lines are needed. Matches 300 ohm antennas and receivers. Wt. $21 / 2 \mathrm{lbs} 100 \mathrm{ft}$ 2A9967-9. 100 Ft. Coil. . $\$ 7.59$ 2A9968-7. 500 Ft. Reel. $\$ 32.19$

## 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 die ectric, two-layer aluminum foil plus polyester film for $100 \%$ shielding and
 to metal without affecting signal

## CABLES WITH F-59 CONNECTORS BOTH ENDS

2A428-1. 100 Ft. Black Color. wt. 2 lbs. Net Each . . . . . . . . . . . . . $\$ 12.50$
2A427-3 $\quad 75$ Fi. Black Color, wt. 15 lb . Net Each ................... $\$ 10.50$
2A426-5. 50 Ft . Black color wt. 1 lb . Net Each .................... . . $\$ 8.00$
2A4025-1. 25 Ft. Black Color, wt. 10 oz. Net Each ................. $\$ 6.00$
2A425-7. i5 Ft. Black Color, wt. 8 oz. Net Each ....................... $\$ 4.50$
2A9887-9. 12 Ft. White Color. wt. 8 oz. Net Each ................... $\$ 5.40$
2A9886-1. 6 Ft . White Color, wt. 6 oz . Net Each .................... $\$ 4.48$
2A9885-3. 3 Fi. White Color, wi. 4 oz. Net Each ................... $\$ 3.90$
BELDEN 822875 OHM 82-CHANNEL DUOFOIL COAX
Lowest loss of any $.242^{\prime \prime}$ O.D. 75 ohm coax. $100 \%$ polyester film with aluminum lamination shield. Wt. $3^{1 / 2} \mathrm{lbs}$. per 100 ft . Use F- 56 connectors. 2A9983-6 100 Ft . 1000 Ft . Per Ft. ........... 15. For ........ $\$ 10.25$ For ............. . $\$ 57.00$

## " $F^{\prime \prime}$ CABLE CONNECTORS

(1)7A267-8.F-56. Fits Belden 8228 cable. Ferrule supplied. 67
(1)7A262-9.F-59, זits RC59/U Coaxial cable, solid or foam dialectric type. Ferrule supplied. Ea..........69: 12 Ea......... $59^{\circ}$ (2)7A263-7.FP-59. Fits RC59/U type cable. Mates with any standard F-type panel connector by simply pushing over threaded
portion. F-59 ferrule supplied. Ea........... $99^{\circ} 6$ Ea..........89.
(4)7A265-2.F-11. Fits RG11/U coaxial cable solid or foam dialectric type. Each....................... $\$ 1.35 \quad 6$ Each................... $\$ 1.06$ (5)7A266-0.F-81M. Cable to cable adaptor connects two F-59
or F-11 connectors together. Ea......... $\$ 1.49 \quad 6$ Ea....... $\$ 1.27$

Ferrule crimping tool assures tight, neat crimp every time. Has forming slots for both RG-59/U and RG. 11 U cooxial cable. Shpg, wt. 1 lb 37A999-0. Model CR-1. Net Each

## INDOOR TV ANTENNAS



Combines revolutionary performance features with decorator-inspired styling to set a new standard for indoor antenna performance and design.
Exclusive UHF director/reflector loup for directional UHF reception. It gives the user greater control and more iccurate tuning for sharper, clearer reception.
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 G VHF sections.
12-position selector for precise fine tuning. Push button controls for widening the range of tuning combiriations. The Selectacolor not only works great, it looks great. Beige and brown cabinet. ShDg. wt. 5 lbs. it looks great. Beige and brown cable
7 A4525-5. Model $10 \times 808$. Each
$\$ 30.95$

$10 \times 280$ VHF/UHF/FM. $45^{\prime \prime}$ telescoping dipole elements, full swivel ball sockets, 12 position selector switch. Special color circuitry. Rotating double UHF Ioon Beige finish with walnut inlay. Wt. 3 lbs.

## 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.
7A2543-0. 300 Watt Tube Guard. Each
7A2605-7. 600 Watt Tube Guard for color TV. Each

HANDY TV ANTENNA CONNECTORS
Each, 10 Lots
Mighty handy. Makes connecting and disconnecting 300 ohm leod from TV set quick ond easy. Snops onto on-
tenna termincls of set. Shog. wt. 1 oz 7A242-1 36 set. Shpots, wt. I oz Net Each.... 36 Each... $29^{\circ}$

Adjustable swivel brackets. Attaches to TV easily. Adjusts to any angle up or down. Shpg. wt. 6 oz .
7A4513-1. Each

WINEGARD
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 broadcasts 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.
Made of finest materials throughout, with 4 -section elements that, tele$\begin{array}{ll}\text { scope smoothly from } 45^{\prime \prime} & \text { to } 12^{\prime \prime}\end{array}{ }^{\prime}$ and $61 / 2^{\prime \prime}$ base that won't tip or mar furniture. Shpg. wt. 3 lbs.
7A4514-9
Walnut Brown. Each
$\$ 19.95$


10X250 VHF/UHF/FM. $45^{\prime \prime}$ telescoping dipole elements, full swivel ball sockets, 12 position selector switch. Double UHF loop. Brown finish. Wt.
$21 / 2$ Ibs. 7A4518-0. Each
$\$ 14.50$
10X203 UHF/VHF/FM. 38" telescoping dipole elements, 12 position selector switch. Sinkle UHF loop. Brown finish. Wt. 2 lbs.
$\$ 7.95$

## LOW COST ANTENNAS!

## (1) STANDARD 4-SECTION RABBIT EARS

 VHF Channels 2 to 13 . Only $13^{\prime \prime}$ high ... but extends to full $38^{\prime \prime}$ 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 .$\$ 3.80 \quad 10$ Lots

## Each..

$\$ 3.31$
(2) BEHIND THE SET ANTENNA

Fits most portables... other sets too! Installs easily on back of set. Telescoping 5 -section $38^{\prime \prime}$ dipoles pivot on ball socket in all directions, disarnear into antenna housing when not in use. Lenpth closed $73 / 4$ " 7A4503-2. Wt. 2 lbs. Each


7A4501-6
Each ....
(1)


## AR-40



HEAVY DUTY ROTOR UNIT. First choice of thousands! Rotates at approximately 1 RPM with positive, automatic stop in either direction. Instant reversing. Built-in $6^{\prime \prime}$ diameter ball thrust bearing will handle heavy antenna no additional bearing support needed. Clamps take $7 / 8^{\prime \prime}$ to $2^{\prime \prime}$ dia. Mounts also on rotor plate when lower mast support is removed. Mechanism has oilite and ball bearings, lifetime lubrication. For 115 VAC. Shpg, wt. 15 lbs . With Automatic Control AR22XI. Antenna turns and stops as dialed. Use 4 -wire cable. Mfg. list $\$ 73.95$
7A2538-0. Net Each
\$54.95
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
controlled selector for any compass point. Completely silent, all solid state. Use standard 5 -wire cable. With same heavy duty rotor unit as above For 115 VAC . Shpg. wt. 15 lbs . Mfg. list $\$ 114.95$
7A2545-5. Model AR33. Each
$\$ 84.95$

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. list \$89.95
7A2647-9. Model AR-40. Each
$\$ 64.95$

## ROTOR THRUST BEARING



Takes stress off rotor where needed for extro heavy or high antenna installation. To be used when antenna mast extends 3 feet above rotor mast socket. Mounts on any mast up to $1-9 / 16^{\prime \prime}$ mast socket. Mounts on any mast up to $11-9 / 16^{\prime \prime}$
diameter, accepts any mast up to $112^{\prime \prime}$ diameter. For use with rotators mounted on side of mast. Shpg. wt. 2 lbs .
7A277-7. Each
\$5.99

## Now everybody can enjoy building electronic kits

Simple step-by-step instruction. Pre-drilled copper plated etched printed circuit boards inest quality parts. craft kit in about $11 / 2$ to 2 hours.

ELECTRONIC VOX
Transistorized audio-activated relay amplifier, and sensitive electromagnetic relay. It provides a variable time delay (adjustable) and audio control of re motely operated devices. Makes an ideal voice control for tape recorder, TV or radio set (as a commercial killer), etc. Requires 6 V . battery.
20A1130-0. EC-1300. Each
$\$ 10.95$
20A1130-0. EC-1300. Each. Each
1.9

## 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 micro phone and return to receive operation when you stop speaking. Requires 6 volt battery.
20A1153-2. EC-1700. Each
$\$ 11.95$
21A319-9. 6 Volt Battery. Each
\$2.48

## 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 goes up when the EC- 1900 locates buried ferrous metals, and the pitch goes down when it locates non-ferrous metal.
20A1155-7. EC-1900. Requires 9 V . Battery. Each
$\$ 14.95$
21A305-8. 9 Volt Battery. Each
89

EICOCRAFT
"LIGHT",
CHASER"
$\$ 34^{95}$

COMPLETE
KIT

Remember the "moving" lights on the theatre marquee?
or the booth 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 limita tion. The convenient speed Control makes possible a wide latitude of "chase."
The reliable all solid state design has 9 semiconductors, printed circuit board construction, 3 lamp channels, (up to 150 watts maximum per channel) and features modern 3 -stage ring-counter circuitry with un.juncion transistor oscillator trigger. The full-wave bridge rectifier power supply assures full lamp brightness. Supplied complete with custom cabinet Operates on 115 VAC.
20A1307-4. EC4600 Kit. Each
\$34.95

3 CHANNEL PSYCHEDELIC LIGHT CONTROL CENTER SYNCHRONIZE LIGHT
Use with spotlights or any group of incan. WITH MUSIC!
descent lights up to 500 watts per channe or a total of 1500 watts. Great for musical groups, window displays of 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 instruc tions. Operates on 115 VAC
20A1261-3. Bowman PSA-3L
Complete Kit. Each
$\$ 18.95$


FREQUENCY CONTROLLED 3 CHANNEL LICHT CONTROL CENTER. LightS respond with different sound frequencies and volume. No channel interaction. Sound spectrum $60-1,000 \mathrm{~Hz}, 1,000-8,000 \mathrm{~Hz}, 8,000-15,000 \mathrm{~Hz}$. Other features spectrum as above unit. W $\mathrm{f} . \mathrm{L} 1 / 3 \mathrm{lb}$.
20A1275-3. Bowman PCC-3L. Complete Kit, Each
$\$ 28.95$

No Technical Knowledge or Experience Necessary! BOWMAN SOLID STATE

EASY TO FOLLOW INSTRUCTIONS AND DIAGRAMS EACH KIT SUPPLIED WITH ENCLOSURE

## VHF CONVERTER KITS

NO TECHNICAL KNOWLEDGE OR EXPERIENCE NEEDED!

FOR POLICE, FIRE, AIRCRAFT
EXCELLENT FOR
SCIENCE FAIR AS LOW AS $\$ 895$
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
20A1301-7. Police and Fire Lo-Band $30-50 \mathrm{MHz}$. Each
20A1302-5. Police, Fire \& Weather Hi-Band 150-164 MHz. Each
20A1299-3. Aircraft 118 -130 MHz. Each
$\$ 8.95$
21A305-8.9 Volt Battery. Each

## AIRCRAFT RECEIVER KIT

Picks up strong signals in the 100 to 200 MHZ aircraft frequency range, 3 stage super high gain amplifrier, telescoping antenna. Earphone included. Reauires 9.V. battery. AIR-3. Each …............ \$7.95 21A305-8. 9 Volt Battery. Each
$\$ 7.95$

## SUPER-SLEUTH AUDIO HEARING AID KIT

Listening device with specially designed circuit with
 three super-sensitive transistors. Will amplify up to 100,000 times. Farphone and crystal pickuo is provided. Requires AAA battery.
$\$ 6.95$
21A326-4. AAA Battery. Each

## PROXIMITY SWITCH KIT

Uses capacity bridge network, silicon controlled rectifier, 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 20A1234-0
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 volt battery (Illustration not shown.) 20A1314-0. LDT-3. Each
 Am Radionsistor oudio reflex circuit. Tunes 550 to 1600 KHzAM 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 speciol 3 transistor high gain amplisier. Complete with sensitivity control. Stethoscope shuts out backoscope shuts
around noises
20 nat 11.95 20A1266-2.Ea. $\$ 11.95$ 9 V. Battery
21A305-8. Ea. . . . 89


5 Watt Amplifier Kit. Use with tuner, phono, guitor, microphone, hipower intercom, etc. With volume control Operates any 3 to 16 ohm speaker.
Uses 6 V . Battery
20A1237-3. Ea. $\$ 6.95$
6 V . Battery.
$21 \mathrm{~A} 319-9$. Ed.

## 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 fascinating lighting effect. Uses silicon controlled rectifiers to trigger light oction. Eosy to build Responds to voice and music. Built-in sensitivity control. Model PSA-1. Connects to speaker of hi-fi, rodio or phone.
For 115 VAC oberation
20A1235-7. Each


SOLID STATE MODULES


COMPLETELY ENCAPSULATED AS SMALL AS AN ICE CUBE FULL INSTRUCTIONS $G$ DIAGRAMS INCLUDED FOR INCIDDED FOR
BULDING THE USEFUL DEVICES
USTED BELOW

YOUR CHOICE
$\$ 3^{49}$
Each module is a small ready to use molded capsule containing a completely wired circuit of transistors, resistors, capacitors, and other parts. Most modules wired circuit of transistors, resistors, capacitors, and other parts. Most modules
require only 2 or 3 items ibattery, 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 20A1161-5. INTERCOM MODULE. Ready for instant use 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. Com plete instructions
20A1166-4. CB MICROPHONE PREAMP MODULE. Ready to use preamp Increases modulation to optimum for dependable transmissions. Use ony $11 / 2$ 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 20A1226-6. C.W. MONITOR MODULE. Operates from RF energy surround20A 1226-6. ing your transmitter. Keying transmitter in normal way produces CW note in any 8 ohm speaker. Reauires $11 / 2 \mathrm{~V}$. 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. $\quad 11 / 2$ Volt Battery. Each
$\begin{array}{ll}21 \text { A319-9. } & 6 \text { Volt Battery. Each } \\ 21 A 305-8 . & 9 \text { Volt Battery. Each }\end{array}$
$\$ 2.48$
DUAL FLASHER (FLIP-FLOP) MODULE

## Build outo road warning lights, window display attention getters, model train

 grade crossing flasher, bicycle rear wheel safety flasher, etc. 20A1174-8. Wt. 4 oz . Special Each$\$ 1.99$

## 21A319-9. 6 Volt Battery. Each

## 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. $\$ 5.00$ 21A305-8. 9 Volt Battery. Each

## BATTERY CHARGER MODULE

Charges flashlight and transistor batteries from $11 / 2$ to $221 / 2$ 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.


CODE PRACTICE OSCILLATOR MODUL

Operates from any $11 / 2$ to 6 volt battery and any PM speaker. Only 3 connections to make. Requires no adjust| speaker. Only |
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| ment. W +4 |
| oz. |

20A1177-1. Each

## $\$ 495$ EXCITING RECEIVER CONVERTER 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
20A1157-3 International Shortwave Converter Module. Tunes 25, 31, 41 Meter bands ( 7.12 MHz ).
20A1158-1. VHF Aircraft Converter Module. Tunes 118 -128 HMz
20A1159-9. VHF Police \& Fire Converter Module. Tunes $30-50 \mathrm{MHz}$
20A1280-3. FM-VHF Police and Weather Converter. Tunes 150-164
MHz
YOUR CHOICE
EACH
$\$ 4.95$
21A305-8. 9 Volt Batterv. 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 $31 / 2 \times 13 / 4 \times 1 / 2$ ". Requires any 8 ohm 5 inch or larg. er 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 $90^{\circ}$ spread for maximum penetration. Weatherproof re-entrant type, for indoor or outdoor use. $180^{\circ}$ swivel mount with screw flange. 5 watt power rating. 8 ohms. 5 inch horn opening. 5-3 $8^{\prime \prime}$ long. With wire lead, Shpg, wt, 2 lbs. 49A4008-2. Import Special
19A7210-7. SPST Push-Button Switch. Each
21A324-9. 12 Volt Lantern Battery. Each
$\$ 13.95$
$\$ 6.50$


## AUTOMOBILE BURGLAR

 ALARM MODULETriggers and "locks on" car's own horn as an alaggers opening a door, attempting torn start can or switching on lights will triges alarm. Uses
current sensor oprinciole
to
trieger alarm . Sons carinn sensor principle to trigger alarm, con-
tains module. lock switch and wire. 20A1303-3. Each
$\$ 6.95$

## PHILMORE CRYSTAL RADIO KIT

## 1000

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 $3 / 8^{\prime \prime}$ thick plywood baseboard included. Coil comes already wound. simplified construction with oummed label pictohial diagrom which fits boseboard os a template showing location of parts and connections. Wt. I lb.
With Headset
47A8521-2..
\$6.95


## PHILMORE OUTDOOR ANTENNA KIT

## GREATLY IMPROVES SIGNAL STRENGTH

 OF ANY RADIOCan be installed on roof between trees, in attic or garage, etc. Consists of $50^{\circ}$ coil stranded copper aerial wire, $25^{\circ}$ rubber covered lead-in wire, I ground clamp, wire, 25 rubber covered lead-in wire, 1 ground clamp, Complete with instructions. Shpg. wt. 1 Ib. $\$ 3.49$ 9A3102-2. Net Each

## DIGITAL CLOCK KIT


$\$ 2995$
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 $1 / 2^{\prime \prime}$ digits. Beige cabinet with mmoked front. Size: $33 / 4 \times 3^{3 / 4} \times 3^{3 / 4^{\prime \prime}}$. Shpg. wt . 20A1317-3. GC G2-108. Each
\$29.95

EICD ALPHA BRAINWAVEMONITOR
GET INTO YOURSELF... DISCOVER YOUR ALPHA BRAINWAVE BIOFEEDBACK

## $\$ 34$ ки

A completely safe, battery operated biofeedback 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.


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ON AMERICAN MADE SEMICONDUCTORS

ALL TESTED-TOP QUALITY MANUFACTURERS! AT ALL BARGAIN PRICES! ALLVE! GUARANTEED OPERA ATI. Average shpg. weight 3 ounces.


