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English

Pro Series Owner's Manual

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INTRODUCTION

Thank you for purchasing a Minuteman power protection product. It has been designed and manufactured to provide many years of trouble free service.

IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS !

Please read the manual before installing your Pro Series UPS as it provides the information that should be followed during installation and maintenance of the UPS and batteries allowing you to correctly set up your system for the maximum safety and performance.

Included is information on customer support and factory service if it is required. If you experience a problem with the UPS please refer to the Troubleshooting guide in this manual to correct the problem or collect enough information so that the Minuteman technical support department can rapidly assist you.

NOTICE: This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules and the Class B limits for radio noise emissions from digital apparatus

set out in the Radio Interference of the Canadian Department of Communications. These limits are designed to provide reasonable protection against such interference in a residential installation. This equipment generates and uses radio frequency and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, this equipment may cause interference to radio and television reception. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna
- Relocate the computer with respect to the receiver
- Move the computer away from the receiver
- Plug the computer into a different outlet so that the computer and receiver are on different branch circuits.
- Shielded communications interface cables must be used with this product

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Receiving Inspection

After removing your Minuteman UPS from its carton, it should be inspected for damage that may have occurred in shipping. Immediately notify the carrier and place of purchase if any damage is found. Warranty claims for damage caused by the carrier will not be honored.

The packing materials that your UPS was shipped in are carefully designed to minimize any shipping damage. In the unlikely case that the UPS needs to be returned to Minuteman, please use the original packing material. Since Minuteman is not responsible for shipping damage incurred when the system is returned, the original packing material is inexpensive insurance.

PLEASE SAVE THE PACKING MATERIALS!



WARNING: RISK OF ELECTRICAL SHOCK. HAZARDOUS LIVE PARTS INSIDE THIS POWER SUPPLY ARE ENERGIZED FROM THE BATTERY EVEN WHEN THE AC INPUT POWER IS DISCONNECTED.

TO DE-ENERGIZE THE OUTPUTS OF THE UPS:

1. IF THE UPS IS ON, PRESS THE ON/OFF BUTTON FOR 1 SECOND
2. DISCONNECT THE UPS FROM THE AC POWER OUTLET
3. TO DE-ENERGIZE THE UPS COMPLETELY, DISCONNECT THE BATTERY. (SEE SECTION 6 FOR INSTRUCTIONS)



CAUTION! TO REDUCE THE RISK OF ELECTRICAL SHOCK IN CONDITIONS WHERE LOAD EQUIPMENT GROUNDING CANNOT BE VERIFIED, DISCONNECT THE UPS FROM THE AC POWER OUTLET BEFORE INSTALLING A COMPUTER INTERFACE CABLE. RECONNECT THE POWER CORD ONLY AFTER ALL SIGNALING CONNECTIONS ARE MADE.



CAUTION! CONNECT THE UPS TO A TWO POLE, THREE WIRE GROUNDING AC POWER OUTLET. THE RECEPTACLE MUST BE CONNECTED TO AN APPROPRIATE BRANCH PROTECTION (CIRCUIT BREAKER OR FUSE). CONNECTION TO ANY OTHER TYPE OF RECEPTACLE MAY RESULT IN A SHOCK HAZARD AND VIOLATE LOCAL ELECTRICAL CODES

Para Systems Life Support Policy

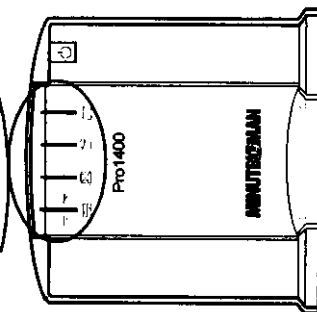
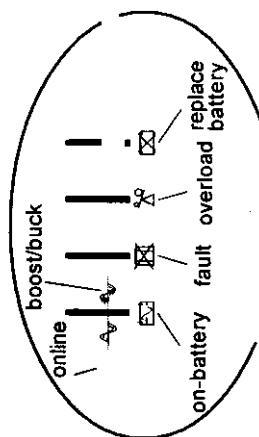
As a general policy, Para Systems Inc. (Para Systems) does not recommend the use of any of its products in life support applications where failure or malfunction of the Para Systems product can be reasonably expected to cause failure of the life support device or to significantly affect its safety or effectiveness. Para Systems does not recommend the use of any of its products in direct patient care. Para Systems will not knowingly sell its products for use in such applications unless it receives in writing assurances satisfactory to Para Systems that (a) the risks of injury or damage have been minimized, (b) the customer assumes all such risks, and (c) the liability of Para Systems Inc. is adequately protected under the circumstances.

