MINUTEMAN™

UNINTERRUPTIBLE POWER SUPPLIES

1200SS

1200 Watt Synchronized Sinewave UPS

A SUPERIOR UNINTERRUPTIBLE POWER SUPPLY FOR MICRO & MINICOMPUTER SYSTEMS

Front View*
(Shown with optional battery pack BP48V20)

TOTAL POWER PROTECTION

- BLACKOUTS
- INTERRUPTIONS
- BROWNOUTS
- OVER VOLTAGE PROTECTION
- OVER LOAD PROTECTION
- SURGES
- SPIKES
- EMI/RFI NOISE
- SYNCHRONIZED SINEWAVE

PARA SYSTEMS, INC., has set the standard of the UPS industry with the introduction of the Minuteman 1200SS. When blackouts, brownouts or over voltage occure the MM1200SS switches to inverter operation in less than 1 msec with a synchronized sinewave output. The sinewave output is synchronized not only from AC to inverter but also from inverter to AC for smooth transition.

MM1200SS offers a unique LED display readout that informs the operator instantly of his UPS status concerning AC normal, battery charging, battery reserve wattage being used or unit in low battery or overload cutoff. MM1200SS also features an auto reset alarm silencer for the operator's convenience, and two levels of audible alarm.

The surge protector remains operational during inverter operation to guard against power surges during the return to AC operation. The built-in 3 stage EMI/RFI filtered surge protector provides excellent, instantaneous protection against power surges, spikes, electromagnetic interference (EMI) and radio frequency interference (RFI); providing "very clean" AC power to all protected equipment. During AC operation the internal batteries are automatically charged.

Back View
(Shown with optional battery pack BP48V20)

- **Fully synchronized sinewave output**
- **1 millisecond transfer time**
- **Over voltage & over load protection**
- Superior brownout and surge/spike/EMI-RFI protection
- Two audible alarm levels for notification of battery switchover and two minute warning
- Alarm silencer with auto-reset
- Low battery voltage auto-cutoff
- External, completely sealed, maintenance free battery pack (48V system), automatically charged during AC operation
- Monitoring LED for proper polarity connections of external battery pack
- Unique LED segment status display for easy identification of: AC line, battery charging, battery reserve, wattage being used etc.
- Can be used in remote site where no AC power is available.

PARA SYSTEMS, INC.

Specializing In Quality Computer Peripherals

SPECIFICATIONS
Part Number MM1200SS

MECHANICAL:

		DIMENSIONS	WEIGHT
Dimensions (length x width x height) and weight	Control Unit	17.9"x 12.2"x 7.2"	47 lbs.
	Battery Pack (BP48V13)	17.9" x 12.2" x 7.0"	56 lbs.
	Optional Battery Pack (BP48V20)	17.9" x 12.2" x 8.1"	80 lbs.

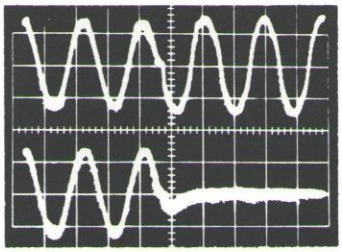
Power Sockets . . . . . 4 grounded, NEMA type 5-15P output receptacles
Power Cord . . . . . 6 foot with grounded NEMA type 5-15P plug
Circuit Breaker (input) . . . . . AC input 15 Ampere
Circuit Breaker (output) . . . . . Battery output 60 ampere
Battery . . . . . 48 volt sealed, maintenance free with internal 60 ampere circuit breaker in battery pack.

STATUS INDICATORS:

LED Displays . . . . . Indicates AC normal or battery in use, battery charging, battery reserve, load power consumption and low battery voltage & overload auto-cutoff status.
Battery polarity LED Display . . . . . Indicates proper polarity connections of ext. battery pack
Alarms . . . . . 2 levels of audible alarm to indicate battery in use and 2 minutes battery reserve.
Auto Reset Alarm Silencer . . . . . For operator convenience.

ENVIRONMENTAL:

Operating Temperature . . . . . 0°C to 40°C (32°F to 104°F)
Operating Humidity . . . . . 0% to 95%, non-condensing



ELECTRICAL:

AC Mode

Output Power Max	1200	Watts
Input Voltage	115 ± 15	Volts
Input Frequency	60 ± 1	Hz
Efficiency, Min	99%	
Discharged Battery Recharge Time, Max	18	Hours
LINE PROTECTION		
Surge Clamping Level, Peak	200	Volts
Surge Clamping Response Time, Max	5	Pico Seconds
Surge Energy Rating, Max	100	Joules
Peak Pulse Current (20ms), Max	6,000	Amperes
LINE NOISE ATTENUATION, Min. 100 KHZ	—20	db
100 MHZ	—138	db

Inverter Mode

Output Waveform	Line Synchronized Sinewave	
Output Power, Max	1200	Watts
Output Voltage	115 ± 5%	Volts
Output Frequency	60 ± 1	Hz
Harmonic Distortion at 1200 Watts load, Max	5%	
Run time on Fully Charged Battery 1200 Watts load	10	[18]* Minutes
600 Watts load	25	[45]* Minutes
Low Battery Automatic Cutoff	Automatic	
Efficiency (@ Full Load), Min.	65%	

Switching

UNDERVOLTAGE SWITCHING:		
Input Voltage to Switch from AC to Inverter	102	Volts
Input Voltage to Switch from Inverter to AC	109	Volts
OVERVOLTAGE SWITCHING:		
Input Voltage to Switch from AC to Inverter	132	Volts
Input Voltage to Switch from Inverter to AC	125	Volts
TRANSFER TIME:		
Line to Battery, Max	1	ms
Battery to Line, Max	1	ms