4 Ruggedized 12AU7 Tubes. Type 6211. Exact replace. 6211 . Exact replace-
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2N4443 SCR Rec- 3 PNP High Power tifier. For power Transistors. Ascontrol/switching. sorted cases. 10-40 400 PRV, 8 amps; W. Similar to gate $10 \mathrm{~V}, 30 \mathrm{~mA}$. 18A1696-4. $2 N 158.107-8$

Color TV Rectifier. 4-2 Amp Silicon 2000 PIV, 1 Amp. For TV replacement, experimenting, etc. Encapsulated $1 / 4 \times 1 / 2 \times 7 / 8^{\prime \prime}$, with wire leads.
20 Al1126-8 Ea99e nont

25 Germanium Di. odes. Similar to IN34, 1N60, 1N64. Use for crystal sets, radios, etc. Terrific low B-A price! 20A1111-0.
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6 Assorted NPN and PNP Micro Transistors U-8. Used in mid-audio output. Smallest transistor
20A1103-7
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6 Assorted..........99c Rectifier. Rugged 10-32-Y/ mt 50 PIV. tion. DO-4 case. Positive polarity. 20A1120-1

4 For


4 PNP Ceneral Purpose Audio 4 PNP General
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Transistors, Sim-
ilar to N. N107-
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amps, mike and
phono circuits,
code oscillators.
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Transistors, Sim-
ilar to Nilo7-
CK 722 for pre-
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phono circuits,
code oscillators,
20A1211-8 4 PNP General
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ilar to Nillo7-
CK 722 for pre-
amps, mike and
phono circuits,
code oscillators,
20A1211-8 4 PNP General
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code oscillators.
20A1211-8 4 PNP Cenera
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CK722 for pre-
amps, mike and
phono circuits
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20A1211-8 20A1211-8


4 RF Silicon Transistors. NPN type. 5 U4 Silicon RectiSimilar to 2 N 914, 2N834, 2N708, 2 N 2501, etc.
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4 For ..................99c


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ilar to 2 N 35 NPN ilar to 2 Neneral purpose general purpose 150 MWW Vcb 25 Gain to 125. TO-5 case. 20A1100-3 5 For . . . . . $99^{\circ}$
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places $5 U 4 \mathrm{CB}$ places 5 U 4 CB , 5V4GA, $5 \mathrm{~W} 4,5 \mathrm{Y} 3$,
$11 / 8 \times 13 / \mathrm{m} \mathrm{H}$ $11 / 8 \times 13 / /^{\prime \prime} H$ 20A1250-6

1.5 Amp Full Wave Bridge Rectifier. 50 volts PRV (a) 1.5 A. Molded case $.69 \times .52$ $.25^{\prime \prime}$ with $1^{\prime \prime}$ leads. 18A1627-9 Ea. . . . . . . 99.

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8 PNP Cermanium Switching Transistors. TO-5 case. Freq. 8 MHz 150 MW, HFe 40 typical. Simitar to 2N1305, 2N394, 20A1125-0

3200 MHz Silicon Expitaxial Transistors. Similar to 2N706. TO. 18 case. Vcb 25, HFe 20, 10 MA.
For ...s... 99 ${ }^{\circ}$

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FULL WAVE BRIDGE RECTIFIER
\$127

200 Volts PIV (a) 1.5 A. Molded case .688 L. x $.469 \mathrm{H} . \times 25 \mathrm{~T}$. with $11 / 2^{\prime \prime}$ leads. For transistor power supplies, bias and relay supplies. 20A7511-5. Special Each ....... \$1.27

## LIGHT SENSITIVE

 PHOTO CELL <br> \section*{UNIVERSAL RECTIFIER <br> \section*{UNIVERSAL RECTIFIER <br> <br> NTERNATIONAL <br> <br> NTERNATIONAL <br> <br> RECTIFIER <br> <br> RECTIFIER <br> <br> $21 / 2$ AMP
1000 PIV 50} <br> <br> $21 / 2$ AMP
1000 PIV 50}

## actual size

Replaces all axial lead rectifiers rated $600 \mathrm{~mA} 750 \mathrm{~mA}, 1000 \mathrm{~mA}, 2000$ mA , and 2500 mA units, with voltages ranging up to 1000 PIV. 59 c 22A14162-6. R170. Each ${ }_{490}$

ONLY
$\$ 149$
Tiny glass enclosed cell, if $\times 1 / 2^{\prime \prime}$ dia. Cell resistance changes with light. Operates sensitive AC relay without amplifier. intere
Shpg. wt. 3 oz .
20A22-0. Spec. Ea.
$\$ 1.49$

## BIG EXPERIMENTER SEMICONDUCTOR

100 Piece Assortment. Contains 2 - 15 watt PNP-AF germanium TO-3, 2-15 watt NPN silicon mesa gen. purpose TO-3,2-15 watt PNP germanium gen. purpose TO3, 4 - . 4 watt PNP germanium gen. purpose TO-9, 4-. 4 watt NPN germanium gen. purpose TO-5, 15-. 2 watt watt NPN germanium gen. purpose germanium MADT TO-24, 2-2 watt PNP germanium DAT TO-5, 5-. 2 watt germanium diodes, 2 - 2 AMP silicon SCR TO-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.
20A1248-0. Per Assortment
$\$ 5.99$

## LOW, LOW PRICES ON TRIACS

Popular triacs for builders projects available at tremendous
savings. Use in motor, speed controls. light dimmers, relay sontrols, heating controls, etc. Use 200 V for $120^{\circ}$ volt line operation, 400 V for 240 volt line operation.


20A1290-2. Each


## SAVE ON AMERICAN MADE SILICON POWER RECTIFIERS <br> 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 anode stud


| Stk. No. | PIV | Stud Polarity | Net Ea. | Stk. No. | PIV | Stud Polarity | Net Ea. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $20 A 1178-9$ | 100 | Posititive | $\$ 0.49$ | 20A1186-2 | 100 | Positive | $\$ 0.69$ |
| $20 A 1179-7$ | 100 | Negative | .49 | $20 A 1187-0$ | 100 | Negative | .69 |
| $20 A 1180-5$ | 200 | Positive | .74 | $20 A 1188-8$ | 200 | Positive | .99 |
| $20 A 1181-3$ | 200 | Negative | .74 | $20 A 1189-6$ | 200 | Negative | .99 |
| $20 A 1182-1$ | 400 | Positive | .99 | $20 A 1190-4$ | 400 | Posaitive | 1.39 |
| $20 A 1183-9$ | 400 | Negative | .99 | $20 A 1191-2$ | 400 | Negative | 1.39 |
| $20 A 1184-7800$ | Positive | 1.49 | $20 A 1192-0$ | 750 | Posative | 1.99 |  |
| $20 A 1185-4800$ | Negative | 1.49 | $20 A 1193-8$ | 750 | Negative | 1.99 |  |

## 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: $3 / 4 \times 3 / 4 \times 3$. Terminal height $3 / / 2^{\prime \prime}$. Mtg. ctrs. $21 / 2^{\prime \prime}$. Shpg. wt. 8 ozs . 18A1561-0. Each.
$\$ 2.49$
6 Lots
\$2.29
Each..



25B414 POWER TRANSISTORS


2 FOR

General purpose germanium P-N-P for large audio amplifier application. Use equing fidelity ampliners wide freequipment which require wide Re places transistors used in many types of imported equipment Great choice for hoobbyists 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.

## $\$ 119$

## 3/4-IN. WIDE PLASTIC

 ELECTRICAL TAPEHighest quality import value at far less than American made products. Specify Red or Black. Wt. 6 oz .66 Ft . Roll.
7A7032-7. Black Choice
$\$ 1.19$ for
$\$ 5.99$


## = 1 SPECIAL VALUE!



VOICE OPERATED RELAY/SWITCH

## $\$ 149$

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
Each
$\$ 1.49$
10 Lots
\$1.29

## TOP QUALITY! LOW COST <br> SENSITIVE LIGHT ACTUATED SWITCH <br> $\$ 22^{29}$ <br> 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 $11 / 4^{\prime \prime}$ centers overall dia. 1". Includes building diagramg for use. Wt. 4 ozs.20 All
\$2.29

## 1六 AMP EPOXY SILICON RECTIFIERS

Guaranteed first quality. Just the ticket for high voltage power supplies in ham gear, TV sets, etc. $11 / 2^{\prime \prime}$ axial wire leads. Wt. 8 oz , per 10 . Stock No.
Stock No. Each Each
 $\begin{array}{lllll}20 A 1293-6 & 11 / 2 & \text { AMP } & 600 \mathrm{PIV} & 49^{\circ} \\ 20 A 1294-4 & 11 / 2 & \text { AMP } & 1000 \mathrm{PIV} & 59^{\circ} \\ 20 . & 49^{\circ}\end{array}$

GENERAL PURPOSE OR SWITCHING PNP TRANSISTORS
Similar to popular 2N404 at tremendous savings.
20A1313-2. S-404 34c 100 Special Each
$34^{c}$ Each
$29^{\circ}$
SUB-MINIATURE 1N34A DIODE
Latest sub-miniature glass type. Shown actual size. Has 1,3/" ${ }^{\frac{3}{6}}$ axial leads.


## EQUIPMENT BOX

Rugged aluminum equipment box with handsome blue and grey finish. ideal for test equipment, 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 necessary assembly hardware. Internal dimensions: $8-13 / 16^{\prime \prime} \mathrm{L} . \times 5-7 / 16^{\prime \prime} \mathrm{W} . \times 4-23 / 32^{\prime \prime} \mathrm{H}$. Shpg. wt. 2 lbs.
5A3098-6. GC H4-748. Each .
$\$ 10.95$


30 MINIATURE ELECTROLYTIC CAPACITORS


## UPRIGHT MOUNTING FOR

 TRANSISTOR RADIOS PERE. CIRCUIT BOARDS 30 Miniature 15 WV Electrolytics. 5 Each: 6, 30, 50 and 100 of; 10 - 10 of. Import. Wt. 1 lb . No. 15A5094-1 Kit of 30\$4.95


50 FOR $4^{95}$

## 50 MINIATURE

 MYLAR CAPACITORS FOR TRANSISTOR RADIOS LATEST UPRIGHT MOUNTING Fine import quality miniature Mylar by-pass upright mounting condensers sistor 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 15A5095-8. Import Special. $\$ 4.95$HIGH FIDELITY CONNECTING CABLES

Import Saving
$\$ 2^{39}$ 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
$\$ 2.39$

## FAMOUS BAA WAREHOUSE ASSORTMENT

## VALUE \$395



3 Lbs. Chuck Full of Costly Electronic Parts and Hardware Switches, Condensers, Resistors,
$\qquad$
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 If you are not happy blame our Boss Warehouseman, but we will give you your $\$ 3.95$ back. Shag. wt. $31 / 2$ 18 Al384-7. Assortment $\$ 3.95$ 232

## ENJOY THE EXCEPTIONAL SAVINGS AND CONVENIENCE OF FAMOUS B-A ASSORTMENTS!

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.


2 Lbs, Often Surprise Parts Needed Self-Tapping Screws. Big variety of sizes and lengths - Hex. Phillips, Round 12A2356-0
2 Lb. Asst. \$1.99

Asst. 50 Pes Condensers, resistors, switches, etc this page. A real deal. Wt. 1 lb . 18A1383-9 50Pies-9 18A1553-7


Foot Bumper Kit Stereo Phono Foot Bumper, Kit Cords. Made by Ant., RF, Osc. Coils of 16. 4 sets Switchcraft. 2 and RF Chokes. matched bumpers. RCA plugs one 5 assorted. Rare Recessed for tack, end, stripped and find for builders screw. Mighty tinned other end. $G$ experimenters. 12A2466-7 18A1574-3 Kit . . . . . . . 99 Each .... \$1.29 5 Asst. .. \$1.49


50 Molded Tubs- 10 Rotary Switches.
lar Condensers in One switch worth wide range of ca- price of entire wacities-200, 400 kit! Experimenters. and 600 V. $\$ 9.00$ builders will find value. use for all!

18A436-6. $11 / 2 \mathrm{lb}$
Assorted
Switches. Toggles push - buttons slides, even micros 1 or 2 pass for
entire lot. Wt. 1 lb. 18A935-7 Wt . 1 lb . 10 Asst. . \$2.49


## 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
2.69

## BATTERY HOLDERS



## 5

## CHASSIS MOUNTING AC SOCKETS



EACH, 10 LOTS

Fits standard AC plugs. Fine for repairs or new construction. Mounts in $1^{7} 6^{\prime \prime} \times 3 / 4^{\prime \prime}$ hole. Mtg. ctrs. $11 / 8^{\prime \prime}$. Wt

18B26-5
Spec. Each. . $29^{c} \quad 10$ Lots,
Each... $24^{c}$
Spec. Each.
$29^{\circ}$
Each. .
$24^{c}$


Same as used in most transistor portable radios. Has standard snap -on battery connectors. Sturdy plastic construction. Average Shag. Wt. 3 ozs.

6.

(5) Holds
$12 A 2454-3$. Each Cells.
12
$\$ 1.39$
$\$ 1.59$
$99^{\circ}$ (5) Holds 10 "AA" Cells.
$\$ 1.89$
$\$ 1.19$ (6) Double-Snap Fastener for 9 V
\$1.19 12A2012-9. Each

## SUPER BARGAIN VALUES! BRAND NEW, TOP QUALITY MANY ARE FOUND EXCLUSIVELY AT B-A

## 3 3

F Choke. $2^{1 / 2}$ MH at 125 mA Replaces National R50 or R100. $1^{\prime \prime}$ x $15 / 32^{\prime \prime}$ D. 13A5157-8
Ea.


Kit of 10 Insul ated Alligato Clips. 5 red and 5 black. Screw terminals. Quality Import.

12A2519-3
Each
$\$ 1.29$


60 Ft . Spaghetti. Asst. colors, sizes High grade ex truded plastic and cambric tubing $3^{\prime}$ Igths. Wt. I lb. 12A2467-5 60 Ft . . . . $\$ 1.29$

12 Volt Subminiature Bulb. With two $83 / 4$ leads used in tape players, TV, Hi-Fi and radio.
12A4464-0
Each ........ \$1.29

## 

Transistor Sockets. Printed circuit or chassis $m$ tg type Fits in-line and pin. Imported.

12A5127-2
Pkg. of 5 \$1.19


6 Volt Subminiature Bulb. Same as 12 volt at left except 6 volt operated.

12A4496-2
Each .... \$1.29

## Mr 4

30 Pilot Light Sockets. For bayo net lamps. All have wire leads. Several mounting 12A5166-0 30 Asst. . \$1.29

Bundie of Spaghetti. 24 pCs. nished high, varhished high grade culors and sizes $W_{t}$ and sizes. 2A8000-0
24 Pc. As


10 Sets Pin Plugs $G$ lacks. RCA type so popular for phono, recorders. hi-fi, etc. Wt. 8

12A6037-2
12 A603
10 Sets.


Vari-Loopstick Antenna. High Q ferrite core for transistor circuits 365 pf. tuning condenser covers B.C. band. 2 ' 13A5060-4
Ea. $\quad \$ 1.59$


## 15 WIREWOUND RESISTORS

Power wirewound resistors at a bargain price. Wide range of values and types. Mosṭ are 5 and 10\% tolerance.
18A1692-3. Asst of 15. Each
$\$ 2.99$

## 30 PIECE PRECISION METAL FILM RESISTOR ASSORTMENTS

$1 \%$ tolerance. Most are 1/10 and 1/8 watt size: All first quality, fresh stock. With full $11 / 2^{\prime \prime}$ leads. Use of 4 or 5 will pay for assortment. 18A1689-9. Values from 30 to 1000 ohms. 18A1690-7. Values from 1020 to 10 K ohms. 18A1691-5. Values from 1.2 K to 301 K ohms.
Your Choice
Per Asst. of 30
\$3.99
$\$ 3.49$


## 15 PIECE PRESISION WIRE WOUND RESISTOR ASSORTMEWT

$1 \%$ tolerance. Wide range of wattages and types. Includes non-inductive, aluminum housed, and standard types from $1 / 4$ watt to 10 watts. Regular single lot cost would exceed. $\$ 25.00$. 18A1693-1.
Assort of 15. Each
$\$ 4.99$

## CHEST FULL OF CAPACITORS

155 CONDENSERS PLUS METAL STORACE CABINET. Just look at what you get:-20 Tubular Electrolytics, both single and duals, 50 Molded Tubulars. 200,400 and 600 voits in most popular capacities: 50 Disc Ceramics; and 35 Midget Micas. 155 pieces total, all very usable values. Your average cost obout 9 and the cabinet is tree
Heavy gauge steel storage unit with "see-thru" clear plastic drawers measures $12^{\prime \prime}$ wide, $53 / 4^{\prime \prime}$ high, $51 / 4^{\prime \prime}$ " deep. Regular net value cabinet alone $\$ 7.95$

## Shpg. wt. $71 / 2 \mathrm{lbs}$. <br> 18A233-7. COMPLETE KIT SPECIAL EACH.

\$14.95

## 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 than $6^{\text {c }}$ and the cabinet is free. Includes Metal Storage Cabinet, as with above. Shpg. wt. 6 lbs.
18A235-2. COMPLETE KIT SPECIAL EACH
$\$ 13.95$

BAKELITE TUBE SOCKETS

(2) Nim
(1) Octal fits $11 / 8^{\prime \prime}$ mounting hole with $11 / 2^{\prime \prime}$ mounting centers.
18C210-5 29c 10
Each ..... 29 ${ }^{\circ}$ Each
$26^{c}$
(2) 7 Pin Miniature fits $5 / 8^{\circ \prime}$ mounting hole with $7 / 8^{\prime \prime}$ mounting centers. $\begin{array}{lll}18 C 893-8 & 24^{c} 10\end{array}$ Each 9 P in Min Each .
$22^{\text {c }}$ (2) 9 Pin Miniature fits $3 / 4$ " mounting hole with $11 / 8^{\prime \prime}$ mounting centers. 18C894-6
Each....
Each

## SOLID STATE AMPLIFIER CHASSIS WITH AM RADIO

 B-A SPECIAL LOW PRICE
## 5495

Fully wired, ready for you to connect mike, speaker and batteries or $A C$ adaptor. Parts alone worth more than our low prise! Originally built for a Philco cassette recorder. Use it for a minature PA amplifier or phono amplifier with casette recorder Use it or a minature PA amplitier or phono amplitier with buib-in radio. Top pertorming 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. $10^{\prime \prime}$ shielded lead for microphone or phono input. Operates from 6 or $7 / 1 / 2$ volt batteries $4.9 / 16 \times 31 / 4 \times 1 / 4{ }^{\prime \prime}$. With diagram tor easy hook-up.
No. 18A1594-1
Each
$\$ 4.95{ }^{6}$
$\$ 4.50$
18A1512-3 Matching $31 / 2$ speaker. Each
. $\$ 1.89$
29A664-0 RCA Dynamic Microphone
Each
21A328-0 ". "C" Cell Battery (use 5). Each


## 

SPST normally open, momentary contact. For all sorts of miniature $A C$ or bottery powered DC devices. Molded insulated housing and red button. Solder terminals. Reolly small, only $3 / 8^{\prime \prime}$ dio x I" long overall. Mounts in $1 / 4^{\prime \prime}$ hole Top quality import of less than $1 / 2$ usual cost Wt. 2 oz.