Examples of devices considered to be life support devices are neonatal oxygen analyzers, nerve stimulators (whether used for anesthesia, pain relief, or other purposes), auto transfusion devices, blood pumps, defibrillators, arrhythmia detectors and alarms, pacemakers, hemodialysis systems, peritoneal dialysis systems, neonatal ventilator incubators, ventilators for both adults and infants, anesthesia ventilators, and infusion pumps as well as any other devices designated as "critical" by the United States FDA.

Hospital grade wiring devices and leakage current may be ordered as options on many PARA SYSTEMS UPS systems. PARA SYSTEMS does not claim that units with this modification are certified or listed as Hospital Grade by PARA SYSTEMS or any other organization. Therefore, these units do not meet the requirements for use in direct patient care.

2 CONTROLS AND INDICATORS

FRONT PANEL



Pro 1400 front panel



Press and release the on/off/test button after one beep to turn the unit on or off (see section 4)



online



on-battery



boost and buck

The online/on battery/boost and buck LED illuminates in a steady state when the UPS is on and supplying AC power to the load, blinks and sounds the audible alarm when supplying battery power to the load, blinks with no audible alarm when the automatic voltage regulator is in operation.



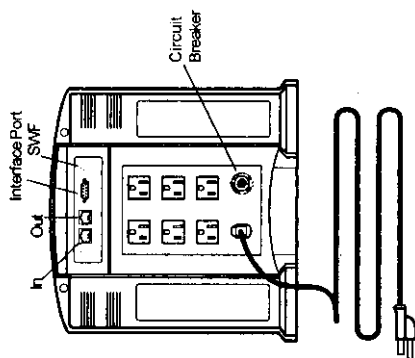
The fault LED illuminates when the UPS has detected an internal fault (contact Minuteman technical support)



The overload LED illuminates when the loads connected to the UPS exceed the UPS power rating (see section 4)



The replace battery LED illuminates when the UPS has detected that battery replacement is required (see section 6)



Pro 1400 rear panel

REAR PANEL (120 vac models shown)

The RJ-45/RJ-11 modular connectors are used for 10 Base-T network/single line telephone surge protection (see section 3).

The computer interface port is for UPS monitoring and control (see section 3).

The site wiring fault LED illuminates when the UPS detects an improperly wired AC power outlet (120 vac MODELS ONLY) see section 3.

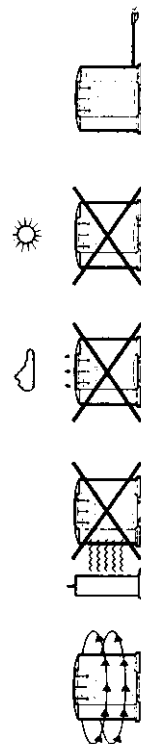
The output power receptacles are NEMA 5-15R type. (IEC output sockets on 230 VAC models)

The input power cord has a NEMA 5-15P connector. (IEC input socket on 230 VAC models)

The input circuit breaker will trip in the event the load exceeds the UPS's power rating.

3 INSTALLATION

INSTALLATION PLACEMENT



Install the UPS in a temperature controlled environment that is free of conductive contaminants. Select a location which will provide good air circulation for the UPS at all times. Avoid locations near heating devices, water or excessive humidity, or where the UPS is exposed to direct sunlight. Route power cords so they cannot be walked on or damaged.

CONNECTING TO AN AC SOURCE

Plug the UPS into a two pole, three wire, grounded receptacle only. Do not use extension cords or adapter plugs.

COMPUTER INTERFACE CONNECTION (OPTIONAL)

Minuteman Power Management software and interface cables kits can be used with the Pro 320 and larger units. Use only Minuteman or Minuteman approved interface cables with these UPS's. Connect the interface cable to the 9 pin computer interface port on the rear of the UPS. Secure the connector to the UPS via the screws on the connector housing. Connect the other end of the cable to the device that will be monitoring/controlling the UPS.