Options Available

Remote signal port (normally open dry contacts) for inverter mode operation
Remote signal port (normally open dry contacts for 2 minute warning battery status
Additional external battery packs (BP48V20) for extended run time

* [ ]Indicates run time value with optional battery pack BP48V20

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FL037
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MINUTEMAN™ 1000SS

1000VA Synchronized Sinewave UPS

A SUPERIOR UNINTERRUPTIBLE POWER SUPPLY FOR MINI & MICROCOMPUTER SYSTEMS

Front View

Back View

TOTAL POWER PROTECTION

- BLACKOUTS
- INTERRUPTIONS
- BROWNOUTS
- SURGES
- SPIKES
- EMI/RFI NOISE
- SYNCHRONIZED SINEWAVE

PARA SYSTEMS, INC. is setting the standard of the UPS industry with the introduction of the Minuteman 1000SS. When blackouts, brownouts or power interruptions occur the MM1000SS switches to inverter operation in less than 1 msec with a synchronized sinewave output. The sinewave output is synchronized not only from AC to inverter but also from inverter to AC for complete electrical protection.

MM1000SS also features a load switch on the front panel, allows user to switch on/off his total systems easily without disrupting battery charging at all times.

MM1000SS provides surge protection, which remains operational during inverter operation to guard against power surges during the return to AC operation. The built-in 3 stage EMI/RFI filtered surge protector provides excellent, instantaneous protection against power surges, spikes, electromagnetic interference (EMI) and radio frequency interference (RFI), providing "very clean" AC power to all protected equipment. During AC operation the internal batteries are automatically charged.

- **Fully synchronized sinewave output**
- **1 millisecond transfer time**
- Superior brownout and surge/spike/EMI-RFI protection
- Two audible alarm levels for notification of battery switchover and two minute warning
- Alarm silencer with auto-reset
- Low battery voltage auto-cutoff
- Internal, completely sealed, maintenance free battery (48V system), automatically charged during AC operation
- Both rapid and trickle charge capability based on battery condition. Unit recharges within eight hours
- LED status display
- Load switch for operator convenience
- Simple to use - completely automatic operation

PARA SYSTEMS, INC.

Specializing In Quality Computer Peripherals

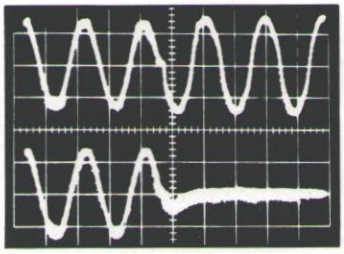
SPECIFICATIONS
Part Number MM1000SS

MECHANICAL:

Dimension & Weight	Dimension	Weight
Control Unit	19" x 12" x 8"	52 lb.
Battery Unit	19" x 12" x 4.7"	54 lb.
Power Sockets	4 grounded, NEMA type 5-15R output receptacles	
Power Cord	6 foot with grounded NEMA type 5-15P plug	
Circuit Breaker	AC input — 15 ampere Battery output — 50 ampere	
Battery	48 volt sealed, maintenance free, 5 year life	
Load Switch	Allows user to switch on/off total systems without disruptive battery charging.	

STATUS INDICATORS:

LED Displays	Green — AC normal Yellow — Inverter (battery) operation Red — 2 minute battery reserve warning Red Flashing — Battery charging
Alarms	2 levels of audible alarm to indicate battery in use and 2 minutes battery reserve.
Auto Reset Alarm Silencer	For operator convenience. Auto reactivate upon 2-minute reserve.



ENVIRONMENTAL:

Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	0% to 95%, non-condensing

ELECTRICAL:

AC Mode

Output Power Max	1200	VA
Input Voltage	110 ± 15	Volts
Input Frequency	60 ± 1	Hz
Efficiency, Min	99%	
Discharged Battery Recharge Time, Max	8	Hours

LINE PROTECTION

Surge Clamping Level, Peak	200	Volts
Surge Clamping Response Time, Max	5	Pico Seconds
Surge Energy Rating, Max	100	Joules
Peak Pulse Current (20 ms) Max	6,000	Amperes

LINE NOISE ATTENUATION, Min. 100 KHZ	– 20	db
100 MHZ	– 138	db

Inverter Mode

Output Waveform	Line synchronized sinewave	
Output Power, Max	1000	VA
Output Voltage	115 ± 5%	Volts
Output Frequency	60 ± 1	Hz
Harmonic Distortion at 1000 VA load, Max	5%	
Run Time on Fully Charged Battery 1000VA load	10	Minutes
500VA load	30	Minutes
Low Battery Automatic Cutoff	Automatic	
Efficiency (100VA load minimum), Min	60%	

Switching

Input Voltage to Switch from AC to Inverter	97 ± 2	Volts
Input Voltage to Switch from Inverter to AC	105 ± 2	Volts
Transfer Time: Line to Battery, Max	1	ms
Battery to Line, Max	1	ms