BAT MANDLE TOCELE SMITCKE


AS LOW AS


## $79^{\circ}$

Compact bakelite enclosed with two wire leads. UL listed. 3 amp (a 125 volts. $15 / 32^{\prime \prime}$ diameter $\times 1 / 4^{\prime \prime}$ long mtg. shank. Has one hex mountina nut. Wt. 3 oz .
8A1644-4
Each
$79^{\circ} 10$ Each
$69^{\circ}$
SUB-MINIATURE 10-AMP TOGGLE SWITCMES
Perfect for miniature equipment. 10
omps @ 125 V. AC. Mtg, shank $3_{2}$ " ONLY \$ 49 $\times 3 / 8^{\prime \prime}$ long. Hardware included. 1 oz. $1 / 2 \times x^{3} \times 1 / 2^{\prime \prime}$ 19A7188-5. SPDT. Each
$\begin{array}{lrl}10 \text { Lots Each } \\ 19 A 7189-3 . ~ D P D T . ~ E a c h ~\end{array} . . . . \$ 2.79$ HANDLE
19A7189-3. DPDT. Each . . . . . . \$2.79
10 Each . . . . . . . . . . . . . . . . . . . $\$ 2.49$

## SAVINGS SNAP-ACTION SWITCHES



WINDOW AND DOOR SWITCHES
69
Normally closed. Actuator button pro jects $3 / 32^{\prime \prime}$. $1 / 4^{\prime \prime}$ quick disconnect or solder terminals. Rated 15 A. 125-250 VAC. $11 / 8 \times 3 / 8 \times 7 / 8^{\prime \prime}$ overall size. Made by Cherry.
18A1550-3
Each ...... 69 ${ }^{\text {c }}$ Each
$59^{\circ}$ $58^{\prime \prime}$ behind panel spoce. shpo wt. 8

4PDT LEVER SWITCH


Positive octing for oudio switching speakers, telephones, model roilroads, etc. Rated $3 \mathrm{omp} @ 120 \mathrm{~V} .2$ screws on front for mounting. $21 / 8 \times 11 / 4 \times$ 19A7190-1 Import Special \$1.69

HARD-TO-FIND MERCURY SWITCH BARGAINS 2 AMP SPDT MERCURY SWITCH \$ 149
 HIGH CURRENT 10 AMP MERCURY

Slight tip sends mercury to other end for silent operation. Pin terminals. $3 / 8$ dia. $\times 15 / 8^{\prime \prime}$. Removed from equipment. Wf. 3 ozs. 18A1425-8 Each..........\$1.49 Each.... \$1.29

SLIDE SWITCHES
 dle. Solder lugs. 1 amp @ 125 V. AC Wt. 1 oz
Stock


Push on, push off. Same as used on latest hi-fi equipment. Size: $3 / 4^{11} \mathrm{H}, \mathrm{X}$ $7 / 8^{\prime \prime}$ W. X $1 / 4^{\prime \prime}$ D. Tapped $6-32$ mounting holes - $13 / 16^{\prime \prime}$ mounting centers. Easily modified for momentary action-normally open. Shpg. wt. 2 oz . 18A1683-2.

## 6 POLE, DOUBLE THROW



Each push reverses the switched position. Solder lugs one side, PC terminals other side. For panel or PC board mounting. $3 / 4^{\prime \prime}$ mounting centers. Size: $3 / 4^{\prime \prime} H^{\prime} \times 5 / 16^{\prime \prime} \mathrm{W}$. $\times 1-7 / 8^{\prime \prime} \mathrm{D}$. Chrome knob: $9 / 16^{\prime \prime}$ L. X $1 / 4^{\prime \prime} \mathrm{W}$. Shpg. wt. 2 oz.
18A1682-4
Each

## POPULAR

## MODERN

 ROCKERSWITCHES


Double Rocker Cutler-Hammer. Versatile, one side SPST, other SPDT. Center terminals can be cut apart for individual switching. $13 / /^{\prime \prime} \mathrm{mtg}$ ctrs.
Overall $11 / 4 \times 11 / 4 \times 11 / 2 \prime \mathrm{D}$. 6 . $\begin{array}{lllllll}\text { Overall } \\ \text { @ } 1125 & 11 / 4 & \times 1 / 4 \times 11 / 2^{\prime \prime} & \text { D. } 6 \mathrm{amp}\end{array}$ $\underset{\text { Special Each }}{184581-9} \quad 49 c_{\text {Each }}^{10} \quad 39 c$
 CENTER OFF
POPULAR BAT HANDLE DPDT TOGGLE SWITCH Bakelite encosed. Chrome on-off plate Roted $3 \mathrm{omp} @ 125 \mathrm{~V}$. $15 \mathrm{I}^{\prime \prime}$ dia. x $3 / \mathrm{m}^{\prime}$ 19A7192-7 \$1.09 10 Lots, $99^{\circ}$ TOGGLE SWITCM PLATES. Nickel ploted steel with on-off morkings. Use with standard $13^{\prime \prime}$ dia. mounting shafts.
19A7195-0
Ea. ... 10 10 For . $45^{\circ}$


DPDT TOGGLE SWITCH

$$
\$ 54
$$

Bat handle, bakelite case, red and black on-off plate. Screw terminals. 125 V . Quolity import. W. 6 amp @ Each 19 A7191-9 \$1.69 Eoch.. $\$ 1.54$ Each.

DPDT HEAVY DUTY PUSH-BUTTON SWITCH
 Push on, push off. 125 volt 3 amp,
Supplied with mounting ring nut and Supplied
19A7349-3 -Black.
$\begin{array}{ll}19 A 7349-3 & \text { - Black } \\ \text { 19A7350-1 -Red. }\end{array}$
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 $3, \frac{3}{6} \times 1 / 4^{\prime \prime}$ dia. Would normally cost over $\$ 1.00$ eac 18A1499-3 5 For
\$1.99


MERCURY WETTED VERY HIGH SPEED RELAY

## $\underset{\substack{\text { thata } \\ \text { shatiot }}}{\text { vid }}$

Features billions of operations without contact wear or bounce. Used for tele. graph keyers, teletype, etc. at up, to dependability Cer second with utmost 4000 hms, 72 MA pull-in, 6.2 MA release SPDT contacts 5 amps. $25 / 9^{\prime \prime} \mathrm{H} \times 11 / \mathrm{m}^{\prime \prime}$ dia. Hermetically sealed. Octal base. C.P.Clare = HC1077. At a fraction of regular cost! 18C912-6.
Each. \$4.95 For . $\$ 10.00$

RBM SENSITIVE DC RELAY


Small size relay with 2 SPDT and SPST crossbar contacts. Armature iso lated from frame. 1200 ohm coil. Sol der terminals. Two 4.40 mtg . holes Size: $11 / 2 \times 11 / 8 \times 13 / 16^{\prime \prime} \mathrm{H}$ 18A1565-1
Spec.
Each . $\mathbf{\$ 2 . 9 9} \begin{gathered}10 \\ \text { Eoch. } \\ \text { E. }\end{gathered}$

## MAGNECRAFT REED RELAY



Highest quality. No. W101MX1. Coil is for 6 VDC, 100 ohms resistance. Contracts are SPST-NO rated 10 VA max ot .5 A max or 200 VDC max, resistive load. 5 million operations typical life, Regularly sells for over $\$ 2.00$. Size $1^{1 / L X}$
$\$$ $1 / 2 " \mathrm{D}$, plus lugs and leads.
Each .......... \$1.49 Each
$\$ 1.29$

## SAVE 50\%

COMAR ENCLOSED PLUG-IN RELAY
3PDT, 10 amp contacts. Continnous duty. Clear plastic case $13 / /^{\prime \prime}$ sq., $21 / 8^{\prime \prime}$ seated height. Fits 11 prong socket. Shpg, wt. 4 ozs 18A1544-6. For 115 VAC
Each
$\$ 4.95$
12A1441-1 77 MIP11 Socket. Ea.

## 115 VAC DPDT RELAY

## REG. NET OVER $\$ 4.00$



Molded phenolic terminal blocks, molded nylon bobbin, contacts 10 amp . 115 VAC. Solder lug $13 / 8^{\prime \prime} \mathrm{W} . \times 11 / 4^{\prime \prime} \mathrm{H}$. above mounting surface. Shpg. wt. 3 ozs. 18A1560-2. Each.
\$2.99

## GUARDIAN 115 VAC PLUG-IN RELAY



115 VAC coil. Has 3 sets of contacts: SPDT SPST-NO and SPST wired NO but with back SPDT easily. 10 amp contacts, continuous duty $1 \frac{1}{2} \frac{1}{2}^{\prime \prime}$ square, $21 / 8^{\prime \prime}$ seated height. Shpg, wt. 8 .

## 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 $2^{1 / 4} \times 11 / 2 \times 11 / 2{ }^{\prime \prime}$. Shpg wt 3 ozs


3PST 120 VAC. 5 Amp Contacts. Clear cover 18A1584-2
$\$ 3.99$ Each $\begin{aligned} & 10 \text { lots } \\ & \text { Eat }\end{aligned}$
Each......
$+\quad . \quad 56$

Each

> .....
> $\$ 3.59$

19A1958-7. Sockets for above. Each


Advances 1 digit for each 2 turns of its shaft. Mechanical reset allows return to 00000 at any time, Has $2^{\prime \prime}$ dia. wheel with rubber tire secured to $1^{\prime \prime}$ shaft by set screw. Spring steel strip $21 / 2$ " long allows mounting (or holding) so proper tension is placed on the wheel. Measure distances by rolling rubber tired wheel between two points. 1 digit advance is about $121 / 2^{\prime \prime}$ in measurement. Overall advance ${ }^{\frac{1}{3}}$ about $\times 1^{\prime \prime} \mathrm{W} \times 1^{1 \frac{1}{4}}{ }^{\prime \prime} \mathrm{H}$. Base $1^{11} 4^{\prime \prime} \times 1$. length,
$38^{\prime \prime}$ shaft $7^{\prime \prime}$
$16^{\prime \prime}$ long. Shpp. Wt. 1 lb 18A1618-8. Each
\$2.95

## VEEDER-ROOT ELECTRIC COUNTER

High quality industrial type unit with digitol readout dials. Counts up to 999.999 , non-resetting. Single electrical pulse moves counter 1 digit. Hos 110 V .
 DC coil, 5000 ohms. Use on 115 V. AC by adding small power rectifier. $1,{ }^{\circ} \times 1 \times 3 / 8^{\prime \prime} \mathrm{H}$. Ideal for use with an electric cye for counfing peopte or oblects. Original cost severol times our price. Shpg 18B973-8 Special Purchase Price.


## 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 $115 \mathrm{~V}, 60 \mathrm{~Hz}$ ．AC primary．Size $13 / \mathrm{s}^{\prime \prime} \mathrm{H}, \times 1^{11 / 2^{\prime \prime} \mathrm{W} . \quad 2^{\prime \prime}}$ mig．ctrs Wt． 602 s ．
No．13A903－0
$\$ 2.29^{10 \text { Lots }}$
$\$ 2.09^{100}$ Lots
$\$ 1.69$
Same as above except has center tap on secondary．
No．13A861－0
Special Each
$\$ 2.59$
Each
10 Lots
$\$ 2.39$
Each
100 Lots $\$ 2.19$
MULTIPLE VOLTAGE TRANSFORMER
Husky 1 amp transistor power supply
transformer．Will furnish 6， 9 or 12 6－9－12－ VDC after full－wave rectification： $18-24 \mathrm{~V}$ ．
12,18 or 24 VDC after half－wave DC SUPPLY 12， 18 or 24 VDC after half－wave DC SUPPLY rectification．Secondary has center
tap．Primary 115 VAC Exceptionally tap．Primary well made，nylon bobbin construction． Best transistor supply transformer Best transistor supply transformer
we＇ve seen！3＂mounting centers．Size
 No．13A902－2 $\$ 5.90$
Terrific Import Value $\$ 5.99$


## SAVE ON P．A．LINE MATCHING TRANSFORMERS

## CONSTANT VOLTAGE $\$ 329$ 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： $1-5 / 8^{\prime \prime} \mathrm{H} . \mathrm{X} 2^{\prime \prime} \mathrm{W} . \mathrm{X} 2^{\prime \prime} \mathrm{D}$ ． 2－3／8＇mounting centers．Shpg．wt．V，lb．
For 25 volt line
18 A1 $685-7$ ．Eac
$\$ 3.2910$ Each
$\$ 2.99$
For 70 volt line．
18A1684－0．Each

## $\$ 3.4910$ 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： $2.14^{\prime \prime} L \times 1-58^{\prime \prime} \mathrm{W} \times 1-78^{\prime \prime} \mathrm{H} .2-58^{\prime \prime}$ mounting centers． Shipg．Wt． 1 lb ．
For 25 volt line．
For 25 yolt line．
$13 A 1078-0$ ．Each
For 70 volt line．
13 A1079－8．Each
$\$ 4.49 \quad 10$ Each
$\$ 3.99$

236
$\$ 4.4910$ Each
$\$ 3.99$

壁新


## 1 AMP 20 V．C．T．TRANSFORMER

## 115 V．AC PRIMARY

Exceptionally nice high quality transistor transformer．Fully en－ closed construction． $2^{\prime \prime} \times 13 / 4^{\prime \prime} \times 1-5 / 8^{\prime \prime} .2-3 / 8^{\prime \prime} \mathrm{mtg}$ ．centers， with $18^{\prime \prime}$ leads． $115 \mathrm{~V}, \mathrm{AC}$ primary．
18A1626－1．Each
$\$ 3.99$

## FILAMENT TRANSFORMERS <br> AT BIG SAVINGS

6.3 V ．（a）1．5 AMPS

Size $2 \times 2.3 / 8^{\prime \prime}$ with $3^{\prime \prime} \mathrm{mtg}$ ．ctrs．Wt． $11 / 4 \mathrm{lbs}$ ．
13A967－5．Japan．Each．．．．．．．．．．．．
Size $3^{1 / 4} \times 2 \frac{1}{8} \times 2^{\prime \prime}$ with $2.13 / 16^{\prime \prime} \mathrm{mtg}$ ．ctrs．Wt． 1 lb ．
13A968－3．Special Each．．
12.6 V ．（a） 1 AMP
 wt． $11 / 2 \mathrm{lbs}$ ．
18A1677－4．Special Each ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．$\$ 2.99$
12．6 V．（a） 1 AMI
Tapped © 6.3 V ．Size： $31 / 4 \times 1 \frac{13 / 4}{} \times 2^{\prime \prime} \mathrm{H}$ with $2-13 / 16^{\prime \prime} \mathrm{mtg}$ ．ctrs．Wt． $11 / 2 \mathrm{lbs}$ ．
13A969－1．Special
12．6 V．© 2 AMP
Size $2 \times 31 / 4 \times 21 / 8^{\prime \prime}$ with $2.13 / 16^{\prime \prime} \mathrm{mtg}$ ．ctrs．Wt． 2 lbs ． $\qquad$
13A243－1．Special Each
25.2 V＠1 AMP

Size： $3^{1 / 4} \times 2 \frac{1 / 8}{} \times 2^{\prime \prime} \mathrm{H}$ ．with $2.13 / 16^{\prime \prime} \mathrm{mtg}$ ．ctrs．Wt． 2 lbs ．
13A970－9．Special Each
25.2 V \＆ 2 AMP

Size： $4 \times 21 / 4 \times 2-5 / 8^{\prime \prime} \mathrm{H}$ ．with $3-9 / 16^{\prime \prime} \mathrm{mtg}$ ．ctrs．Wt． $21 / 2 \mathrm{lbs}$ ．
13C501－2．Special Each
$\$ 6.99$

## 48 VOLT CT 1 AMP



## $\$ 3^{99}$

BA special purchase saves you money． Perfect for solid state power supplies． 115 VAC primary．Highest quality continuous duty $19^{\prime \prime}$ insulated leads． Size：${ }^{21 / 2} \times 2 \times 3^{\prime \prime} \mathrm{H}$ ．Wt． $21 / 2 \mathrm{lbs}$ Each

$$
\$ 3.99 \underset{\text { Each }}{10} \$ 3.69
$$

BIG SAVINGS ON OUTPUT TRANSFORMERS

arize


centers．X $14^{\prime \prime} \mathrm{H}$ ．X $38^{\prime \prime}$ thick core．Wt．
No． 18 A888－8
Special Each

$\$ 1.49$ Each

$\$ 1.29$

## VERY TINY TRANSISTOR TRANSFORMERS

Exceptionally small，only $1 / 2$ inch largest dimension，nicely constructed， Equivalent domestic made units would cost many times more．Impreg． nation 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 $1 / 2 \times 1 / 2 \times 1 / 2^{\prime \prime} \mathrm{H}$ ．Shpg．wt． 5 ozs．Import． No．13A904－8．Input．Pri，imped．200K ohms．Sec． 1000 ohms．Your No．13A905－5．Driver．Pri，imped． 10 K ohms．Sec． 2000 ohms．Choice No．13A906－3．Output．Pri．imped． 500 ohms．Sec． 8 ohms．Each $\$ 1.49$ 10．Each．
\＄1．29 100 Each． $\qquad$ $\$ 1.19$

## B－A GIANT SAVINGS

## MINIATURE TRANSISTOR AUDIO TRANSFORMERS $\$ 49$

A special selection of transformers for building or replacement in small com－ pact circuitry．High vacuum impregnation and a special coating seals the coils， core is hydrogen heat treated．Printed circuit board mounting．Size： $1116^{\prime \prime} \mathrm{L} \times$ $58^{\prime \prime} \mathrm{W} \times 58^{\prime \prime} \mathrm{H}$ ．Shpq．W F .3 oz ．
Stk．No Type Pri．ohms Sec．ohms 1－9 Each 10 up Each
13A1080－6 Driver 10K $2 \mathrm{~K} . \mathrm{CT}$
13A1082－2 Outpút IK．CT
13A1081－4 Output 500 CT
8
3.2
$\$ 1.49$
1.49
1.49

## POWER SUPPLY VALUES!

TRANSISTORIZED 6-9-12 V. DC @ 1 AMP
UNIVERSAL POWER SUPPLY
$\$ 29{ }^{95}$

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 dutv metai case $6 \times 31 / 2 \times 21 / 2^{\prime \prime}$. Wt. 3 lbs,
13 A8009-8. Top Import Value! Special Each...
\$29.95

## VARIABLE VOLTAGE ด SOLID STATE POWER SUPPLY

$0-15$ V. DC @ 1.5 AMPS.

## $\$ 44^{95}$

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

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, nicktransistor; carbon-zinc, alkaline, nick-
el-cadmium or mercury types. Safe el-cadmium or mercury types, Safe lock lid. Wt. 2 lbs. $\$ 7.95$ 13A8013-0. Each.
\$7.95

LIGHT
SENSITIVE

RELAY SIZE: $11 / 8^{\prime \prime} \times 11 / 8^{\prime \prime} \times 1 \delta^{\prime \prime}$

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 suggest themselves to the experimenter and engineer. Fine for production or
traffic counters, door openers, etc. Tiny glass enclosed light cell is only $1 / 2^{\prime \prime}$ $\times 5 / 16^{\prime \prime}$ with 2 wire leads. Relay, size $11 / 2 \times 11 / 8 \times 1-3 / 16^{\prime \prime} \mathrm{H}$. Has 2 SPDT and 1 SPST crossbar contacts rated lampere. Completed control operates on 115 V . AC.
41A4022-1. Wt. 1 lb
Special Light Cell and Relay
$\$ 4.97$

BATTERY CHARGER KIT

$\$ 200$
0 O
FOR 6 OR
12 VOLTS

Amazing low price! Top 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, $3 \times 31 / 2^{\prime \prime}$ heat sink and instruction sheet.
No, 20A1200-1.
Special Each

## \$2.00 <br> AC ADAPTORS



IO CURRENT DRAIN

| YOUR | CONVERTS: RADIOS, |
| :---: | :---: |
|  | TAPE RECORDERS, |
| 95 | WALKIE - TALKIES, |
|  | OTHER LOW POWE |
| EACH | 6,9 OR 12 |
|  | VOLT BATTERY |
|  | FOR 6, 9 OR 12 v . |

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. $1 / 46$
13A8007-2. 6 V . Nominal Output, 4.8 V . at $200 \mathrm{~mA}, 7.2 \mathrm{~V}$. at 20 mA .
$10 \mathrm{~A} 3030-2$. 9 V . Nominal Output, 6.5 V . at $200 \mathrm{~mA}, 10.3 \mathrm{~V}$. at 20 mA
10A3021-1. 12 V . Nominal Output, 10.5 V . at $200 \mathrm{~mA}, 14.4 \mathrm{~V}$. at 20 mA .
YOUR CHOICE EACH

## 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 $2 \times 1-3 / 8 \times 1-3 / 16^{\prime \prime}$. Wt. 4 ozs. No. 18A1336-7
Special Each
$\$ 1.99$
See pages 154 or 232 for battery hold-
ers to complete your hookup. Use 1
charger for each Ni -Cad cell.