NOTE: CONNECTING TO THE COMPUTER INTERFACE PORT IS OPTIONAL. THE UPS WORKS PROPERLY WITHOUT A CONNECTION.

TELEPHONE/NETWORK SURGE PROTECTION CONNECTION (OPTIONAL)

Connect a single line telephone or a 10 Base-T network line to the protection sockets on the rear of the UPS. This connection will require another length of telephone or network cable. The cable coming from the telephone service or networked system is connected to the port marked "IN", the "OUT" port is connected to the equipment to be protected.

NOTE: CONNECTING TO THE TELEPHONE/NETWORK SURGE PROTECTION CONNECTION IS OPTIONAL. THE UPS WORKS PROPERLY WITHOUT A CONNECTION.

CHECKING THE SITE WIRING FAULT (120 VAC models only)

After plugging in the UPS check the site wiring fault (SWF) LED on the rear of the unit. If the LED is illuminated the UPS is plugged into an improperly wired AC outlet.

CAUTION! IF THE UPS INDICATES A SITE WIRING FAULT, HAVE A QUALIFIED ELECTRICIAN CORRECT THE PROBLEM.



CHARGING THE BATTERY

The PRO Series UPS's will charge the internal batteries whenever the unit is connected to an AC source. It is recommended that the UPS batteries be charged for a minimum of 4 hours before use. The UPS may be used immediately however the "on battery" run time may be less than normally expected.

CONNECTING YOUR EQUIPMENT

Plug the equipment into the receptacles on the rear of the unit. Insure that you do not exceed the maximum output rating of the UPS (refer to UPS back panel or electrical specifications in this manual).

CAUTION! DO NOT CONNECT A LASER PRINTER TO THE BATTERY BACKUP RECEPTACLES ON THE UPS UNLESS THE UPS IS RATED 2000VA OR GREATER. A LASER PRINTER DRAWS SIGNIFICANTLY MORE POWER WHEN PRINTING THAN AT IDLE, AND MAY OVERLOAD THE UPS.



OPERATION

TURNING THE UNIT ON/OFF

On / Off / Test Switch 

Press and release the switch after one beep to turn the unit on and supply power to the load. The load are immediately powered while the UPS runs a 5 second self test. Press and release the switch to turn the unit off. The UPS will continue to charge the batteries whenever it is plugged in and there is AC present.

SELF TEST

On / Off / Test Switch 

The self test feature is useful to verify the correct operation of the UPS and the condition of the battery. With the UPS plugged into normal AC press and hold the ON/OFF/TEST SWITCH for 4 seconds (four beeps) then release the switch. The UPS will perform a five second self test.

Note: The UPS will automatically perform a self test on startup and every two weeks.

During the self test the UPS will switch to battery power and the on-line LED will blink and the audible alarm will sound as well. The length of the test that automatically is performed every two weeks is longer than the start-up or user invoked test. This test will run for approximately fifteen seconds to measure the battery's capability to provide an acceptable amount of runtime. If the UPS fails a self test one of the LED's will remain illuminated indicating the type of problem. (see section 5 Troubleshooting)

ALARMS

ON BATTERY

When the UPS is operating on the batteries the on-line LED will blink and the audible alarm will sound every 10 seconds. The alarm will stop once the UPS returns to on-line operation.

UPS FAULT

When the UPS detects a hardware fault the fault LED will illuminate and the UPS will emit a sustained tone. The fault condition can be re-set by turning the UPS off and then on (see section 5 for more information).

OVERLOAD

When the amount of load attached to the UPS exceeds its power rating the overload LED will illuminate and the UPS will emit a sustained tone. This alarm will remain on until the excess load is removed or the UPS's self protection circuit shuts the UPS down.

REPLACE BATTERY

The UPS automatically tests the battery's condition and will illuminate the replace battery LED and emit a short beep. This tone will be repeated every hour until the battery passes a self test. It is recommended that the UPS be allowed to charge overnight before performing a battery test to confirm a replace battery condition.

LOW BATTERY WARNING

The UPS will emit two consecutive beeps every five seconds when the battery reserve runs low. This continues until AC returns or the UPS shuts down from battery exhaustion.

USER NOTES

Rear Panel Switch Functions

During normal AC operation the rear panel switch may be used to change the low voltage transfer level. This voltage is the voltage at which the unit switches from normal operation to battery mode operation.