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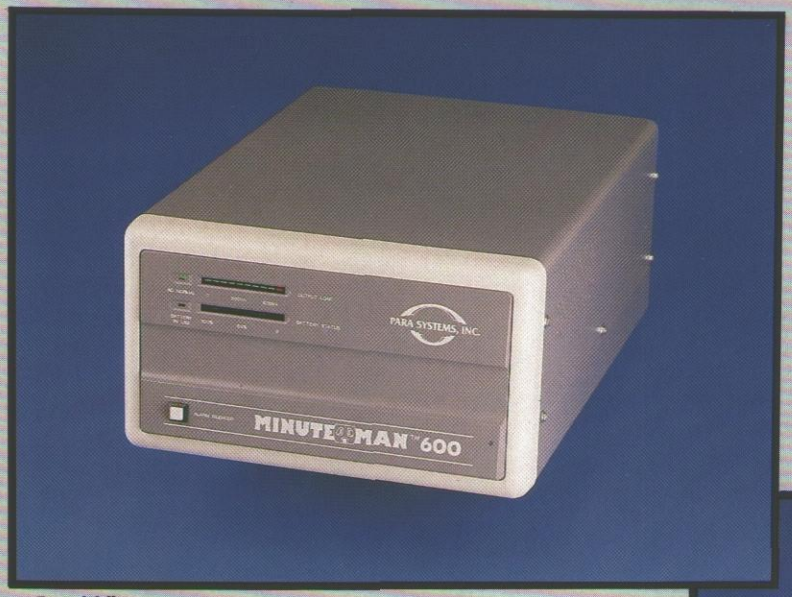
MINUTEMAN T.M.

600SS

600VA Synchronized Sinewave UPS

A SUPERIOR UNINTERRUPTIBLE POWER SUPPLY FOR MICRO & MINICOMPUTER SYSTEMS



Front View

Back View

TOTAL POWER PROTECTION

- BLACKOUTS
- INTERRUPTIONS
- BROWNOUTS
- OVER VOLTAGE PROTECTION
- OVER LOAD PROTECTION
- SURGES
- SPIKES
- EMI/RFI NOISE
- SYNCHRONIZED SINEWAVE

PARA SYSTEMS, INC. has set the standard of the UPS industry with the introduction of the Minuteman 600SS. When blackouts, brownouts or over voltage occur the MM600SS switches to inverter operation in less than 1 msec with a synchronized sinewave output. The sinewave output is synchronized not only from AC to inverter but also from inverter to AC for complete electrical protections.

MM600SS offers a unique LED display readout that informs the operator instantly of his UPS status concerning AC normal, battery charging, battery reserve, fuse blown, wattage being used or unit in low battery cutoff. MM600SS also features an auto reset alarm silencer for the operators convenience, and two levels of audible alarm.

The surge protector remains operational during inverter operation to guard against power surges during the return to AC operation. The built-in 3 stage EMI/RFI filtered surge protector provides excellent, instantaneous protection against power surges, spikes, electromagnetic interference (EMI) and radio frequency interference (RFI), providing "very clean" AC power to all protected equipment. During AC operation the internal batteries are automatically charged.

- **Fully synchronized sinewave output**
- **1 millisecond transfer time**
- **Over voltage & over load protection**
- Superior brownout and surge/spike/EMI-RFI protection
- Two audible alarm levels for notification of battery switchover and two minute warning
- Alarm silencer with auto-reset
- Low battery voltage auto-cutoff
- Internal, completely sealed, maintenance free battery (48V system), automatically charged during AC operation
- Both rapid and trickle charge capability based on battery condition. Unit recharges within eight hours
- Unique LED segment status display for easy identification of: AC line, battery charging, battery reserve, fuse, wattage being used, etc.
- Compact, portable and simple to use, completely automatic operation

PARA SYSTEMS, INC.

Specializing In Quality Computer Peripherals

SPECIFICATIONS

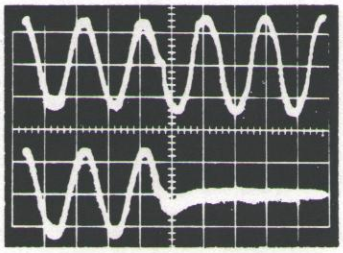
Part Number MM600SS

MECHANICAL:

Dimensions	17.3" long x 12.2" wide x 6.9" high
Weight	65 pounds
Power Sockets	4 grounded, NEMA type 5-15R output receptacles
Power Cord	6 foot with grounded NEMA type 5-15P plug
Fuse	AC input-6 ampere
Circuit Breaker	Battery output - 30 ampere circuit breaker
Battery	48 volt sealed, maintenance free

STATUS INDICATORS:

LED Displays	Indicates AC normal or battery in use, battery charging, battery reserve, load wattage consumption, and low battery voltage & overload auto-cutoff status.
Alarms	2 levels of audible alarm to indicate battery in use and 2 minutes battery reserve.
Auto Reset Alarm Silencer	For operator convenience.



ENVIRONMENTAL:

Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	0% to 95%, non-condensing

ELECTRICAL:

AC Mode

Output Power Max	650	VA
Input Voltage	110 ± 15	Volts
Input Frequency	60 ± 1	Hz
Efficiency, Min	99%	
Discharged Battery Recharge Time, Max	8	Hours
LINE PROTECTION		
Surge Clamping Level, Peak	200	Volts
Surge Clamping Response Time, Max	5	Pico Seconds
Surge Energy Rating, Max	100	Joules
Peak Pulse Current (20ms), Max	6,000	Amperes
LINE NOISE ATTENUATION, Min. 100 KHZ	−20	db
100 MHZ	−138	db

Inverter Mode

Output Waveform	Line Synchronized Sinewave	
Output Power, Max	600	VA
Output Voltage	115 ± 5%	Volts
Output Frequency	60 ± 1	Hz
Harmonic Distortion at 600 VA load, Max	5%	
Run time on Fully Charged Battery 600 VA load	8	Minutes
300 VA load	20	Minutes
Low Battery Automatic Cutoff	Automatic	
Efficiency (@ Full Load), Min	65%	