-7 $1 / 2-9$ V OLT ADAPTOR
Eliminates the use of batteries in cassette and cartridge recorders and other battery operated units. Adaptor plugs into 117 V . outlet. Switch selects 6 $71 / 2$, 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: $2^{3 / 4} \times 13 / 4 \times 2^{\prime \prime}$ (with prongs). Shpg. wt. 8 oz 13A8052-8. Each
$\$ 6.95$

## B-A SPECIAL VALUE!

## 60 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
Per Pair

Extends to 96 inches, retracts to 16 inches. I ea. phone tip test prods Red and Black are 6 inches long 35A8016-7 Per Pair

RETRACTABLE TEST LEADS



SUBMINIATURE EDGEWISE METER
$\$ 5^{50}$

Only $9 / 16^{\prime \prime} \times 5 / 8^{\prime \prime}$ with $7 / 8^{\prime \prime}$ mounting center. Indicator window is $1 / 4^{\prime \prime} \mathrm{H} \times$ $9 / 16^{\prime \prime} \mathrm{W}$, projects $1 / 4^{\prime \prime}$ through panel. 260 UA. DC, 500 ohms internal resistance. Solder lug connections. Imported. 35 A6220-7. Each
\$5.50

DIGITAL READOUT CIRCUIT BOARD


## 2 FOR $\$ 8.88$



With 2 Burroughs Nixie Readout Tubes. Bright red nean glow easily read in all light conditions. Large character size $21 / 2^{\prime \prime}$ high X $11 / 2^{\prime \prime}$ 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 .
18A1602-2.
$\$ 8.88$


## EXCITING METER VALUES!



MINIATURE PANEL METERS
$\$ 795$
ONLY $15 /{ }^{\prime \prime}$ SQUARE LATEST MODERN DESIGNED CLEAR PLASTIC CASES Standard D'Arsonval moving coil type with zero set. Mounts in front or behind panel in $11 / 2^{\prime \prime}$ diameter hole. Silvered dial and
black numerals. Precision quality import. At leost a $50 \%$ sovings. Wt. $1 / 2 \mathrm{lb}$,

35A6168-8.0-1 DC Milliamps $\$ 8.9535 \mathrm{~A} 6170-4$. 0 - $\mathrm{S}^{\prime \prime}$ Meter Cal 0-9 $\$ 7.95$ 35A6169-6.0-50 DC Microamps\$9.95 35A6 1 35A6172-0. Net Each.
$\$ 9.95$

Precision moving coil instruments with zero set. Beoutifully constructed, top quality throughout. Excellently shielded ogoinst mognetic fields. Scoles colibroted block on bright metol with red pointer. Body molded plostic, with clear plastic front. Mounts in $5 / 8 \times 13 / 8^{\prime \prime}$ rectanquiar hole. Wt. 2 oz .
0-1 DC Milliamperes.
35A6173-8. Each
$\$ 5.95$


SPECIAL PURCHASE BARGAINS!
DUAL MOVEMENT 200 MICROAMP METER
$\$ 5.95$
Ideal for Stereo Ideal for Stereo Balance, Recording Levels, Forward Power. Has Many Experimental Applications Appilcations

Square $3^{\prime \prime}$ 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 $23 / 4^{\prime \prime}$ hole. 18A1366-4
$\$ 5.95$

## 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. $1-3 / 8 \times 1-5 / 8 \times$ $1^{3 / 4^{\prime \prime}} 1^{\prime \prime}$ shaft. Wt. $1 / 2 \mathrm{lb}$.
18A1651-9
$99^{\circ}$

MINIATURE 365 PFD. VARIABLE WITH DIAL


Only $1^{\prime \prime}$ square $\times 1 / 2^{\prime \prime}$ deep. Close fitting clear plastic $11 / 4^{\prime \prime}$ dio. dial with gold trim and numerals. Knurled edge for eosy 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.
18A1612-1
$\$ 2.99 \begin{aligned} & \text { (one length }\end{aligned}$
$\$ 9.99$
22 GAUGE STRANDED. 5 30-ft, coils. Clean yellow vinyl insulated.
18A1635-2. . Per Pkg. of 5 Coils
$\$ 1.00$
24 GAUGE SPEAKER WIRE. Stranded 2 -conductor, 10 ft , lengths.

| $18 A 1314-4$ |
| :--- |
| $10-10 \mathrm{Ft}$. Lengths For $\ldots . . .9^{c}{ }^{5}$ Lengths For |
| 0 |

$\$ 3.99$

## ALARM BELLS AND BUZ2ZR

3-INCH 117 V. AC ALARM BELL
Produces loud, clear ring. Overcomes high background noises. Operates directly from tany 117 VAC power source. Shpg. Wt. 8 ozs. Imported,

4144045-2 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
Special Each
$\$ 14.95$

## LOUD DC BUZZER



Works on $11 / 2-16$ volt DC. Use wherever an attention getting signal is desired. $2^{1 / 4}$ "dia. $1^{\prime \prime}$ thick. Single screw mounting. No. 18A1624-6
$\$ 1.69$
$1^{1 / 2}$ INCH SIGNAL BELL


Operates on 4 to 12 volts DC or AC. $9 / 64^{\prime \prime}$ mounting hole
 No. 18A1622-0 Each

## WESTCLOX APPLIANCE

 CLOCK TIMERTurns on equipment up to 10 hours after setting. Switch rated of twenty cmps, big enough to handle nearly ony opplicnce, air conditioner, etc. Attroctive $41 / 8^{\prime \prime}$ clock foce with domed plastic cover " ${ }^{\prime \prime}$ " deep behind cover. With $5^{\prime \prime}$ leads for easy connection.
18A1282-3. Special Eoch
$\$ 2.95$

## SAVE ON NE2A NEON LAMPS

10 FOR
$\$ 160$
Popular 1/25 watt bulb as used for pilot light assemblies, volume level indicators. Unbased, with 2 wire leads $1 / 4^{\prime \prime}$ dia., $1-1 / 16^{\prime \prime}$ long. Requires 200,000 ohm series resistor for $105-125 \mathrm{~V}$. operation. Wt. 4 12 oz 12A4129-9 \$1.60 50 50
For
 10 Fo
for
\$6.00


1. 12

## EARPHONE WITH

## 24 FOOT CORD

ow impedance earphone works with most TV's, recorders, radios and other solid state devices. With one miniature and one sub-miniature plug to fit practicoly 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 speed al 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 Believe us, this import is on unusual
value and would ordinarily cost sevvalue and would ordinarily cost lev-
neral times more. Shpg. wt. $11 / 2 \mathrm{lbs}$. 9A3107-1.
$\$ 4.99$
PROFESSIONAL STYLE EQUIPMENT KNOBS PKG. OF 2


BIG IMPORT SAVINGS
Beautifully made, will really dress up equipment. Skirted, 1 I'" D. with white filled 0 to io 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
For.
$\$ 1.59$


## VELVET SMOOTH VERNIER DIALS



IMPORT

Top import value compares with other oscillators selling for twice this price. Perfect for the learning beginner or the professional who wants to keep in proc-
dice. Variable pitch control. Switch lice. Variable pitch control. Switch selects tone, light or combination overaton. Bult-in speak Oscillator size $61 /$ lure headphone lack. Oscillator size $61 / 8$
$\times 31 / 2 \times 2.5 / 8^{11}$ Key, batteries and instructions supplied.
9 A3105-5. Wt. 2 lbs . Complete Unit
$\$ 17.99$

TRANSISTOR CODE PRACTICE OSCILLATOR


KEY INCLUDED

## 1 CHROME PLATED BRASS TELESCOPING ANTENNAS

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! Impported. Average shag. wt. 8 ozs .


$\$ 4.69$
(3) 32 Inch 7 -Section Antenna. $90^{\circ}$ swivel joint. Has 4 inch section
with adaptors at bottom to extend down into set. Brass, chrome plated.
10A7031-6

Special Each
\$4.49

## 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 you these top quality electrolytic capacitors at a fraction of their usual cost. All are made to the most rigid specifications of equipment manutacturers, 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. $1-3 / 8^{\prime \prime}$ dia. $\times 2.1 / 4^{\prime \prime}$ long overall. $1 / 2^{\prime \prime}$ solder 18A1589-1. Each
59. 10 ( 1 Each (1) 50 uf. 25 VDC. $5 / 8^{\prime \prime}$ dia. $\times 1-5 / 8^{\prime \prime}$ long. Insulated case. Has mounting bracket like fig. (6)I.
39. 10 (a) Each
$35^{\circ}$
(1) 250 uf. 25 VDC. $3 / 4^{\prime \prime}$ dia. $\times 1-3 / 16^{\prime \prime}$ long. Insulated case.

18A1405-0. Each ............ 39 10 Each
$35^{\circ}$
(1) 500 uf. 25 VDC. $3 / 4^{\prime \prime}$ dia. $\times 1-5 / 8^{\prime \prime}$ long. Insulated case.

18A1406-8. Each . . . . . . . . . . 49 $49^{\circ} 10$ Each . . . . . . . . . . . . . . . . $44^{\circ}$
(4) 4,000 uf. (a 25 V . Aluminum can $1-3 / 8^{\prime \prime} \times 2-5 / 8^{\prime \prime}$. Heavy plastic insulated. Made in Italy by Ducati.
18A1590-9. Each ............ 99. 10 (3 Each
(5) 1,500 uf. (a 35 V . $1^{\prime \prime}$ dia. $\times 2^{\prime \prime}$ long. $1 / 4^{\prime \prime}$ leads. Blue vinyl insulating

18A1506-5. Each ........... 99. 10 (at Each
(1) 1 uf. 50 VDC. $5 / 8^{\prime \prime}$ dia. $\times 2^{\prime \prime}$ long. Insulated case.

(4) 50 uf. © 150 VDC. Aluminum can $1^{\prime \prime}$ dia. X 1-9/16" long. Plastic insulated. 18A1348-2. Each

2.19

## COMPUTOR GRADE CAPACITOR

(2) 2,000 uf. 15 VDC . Aluminum case $2-1 / 4^{\prime \prime}$ L. $\times 1-3 / 8^{\prime \prime}$ dia. with clear plastic insulating sleeve. Screw terminals on one end. Shpg. Wt. 4 ozs. 18A1521-4. Each
89. 10 (i) Each
$75^{\circ}$

## MULTI-SECTION HIGH CAPACITY TYPES

Fig. Stk. No.
(4) $18 \mathrm{CB57-3}$
(4) $18 \mathrm{C} 858-1$
$850-400 / 100 / 15$
Volts
Size
80/4-4/200
$475 / 450 / 25$
$1-3 / 8^{\prime \prime} \times 1-3 / 4^{\prime \prime} \mathrm{H}$.
CHOICE EACH
400-100/400
49. 10 Each Asstd.
$1^{\prime \prime} \times 1-1 / 2^{\prime \prime} \mathrm{H}$.
39

BIG SAVINGS ON VOLUME CONTROLS


Top quality American made controls available at lower prices! Smooth AC. Nylon shaft easily A. © 125 V. length with wire cutters. Rotary type has $1 / 4^{\prime \prime}$ shaft. Push-pull has $7^{3} 6^{\prime \prime}$ shaft.
WITH ROTARY SWITCH

WITH PUSH-PULL SWITCH Stk. No. Resistance Each 10 Ea . Stk. No. Resisfance Each 10 Ea. | $14 \mathrm{~A} 1101-9500 \mathrm{KOhm}$ | $\$ 1.00$ | $89^{\circ}$ | $14 \mathrm{~A} 1103-5500 \mathrm{KOhm}$ | $\$ 1.50$ | $\$ 1.29$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $14 \mathrm{~A} 1100-1$ | 1 Meg | $\$ 1.00$ | $89^{\circ}$ | $14 \mathrm{~A} 1102-7$ | 1 Meg | 1-INCH BLACK KNOBS for above.

12A2026-9 With $3 / 16^{\prime \prime}$ brass insert and screw for push-pull.

Each ........................ 31 100 Each
19.
$22^{\circ}$

## TUBULAR <br> AS LOW $38^{\circ}$ EACH 10 SUB-MINIATURE AXIAL LEAD CAPACITORS

Miniature size for general replacement use as
well as for the minimum size requirements of well as for the minimum size requirements of modern, compact, solid state circuits. Top quality
imports. Metal case with epoxy end fill, vinyl imports. Metal case with epoxy end fill, vinyl
insulating sleeve around sides. Use 16 volt types insulating sleeve around sides.
for all voltages below 16 volts.

| 16 VOLTS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stock | Size | Inches | 1.910 |  |
| No. ${ }^{\text {uF }}$ | Dia. | Length |  |  |
| 15A5680-7 5 | 7/32 | 19/32 | \$0.38 | 0.34 |
| 15A5681-5 10 | 1/4 | 19/32 | . 38 | . 34 |
| 15A5682-3 22 | 'hs | 19/32 | . 38 | 34 |
| 15A5683-1 50 | $5 / 6$ | 19/32 | . 40 | 36 |
| 15A5684-9 100 | 13/32 |  | 49 | 44 |
| 15A5685-6 220 |  | 1 | 58 | 52 |
| 15A5686-4 500 | 19/32 | 29/3 | 80 | 72 |
| 15A5687-2 1000 | 23/32 | 1-21/32 | . 00 | . 90 |
| 15A5586-6 200 | 23/32 | 14\% | 1.50 | 1.35 |
|  | 35 VO |  |  |  |
| 15A5688-0 5 |  | 19/32 |  | 34 |
| $15 A 5689-810$ $15 A 5690-622$ | 5/1/6 | 19/32 | . 38 | 34 38 |
| $\begin{aligned} & 15 A 5690-622 \\ & 15 A 5691-450 \end{aligned}$ | 3/66/32 | $13 / 6$ | . 42 | 38 .50 |
| 15A5692-2 100 | 23/32 | 1 | 65 |  |
| 15A5693-0 220 | 19/32 | 11/4 | 80 | 2 |
| 15A5694-8500 | 23/32 | 1-21/3 | 1.20 | 1.08 |
| 15A5695-5 1000 |  | $21 / 4$ | 1.75 | 1.58 |
| 15A5588-7 2200 | 1 | 3 | 1.98 | 78 |
|  |  |  |  |  |
| 15A5697-1 2.2 | $13 / 64$ <br> $13 / 64$ | 15/32 | 38 | 4 |
| 15A5581-7 5 | 15/64 | 15/32 | 40 |  |
| 15A5582-5 10 |  | 39/64 | 40 |  |
| 15A5698-9 22 | 25/64 | 49/64 | 44 | 40 |
| 15A5583-3 50 | 1/2 | 1/6 6 | 48 | 43 |
| 15A5584-1 100 |  | $11 / 4$ | 85 |  |
| 15A5585-8 220 | 19/32 | 1\% | 1.06 | 95 |
| 15A5589-0 500 | 25/32 | 1\%6 | 1.42 | 1.28 |

## PRINTED CIRCUIT TYPE FILM CAPACITORS

Extremely small, high quality Film Capacitors. Perfect for tranfilm Capacitors. Perfect for tran-
sistorized circuits. High dielectric sistorized circuits. High dieiectric
strength and rugged construction strength and rugged construction
assures long life. Epoxy coating assures long life. Epoxy coating
withstands high humidity and temperature. Top quality import.

100 WORKING VOLTS DC

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | uF | $\underset{H}{\text { Size }}$ | $\begin{aligned} & \text { Inches } \\ & W \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7535- | 001 | 455 | 168 | 20 |  |
| A7538 | . 0047 | 455 | 168 | 20 | 8 |
| 5A7536-9 | 01 | 455 | 247 | 21 | 9 |
| 5A7537-7 | . 022 | 455 | 275 | 23 | 21 |
| 15A7539-3 | . 033 | . 455 | 335 | 25 | 23 |
| 15A7540-1 | 047 | 490 | 335 | 29 | 26 |
| 15A7541-9 | . 068 | 490 | 380 | 29 | 26 |
| 15A7542-7 |  | 490 | 428 | . 32 | 29 |
| 15A7543-5 | 22 | 710 | 522 | 78 |  |
| 15A7544-3 | 47 | 945 | 630 | 1.49 | 1.34 |

## 24 <br> SAVE ON CAPACITORS

## PRINTED CIRCUIT

 ELECTROLYTICS
$\begin{array}{llll} & 16 \text { VOLTS } & & \\ \text { Stock } & \text { Size Inches } & 1-9 & 10-99\end{array}$ No. uF Dia. Length Each Each $\begin{array}{lllrr}15 A 5661-75 & 13 / 64 & / 6 & \$ 0.25 & \$ 0.23 \\ 15 A 5662-5 & 10 & 15 / 64 & 16 & .25 \\ 15 A 563\end{array}$ 15A5663-3 22 15A5664-150 $15 A 5665-8100$
$15 A 5666-6220$ $15 A 5666-6220$
$15 A 5667-4500$ $\begin{array}{llll}15 A 5667-4 & 190 & 19 / 32 & 31 / 32\end{array}$
15A5668-2 1000 19/32 11/8


|  | 50 VOLTS $13 / 64$ /16 |  |
| :---: | :---: | :---: |
| 15A5676-5 <br> 15A5677-3 2.2 | 13/64 $13 / 64$ | 25 |
| 15A5115-4 5 | 15/64 'h6 | 26 |
| 15A5116-2 10 | $3 / 15 \quad 29 / 64$ | 36 |
| 15A5678-1 22 | 25/64 21/32 | 42 |
| 15A5117-0 50 | 33/64 21/32 | 50 |
| 15A5118-8 100 | 33/64 31/32 | 59 |
| 15A5119-6 220 | 19/32 13/8 | 1.05 |
| 15A5679-9 500 | 25/32 15\% | 1.48 |

## CROSSOVER <br> NETWORK

CAPACITORS


No. 15A5003-2. 2 MF
No. 15A5004-0. 4 MF
No. 15A5005-7, 8 MF
Your Choice Each
$49^{\circ}$

## 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 . 18A1652-7. Assortment. Each

## B-A SUPER BARGAIN VALUE!

### 3.6 MFD. 5000 VOLT FILTER CONDENSER <br> HIGH CAPACITY-SMALL SIZE



## similar rated

 CONDENSERSCOST OVER $\$ 35.00$

New production surplus from modern COST OVER $\$ 35$ space age projects. Very small size $\$ 695$ dor voltage and capacity rating. Ideal high capacity filter for HV supply on linear RF power amplifiers. Case only
 bracket ${ }^{2}$ No. 18A1441-5 Special Each


TWO COLOR METAL UTILITY CABINETS


Strikingly handsóme utility cabinets for housing miniature or medium sized equipment such as intercoms, amplifiers, control systems, power supplies etc. Have black wrinkle steel cover with ventilat ing 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-



PERFORATED BOARDS


Quick, convenient way for assembling transistor circuits. 16 thick, 062 dia holes set ${ }^{16}$ whe 4 ozs.
age
$12 A 9626-9$
age wt. 4 ozs. $2,7 \times 33 / 8^{\prime \prime}$.
12 A9 $9626-9 . ~$
$19^{\circ}$

 12A2309-9
$.062^{\prime \prime}$ dia. Clips. 100 For
$\$ 1.75$
INSULATORS FOR P
Nylon Screw Insulators for TO-3. No. 12 A2490.7.
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 | Package of 10 - Per Pkg. .. $\$ 1.09$