The transfer point is changed by pressing and holding the switch until the switch level desired is achieved. The factory default level is 85 VAC (international version is 170VAC).

- 1) Press and hold the switch until the unit sounds the audible alarm one time to change the level to 80 VAC (160VAC).
- 2) Press and hold the switch until the unit sounds the audible alarm twice sequentially to change the level to 75 VAC (150VAC).
- 3) Press and hold the switch until the unit sounds the audible alarm three times sequentially to reset to default setting.

While operating in the battery backup mode, the rear panel switch may be used to silence the audible alarm. Press and hold the switch until the unit sounds the audible alarm once to silence the audible alarm. The audible will reset and provide an alarm if the unit batteries are nearing depletion. This is referred to as the low battery warning alarm. When utility power returns and the unit switches to normal AC mode, the audible alarm will reset automatically to provide a warning at the next power failure.

COMMUNICATIONS PORT

The communications port is a standard DB9 female with both RS232 and simulated contact closure capability. The Pro series units will poll the port and activate the port for RS232 or contact closure in accordance with the type of cable it finds connected to the port. To change the port configuration requires the unit be turned off and restarted with the desired cable connected. The pinout for the port is depicted per the chart below.

- Pin 1: Not used
- Pin 2: /TXD
- Pin 3: /RXD and receive ups shutdown command
- Pin 4: Simulated contact closure AC fail, NO
- Pin 5: Ground
- Pin 6: Simulated contact closure low battery warning, NO
- Pin 7: Simulated contact closure AC fail, NC
- Pin 8: AC fail signal (high to low signal)
- Pin 9: Instant off (pull and hold this pin low to turn off output receptacles)

5 TROUBLESHOOTING

TROUBLESHOOTING CHART

Symptom	Possible Cause	What To Do
UPS will not turn on	On / Off / Test button not pushed	Press On button momentarily, (one beep) to start UPS
UPS operates in battery mode only, even though there is normal AC present	Input AC breaker is tripped	Reset circuit breaker by pressing the plunger back in. If circuit breaker trips after UPS starts up, reduce the load on the UPS
Fault LED is illuminated	UPS has detected an internal fault	Call for service
The Site Wiring Fault LED is illuminated	Incorrect service wiring	Have a qualified electrician correct the service wiring
The Online/On battery LED is illuminated, but there is no output	The UPS is being controlled via its computer port	Disconnect the computer cable from the UPS and press the On button momentarily. If UPS works normally, software has control of the UPS
UPS does not provide expected backup time	The batteries may be weak or at the end of useful service life	Charge the batteries for 8 hours and retest. If the backup time is still less than expected, the batteries may need to be replaced, even though the replace battery LED is not illuminated
Replace battery LED is illuminated	Weak or bad batteries/bad battery connection	Check the battery connection and/or replace the batteries. Follow battery replacement procedures in section 6.
The UPS occasionally emits a beep	Normal operation	The UPS is performing its intended function



REPLACING THE BATTERY

REPLACING THE BATTERY

The PRO Series UPS has an easy to replace hot-swappable battery(s). Please read the following warning statements before attempting to service the battery(s).

WARNING: THIS UNINTERRUPTIBLE POWER SOURCE CONTAINS POTENTIALLY HAZARDOUS VOLTAGES. DO NOT ATTEMPT TO DISASSEMBLE THE UNIT BEYOND BATTERY REPLACEMENT PROCEDURES BELOW. EXCEPT FOR THE BATTERY, THIS UPS CONTAINS NO USER SERVICEABLE PARTS. REPAIRS CAN BE PERFORMED BY MINUTEMAN SERVICE PERSONNEL ONLY.



CAUTION: DO NOT OPEN OR MUTILATE BATTERIES. RELEASED ELECTROLYTE IS HARMFUL TO THE SKIN AND EYES AND MAY BE TOXIC.

CAUTION: DO NOT DISPOSE OF BATTERIES IN A FIRE. THE BATTERIES MAY EXPLODE.



THE BATTERIES IN THIS UPS ARE RECYCLABLE. DISPOSE OF THE BATTERIES PROPERLY. THE BATTERIES CONTAIN LEAD AND POSE A HAZARD TO THE ENVIRONMENT AND HUMAN HEALTH IF NOT DISPOSED OF PROPERLY. REFER TO LOCAL CODES FOR PROPER DISPOSAL REQUIREMENTS OR RETURN THE BATTERY TO MINUTEMAN.