Switching

UNDERVOLTAGE SWITCHING:		
Input Voltage to Switch from AC to Inverter	102	Volts
Input Voltage to Switch from Inverter to AC	108	Volts
OVERVOLTAGE SWITCHING:		
Input Voltage to Switch from AC to Inverter	135	Volts
Input Voltage to Switch from Inverter to AC	129	Volts
TRANSFER TIME:		
Line to Battery, Max	1	ms
Battery to Line, Max	1	ms

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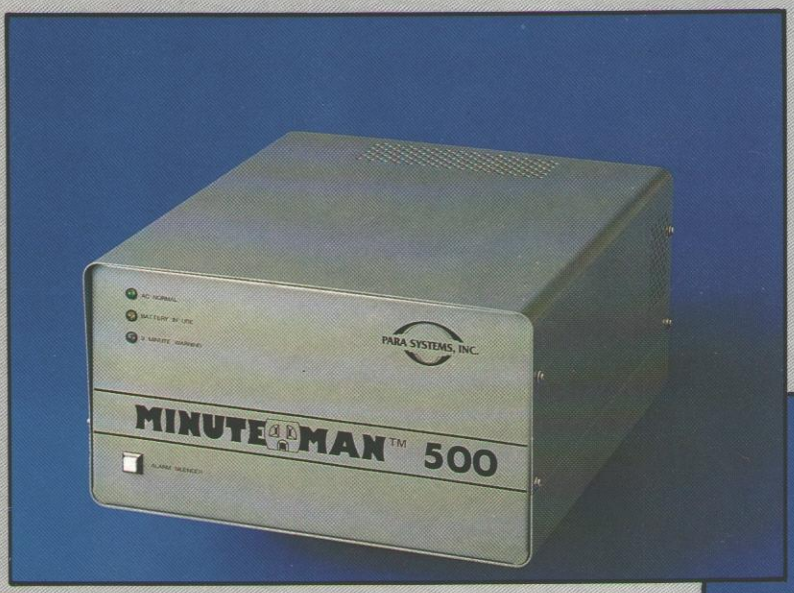
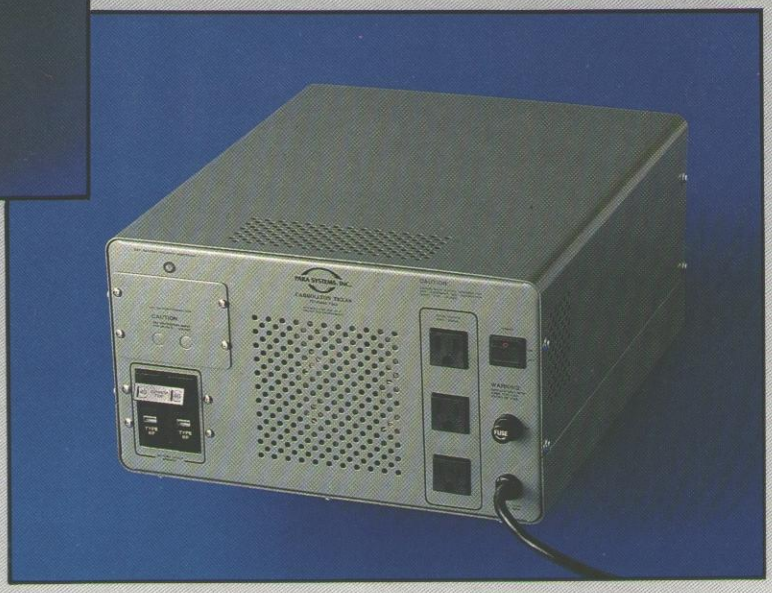
MINUTEMAN™

500

A SUPERIOR UNINTERRUPTIBLE POWER SUPPLY FOR ALL MICROCOMPUTER SYSTEMS

(Including IBM/XT and IBM PC/AT)





TOTAL POWER PROTECTION

- BLACKOUTS
- INTERRUPTIONS
- BROWNOUTS
- OVER VOLTAGE PROTECTION
- SURGES
- SPIKES
- EMI/RFI NOISE
- 120VAC & 230VAC MODELS

According to a national survey, an average of 128.3 harmful power line disturbances occur each month. Each of these power disturbances can cause catastrophic damage to computers and loss or alteration of precious data. The MINUTEMAN 500 provides stand-by emergency power for blackouts, interruptions, over voltage and brownouts. It also provides continuous protection from surges, spikes, and line noise of all types.

When blackouts, brownouts, over voltage or power interruptions occur, the MINUTEMAN 500 instantly switches (less than 4 msec) to inverter operation and supplies power to maintain computer systems operation. Indicator lights and audible alarms notify the user of inverter and battery status. Since most power outages, over voltage and brownouts are of very short duration, AC operation will generally be restored automatically prior to the two minute warning, eliminating the need for computer system shutdown.

The surge protector remains operational during inverter operation to guard against power surges during the return to AC operation. The built-in 3 stage EMI/RFI filtered surge protector provides excellent, instantaneous protection against power surges, spikes, electromagnetic interference (EMI) and radio frequency interference (RFI), providing "very clean" AC power to all protected equipment. During AC operation the internal batteries are automatically charged.