Mica Collector Insulators and Washers for TO-36
No. 12A2847-8.
No. 2 Pa 2847.8.
Packe of 16 - Per Pkg. . $\$ 1.09$
FLUTED PLASTIC KNOBS


> 4 FOR $\$ 100$


Beautifully styled like used on latest hifi equipment. Molded plastic chrome finish knob with black insert. For $1 / 4^{\prime \prime}$ splined shaft. Bushing extends $5 / 8^{\prime \prime}$ 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 sur-
face with double-faced tape. Lets you re-arrange desks and furnishings as often as needed. Flexible and withstands heavy traffic.
41A4162-5. 4 Ft. Black 41 A4163-3. 6 Ft. Black 41A4164-1.8 Ft. Black 41A4165-8. 10 Ft. Black 41A4166-6. 12 Ft . Black 41A4167-4. 8 Ft . Yellow


$$
\begin{aligned}
& \text { Your Choice Each 1-11, } \\
& 12 \text { upi (You may assort), Each...................................... } \$ 2.05 \\
& \$ 1.74
\end{aligned}
$$

$\begin{array}{ccc}\text { Stock Mo. Break } \\ \text { No. } & \text { Mo. Current }\end{array}$ $\begin{array}{lll}\text { No. } & \text { No. } & \begin{array}{c}\text { Break } \\ \text { Current }\end{array} \\ \text { 12A1997-2 } & \text { FA1 } & 1 \text { Amp } \\ \text { 12A1313-2 } & \text { FA1.5 } & \text { 1.5 Amp } \\ \text { 12A1318-1 } & \text { FA2 } & \text { 2 Amp }\end{array}$ $\begin{array}{lll}\text { 12A1313-2 } & \text { FA1.5 } & \text { 1.5 Amp } \\ \text { 12A1318-1 } & \text { FA2 } & 2 \mathrm{Amp} \\ \text { 12A1320-7 } & \text { FA2.5 } & 2.5 \mathrm{Amp}\end{array}$ $\begin{array}{lll}\text { 12A1320-7 } & \text { FA2.5 } & 2.5 \mathrm{Amp} \\ \text { 12A2480-8 } & \text { FA2.75 } & 2.75 \mathrm{Amp} \\ \text { 12A1323-1 } & \text { FA3 } & 3 \text { Amp }\end{array}$ $\begin{array}{lll}\text { 12A1323-1 } & \text { FA3 } & 3 \text { Amp } \\ \text { 12A2481-6 } & \text { FA3.25 } & 3.25 \text { Amp }\end{array}$ 12A2481-6 FA3.25 3.25 Amp
Color TV Dual Circuit Breal $\$ 16.95$
$\$ 18.95$
$\$ 21.95$
$\$ 23.95$
$\$ 25.95$ 41A4168-8. 10 Ft . Yellow , \$23.95 $\$ 21.95$ 41A4169-0. 12 Ft . Yellow $\$ 25.95$

## ELECTRICAL CIRCUIT BREAKERS

Universal replacement for radio, TV, etc. Top quality Universal replacement for radio, TV, etc. Top quality
American made. Recognized by U.L. Circuit is re-fused American made. Recognized by U.L. Circuit is
by pushing and releasing button.
specify Stock No. of Type Wanted.

$$
\begin{aligned}
& \text { Your Choice Each Stock No. of Type Wanted. } \\
& \text { Y.11. }
\end{aligned}
$$

12 upi (You may assort), Each..................... \$1.74

| Carry | Stock | Mfg. | Break <br> Current$\quad$Carry <br> Current |
| :--- | :--- | :--- | :--- |
| Current |  |  |  |

ker. B+ break current 2.75 amp . horizontal break 12A2482-4. Workman FAD. Each
…................ $\$ 2.0512$ @ Each.
ch.....
..... $\$ 1.74$
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.
2A3034-1. Card of letters A to Z.
Per Card
Each Each......... 68' Each ..

## AC LINE CORDS



18A1615-4. Extra Long 12 Ft . $1 / 4 /{ }^{\prime \prime}$ round, 18 gauge 2 conductor with molded plug. Light blue. Each .... 79` 10 Each ......................... $74^{\circ}$

$$
\begin{aligned}
& 18 / 2 \text { LAMP AND }
\end{aligned} \begin{aligned}
& \text { Highest grade, extra flexible plastic } \\
& \text { POT (SPT-1) zip cord with size } 18 \\
& \text { conductors. Fine for speaker hookups, } \\
& \text { AC extensions, etc. Brown or Ivory. Shpg. } \\
& \text { APPLIANCE CORD } \\
& \text { 100' } 1 \mathrm{lb} .
\end{aligned}
$$

REMOTE 15 FT. SWITCH EXTENSION
Piggyback plug with 18-2 cord and switch adds extra convenience all around the home. Just plug into AC outlet ahead of the device to be controlled, Shpg. Wt. $1 / 2 \mathrm{lb}$.
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

Brand new solution to an old problem! Turns off lights 35 to 60 seconds after switch is flipped to the "off" position. Allows you to reach your destination without groping in the dark. Fine for bedroom, hallway, etc. around home, form, business. U/L rated, 10 A. 125 V. 5 A. 250 V.
No. 41A323-7-Brown
Single Pole. Net Each.
(3) MODERN "TOUCH" WALL SWITCH Converts "old-fashioned" noisy toggle switch installations to quiet push-
button control with no wiring changes! Just a touch or nudge and lights go button control with no wiring changes! Just a touch or nudge and lights go "on"; another touch and they're "otf" Very convenient esp 41 A324-5-001-8 - Brown Your Choice VAC. Single Pole 41A324-5-001-8-Brown Your Choice
41A324-5-009-1 - Ivory, Each ........ $\$ 1.49$ Each. $\$ 1.33$


## (1) 115 VOLT COILED NICHROME WIRE ELEMENTS

Finest quality, for repair of Hot Plates, Toasters, Heaters. Shpg. wt. 2 oz .
 (2) 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 .
Stk. No. Net Ea. 3 @ Ea.





## EXCEPTIONAL SAVINGS ON MOST POPULAR CARTRIDGES



## MONAURAL PHONO CARTRIDGES

## STEREO CARTRIDGES <br> (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 $1 / 2^{\prime \prime} \mathrm{mtg}$. Ceramic element unaffected by temperature change, .5 volts output. High fidelity performance 20 to $15,000 \mathrm{~Hz}$. Wt. 3 oz . 24A4108-9. Special Each <br> \$6.95

(2)ASTATIC 13 TX CERAMIC with Diamond Stylus for stereo and LP, sapphire for 78 RPM. One of the most popular American made car-
tridges 5 V output. $20-15.000 \mathrm{~Hz}$. tridges. 5 V . output. $20-15,000 \mathrm{~Hz}$. Mfg . list $\$ 8.95$.
24A4058-6. Wt. 2 oz.
\$4.95 Special Each
(3) UNIVERSAL TURNOVER. Fits most changers and players. Regular $1 / 2^{\prime \prime}$ mounting. 3 V . output. 40 to $13,000 \mathrm{~Hz}$. Sapphire needles. Wt. 3 oz 24A4052-9
Import Special, Each
E
(4) RCA TYPE 45 RPM. Exact replacement for 45 RPM players. I V. output.
$0-10,000 \mathrm{~Hz}$. 1 mil sapphire stylus. Quality import. $50-10,000 \mathrm{~Hz} .1$ mil sadphire stylus. Quality import.
24A4054-5 \$1.99 10 Lots

Special Each
$\$ 1.99$ Each
$\$ 1.79$

## EXACT REPLACEMENTS FOR BSR CARTRIDCES

(5) Replaces TC8H. Fits all BSR plastic and metal brackets for quick replacement. 3.25 volt output. Black color.

\$2.39
(6)

Replaces $5 \times 1 \mathrm{H}$. 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 Each ..........
$\$ 3.29{ }_{\text {Each }}^{10 \text { Lots }}$
$\$ 2.99$

## 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 <br> 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 $75 \%$

Perfect replacement for any high fidelity stereo magnetic type cartridge. There is absolutely no compromise in quality or performance at $\mathrm{B}-\mathrm{A}^{\prime} \mathrm{s}$ special low, low price. Frequency response 20 to $20,000 \mathrm{~Hz}, 11 / 2$ 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 terminals. Uses Shure N70EJ elliptical diamond replacement stylus. 52A5134-9. Each
\$9.79


## SOLID STATE PHONO AMPLIFIER <br> $\$ 129$

Use with crystal phono cartridge. Operates from 6 volt DC. 300 mw output. With volume control. Wire leads for easy connection. Wiring diagram supplied. Size: $1-3 / 8 \times 11 / 4 \times 2^{\prime \prime}$
18A1591-7. 2
Each. \$1.29 For
$\$ 1.99$

## STEREO SPEAKER WALL PLATE

COMPLETE WITH TWO $\frac{1}{4}-I N C H$ PLUGS
New lvory wall plate with two $1 /{ }^{4 \prime}$ phone jacks mounted. Hardware supplied for use with standard outlet box or 23 wall mounting. Two $1 / 4^{\prime \prime}$ phone plugs included. Size 12A6334-3. Special Each.
\$3.99


## SPECIAL VALUE HIGH COMPLIANCE SPEAKERS



## 4-INCH EXTENDED RANGE SPEAKER

- Acoustic Suspension
- Full Range 10 watt
- Large, Powerful Ferrite Magnet
$\$ 995$ Excellent for use in most hi-fi systems. Impedance: 8 ohms Frequency Response: $40-15,000 \mathrm{~Hz}$. Size: 4 inches with $13 / 4^{\prime}$ 34A544-7 34A544-7. Special
$\$ 9.95$


## 6 INCH SPEAKER

- Ideal for solid stote and tube amplifiers olike.
- Response: $\mathbf{3 5 - 1 8 , 0 0 0 ~ H z}$
$\$ 19^{95}$
- Power copocity 20 watts.

Large cone with flexible cloth edge provides more power in the low frequency range Impedance 8 ohm. Recommended cobinet size is $71 / 8 \times 113 / 4 \times 61 / 2$ 34 A Wt. 6 lbs.
$\$ 19.95$


2-WAY CROSSOVER WITH LEVEL CONTROL


Fine appearance. Comes assembled on sturdy finished metal panel, ready to install on your speaker enclosure Features high quality LC type net work with tweeter level control. Crossover point 3000 Hz Impedance 8 crossover point, 3000 Hz . Impedance spring-loaded binding posts. Size $4 x$ spring-loaded binding, posts. lize
$51 / 2^{\prime \prime}$. black enameled, gold lettering. Attached 3 ft . leads. W t . 1 lb . No. 34A539-7.
Special Each
\$8.95
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. $058 \times .115^{\prime \prime}$. Wt. per 1000 ft .6 lbs . $2 \mathrm{C} 33-9$. Per $100^{\circ}$
$\$ 2.49{ }^{1000}{ }^{\text {For }}$
$\$ 17.95$

NORELCO 1" DOME
TWEETER WITH 10 OZ. CERAMIC MAGNET

## S10 95



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 diaphragm. Width 3-5 $8^{\prime \prime}$. Requires $3^{\prime \prime}$ mounting hole. Shpg. wt. 2 lbs .
34A532-2. Each
$\$ 10.95$
Per Pair
\$19.95

## PIEZO-ELECTRIC $31 / 2^{\prime \prime}$ HIGH IMPEDANCE TWEETER



Perfect for 2 or 3-way speaker systems. Has a frequency response from 1500 to $40,000 \mathrm{~Hz}$. Tweeter is of such high impedance that the amplifier doesn't even recognize it as additional load. Impedance falls 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 $3-3 / 8^{\prime \prime}$ square 34A546-2. Special Each
$\$ 9.95$
CROSSOVER NETWORK CAPACITORS

## HI-FI SPEAKERS AND TWEETERS



2
(1) TWO-WAY LC CROSSOVER NETWORKS

Compact Inductive-Capacitive Network feeds frequencies above 3000 Hz . to tweeter. below 3000 Hz . to wooter. Insertion loss only 1 db solder tug

(2) ThREE-WAY CROSSOVER NETWORK

Dividing audio signals between woofer, midrange and tweeter. Simplified L.C circuit, crossover frequencies 2.500 .6 .600 Hz . Imped 8 ohm. 34A541-3. Shpg.wt. 1 lb . Quality Import. Each
(3) UNIVERSAL DIVIDINC 3-WAY NETWORK

Two built-in L-pad type adiustments for use in balancing speakers of different efficiencies. Crossover points are 500 and 3.300 Hz with attenuation
of 6 do per octave. Wiring diagram and instructions included. Size: $5^{3 / 4}$ of 6 db per octave. Wiring diagram and instructions included. $34 \mathrm{~A} 540-5$. ${ }^{\text {wide. }}$ Shpg wt. 2 lbs Net Each
\$22.95


## $\$ 13^{95}$

(4) HORN LOADED COMPRESSION TWEETER

Actually the price belies the quality. Here is on exceptional value! some ocoustic design as used with the more expensive speoker 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 flot frequency response from 2000 to 20 .
 baffle cutout. $61 / \mathrm{s}^{\prime \prime}$ deep. Low-lustre block and metallic fold Shpa wt. $21 / 2$ lbs. American made. 34A524-9. Special Net Each
$\$ 11.95$
(5) EXPONENTIAL HORN TYPE MID-RANGE TWEETER Fills the need for mid-ronge horn in 3 -woy speoker systems or mid-ronge theatre systems. 2-way systems. Same type as used in costly home and horn with $3 \times 91 / 2^{\circ "}$ mouth reproduces $900-20,000 \mathrm{~Hz}$, smoothly, cleanly, and efficiently.. free of "humps" or "peaks" in the response curve, without distortion, and with high output to match even large woofers. $4 \times 10^{1} / 2^{\prime \prime}$ flange requires $3 \times 9^{\prime \prime}$ cutout. 20 wott power roting. Low-lustre block and metaile s.oide Sveroll lenath $11 / 1 / 2$

## BUILD 2 OR 3-WAY SPEAKER SYSTEMS WITH THESE B-A STEP-UP KIIS

## REGULAR B-A

 LOW COST \$18.31$\$ 1695$ 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 34A526-4 34A526-4. Wi.
Special Each


REGULAR B-A LOW COST \$48.85
${ }^{5} 45^{55}$
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 buitt-in L-Pads for mid-range and tweeter volume controls. Diagram included. Wt. 9 lbs.
34A535-5. Each ........................................ $\$ 45.95$

31 $\frac{1}{2}$ INCH TWEETER
$\$ 5^{95}$


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 $41 / 2 "$ dia. including mounting flange $41 / 2^{\prime \prime}$. No. $341 / 2$ ibs. American made. No. 34A466-3 Special Each


COMPARE AT $\$ 70$ to $\$ 100$ !

## SAVE! NORELCO HIGH-FIDELITY SPEAKERS

WORLD FAMOUS SUPER DELUXE 12-IM TWIM CONE SPEAKER

Famous twin-cone design with heavy, powerful 40 oz. magnet. Extra high flux density for exceptional transient response, maximum efficiency and damping. Conservatively rated 35 to $18,000 \mathrm{~Hz}$ with power handling capacity also conservatively rated 30 watts peak. V.C. 8 ohms. Shpg. wt. 10 lbs . 34A204-8
Special Each. $\$ 44.95$${ }^{2}$ For

## NORELCO 5 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. $11 / 4 \mathrm{lbs}$. 34A401-0
$\$ 5.79 \stackrel{10 \text { Eats }}{10}$
$\$ 5.39$

## 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. $1 / 2 \mathrm{lb}$.
Special
$\begin{aligned} & \text { Special } \\ & \text { Each } \ldots . . . \\ & \$ 4.29\end{aligned}{ }_{\text {Each }}^{10}$
$\$ 3.99$

## MULTIPLE IMPEDANCE AUTOMOTIVE SPEAKERS

For replacement or rear seat speaker installations. Readily adjusts for 10,20 or 40 ohm impedance. $4 \times 10^{\prime \prime}$. Heavy 2.15 oz . cup magnet. $3^{\prime \prime}$ deep. $1^{\prime \prime}$ voice coil. Average shpg. wt. 1 lb .
34A390-5. Each
$\$ 7.99$
$6 \times 9^{\prime \prime} .6 \mathrm{oz}$. ceramic magnet for 10 watts of power. Whizzer cone for extended range tone. $3 / 4{ }^{\prime \prime}$ V.C. Wt . $11 / 2 \mathrm{lb}$.
34C209-7. Each
$\$ 9.95$

## COMPARE B-A'S LOW PRICE ANYWHERE!



SUPER DELUXE $6 \times 9$ 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. $2^{1 / 2} 2^{\prime \prime}$ tweeter cone. 8 ohm. Shpg. wt. 2 lbs.
34A514-0. Each
$\$ 7.95$

## $6 \times 9$ INCH SPEAKER

WITH DUAL VOICE COILS
Connect to tape players and radios without a speaker switch. Wide response with cloth roll edge. 34A515-7. Each

## 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.
19A7108-3. Centralab PK-300. Each
$\$ 1.49$
19A7187-7. Wired Fader Control Kit. For intermixing front and rear speakers. Shpg. wt. 3 oz.
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-duty 10 oz , ferrite ceramic magnet produces 25 watts peak power. Freq, response $40-20,000 \mathrm{~Hz}$. Full $1, \mathrm{IV} \mathrm{V}$. C Imp. 8 ohms . Only
 No. 34A465-5.
Special Each $\mathbf{\$ 7 . 9 9} \quad 10$ Lots Each...... \$7.49 ${ }^{25}$ Lots $\begin{aligned} & \text { Each }\end{aligned} \mathbf{\$ 7 . 2 9}$ 246

## One of the best $5^{\prime \prime}$ speakers you'll ever hear! Excellent for auto stereo, replacement in TV or recorders, or tor building sweet sixieens. 5 oz. Ferroximpedance. shpg. wt. 1 lb . <br> No. 34A531-4 <br> No. <br> \$3.99 <br> ${ }_{\text {Each }}^{6}$ L <br> Norelco HIGH COMPLIANCE WOOFERS <br> WITH BUTYL-RUBBER ROLLED EDGE SUSPENSION <br> 12 INCH <br> $519^{95}$ EACH

$\$ 3.59$


The rolled rubber edge has to be one of the finest improvements ever made in woofer speakers. Sutperforms 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. $41 / 2 \mathrm{lbs}$.
34A547-0
Each.
$\$ 19.95$ Far
\$36.95
8 INCH WOOFER. 12 oz . very sensitive Ferroxdure magnet system. Bass response to $30 \mathrm{~Hz}, 20$ watt power rating. 8 ohm impedance, $31 / 2^{\prime \prime}$ deep. respon. wt. $21 / 4$ lbs.
Shper
No. 34A533-0
Each
$\$ 14.95 \stackrel{\substack{\text { Pair } \\ \text { For }}}{\text { P }}$
\$26.95


## HUGE SPEAKER, HUGE SAVINGS

## 15 INCH "BIG MOTHER" SPEAKER

Huge $15^{\prime \prime}$ 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 . $11 / 2^{\prime \prime}$ voice coil. 45 watts music power.
Each $\mathbf{3 4}$. $\$ 44.95$ Per
$\$ 79.95$

MINIATURE SPEAKERS FOR TRANSISTOR POCKET PORTABLES


## PERFECT FOR REPLACEMENT

 BUILDERS AND EXPERIMENTERS TOO:(1) Exact replacement 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 $1 / 4^{\prime \prime}$ behind panel. Mount by space saving clips. 8 ohm V.C. Top quality imports. Wt. 8 oz . 34A405-1. 2" Round 34A411-9. 21/2" Round 34A407-7. $21 / 4^{\prime \prime}$ Round 34A406-9. 23/4 " Round Choice $\$ 1.79$ Lots $\$ 1.59$ 34A548-8. 1" Round Sub-Miniature Each . $\$ 3.49$ 10 Ea . \$ $\$ 3.19$

## (2) SQUARE $11 / 2^{\prime \prime}$ PM SPEAKER

Measures only $11 / 2^{\prime \prime}$ dia, $\times 1^{\prime \prime}$ deep. Features amazing quality for its extreme small size. 3-8 | ohm |
| :--- |
| 34 A 410 -1. Precision import. Wpecial Each............. $\mathbf{\$ 2}$ |
| 19 | 34A410-1. Special Each

## SHIELDED AUDIO ADAPTOR BARGAINS Importio for bic savincs

##   <br> h <br> Q 12 A 601 -3 RCA Pin Jock to RCA Min Pock. Each. Each. <br> (1) 12 A60 $5-81 / 4^{\prime \prime}$ Phone Jock to Miniature Phone Plug. © 12 A6016-6 Phone Jock to RCA Pin Plug. Each. <br> (0) 12A6370-7 $1 / 8^{\prime \prime}$ Phone Jack to $1 / 4$ " Phone Plug. Each. <br> 1.29 <br> (8) 12A6017-4 Y-Connector. 2 RCA Pin Jacks to KCA Pin Plug. Each............ \$1.29 <br> (8) 12A6018-2 Y-Connector, 2 RCA Pin Jacks to RCA Pin Plug. Each............. \$1.29 (9) 12A6019-0 Universal Male or Female Mike to RCA Pin Plug. Each................. $89^{\circ}$ (it 12A6020-8 Universal Male or Female Mike to $1 / 4^{\prime \prime}$ Phone Jack. Each. (11) 12A6021-6 Universal Male or Female Mike to Miniature Phone Jack. Each... $99^{\circ}$

SHIELDED MINIATURE ADAPTERS
Converts miniature to sub-miniature and viće-
versa. Allows earsets or mikes with one size of
connector to plug into jacks of other size. Wt.