CAUTION: ALTHOUGH BATTERY SYSTEM VOLTAGES ARE ONLY 12 VDC AND 24 VDC THE BATTERY SYSTEM CAN STILL PRESENT A RISK. THE CURRENT CAPABILITY OF A BATTERY IS SUFFICIENT TO BURN WIRE OR TOOLS VERY RAPIDLY, PRODUCING MOLTEN METAL. OBSERVE THESE PRECAUTIONS WHEN REPLACING THE BATTERIES:

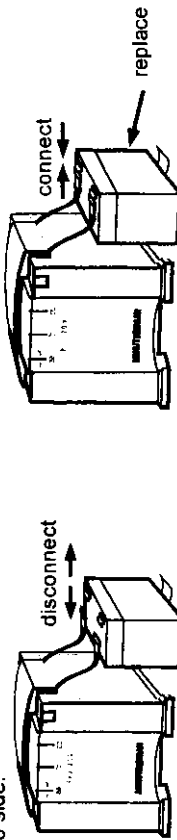
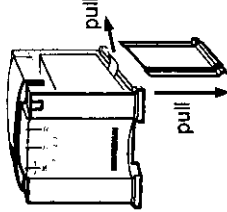
1. REMOVE WATCHES, RINGS, OR OTHER METAL OBJECTS;
2. USE HAND TOOLS WITH INSULATED HANDLES;
3. DO NOT LAY TOOLS OR OTHER METAL PARTS ON TOP OF BATTERIES

CAUTION: BATTERIES REPLACE BATTERIES WITH THE SAME NUMBER AND TYPE AS ORIGINALLY INSTALLED IN THE UPS. THESE BATTERIES HAVE PRESSURE OPERATED VENTS.

BATTERY REPLACEMENT PROCEDURE

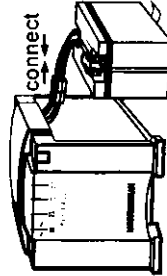
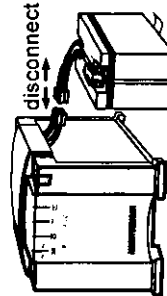
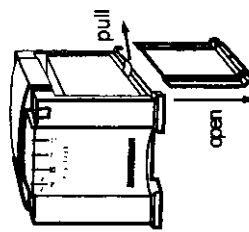
PLEASE READ THE CAUTIONS SECTION BEFORE ATTEMPTING TO REPLACE THE BATTERIES

1. Lay the unit on its side or bring to the edge of a table.
Remove the retaining screw holding the battery door in place and slide the door towards the bottom of the unit.
2. Gently pull out the battery by grasping the battery removal tab
3. Disconnect the two wires (disconnect the connector on the 1400 va unit) connecting the battery to the UPS. Pull back straight on the connector while wiggling the connector from side to side.



4. Connect the new battery in place of the old one, ensuring that black wire is connected to the negative (-) terminal and the red wire is connected to the positive (+) terminal. (the Pro 1400 connectors are keyed) Small sparks at the battery connection are normal.
5. Place the new battery in the case taking care not to pinch any wires.
6. Slide the battery door back into its slot and replace the retaining screw.
7. Dispose of the battery properly at an appropriate recycling facility or return it to the supplier in the packing material for the new battery. See new battery instructions for more info.

Pro 1400





OBTAINING SERVICE

IF THE UPS REQUIRES SERVICE

1. Use the TROUBLESHOOTING section 5 to eliminate obvious causes.
2. Verify that no circuit breakers are tripped. A tripped circuit breaker is the most common problem.
3. Call your dealer for assistance. If you cannot reach your dealer, or if he cannot resolve the problem, call or FAX Minuteman Technical Support at the following numbers: Voice phone (972) 446-7363, FAX line (972) 446-9011. Please have the following information available BEFORE calling technical support.
 - A. Your Name and address.
 - B. Where and when the unit was purchased.
 - C. All of the model information on the rear of your Pro Series UPS.
 - D. Any information on the failure, including LEDs that may be illuminated.
 - E. A description of the protected equipment, including model numbers if possible.
 - F. A technician will ask you for the above information and, if possible, help solve your problem over the phone. In the event that the unit requires factory service, the technician will issue you a Return Material Authorization Number (RMA #).
 - G. If the UPS is under warranty, the repairs will be done at no charge. If not, there will be a charge for repair.