- Full 500 VA output power capability
- Extremely fast transfer time (1-4 msec)
- Over voltage protection
- Simple to use – completely automatic operation
- Internal, completely sealed, maintenance free batteries (24 Volt system), automatically charged during AC operation
- External battery jacks provided (optional external Battery Pack avail)
- Alarm levels and LED light indicators for notification of battery switchover and remaining operating time
- Alarm disable switch with auto reset for quiet system operation after power problem notification
- Solid state inverter overload protection
- Automatic low voltage battery cutoff for battery protection
- Three grounded, output receptacles provided for multiple unit protection
- Easy to reach and replace input fuse
- Small, compact, portable unit
- Normal AC line & inverter outputs fully synchronized.

PARA SYSTEMS, INC.

Specializing in Quality Computer Peripherals

SPECIFICATIONS

Part Number MM500

MECHANICAL:

Dimensions	13.0" long x 12.2" wide x 6.9" high
Weight	50 pounds
Power Sockets	3 grounded, NEMA type 5-15R output receptacles
Power Cord	6 foot with grounded NEMA type 5-15P plug
Fuse	AC input - 6 ampere
Circuit Breaker	Battery output - 40 ampere circuit breaker
Battery	24 volt sealed, maintenance free, 5 year life

STATUS INDICATORS:

LED Displays	Green light/no alarm – normal AC operation Amber light flashing/Audible alarm – inverter in operation Red light/audible alarm – battery has approx 2 minutes inverter operation remaining Amber light steady/no alarm – inverter overload or low battery cutoff.
Alarms	2 levels of audible alarm to indicate battery in use and 2 minutes battery reserve.
Auto Reset Alarm Silencer	For operator convenience.

ENVIRONMENTAL:

Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	0% to 95%, non-condensing

ELECTRICAL:

	MM500/1	MM500/2	
AC Mode			
Output Power Max	600	600	VA
Input Voltage	115	230	VAC ± 10%
Input Frequency	60	50	Hz ± 1%
Efficiency,Min	99	99	%
Discharged Battery Recharge Time, Max	8	8	Hours
LINE PROTECTION			
Surge Clamping Level, Peak	200	400	Volts
Surge Clamping Response Time, Max	5	5	Pico Seconds
Surge Energy Rating, Max	100	100	Joules
Peak Pulse Current (20ms), Max	6,000	6,000	Amps
LINE NOISE ATTENUATION, Min. 100 KHZ	– 20	– 20	db
100 MHZ	– 138	– 138	db
Inverter Mode			
Output Waveform	Line Synchronized Sinewave		
Output Power, Max	500	500	VA
Output Voltage	115	230	Volts ± 10%
Output Frequency	60	50	Hz ± 1%
Run time on Fully Charged Battery 500 VA load	10	10	Minutes
250 VA load	30	30	Minutes
Low Battery Automatic Cutoff	Automatic	Automatic	
Efficiency (@ Full Load), Min	70	70	%
Switching			
UNDERVOLTAGE SWITCHING:			
Input Voltage to Switch from AC to Inverter	102	205	Volts
Input Voltage to Switch from Inverter to AC	108	210	Volts
OVERVOLTAGE SWITCHING:			
Input Voltage to Switch from AC to Inverter	135	265	Volts
Input Voltage to Switch from Inverter to AC	129	255	Volts
Transfer Time: Line to Battery, Max	4	4	ms
Battery to Line, Max	4	4	ms

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MINUTEMAN T.M.

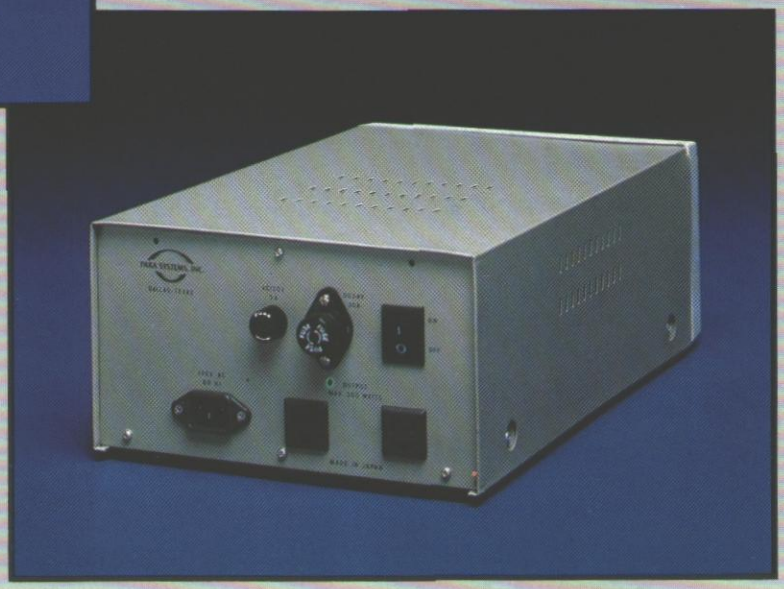
300SS

300VA Synchronized Sinewave UPS

A SUPERIOR UNINTERRUPTIBLE POWER SUPPLY FOR MICROCOMPUTER SYSTEMS

(Including IBM/XT and IBM PC/AT)

Front View



Back View

TOTAL POWER PROTECTION

- BLACKOUTS
- INTERRUPTIONS
- BROWNOUTS
- SURGES
- SPIKES
- EMI/RFI NOISE
- SYNCHRONIZED SINEWAVE
- SELF DIAGNOSTIC

PARA SYSTEMS, INC. is setting the standard of the UPS industry with the introduction of the Minuteman 300SS. When blackouts, brownouts or power interruptions occur the MM300SS switches to inverter operation in less than 1 msec with a synchronized sinewave output. The sinewave output is synchronized not only from AC to inverter but also from inverter to AC for complete electrical protections.