12A6070-3. Input .097" jack, output . $140^{\prime \prime}$ plug. Each
(1) Standard phone jack to RCA Phono ${ }_{12 \mathrm{~A} 6211-3 \text {. Each } \quad 79}$
2] Miniature phone jack to RCA Phono 12ack. ${ }^{\text {126212-1. }}$ Each...............79 ${ }^{\text {c }}$
3-PC. HANDY ADAPTER PLUG KIT
(II)


Easy way to convert parch cords to fit jacks on radios, recorders, amplifiers, etc. Adapts from miniature phone plug to standard RCA phono plug. from RCA phono plug to miniature phone plug and from miniature phone plug to standard $1 / 4^{\prime \prime}$ phone plug. Well made. Imported.

STEREO TO MONO ADAPTER

One end has $31 / 2 \mathrm{~mm}$ miniature plug, other end has stereo jack to accept regular 3 conductor $1 / 4^{\prime \prime}$ stereo plug. To connect stereo headphones to monaural radios, T.V., cassette recorders, etc. Shpg. wt. 3 oz . 12A6231-1.

## ALL-SHIELDED PHONO CONNECTORS



Mates with standard RCA pin plugs and receptacles. Completely shields circuit. Makes installation neat and easy. Cable plugs have shell $3 / 8$ " in " $1 / 4$ "/ long. Chassis type mounts in $1 / 4^{\prime \prime}$ hole in panels up to $1 / 8^{\prime \prime}$ plated construction. Av. Wt. 2 oz . (1) 12A6085-1.
(2) 12 A6086-9. Female Extension Jack. Each. (3) 12 A6087-7. Chassis Jack. Each.

$\qquad$ $\begin{array}{ll}59^{\circ} & 10 \mathrm{Ea} . \\ 59^{\circ} & 10 \mathrm{Ea}\end{array}$ (o)

"DIN" SERIES plugs FOR EUROPEAN EQUIPMENT
Fits audio input and output jacks on many recorders, radios etc. made by Norelco, Wollensak, Uher. Telefunken, Korting. Dual, Kuba, Sony. Shielded metal shell, plastic cover, built-in strain relief. 12A6066-1. Male Plug, 5-Pins, Special Each

## 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.
12AQ067-9. Pair For ......................................
12A6067-9. Pair For ................... 25 FOOT MIKE

## AUDIO EXTENSION CAble

##  <br> $\$ 359$

Standard 1/4" phone plug with plastic finger grip and portable jack molded to flexible plostic silver-grey shielded mike cable. Wt. I lb. Ib. $\$ 2.99$

## 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. $\$ 3.59$

## STEREO PATCH CORD

FOR NORELCO, WOLLENSAK, AMPEX MICRO
Mates 5 pin European input-output socket on recorder. Provides 4 phono plug
ed cables. Shpg. wt. 6 oz .
12A6321-0.
$\begin{array}{ll}\text { 12A6321-0. } \\ \text { Special Each } & \$ 5.69\end{array}$
10
Each
\$5.19

PRICED FOR LESS! MIKE CONNECTORS

## $79^{\prime}$

 EACH
(1) Standard $5 / 8^{\prime \prime}-27$ coble typ. with universal ring Use as male or female. ${ }_{12260032.3} 70 \quad 10$ Each ..... 79c Each $69^{\circ}$ (3) Standord mole chossis type. Eoch...23-1.69 $6^{\circ}$ Eoch.... 59 $9^{\circ}$ (1) Miniature Type. Same as used on many imported mikes. $7 / 16^{\prime \prime}$ O.D. Wt. 1 oz. Cable type with iniversal ring. Eoch..... ${ }^{12 A 6034-9.19}{ }_{\text {Eoch. }}^{10} \$ 1.09$


## MINIATURE



PLUG \& JACK SET
$\begin{array}{ll}\text { Tiny size. Measures only } 11 / 8 " \text { long } \\ \text { overall } x & \text { is } \\ \text { dia. Solder type for } 1 / 8 "\end{array}$ or smaller ${ }^{1 / 6} 2$ cond. or shielded wire. Jock mounts in $1 / 4^{\prime \prime}$ hole in panel up to th" thick. Wt. 2 oz .
WORTH AT
LEAST DOUBLE $\begin{gathered}12 A 6036-4 . \\ \text { Spec. Per Set }\end{gathered} 99^{\circ} \quad \begin{aligned} & 10 \text { Sets, } \\ & \text { Each } \ldots\end{aligned} 9^{\circ}$

## BIG SAVINGS ON $1 / 4$ " PHONE PLUGS



## HIGH QUALITY $1 / 4$ INCH PHONE PLUGS \& JACKS

 quality import. $1 / 2^{\prime \prime} \times 1-5 / 8^{\prime \prime}$ bakelite shell. Two-way with solder lug connec-
(1) FLAT TYPE PLUG. Two conductor. Use where space is limited. Protrudes only $1 / 4^{\prime \prime}$. Bakelite shell. screw con-12A6023-2. Ea. 79 ${ }^{\text {Each... } 72 ~}{ }^{\text {e }}$
(2) STANDARD TWO-CONDUCTOR PLUG. For 1 or 2 pairs of phones with either pin tip or lug type cords.
12A6024-0. 10 Lots. Each ..... 99 $9^{\circ}$ Each
(3) ALL METAL SHIELDED PLUG. An- (3) SLIM IN-LINE JACK. Two circuit type other top quality import value. $1 / 7^{\prime \prime} \times$ for phonc or mike extension use. Fits 1 1'" nickel plate brass shell. Two- standord $1 / 4^{" 1}$ phone plug. $13 / 4^{\prime \prime}$ long, $12 A 6025-7 . \$ 1.19^{10}$ Lots $\$ 1.091^{12 A 6028-1}$.
Each $\$ 1.19$ Each.. $\$ 1.09{ }_{\text {Each }}^{12 \mathrm{~A} 60}$
$69^{\circ}$ Each.
$63^{\circ}$

(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 $15 / 8^{\prime \prime}$ dia., $3 / 4$ " thick with $55^{\prime \prime}$ cable. Shpg. wt. 8 oz .
No. 29 A610-3.
No. 29 A610-3.
Special Each $\$ 2.39 \quad \begin{aligned} & 3 \text { Lots } \\ & \text { Each }\end{aligned}$
Special Each
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
$\$ 1.29 \quad 10$ Lots
99 ${ }^{\circ}$


$\$ 1$
79 MINIATURE CRYSTAL MIKES
Only $1^{\prime \prime}$ dia. $\times{ }^{33^{\prime \prime}}$ deep-perfect for concealed location uses. Also fine as replacement cartridge for regular crystal mikes. Extremely sensitive with good output. High impedance. Import made. Wt, 3 oz
TERRIFIC No. 29A3031-9
$\$ 1.79$
Value!
Special Each
$\$ 2.29$


MICROPHONE EXTENSION CABLE KIT WITH TWO ADAPTORS
25 feet of heavy duty shielded microphone cable with standard microphone connectors on each with standord microphone $1 / 4^{\text {" }}$ " phone plug or $1 / 4^{\prime \prime}$ end. Adoptors convert to P/ 4 system more flexible. Big Import Saving! Wt. 1 lb .
12A6316-0. Special Eoch.
\$3.99

MAGNETIC MOBILE MIKE HOLDER
Powerful ceramic magnet secures bracket to any steel surface, on transceiver or auto dosh. Fits all standard microphones equipped with hanger button.
No.29A3030-1.
$\$ 1.09$


SUPER VALUE! \$ 129 PILLOW SPEAKER

Fine sound quality for private listening. Metal case only $21 / 4^{\prime \prime} X^{3 / 4} 4^{\prime \prime}$ 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

$51 / 4^{\prime \prime} 5$ watt weatherproof speaker. Brown woodgrain appearance. Response 300 to $10,000 \mathrm{~Hz}$. Fine choice for intercom or paging. Tilting mounting bracket. 8 ohm . Shpg. wt. $1^{1 / 2} \mathrm{lbs}$. No. 34A7010-2.
Each
$\$ 11.95$


## HI-FI INTERCONNECTING CABLES



All top quality silver-grey audio cable with molded plugs. Used on music instruments, many amplifiers and speaker systems. ALL CABLES ARE 72" LONG. Shpg. Wt. 6 oz
(1) 12 A $6326-9$. $1 / 4^{\prime \prime}$ " Phone Plug to Mike Connector. Net Each......... $\$ 1.39$
(2) $12 A 6327-7$. $1 / 4^{\prime \prime}$ Phone Plug to Right Angle RCA Plug. Net Each. $\$ 1.39$ (3) 12 A6328-5. $11 / 4^{\prime \prime}$ " Phone Plug to Right Angle RCA Plug. Net Each. $\$ 1.39$


## COILED HI-FI CONNECTING CABLES

No more unsightly dangling cords. Coiled audio cobles 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. $36^{\prime \prime}$-RCA plugs one end, stripped other end. Net Each. $\$ 1.39$ 12A6331-9. $72^{\mu}$-RCA plugs one end, stripped other end. Net Each.. $\$ 1.49$ 2. 12A6333-5. 72"-RCA plugs both ends. Net Each.
\$1.79


## 72 INCH AUDIO HI-FI CONNECTING CABLES

WITH MINIATURE PLUGS
Finest quality shielded silver-arev audio cables, plostic covered. All quality imports. Works with most Joponese recorders and radios. Average shpq. wt . $1 / 2 \mathrm{lb}$. ${ }^{1}$ Minioture molded plug one end to molded RCA type jack other end. 12A6310-3. Each
(3) Minioture molded plug one end to standard molded phone plug other end.

12A6311-1. Each
3) Minioture molded plug one

12A6312-9. Each plug one end to RCA type pin plug other end. $\$ 1.59$
(1) Miniature molded plug one end to standard shielded inline jock other end.

12A6313-7. Each.
. $\$ 1.89$

## PERSONAL PILLOW

 SPEAKERFine sound quality for private listening. Ceramic element and plastic diaphragm fitted into $2^{1 / 4} 4^{\prime \prime}$ diameter case. $60^{\prime \prime}$ cord, standard $1 / 8^{\prime \prime}$ plug. fits most radios and recorders.
No. 53A6710-4
Each
$\$ 2.19$
$\$ 2^{19}$


## WITH SLIDE CONTROLS <br> Two headphone jacks to operate 2 pairs of headphones at the same time. 15-ft. coiled cord with plug. $\$ 9.95$ $53 A 6708-8$. Each ..... $\$ 9.95$ <br> STEREO HEADPHONE EXTENSION CORD <br>  <br> 25 Ft. 3-Cond. Coiled Cord. With 3 <br> 

 circuit plug and jack. Wt. 10 oz. 12A6360-8. Each20 Ft. Gray Extension. With plug and jack but straight cord. Wt. 8 oz . 12A6322-8. Each ....... \$2.99

Connects to amplifier speaker terminals. Has change-over switch for speaker or "phones, stereo phone jack, $36^{\prime \prime}$ leads. In gray plastic enclosure. Built-in attenuator prevents headphone overioad. Finest import. \$4.95

REMOTE CONTROL STEREO LISTENING STATION 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 $43 / 4 \times 2-7 / 8 \times$ $1.9 / 16^{\prime \prime} \mathrm{H} . \mathrm{Wt}_{\mathrm{t}} 2 \mathrm{lbs}$.
\$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 $21 / 2 \times 2^{\prime \prime}$ plate, with black plastic knob. Mouns 3 panels to $3 / 4$. Wt. 3 oz .
(2) Multiple Speaker Switch. For centralized "on-offi.............................. $\$ 2.69$ (3) Multiple Speaker Switch. For centralized "on-off" control of up to 6 remote speakers. $31 / 2^{\prime \prime}$ W. $\times 25 / 8^{\prime \prime} \mathrm{H}$. gold tone mtg. plate with 6 SPDT slide switches. Requires $11 / 1 c^{\prime \prime}$ behind panel. Wt. 4 oz .
19 A7183-6. Special Each
19 A 183-6. 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. $1 / 4^{\prime \prime}$ shaft. $3 / 8^{\prime \prime}$ long, $3 / 8^{\prime \prime}$ bushing. Shpg. wt. 6 ozs,
14 Al136-5. Special Each............ $\$ 2.19$

## 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 mig. 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 out put. High quality 3 -way plug and 12A6320-2. Special overall 2A6320-2. Special
\$2.99


Each

## closed circuit stereo phone jack only

Fits $1 / 1 / 2$ or 3 circuit plug. Can be wired to disconnect speakers when plug is inserfed.
12A6091-9. Each

Each
89

## POWER PLUGS AND ADAPTORS FOR IMPORTS


(1)12A6064-6 Coaxial Power Plug. Standard for many walkie-talkies, recor ders, radios. 1 large 2.5 MM and 1 small 2.1 MM plug. Easily attached to power supply leads. Wt. 3 oz. Special, Pair
(2) 12A2492-3 Power Plug Adaptor. One end like 2.1 MM above, other has fack tor sub-miniature $.097^{7}$ phone plug. Each . ......................... . 99

## INDOOR FM DIPOLE ANTENNA

## $\$ 77$

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

## JIFFY PHONE PICKUP COIL <br> \$ <br> 

Jiffy suction cup attaches to side of telephone or to back of handset. Does not interfere whith relephone oferation. With Giant import
No. 11A1057-6
Special Each
$\$ 1.99$


## 4-CHANNEL

 TRANSISTORIZED Audio Mixer Amplifier FOR RECORDING, $\$$ AUDIO 195 EXPERIMENTINGAdopts one to 4 high impedance sound sources, microphones, funers, phonographs, recorders, etc., into a single high impedance input at your recorder or amplifier. Hum-free battery powered wide range tronsistor amplifier provides additional gain as desired. Separate gain controls for each channel allow mixing cnd fading without interoction. Input jacks ore standord phone plug type; output, phono pin jack in gold finished case $57 / 8 \times 23 / 4 \times 2^{\prime \prime} \mathrm{H}$. with brown and gold 29A411-6. Imported at Big Savings. Special Each
$\$ 19.95$
STEREO VERSION OF ABOVE. Some 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 omplifier. Shpg. wt. 2 lbs. 29A3027-7. Import Special
\$20.95

## FINE MICROPHONE ACCESSORIES

## B-A LEADER VALUE MIKE FLOOR STAND

Full size bross tube stem is hiog-iloss double chrome \$ plated. Easily adjustable from $35^{\prime \prime}$ to $64^{\prime \prime}$ in height by
simple, damage-proof one-hand clutch, without mar or simple, damage-proof one-h
scratch on the chrome tubes.

## scratch on the chrome tubes.

Weighted $10^{\prime \prime}$ dia. base is finished in baked wrinkle enamel, has pads to prevent floor mars. $5 / 8^{\prime \prime}-27$ thread. Shpq. wt. 9 lbs.
29A7008-3. Net Each

## DESK MIKE STAND

Beautifully made import with $5 / 8^{\prime \prime} \times 27$ thread to fit all standard mikes. Gray plastic 5 inch diameter base with chrome finished $31 / /^{\prime \prime}$ rod. Stays upright even with heavy mike. Shpg. wt. 29B228-4. Special Each h ......... \$2.99

## BOOM ATTACHMENT

Centers mike over pickup orea. Attach to $5 / 8^{\prime \prime}$ 27 stand. For piano and similar uses where regular mike stand can't be used. 32 inch chrome plated boom. Wt. $31 / 2 \mathrm{lbs}$.
29A7000-0. Net Each
. 8.99

## SLIDE-IN MIKE STAND HOLDER

Fits threaded $5 / 8^{\prime \prime}-27$ stand. Holds securely yei allows quick removal of mike for hand held use. Wt. 2 ovs.
29A3028-5 -For 7/8" Mike
$29 A 3029-3$-For $1^{\prime \prime}$ Mike
Your Choice Each
$\$ 1.99$
$\$ 11.99$
$\$ 299$ GET MORE STAND FOR THE MONEY!

## MURA TAPE RECORDER MICROPHONES



DX-211B. High quality microphones at moderate cost. Black and chrome finish. Miniature plug with adapter to convert to standard $1 / 4^{\prime \prime}$ phone plug. Has on-off switch. Impedance: 500 ohms. Sensitivity: -70dB @ 1 KHz . Response: $60-12$ 000 Hz . $5^{\prime}$ cable. Shpg. wt. $1 / 2 \mathrm{lb}$.
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: -70 dB @ 1 KHz . Response: $60-12,000 \mathrm{~Hz}$. Remote switch and 5 -foot cable. Shpg. wt. $1 / 2 \mathrm{lb}$.
29A762-2. Each
\$6.95

DX-109B For recorders that require a high impedance microphone. Has remote switch, plasfic stand and 5 ft . cable. Sensitivity -61 db at 1 KHz . Response $50-10,000 \mathrm{~Hz}$.
29A783-8. Each $\qquad$
$\qquad$ \$6.95


## DYNAMIC DUAL IMPEDANCE MIKE

Beautiful and very practical. Combines good looks, excellent performance and fine quality. Built for general purpose work wherever appearance and sound both count. Response $50-15,000 \mathrm{~Hz}$, output -55 db . impedance 600 or 50 K ohms. Fits 5/8-27 stand. Has on-off switch and detachable 20 ft . cable. Size $81 / 2 \mathrm{X}$ $11 / 2^{\prime \prime}$ max. dia. Brushed chrome with black perforated grille. Shpg. wt. 2 lbs. 29B259-9. Special Each
\$24.95

## PROFESSIONAL

 DYNAMIC MICROPHONE- High impedance: 50 K ohms.
- Low impedance: $\mathbf{2 0 0}$ ohms
- Response: 35-15,000 cps.