4. Pack the UPS in its original packaging. If the original packaging is no longer available, ask the technical support technician about obtaining a new set. It is important to pack the UPS properly in order to avoid damage in transit. Never use Styrofoam beads for a packing material.

A. Include a letter with your name, address, day time phone number, RMA number, a copy of your original sales receipt, and a brief description of the trouble.

5. Mark the RMA # on the outside of all packages. The factory cannot accept any package without the RMA # marked on the outside.

6. Return the UPS by insured, prepaid carrier to:
Minuteman, Para Systems Inc.
1455 LeMay Drive
Carrollton, Tx. 75007



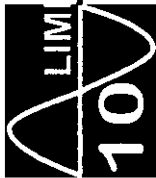
SPECIFICATIONS

NOTE: 230VAC Specs Shown In ()					320VA	520VA	700VA	1000VA	1400VA
Acceptable input voltage					0 - 160 (0 - 282) VAC				
Input voltage (on-line operation)					85 - 152 (170 - 285) VAC				
Output voltage					105 - 136 (210 - 250) VAC				
Nominal input frequency					50 or 60 Hz, auto-sensing				
Input protection					Resettable circuit breaker				
Frequency limits (on-line operation)					50 or 60 Hz, +/-5%				
Transfer time					2 - 4 ms typical				
Maximum load					320VA 208W	520VA 338W	700VA 458W	1000VA 670W	1400VA 950W
On-battery output voltage					115 (230) VAC				
On-battery frequency					50 or 60 Hz, +/-0 Hz, unless synchronized to utility during brownout				
On-battery waveform					Simulate sine-wave				
Protection					Overcurrent and short circuit protected, latching shutdown on overload				
Surge energy rating					500 J (440J)				
Surge current capability					19.5 kAmps total				
Surge response time					0 ms (instantaneous) normal mode, <5 ms common mode				
Surge voltage let-through					<5%				
C62.41 Cat. A +/-5 V test waveform					<0.5%				
Noise filter					Normal and common mode EMI/RFI suppression				
Battery Type-Spill proof, maintenance free, user replaceable, sealed lead-acid					one 12v, 7 Ah	one 12v, 11 Ah	two 12v, 11 Ah	two 12v, 17 Ah	two 12v, 17 Ah
Typical battery life					3 to 6 years, depending on the number of discharge cycles and ambient temp				
Typical recharge time					2 to 5 hours from total discharge				
10 Base-T surge protection let-through (as a percentage of an applied +/-6 kV 1.2/50 us, 500 a 8/20 us test)					<5%				
Telephone line surge protection let-through (as a percentage of an applied +/-6 kV 1.2/50 us, 500 a 8/20 us test)					<1%				
Operating temperature					0 to 40 degrees C (+32 to 104 degrees F)				
Storage temperature (see Section 11)					-15 to +45 degrees C (+5 to +113 degrees F)				
Operating and storage relative humidity					0 to 95%, non-condensing				
Operating elevation					0 to +3,000 m (0 to +10,000 ft)				
Storage elevation					0 to +15,000 m (0 to +50,000 ft)				
Electromagnetic immunity					IEC 801-2 level IV, 801-4 level IV, 801-5 level III				
Audible noise at 1 m (3 ft)					<45 dBA				
Size (H x W x D)					22.2 x 22.8 x 21.6 cm (8.65 x 9.0 x 8.5 in)				
Weight - Net (Shipping)					6.9 (8) Kg 15.4 (17.6) Lb	7.5 (8.4) Kg 16.4 (18.6) Lb	10.2 (11.2) Kg 22.4 (24.7) Lb	17.8 (19.2) Kg 39.3 (42.4) Lb	24.4 (25.6) Kg 53.7 (56.8) Lb
Safety and approvals					Listed to UL 1778 Compliance to CSA 22.2				
EMC Verification					FCC Class B certified				

CONFIGURABLE PARAMETERS & SETTINGS

(These items require optional software or hardware)