MM300SS offers a unique LED display readout that informs the operator instantly of his UPS status concerning AC normal, battery charging, battery reserve, fuse blown, wattage amount being used or unit in low battery cutoff. MM300SS also features an autorest alarm silencer for the operators convenience, and two levels of audible alarm.

The surge protector remains operational during inverter operation to guard against power surges during the return to AC operation. The built-in 3 stage EMI/RFI filtered surge protector provides excellent, instantaneous protection against power surges, spikes, electromagnetic interference (EMI) and radio frequency interference (RFI), providing "very clean" AC power to all protected equipment. During AC operation the internal batteries are automatically charged.

- **Fully synchronized sinewave output**
- **1 millisecond transfer time**
- Superior brownout and surge/spike/EMI-RFI protection
- Two audible alarm levels for notification of battery switchover and two minute warning
- Alarm silencer with auto-reset
- Low battery voltage auto-cutoff
- Internal, completely sealed, maintenance free battery (24V system), automatically charged during AC operation
- Both rapid and trickle charge capability based on battery condition. Unit recharges within four hours
- Unique LED segment status display for easy identification of: AC line, battery charging, battery reserve, fuse, wattage amount being used, etc.
- Compact, portable and simple to use completely automatic operation

PARA SYSTEMS, INC.

Specializing In Quality Computer Peripherals

SPECIFICATIONS

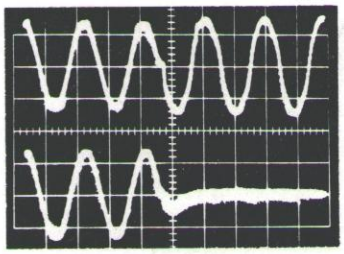
Part Number MM300SS

MECHANICAL:

Dimensions	17.4" long x 9.5" wide x 5.5" high
Weight	35 pounds
Power Sockets	2 grounded, NEMA type 5-15R output receptacles
Power Cord	6 foot with grounded NEMA type 5-15P plug
Fuses	AC input - 4 ampere Battery output - 30 ampere
Battery	24 volt sealed, maintenance free, 5 year life

STATUS INDICATORS:

LED Displays	Indicates AC normal or battery in use, battery charging, battery reserve, fuse condition, load wattage consumption, and low battery voltage auto-cutoff status.
Alarms	2 levels of audible alarm to indicate battery in use and 2 minutes battery reserve.
Auto Reset Alarm Silencer	For operator convenience.



ENVIRONMENTAL:

Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	0% to 95%, non-condensing

ELECTRICAL:

AC Mode

Output Power Max	360	VA
Input Voltage	110 ± 15	Volts
Input Frequency	60 ± 1	Hz
Efficiency, Min	99%	
Discharged Battery Recharge Time, Max	4	Hours

LINE PROTECTION

Surge Clamping Level, Peak	200	Volts
Surge Clamping Response Time, Max	5	Pico Seconds
Surge Energy Rating, Max	100	Joules
Peak Pulse Current (20 ms) Max	6,000	Amperes

LINE NOISE ATTENUATION, Min. 100 KHZ	-20	db
100 MHZ	-138	db

Inverter Mode

Output Waveform	Line synchronized sinewave	
Output Power, Max	300	VA
Output Voltage	115 ± 5%	Volts
Output Frequency	60 ± 1	Hz
Harmonic Distortion at 300 VA load, Max	5%	
Run Time on Fully Charged Battery 300VA load	8	Minutes
150VA load	20	Minutes
Low Battery Automatic Cutoff	Automatic	
Efficiency (30VA load minimum), Min	60%	

Switching

Input Voltage to Switch from AC to Inverter	97 ± 2	Volts
Input Voltage to Switch from Inverter to AC	105 ± 2	Volts
Transfer Time: Line to Battery, Max	1	ms
Battery to Line, Max	1	ms

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FL022
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SPECIFICATIONS

Part Number MM250

MECHANICAL:

Dimensions	11.6" long x 6.8" wide x 4.8" high
Weight	19 pounds
Power Sockets	2 grounded, NEMA type 5-15R output receptacles
Power Cord	6 foot with grounded NEMA type 5-15P plug
Fuses	AC input - 3 ampere, slow blow Battery output - 30 ampere
Battery	12 volt sealed, maintenance free, 5 year life

STATUS INDICATORS:

LED Displays	Green light/no alarm - normal AC operation Amber light/intermittent audible alarm (1 per second) inverter operation, battery charge condition is good Red light/intermittent audible alarm (2 per second) inverter operation, battery has 2 minutes of charge remaining
Alarms	2 levels of audible alarm to indicate battery in use and 2 minutes battery reserve

ENVIRONMENTAL:

Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	0% to 95%, non-condensing

ELECTRICAL:

AC Mode	MM250/1 AC	MM250/2 AC	
Output Power Max	300	300	VA
Input Voltage	115 ± 15	230 ± 30	Volts
Input Frequency	47-65	47-65	Hz
Efficiency, Min	99%	99%	
Discharged Battery Recharge Time, Max	4	4	Hours
LINE PROTECTION			
Surge Clamping Level, Peak	200	400	Volts
Surge Clamping Response Time, Max	5	5	Pico Seconds
Surge Energy Rating, Max	100	100	Joules
Peak Pulse Current (20 ms) Max	6000	6000	Amperes
LINE NOISE ATTENUATION, Min. 100 KHZ	−20	−20	db
100MHZ	−138	−138	db