## \section*{Cardioid paftern.} <br> ${ }^{5} 29^{95}$

Designed with a spherjcal front filter for professional use Pickup pattern is highly unidirectional to reduce any chance of feedback.
Frequency response $35-15,000 \mathrm{~Hz}$. 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
\$29.95


## SAVE! CERAMIC MIKES



## MINIATURE LAVALIER DYNAMIC MIKE

Very high quality - brushed chrome finished. Only $5 / 8^{\prime \prime}$ dia., $31 / 4^{\prime \prime}$ long and weighs less than 2 oz . Frequency response $50-15,000 \mathrm{~Hz}$. Output level -55 db , high impedonce. Has detochoble 10 ft , coble and lovalier neck cord. Mike slips out of clip for 29A504-8
Special Each $\quad \$ 14.95$


SAVE OVER 50\%!

## RECHARGEABLE MI-CAD

 PENLITE CELLCondenser 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.

## 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 than most dynamic microphones. Unique generating element offers extremely high output for the highest possible signal-to-noise ratio. Frequency Response: 30 $16,000 \mathrm{~Hz}$. $\mathrm{S} / \mathrm{N}$ ratio: Greater than 44 dB . With $15^{\prime}$ 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: $(1 \mathrm{kHz})-66 \mathrm{~dB}$. With stand adapter. Shpg. wt. 2 lbs.
29A759-8. Each
$\$ 49.95$

## UNIDIRECTIONAL

## PATTERN

$$
{ }_{5} 4^{55}
$$

A great versatile, high-quality micro phone. Finished in brushed aluminum. Complete with a swivel mount stand adaptor, wind screen, and 15' 2-conductor shielded cable with a standard phone plug. Frequency Response: 50 Complete with I "AA" polar pattern. Complete with 1 "AA" pen cell battery. Impedance: 600 ohms. Output level: $68 \mathrm{~dB}+3 \mathrm{~dB}$ at 1 kHz . Battery life: 6000 hours in continuous operation.
Shpg. wt. 1 lb .
29A760-6. Each
\$24.95

Frequency response $30-14000 \mathrm{~Hz}$. Uses 1 Penlight battery. 20 ft . cable. Output level $68 \pm 3 \mathrm{db}$. Impedance 600 ohms. with wind screen and stand holder to fit standard 5/8-27 stands.
No. 29A734-1
Each
\$39.95

## SUPERSCOPE CONDENSER MICROPHONES

## (1)


(1) Omni-directional electret condenser type microphone. Frequency response 60 Hz to 13 KHz . Output - 52 dB . Uses AA battery. Complete with 10 feet of shielded cable with miniature phone plug and desk stand. Size: $.693^{\prime \prime} \mathrm{D} \times 4^{\prime \prime} \mathrm{L}$. Shpg. wt. 2 lbs.
29A781-2. Model EC-1. Each
\$14.95
(2) Cardioid pattern electret condenser microphone. Frequency response 50 Hz to 15 KHz . Output -52 dB . Uses AA battery. Complete with 10 feet of shielded cable with miniature phone plug and slip-on type desk stand. Size: $.866^{\prime \prime} \mathrm{D}$. x $7^{\prime \prime} \mathrm{L}$. Shpg. wt. 2 lbs .

## 29A782-0. Model EC-3. Each

$\$ 19.95$


## MURA ELECTRET CONDENSER LAPEL MICROPHONE

Omnidirectional. Slim, lightweight, anodized finish. Frequency response: $30-16,000 \mathrm{~Hz}$. Uses 1 E675 mercury battery (included) which gives approx. 600 hours in continuous operation. 10 ft . cable. Output level $-72 \mathrm{~dB}($ 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 $18,000 \mathrm{~Hz}$. power rating 20 watts above crossover frequency of 4000 Hz . Impedance 80 ohms. Size: $4^{1 / 4}{ }^{\prime \prime}$ dia., $1^{\prime \prime}$ deep. 34 A550-4. Shpg. wt. 1 lb . Each
\$4.50

## RECESSED L PAD

Flush mount, recesses in enclosure or control panel so no knob is projecting. 8 ohm , heavy-duty.
34A55 1-2. Shpg. wt. 8 ozs. Each
\$3.15
 Standard AA penire size 1.2 V replaces penlite cells in 1.5 volt applications. Usually sells for twice our price. Shpg. wt., 10 cells 1 lb 21A5106-5. \$1.49 10 Each .... \$1.49 Each \$1.29

## PHOTOELECTRIC OPTICAL SENSOR

Invisible infra-red, pulse modulated beam operates with up to 150 ft . separation of transmitter and receiver. When beam is broken a relay closes or opens, depending on the contacts used. All solid state. Will,trigger either closed or open circuit loop alarm systems. No alarm device is included in this sensor. May be powered by one 10 to 17 volf
DC supply, or by a 9 volt standby battery in each unit. Receiver requires 25 mA , transmitter 75 mA at 12 VDC. Receiver size $4 \times 21 / 8 \times 11 / 2^{\prime \prime}$, transmitter $21 / 2 \times 121 /{ }^{\prime}$ $\times 11 / 2^{\prime \prime}$. Shpg. wt. 2 lbs .
41A4175-7. Receiver and Transmitter
$\$ 117.00$
21A305-8. 9 volt battery ( 2 required) Each $89^{\circ}$
9.95

## FLUSH MOUNT ALARM SYSTEM



## Low cost, easy-to-install system for apartments,

 homes, offices, 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 $10 \mathrm{sec}-$ ond 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: $4-3 / 8 \times 41 / 2 \times 23 / 4$ "D. Shpg. wt. 2 lbs.41A4176-5. Each
$\$ 54.00$

## INFRARED DOOR ANNOUNCER

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 $1 / 2$ 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: $3 \times 3.2 \times 1.6^{\prime \prime}$. Shpg. wt. 2 lbs.
41A4174-0. Each
$\$ 87.50$


## SOLID STATE 2 WATT MONAURAL AMPLIFIER <br> ${ }^{5} 15^{95}$



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 200 mV . Frequency response $30-20,000 \mathrm{~Hz}$ $\pm 3 \mathrm{~dB}$. Operates from 115 VAC . Has AC line cord and fused power supply. Size: $6 \times 2-3 / 8 \times 13 / 4^{\prime \prime}$. Shpg. wt. 2 lbs .

## 18A1719-4. Each

$\$ 15.95$


## ULTRASONIC TRANSDUCER $5)^{25}$

For remote control of lights, bells, garage doors. Turns appliances and TV's on and off from a distance of $10-20 \mathrm{ft}$. 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

## FANTASTIG INTERCOM SALE!

## GENERAL DYNAMICS SIGNETTE <br> INTERCOM SYSTEMS

## prices below distributors regular costsi

## TWO STATION SYSTEM

American made. All solid state circuitry and throughly modern in every design and beige plastic volume control. Operates from 120 V .60 Hz . Remote station may be connected for either privacy or hands-free operation. Installation and operafion manual included. Less cable. Shpg. wt. 5 lbs .
18A1698-0. Signette Intercom System. Each
$\$ 14.95$ 18C1699-8. 3-Wire Cable for above. $\quad 50$ Ft. . $\$ 2.75 \quad 100 \mathrm{Ft}$. $\$ 4.95$

## 3-STATION MASTER-TO-REMOTE SYSTEM

One master, two remotes with 100 ft . of cable. Master can talk to any station. Remote can call master only. Private or non-private operation. Shpg. wt. 10 lbs. 18A1728-5. 3-Station System. Each . . . . . . . . . . . . . . . . . . . . . . \$19.95

## 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 . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 39.95$
18A1717-8. Additional Master Station. Each ....................... . $\$ 12.95$ 18A1718-6. Additional Remote Station. Each . . . . . . . . . . . . . . . . . . . $\$ 4.95$ 18A1699-8. Additional Cable for Master-To-Remote 18A1699-8. Add
Systems. 100 Ft . \$4.95

3-STATION SYSTEM


## MASTER-TO-REMOTE




3 STATION MASTER-TO-MASTER SYSTEM
Any master can talk to any other master. Use 8 -wire cable listed below to connect each station. Shpg. wt. 7 lbs .
18A1729-3. 3-Station System. Each
\$29.95
4-STATION MASTER-TO-MASTER SYSTEM
Use 8 wire cable listed below to connect each station. Shpg. wt. 12 lbs. 18A1730-1. 4-Station System. Each $\$ 39.95$

## 5-STATION MASTER-TO-MASTER SYSTEM

Use 8 -wire cable listed below to connect each station. Shpg. wt. 20 lbs.
18A1724-4. 5-Station System. Each . . . . . . . . . . . . . . . . . . . . . . . $\$ 49.95$
2A9917-4.8-Wire Cable for Master-to-Master Systems. 100 Ft. .. $\$ 18.05$


[^8][^9]CATALOG INDEX BY ITEM




 Outler Boxes
PSB Radios . . . . . . . . . . . $48,49,51,54$

Paging Systems ..... | 188 |
| :---: |
| 4. 185 |
| 185 |


Parts CabinetsPatio SpeakersPedestals, T-V
Phono Arms \& Cartridges ................... $16,83,244$Phono Accessories $\ldots . .73,81,149,244$
Phono Stylus
Phono Stylus
Phono Tips, Jocks \& Plugs $\ldots 1.1 .148,148$
Phon
$151,233,247$
Phono Turntables - . . . . 113 10-15,95
Photo Cells $\ldots . . . . . \quad 113,230,231.25$
Photo Electric Switches
Photo Electric Switches

Photofacts, Sams
Plilow Speaker
Plastic Spray
Pliers ....
Multicontact $\ldots . . . . .148,149-152,247$
$\begin{aligned} & \text { Phone \& Phono } \\ & \text { Power }\end{aligned}$ 148, $151,24,151,159,243,249$
Power . ...... $148,151,159,243,249$
Telephone . . . . . . . . . . . . . 88

Potentiometers $\ldots \ldots \ldots \ldots$
Power Cons
122,123
Power Connectors $\ldots . . . .6 \quad 67,215,24$
Power Converters
Power Converters
Power Failure
Pight
Power Failure Light . . . . . . . . . . . . . 115
$\begin{aligned} & \text { Power Meter . . . . . . . . . . . . . . } \\ & \text { Power Saws . . . . . . . . . } \\ & \text { Po }\end{aligned} 129$
\(\begin{aligned} \& Powerstats <br>

\& Power Supplies\end{aligned} . . . . . . .\)| 127 |
| :--- | 129.129 .177,


Printed Circuit Kits . ........... 141-145
Artwork

Edge Connectors ....... 142,145,152
Materials
$\begin{array}{ll}\text { Probes \& Prods } \ldots \ldots \ldots . . & 170,171,174 \\ 178,179,196\end{array}$


Punches … 19................... 192
Quick Circuits
Quick Pick Tools
R-C Bridge
Robbit Ears
Robbit Ears
Rack Panels
Rodor
Rador Delector
RADIO SETS, Auto
Rhassis.
Citizens Band ........7.7.2.206,210-214
Communications

Marine
Marine
Multiband
208
$48-51.54$
50.200 .207
Sconners $\left.\ldots \ldots . . . . . . . . \begin{array}{r}50,206,207 \\ \text { Readout Tubes .......... } 107,239,243\end{array}\right)$
RECEIVERS $\quad\left\{\begin{array}{l}\text { Reamer } \\ \text { RE }\end{array}\right.$
Receptacles.... $147,149,151,159,162$
RECORD Accessories ...... $73,81,244$
Bible \&
Bible \& Languas
RECORDERS, Tope $\ldots . .4 .{ }^{2}-45.47 .54$

Recor
Tape
Tape

Rectifiers..... 109.111-113,230,231
Reed Switches ................23
Regulated Power Supplies $127-129.215$
Relay Racks, Panels ...........164 132 -136.204,235
REtAYS
Remote Control Devices $\quad 95,157$

Resistors, Fused
Revolving Light
Revolving light
R.F. Chokes ...
$\begin{array}{ll}\text { R.F. Connectors ...... } 68,162,225,2 \\ \text { Rivet Tools } & 137.21\end{array}$

Rock Tumble
Router Attachment
204.277

## CATALOG INDEX BY ITEM



## MANUFACTURERS INDEX



## 3 CONVENIENT WAYS TO SHOP

 WITH 24 Aubora, color doo CATALOGS!(303) 755-3257

BOULDER, COLORADO

- Base-Mar Shpg. Ctr.
(303) 499-7250

COLORADO SPRINGS, COLO.

- The Citadel Shpg. Ctr.
(303) 596-7200

DENVER, COLORADO

- 800 Lincoln St. (303) 222-8986
- Lakeside Shpg. Ctr.
(303) 433-6826
- 9797 West Colfax (303) 238-1369

ENGLEWOOD, COLORADO

- Cinderella City Shpg. Cir. (303) 789-4401

LITTLETON, COLORADO

- Southglenn Shpg. Center (303) 795-0941

KANSAS CITY, KANSAS

- Indian Springs Shopping Center (913) 287-9400

OVERLAND PARK, KANSAS

- 6808 W. 75th (913) 262-9535
- Metcalf South Shopping Center (913) 381-0700
- Oak Park Shopping Center (913) 888-8875

INDEPENDENCE, MISSOURI

- 1004 Independence Center (816) 795-0666

KANSAS CITY, MISSOURI

- 3199 Mercier (816) 756-1218
- 301 Eust 55th (816) 363-8700
- Antioch-Vivion \& Chouteau (816) 454-3200
- Blue Ridge Shopping Center (816) 358-8550
- Stereo Mart 3190 Mercier (816) 756-2596
- Pro-Industrial 3188 Mercier (816) 756-2525
- Crown Center Shops (816) 471-2211
- Ward Parkway Shpg. Ctr. (816) 361-7555

LEE'S SUMMIT, MISSOURI

- Summit Shopping Center (816) 524-6100


## SPRINGFIELD, MISSOURI

- Plaza Shopping Center 1904 S. Glenstone (417) 883-2324


## TOLEDO, OHIO

- Southwyck Shpg. Ctr. (419) 865-0276
- Woodville Shopping Center (419) 693-0451


## DALLAS, TEXAS

- Valleyview Shopping Center (214) 387-4378
- Town East Shopping Center
(214) 279-6735
- Six Flags Mall
(817) 640-4546


Visit the exciting, well stocked, fully staffed B-A store nearest you. There you will find the ultimate in displayed merchandise, low prices and wonderful, helpful personal service. Our sales people are ready to serve you.

BURSTEIN-APPLEBEE ASSOCIATE STORES: TUCSON, ARIZ. HAYS, KANSAS NORMAN, OKLA. TULSA, OKLA.

- 5032 E. Broadway (602) 795-4010
- The Mall
(913) 628-2615
- 1337 E. Lindsey (405) 364-5335
(Opening October, 1976)
- 6353 E. 41st (918) 622-2520

SHOP AT HOMEI
FOR CONVENIENT MAIL ORDER SERVICE CALL.
(816) 756-2525

BURSTEIN-APPLEBEE 3199 MERCIER KANSAS CITY, MO. 64111


# B-A SLASHES THE HIGH COST OF CREDIT! 

## you now have the OPPORTUNITY TO HAVE A CHARGE ACCOUNT THAT IS EREE OF ANY FINANCE CHARGE

1. The Four Payment Plan can be used on orders of $\$ 100.00$ or more.
2. You pay $25 \%$ of the full amount when you submit your order.
3. The remaining amount (plus shipping charges) is to be paid in three equal payments spread over four months.
4. In the event that your account is not approved, your down payment will be fully refunded immediately.
5. If you pay in accordance with the Four Payment Plan terms, there is NEVER any finance charge.

## TO OPEN A FOUR-PAYMENT NO FINANCE CHARGE ACCOUNT FOR PURCHASES OF \$100.00 OR MORE . . . .

1. Fill out the credit application on the back of the order form and check the 4 -pay box.
2. Be sure to sign the application. NOTE: If the information on your spouse is not filled in, only you will be authorized to charge on the account.
3. " $X$ " in the Four Pay square on the order form.
4. Fill in your order ( $\$ 100.00$ or more) and mail it to us with the $25 \%$ down payment for immediate processing.

If at any time you should have any questions regarding your account please contact the ...

## Credit Department

## Burstein-Applebee

3199 Mercier
Kansas Cify, Mo. 64111
OR PHONE BETSY ADAMS, 816-756-2525
MONDAY THROUGH FRIDAY
8:30 AM TO 4:30 PM

## DISCLOSURE OF CREDIT COST FOR BURSTEIN-APPLEBEE FOUR PAYMENT CREDIT PLAN

1. One-fourth of the cash sale price is to be paid simultaneously with the receipt of the merchandise and thereafter three monthly payments (each being for one-fourth of the cash sale price) are to be made, each within 30 days after the billing date that will appear on the monthly statement of the account. The first billing date will not be less than 30 days after the date of the shipment of the merchandise and the first payment will not be due until at least 60 days after the merchandise has been shipped.
2. If payments are made in accordance with the schedule described above NO FINANCE CHARGE will be imposed upon this account.
3. In the event payments are not made in accordance with the schedule described in paragraph one, a F1NANCE CHARGE will be imposed, as follows:
A. The FINANCE CHARGE will be imposed on the outstanding balance of the account after deducting current payments and/or credits 30 days after the defaulted billing date.
B. The FINANCE CHARGE will be determined by multiplying the balance due at the last billing date, after deducting current payments and/or credits, by $11 / 2 \%$ on all sums to $\$ 500.00$ and $3 / 4 \%$ on all sums in excess of $\$ 500.00$. A minimum FINANCE CHARGE of $50^{\text {c }}$ per cycle will be charged.
C. A periodic rate of $11 / 2 \%$ will be charged on all balances to $\$ 500.00$, yielding an ANNUAL PERCENTAGE RATE of $18 \%$.
D. A periodic rate of $3 / 4 \%$ will be charged on all balances over $\$ 500.00$, yielding an ANNUAL PERCENTAGE RATE of $9 \%$.
4. Burstein-Applebee $\mathrm{C}_{0}$. retains title and a security interest in all merchandise purchased on the Four Payment Credit Plan until the entire balance, including FINANCE CHARGE, if any, is paid in full. Any items fully paid for will not be subject to a security interest.
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 $\mathrm{C}_{0}$.., 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.