Inverter Mode			
Output Waveform	Stepped rectangular waveform		
Output Power, Max	250	250	VA
Output Voltage	115 ± 13%	230 ± 13%	Volts
Output Frequency	60 ± 1	50 ± 1	Hz
Run Time on Fully Charged Battery, 250 VA load	6	6	Minutes
125 VA load	15	15	Minutes
Low Battery Automatic Cutoff	Automatic	Automatic	
Efficiency (at full load), Min	70%	70%	

Switching			
Input Voltage to Switch from AC to Inverter	102	204	Volts
Input Voltage to Switch from Inverter to AC	109	218	Volts
Transfer Time: Line to Battery, Max	4	4	ms
Battery to Line, Max	4	4	ms

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Carrollton, Texas 75007

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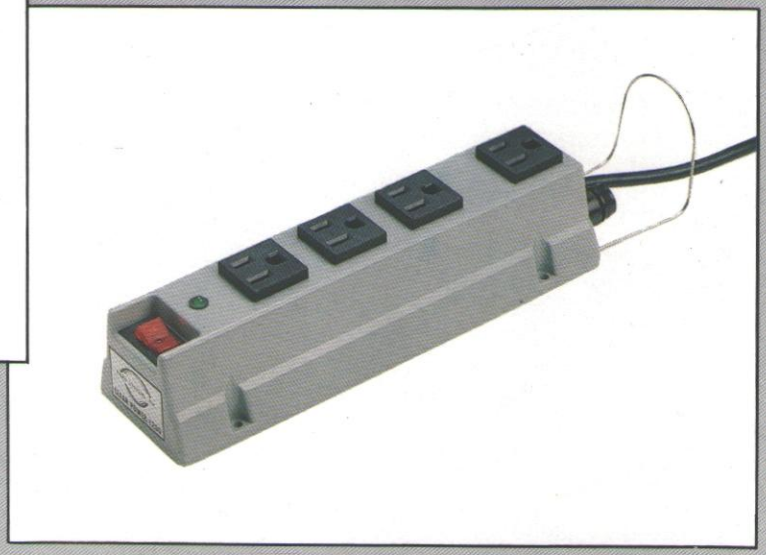
CLEAN POWER 1200™

EMI/RFI FILTERED SURGE PROTECTOR FOR COMPUTERS AND OTHER SENSITIVE ELECTRONIC EQUIPMENT



RELIABLE POWER SUPPRESSION

POWER SURGES
SPIKES
LINE NOISE

CLEAN POWER 1200™ is a four receptacle filtered power source, which instantly suppresses power surges, spikes and line noise of all types and protects both hardware and software from damage caused by these common power problems.

CLEAN POWER 1200™ uses a 2 stage filtering network with an inductor in series with the load current. A Metal Oxide Varistor (MOV) provides the final stage of transient suppression. Some surge protector manufacturers claim that all of their surge protection is "non load bearing". This means that your equipment could receive noisy input power because the surge protector is inoperative. CLEAN POWER 1200™ offers both load and non load bearing, instantaneous surge and spike protection and an indicator light that "really" provides an indication if surge and spike protection is lost. In addition to surge and spike protection, the 2 stage filter also provides excellent electromagnetic interference (EMI) and radio frequency interference (RFI) filtering.

CLEAN POWER 1200™ can be mounted under a desk or table with a hanger provided to support and organize your equipment's power cords. It can also be placed on the floor or desk top and the hanger can be used or discarded. A 6-foot power cord permits mounting this unit wherever it is needed. The four grounded, receptacles are in line for space minimization and are spaced to permit the use of 1 power adapter.

- 3 stage protection surge and spike suppression design
- Delivers up to 1200 Watts of "very clean power" for all sensitive electronic equipment
- 4 grounded, NEMA 5-15R (2 prong with ground prong) receptacles with spacing for one power adapter
- 10 Amp replaceable fuse provides circuit overload protection
- Illuminated on/off switch
- Indicator light provides loss of surge and spike protection indication
- 6' power cord with NEMA 5-15P (2 prong with ground prong) plug
- High grade ABS flame retardant case
- No installation cost. Just plug in.
- Unit can be mounted under desk (or in any position) with a hanger provided to support and organize equipment power cords
- Reasonably priced and technically superior to all other similar products
- Two year warranty

PARA SYSTEMS, INC.

Specializing In Quality Computer Peripherals

GENERAL SPECIFICATIONS

Dimensions	:	9 1/2" x 2 3/4" x 2 1/4" 24 cm x 6.5 cm x 5.7cm
Output	:	1200 Watts 4 grounded NEMA 5-15R receptacles with spacing for one power adaptor (2 prong with ground prong)
Indicators	:	Illuminated on/off switch Surge and Spike protection indicator light
Power Cord	:	6' power cord with NEMA 5-15P plug (2 prong with ground prong)
Operating temperature	:	−40°C to 85°C (−40°F to 185°F)
Operating Humidity	:	Less than 95% non-condensing
Weight	:	1.2 pound each

Packaged in 10 CP 1200 per box

ELECTRICAL SPECIFICATIONS: (MODEL CP1200)

Surge Protection:

Clamping Level, Peak.....200 Volts

Clamping Response, maximum.....5 pico seconds

Impulse energy, maximum.....100 Joules

Peak pulse current (20 microsec).....6500 Amps

Noise attenuation, minimum at 100KHz..... −20 db

100MHz..... −138 db

Output Power, maximum.....1200 Watts

Overload capability (3 seconds).....130%

Circuit overload protection.....10 Amp fuse

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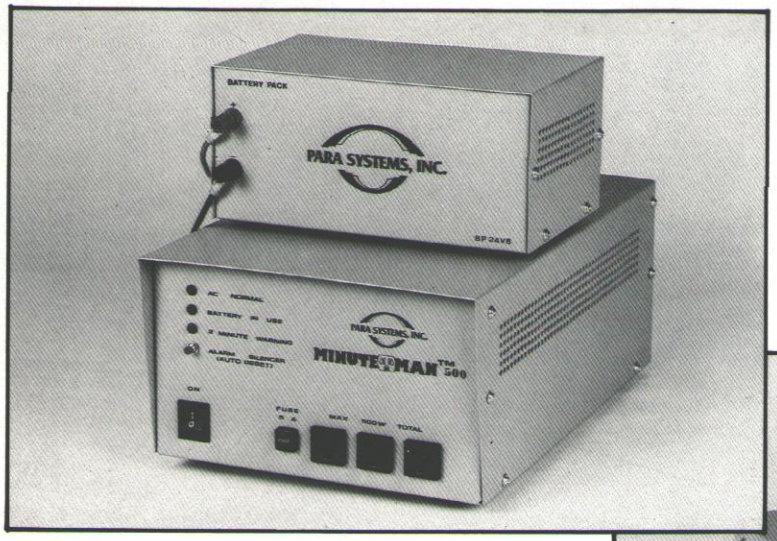


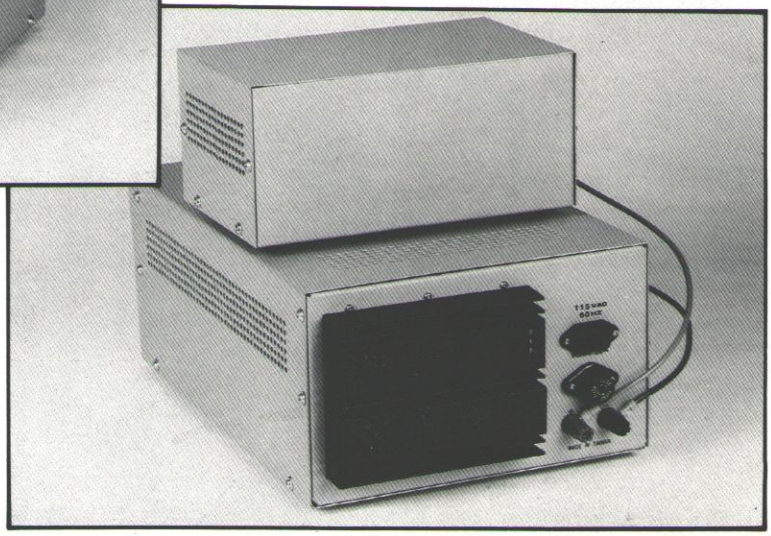
BP 24V8

BATTERY PACK OPTION

FOR USE WITH MINUTEMAN™

500W (MM500) UPS

FOR EXTENDED HOLD UP TIME



EXTERNAL BATTERY PACK (MODEL: BP24V8) FOR EXTENDED OPERATION WITH MM500/X:

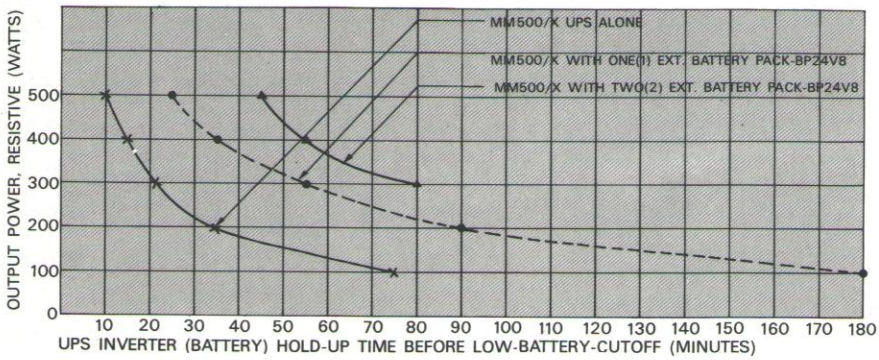
PARA SYSTEMS BP24V8 Battery Pack is designed for use with the MINUTEMAN 500 Uninterruptible Power Supply. When one battery pack is connected to the "external battery" terminals of the MINUTEMAN 500 it more than doubles the time the MINUTEMAN 500 can provide power to any given load. Maximum of two (2) Battery Packs may be connected together with MM500.

Installation is simply a matter of connecting the red terminals together and the black terminals together using the connection wires provided with the Battery Pack.

The MINUTEMAN 500 will recharge its internal batteries and the external Battery Pack's batteries when the AC power is restored and the need for emergency power has passed.

Dimensions : 10.3" long x 6.2" wide x 5.1" high
Weight : 19.8 pounds
External Hook-up Wires : 1 each red & black, at 18" length
Battery Voltage : 24 VDC

CAUTION : Temperature at transistor heatsink on the back of MM500 is a function of inverter usage duration during blackout &/or brownout, particularly when using with external Battery Pack(s). Care must be exercised not to touch transistor heatsink with hand to avoid possible burn. MM500 & associated Battery Pack(s) should be located in well ventilated area, with good air flow.



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