## 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 electronic enjoyment. Use the handy B-A Order Blank, fill in your Revolving Charge Account Number and sign in the space provided.
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

|  |  |
| :---: | :---: |
|  |  |
| Federal Truth in Lending Act requires prompt correction of balling mistakes |  |
| 1. If you mant to preserve your rights under the Act here's what to do it you think your bifl is wrong ofyou need more information about an tiem on your bitt |  |
|  |  |
| Send your billing error notice to Burstein-Applebee 3199 Mercier Kansas City. Missouri 64111 Aftention Ms. Betsy Adams |  |
| Mail it as soon as you can, but in any case. early enough to reach Bursten-Applebee within 60 days atter the bill was mailed to you if you have authorized your bank to automatically pay from your checking or savings account any credit card bills from the bank. you can stop or reverse payment on any amount you think is wrong by mailing your notice so Burstein-Apolebee receves it within 16 days after the bill is seat to you. However, you do not have to meet this 16 day deadine to get Burstein Applebee to investigate your billing error claim |  |
| 2. Burstein-Applebee must acknowiedge all letters pointing out possible errors within 30 days of recept unless it is able to correct your bill during that 30 days Within 90 days after receiving your letter, it must either correct the error or explain why it believes the bilt was correct Once Burstein-Applebee has explained the bill, it has no further obligation to you, even though you still believe that there is an error, except as provided in Paragraph 5 below. |  |
| 3 After Burstein-Applebee has been notified. neither Burstein-Applebee nor their aftorney. nor collection agency may send you collection letters or take other collection actions with respect to the amount in dispute. but periodic statements may be sent to you. and the disputed amount can be applied against your credit limit You cannot be threatened with damage to yoyr credit rating or sued for the amount in question, nor can the disputed annount be reported to a credit bureau or other credinas applebee has answered your inquiry. However, you femain obligated to pay the parts of your bill not in dispule. |  |
| 4. It it is determined that B-A has made a mistake on your bill. you will not have to pay any finance charges on any disputed amount. If it turns out that Burstein-Applebee has not made an error, you will have to pay finance charges on the amount in dispute and you will have to make up any missed minimum or reApplebee must send you a written notitication of what you owe and if it is determined that BursteinApplebee did not make a mistake in billing the disputed amount. you must be given the time to pay which you normally are given to pay undisputed amounts before any more finance charges or late payment charges on the disputed amount can be charged to you |  |
| 5. It Burstein-Applebee's explanation does not satisly you and you notily Burstein-Applebee in writing within ten (10) days after you receive the explanation that you still refuse to pay this disputed amount. Burstein-Applebee may report you to the credit bureau and other creditors and may pursue regular collection procedures But Burstein-Applebee must also report that you state that you doo noe rewe money and it must let you know to whom such reports were made Once the matter has been settied subsequent resolution |  |
|  |  |
|  |  |

## DISCLOSURE OF CREDIT COST <br> 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 imposed.
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 50 c per cycle will be charged.
4. A periodic rate of $\mathbf{1 - 1 / 2 \%}$ will be charged on all balances to $\$ 500.00$, yielding an ANNUAL PERCENTAGE RATE of $\mathbf{1 8 \%}$.
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 $\mathbf{\$ 1 0 . 0 0}$ (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 PAYMENT TABLE |  |  |  |
| :---: | :---: | :---: | :---: |
| MONTHLY PAYMENT | HIGHEST ORIGINAL UNPAID BALANCE | MONTHLY PAYMENT | HIGHEST ORIGINAL UNPAID BALANCE |
| BALANCE | \$.01-10.00 | \$30.00... | \$250.01-300.00 |
| \$10.00... | 10.01-100.00 | 35.00 | 300.01350 .00 |
| 15.00 | 100.01-150.00 | 40.00 | 350.01-400.00 |
| 20.00 | 150.01-200.00 | 45.00 | $400.01-450.00$ |
| 25.00 | 200.01-250.00 | 50.00 | 450.01-500.00 |


| If at any time you should have any ques- |
| :--- |
| tions regarding your account please contact |
| the $\ldots$ CREDIT DEPARTMENT |
| BURSTEIN-APPLEBEE |
| 3199 MERCIER |
| KANSAS CITY, MO. 64111 |
| Phone 816-756-2525. Monday thru Friday |
| 8:30 AM to 4:30 PM |

If at any time you should have any ques-
tions 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 EA'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 | zome | Zip Code Profixes | zone | \|l|lip $\begin{aligned} & \text { Zip Code } \\ & \text { Prefixes }\end{aligned}$ | zone | Zip Code Prefixes | Zone | Zip Code Prefixes | . Zone | 2ip Code Prefixes | zone |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| cos-0 | 8 | 308-326. | 5 | 498 | 4 | 620-62 | 3 | $725-7$ 734 |  | $850-853$ | ${ }_{5}$ |
| 010-046 | 7 | $327-339$ |  |  |  | ${ }_{6}^{624} 83.63$ |  | ( ${ }_{\text {734-736 }}^{737} \mathbf{7 3 8}$ |  |  | 5 |
| 047 | 7 | 350-359. | 5 |  |  | - 625 -834. | ${ }^{2}$ | 739 | 4 | 865-8 | 5 |
|  |  | - 369.374. |  | 510-514. | 3 | 636-639. | 3 | 740-746 |  |  | 4 |
| 100-129. | 6 | 376-379. |  | 515-516 | 2 | 840-61. | 1 | 74 |  | ${ }_{888}^{88}$ | 5 |
| 130-13. | ${ }^{5}$ | 330-394. | 4 | - |  | -644-605. | 1 | 748-749. $750-768$. |  | ${ }^{89} 9$ | 6 |
| 133-136 |  | ${ }_{396}^{39}$ | 4 | 53880 | 3 | 647 |  | $769-77$. |  |  |  |
| (137-179. | . 6 |  |  | 539-560. | 4 | 648-653 | 2 | 778 |  | 900-933 |  |
| 182 | 3 | 400-410. | 4 | 561 | 3 | 654-655 |  | 779-790. |  |  | ${ }_{6}$ |
| 183 | 6 | 411-412 | 5 | 562-566. | 1 | 656-658 | 2 | 790-796. |  | ${ }^{935-9355}$ | , |
| 184-188 | 5 | 413-414. | 4 | ${ }^{567}$ | 5 | ${ }^{600-662}$. |  | 797-790 | 5 | 956-958. |  |
| 109-194. | 5 | 415-412 | 5 | ${ }^{570-5}$ | 4 | ${ }_{\substack{6 \\ 675-672}}^{674}$ |  |  |  | 959-960. | $7$ |
| 195-19 | 5 | $420-432$ 433 | 4 | $\begin{aligned} & 583 \\ & 58-585 \end{aligned}$ | 5 |  | 4 | $800-812$ $813-816$ | 5 |  | ${ }_{6}$ |
| 200-217 | . 5 | $434-436$ |  | 560-595. | 5 | 678 | 3 | 820-822. | 4 | $962-986$ |  |
| 218 | 6 | 437-49. | 5 | 596-599. | 6 | 679 | 4 | ${ }^{823-820 .}$ | 5 | 967-999. | 8 |
| 219-278 | 5 | 150-45s. | 4 |  |  | 680-685. | 2 |  | - 4 | 970-970 | 7 |
| 279 | 6 | 456-157. | 5 | 600-611 |  | ${ }^{686}$-689. | 3 | ${ }_{823} 82$ | 5 | 97-979. | ${ }_{7}^{6}$ |
| 260-299. | 5 | 450-479. | 4 | ${ }^{612}$ | 3 | 690-693. | 4 |  | 8 | ${ }^{98898984}$ | 6 |
|  |  | 480-487. | , 5 | ${ }^{613}$ | 3 |  |  |  | 6 | p9s-m9. | 8 |
| ${ }_{3}^{300-300}$ |  | 489 | ${ }_{5}$ | -17-819. |  | 710-724. | 4 | 840-847 | 5 |  |  |

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 $\mathrm{lbs}, 84$ inches to any 1st class Post Office in Zones 1 to $8.70 \mathrm{lbs}, 100$ inches to any 2nd, 3rd, 4th class P.O., RFD, APO or FPO.
2nd, 3rd, Hawalit and Puerto Rico is 70 lbs, 100 inches for any 1 st class Post Office. Air Parcel Post rates vary per pound as distance increases. Please check with your Postmaster for rate to your city.
Safe Delivery Fees: $40^{\circ}$ for values to $\$ 15.00,60^{\circ}$ for values $\$ 15.01$ to $\$ 50.00,80^{\circ}$ for values $\$ 50.01$ to $\$ 100.00, \$ 1.00$ for values $\$ 100.01$ to $\$ 150.00, \$ 1.20$ for values $\mathbf{\$ 1 5 0 . 0 1}$ to $\$ 200.00$.

| Weight in Lbs. | Local Zone | $\begin{aligned} & \text { Zone } \\ & 1 \& 2 \end{aligned}$ | $\begin{gathered} \text { Zone } \\ 3 \end{gathered}$ | $\underset{4}{\text { Zone }}$ | $\begin{gathered} \hline \text { Zone } \\ 5 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Zone } \\ 6 \end{gathered}$ | $\begin{gathered} \text { Zone } \\ 7 \\ \hline \end{gathered}$ | $\begin{array}{c\|} \hline \text { Zone } \\ 8 \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | \$0.77 | \$0.90 | \$0.93 | \$1.04 | \$1.15 | \$1.28 | \$1.40 | \$1.48 |
| 3 | . 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 |
| 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 |
| 11 | 1.18 | 1.53 | 1.70 | 1.99 | 2.37 | 2.86 | 3.38 | 3.82 |
| 12 | 1.22 | 1.60 | 1.78 | 2.09 | 2.50 | 3.03 | 3.60 | 4.08 4.34 |
| 13 | 1.27 | 1.67 | 1.87 | 2.20 | 2.64 | 3.21 3.38 | 3.82 | 4.34 4.60 |
| 14 | 1.31 | 1.74 | 1.95 | 2.30 | 2.77 | 3.38 3.56 | 4.04 4.26 | 4.60 4.86 |
| 15 | 1.36 | 1.81 | 2.04 | 2.41 | 2.91 | 3.56 3.73 | 4.26 4.48 | 4.86 5.12 |
| 16 | 1.40 | 1.88 | 2.12 | 2.51 | 3.04 3.18 | 3.73 | 4,48 4,70 | 5.12 |
| 17 | 1.45 | 1.95 | 2.21 | 2.62 | 3.18 3.31 | 3.91 4.08 | 4,70 4.92 | 5.38 5.64 |
| 18 | 1.49 | 2.02 | 2.29 | 2.72 | 3.31 <br> 3.45 | 4.08 4.26 | 5.94 | 6.94 5.90 |
| 19 | 1.54 | 2.09 | 2.38 | 2.83 2.93 | 3.45 <br> 3.58 | 4.26 4.43 | 5.36 | 6.16 |
| 20 | 1.58 | 2.16 | 2.46 2.55 | 2.93 3.04 | 3.58 3.72 | 4.61 | 5.58 | 6.42 |
| 21 | 1.63 | 2.23 2.30 | 2.55 2.63 | 3.14 | 3.85 | 4.78 | 5.80 | 6.68 |
| 23 | 1.67 | 2.37 | 2.72 | 3.25 | 3.99 | 4.96 | 6.02 | 6.94 |
| 24 | 1.76 | 2.44 | 2.80 | 3.35 | 4.12 | 5.13 | 6.24 | 7.20 |
| 25 | 1.81 | 2.51 | 2.89 | 3.46 | 4.26 | 5.31 | 6.46 | 7.46 |
| 26 | 1.85 | 2.58 | 2.97 | 3.56 | 4.39 | 5.48 | 6.68 | 7.72 |
| 27 | 1.90 | 2.65 | 3.06 | 3.67 | 4.53 | 5.66 | 6.90 | 7.98 |
| 28 | 1.94 | 2.72 | 3.14 | 3.77 | 4.66 | 5.83 | 7.12 | 8.24 |
| 29 | 1.99 | 2.79 | 3.23 | 3.88 3.98 | 4.80 | 6.01 6.18 | 7.34 756 | 8.50 |
| 30 | 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): $85^{\circ}$ from 01 to $\$ 10.00$, Parcel Post $\$ 10.05$ from $\$ 25.00, \$ 1.25$ 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 $108^{\prime \prime}$ 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 tabie for your zone and rate. The Safe Deivery Fee refyour all excess remittance immediately by bank shipmen
check.
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 $\mathbf{\$ 2 0 . 0 0}$ 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, BankAmericard 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 eff
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 with out 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 Enclosed". 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 over $\$ 10.00$.
The minimum C.O.D. order is $\$ 20.00$, with $20 \%$ deposit.


## IT'S EASY TO OPEN A EA CHARGE ACCOUNT

APPLICATION FOR THOSE WHO DO NOT HAVE A B-A CHARGE ACCOUNT THIS APPLICATION IS FOR A $\square$ R.C., $\square$ 4-PAY ACCOUNT (CHECK ONE)


PLEASE COMPLETE THIS SECTION ONLY IF:
(1) Your spouse will use any credit granted as a result of this application, or
(2) You are relying on jointly-owned property or your spouse's income to qualify for this extension of credit, or
(3) Your spouse will be contractually liable for any credit granted as a result of this application.

SPOUSE'S $\qquad$ BUSINESS

SPOUSE'S
EMPLOYER $\qquad$
PREVIOUS ADDRESS
POSITION POW LONG SALARY BURSTEIN-APPLEBEE MAY CAUSE A CREDIT INVESTIGATION TO BE MADE THROUGH CONSUMER REPORTING AGENCIES, WRITTEN REQUEST FOR A COMPLETE AND ACCURATE DISCLOSURE OF INFORMATION CONCERNINE THE NATURE AND SCOPE OF AN INVESTIGATIVE REPORT, IF SUCH A REPORT IS OBTAINED BY THE CREDITOR.

I certify that the above information is accurate and complete, and also certify that I have received a copy of the Equal Credit Opportunity Act Notice, the Fair Credit Billing Act Notice and the Disclosure of Credit Cost Statement.

THE UNDERSIGNED JOINTLY AND SEVERALLY AGREE TO PAY ALL CHARGES MADE BY AUTHORIZED USERS OF THIS (R.C. OR . 4-PAY) ACCOUNT

X X DATE
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.

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(3) Your spouse will be contractually liable for any credit granted as a resuit of this application.

SPOUSE'S
BUSINESS
SPOUSE'S
EMPLOYER
PREVIOUS
EMPLOYER

NOTICE: BURSTEIN-APPLEBEE MAY CAUSE A CREDIT INVESTIGATION TO BE MADE THROUGH CONSUMER REPORTING AGENCIES, AND OTHER SOURCES, AND SUCH WILL BE CONSIDERED A PART OF THIS APPLICATION. YOUHAVE THE RIGHT TO MAKE A WRITTEN REQUEST FOR A COMPLETE AND ACCURATE DISCLOSURE OF INFORMATION CONCERNING THE NATURE AND SCOPE OF AN INVESTIGATIVE REPORT, IF SUCH A REPORT IS OBTAINED BY THE CREDITOR.

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X $\qquad$ X
DATE

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# B-A I5 50 IN $727-$ 1/4 as ald as our country! 

 Journey with us through 50 eventful years . . . sharehighlights of the past, as B-A plays an integral role
in the advancement of the Electronics Industry






## burstein

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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 

## $\$ 329^{95}$

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\text { s } 449^{95}
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## MODEL $2220 B$ 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 $2.0 u \mathrm{~V}$ with a Capture Ratio of 2.5 dB . Pre-amp sensitivity: Phono 1.8 mV , Aux 180 mV .
Dimensions: $17-5 / 16^{\prime \prime} \mathrm{W} \times 5-3 / 8^{\prime \prime} \mathrm{H} \times 14-3 / 8^{\prime \prime} \mathrm{D}$. Shpg. wt. 28 lbs .

$\$ 329.95$
50A795-4. WC22 Optional Walnut Cabinet as shown. Each
$\$ 35.00$

## MODEL 2235 B 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 25 S you the easiest, most precise tuning available. The $2235 B$ also features a 2505
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.


[^0]:    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): $71 / 4^{\prime \prime} \mathrm{H}$ $\times 13^{1 / 2 " 1} \mathrm{D} \times 15^{\prime \prime} \mathrm{W}$. Shpg. wt. 20 lbs .
    52A997-4. Model 2320W. Each
    $\$ 79.95$

[^1]:    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 $3^{1 / 2} \times 13 / 4 \times 1 / 2{ }^{\prime \prime}$. 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. 20A1312-4.
    Each
    \$8.95

[^2]:    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

[^3]:    Model PV-500FC. With Frequency Control. For frequency sensitive equip. ment such as phonographs and recorders. $\pm 1$ HZ from 11 to 14 voits, 25 to 450 watts. 15 transistors ... no battery charger otherwise same as PV-500B. No. 13A8038-7. Each
    $\$ 220.00$
    Model PV-1000FC 1000 W. Continuous with frequency control. For frequency sensitive equipment such as phonographs and recorders. 27 transistors. Size $5 \times 91 / 2 \times 17^{\prime \prime}$. Shpa. wt. 47 lbs
    No. 13A8051-0. Each
    $\$ 349.00$
    Do Not use Inverters with Refrigerators, Air Conditioners, Toasters, Electric Skillets and other heavy current devices.

[^4]:    2A8050-5 10 foot roll. Each 54 foot roll. Each

[^5]:    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. $6^{\prime \prime}$ long. Red. Wt. 4 oz. 37A3424-6. Type 3070. Each
    $\$ 3.95$
    Coax Cable Adaptor for Hookon, for use with scopes, generators, ete., 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 $18^{\prime \prime}$. Has insulated mini alligator clip.

[^6]:    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-LMatic 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 $10 \mathrm{db}(\mathrm{S}+\mathrm{N}) \mathrm{N}$. Selectivity 5 KHz at 6 db down. Semi-leadless chassis minimizes failure from broken wires. Positive or negative ground operation. Size of control unit: $13 / 4^{\prime \prime} \mathrm{H} . X 3^{\prime \prime}$ D. X $4^{\prime \prime}$ W. Main unit: $6^{\prime \prime} \times 6^{\prime \prime} \times 2^{\prime \prime}$. Shpg. wt. 8 lbs.
    10A197-2. Model 1-580. Each
    \$239.95

[^7]:    (1) 9A29-0. Chrome swivel body mount. Hy Gain BDYF. Ea
    (2) 9A38-1. Jiffy Mount. Fits Under deck lid. Ant. Spec. M68. Net. Each
    3) 9 ach $237-9$. Deluxe Swivel Body Mount. Chrome Plated. Coax adapto
    3) Ant. Spec. M13. Each . . . . . . . . . . . . . . . . . . . . . . . $\$ 11.95$
    (3) 9A238-7. Aluminum Swivel Body Mount. Ant. Spec. M3. Each ... \$8.95
    (4) 9A3095-8. Insulated gutter clip. Hy Gain GCP. Net Each ..... \$2.95
    (5) 9A64-7. Stainless Steel Strap Bumper Mount. Hy Gain BPR. Each \$11.95
    6) 9A161-1. Double Chain Bumper Mount. Ant. Spec. M191. Each . \$13.95
    (7) 9A239-5. Cadmium Plated Spring. Will support $102^{\prime \prime}$ whip. Ant. Spec. M3A Each.
    (8) 9A240-3. Chrome plated spring. Deluxe version of above.
    
    $\$ 7.50$
    (7) 9A26-6. Heavy Duty Chrome Spring. Hy Gain SPGH. Each. .... $\$ 11.95$
    (8) 9A3291-3. Gutter Clip Mount with coax. Ant. Spec. M236.

    Each

[^8]:    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 furn power on/off and allow selection of cartridge channel. Tape cartridge insertion power on/off and allow selection of cartridge channel. Tape cartridge insertion turns
    playing. Stereo headphone jack for private listening is on the front panel. Jackplaying. Stereo headphone jack for private listening is on the front panel. Jack-
    terminal strip on back has terminals for built-in antenna or external FM antenna

[^9]:    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: $4^{\prime \prime} \mathrm{H} . \times 22^{\prime \prime} \mathrm{W}$. X $93 / 4$ "D.

    18A1694-9. Shpg. wt. 27 lbs . Receiver Only
    $\$ 49.95$