FUNCTION	FACTORY DEFAULT	USER CHOICES	DESCRIPTION
UPS ID	Pro Series	Up to 64 characters to define the UPS	Use this function to uniquely identify the UPS in your network configuration
Battery install date	Date of manufacture	Date of battery replacement - day/month/year XX/XX/XXXX	Enter the current date when replacing batteries
Battery life in days	1826	Up to 5 characters	At first battery replacement, reset to reflect actual number of days experience in your environment or leave factory default.
Enable/Disable auto restart	Enabled	Enable or disable	When enabled, the UPS will automatically restart from a low battery shutdown when normal A/C returns
Set audible alarm state	Enabled	Enabled, at low battery, disabled	Enabled - the UPS will emit a short beep when in the battery mode. At Low Battery, the UPS will emit two tones from low battery warning until shutdown. Disabled - Use only when software is controlling the UPS or to silence the alarm
Shutdown Type	UPS output	UPS output or UPS	UPS Output - When the UPS is told to shut down, it turns off the UPS output only. UPS - Turns off the UPS which requires the UPS to be turned on manually
Set low voltage Xfer point	85 VAC (170 for 230 VAC models)	85 or 80 or 75 VAC (170 or 160 or 150 VAC for 230 VAC models)	Changes the voltage point at which the UPS switches to battery power



LIMITED PRODUCT WARRANTY

LIMITED PRODUCT WARRANTY

Para Systems Inc. (Para Systems) warrants this equipment, when properly applied and operated within specified conditions, against faulty materials or workmanship for a period of three years from the date of manufacture. For equipment sites within the United States and Canada, this warranty covers repair or replacement of defective equipment at the discretion of Para Systems. Repair will be from the nearest authorized service center. Replacement parts and warranty labor will be borne by Para Systems. For equipment located outside of the United States and Canada, Para Systems only covers faulty parts. Para Systems products repaired or replaced pursuant to this warranty shall be warranted for the unexpired portion of the warranty applying to the original product. This warranty applies only to the original purchaser who must have properly registered the product within 10 days of purchase.

The warranty shall be void if (a) the equipment is damaged by the customer, is improperly used, is subjected to an adverse operating environment, or is operated outside the limits of its electrical specifications; (b) the equipment is repaired or modified by anyone other than Para Systems or Para Systems-approved personnel; or (c) has been used in a manner contrary to the product's operating manual or other written instructions.

Any technical advice furnished before or after delivery in regard to use or application of Para Systems's equipment is furnished without charge and on the basis that it represents Para Systems's best judgment under the circumstances, but it is used at the recipient's sole risk.

EXCEPT AS PROVIDED HEREIN, PARA SYSTEMS MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation of implied warranties; therefore, the aforesaid limitation(s) may not apply to the purchaser.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL PARA SYSTEMS BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, Para Systems is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, cost of substitutes, claims by third parties, or otherwise. The sole and exclusive remedy for breach of any warranty, expressed or implied, concerning Para Systems's products and the only obligation of Para Systems hereunder, shall be the repair or replacement of defective equipment, components, or parts; or, at Para Systems's option, refund of the purchase price or substitution with an equivalent replacement product. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Longer term and F.O.B. job site warranties are available at extra cost. Contact Para Systems (1-972-446-7363) for details.



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L'INTRODUCTION

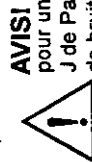
L'introduction

Merci d'avoir acheté un produit de protection assistée Minuteman. Il a été conçu et fabriqué pour fournir bien d'années de service sans problèmes.

LES INSTRUCTIONS IMPORTANTES DE SÉCURITÉ!

Veillez lire le manuel avant d'installer votre UPS Pro Série puisqu'il fournit des renseignements qu'il faudra suivre durant l'installation et l'entretien de l'UPS et des batteries; cela vous permettra de mettre en service correctement votre système pour la performance et sécurité maximum.

Inclus sont des renseignements sur le soutien de client et le service d'usine au cas échéant. Si vous éprouvez un problème avec l'UPS veuillez regarder bien le guide " Difficultés " dans ce manuel soit pour corriger le problème soit pour vous informer avant d'appeler le département technique de soutien Minuteman: cela facilitera le service.



AVIS!

Cet équipement a été essayé et trouvé à respecter les confins pour un calculant de classe B conformément aux spécifications dans Sous Section J de Partie 15 des règlements FCC et les confins de classe B pour des émissions de bruit de radio

d'appareil numérique établis dans L'Interférence de Radio du Département Canadien de Communications. Ces confins sont conçus pour fournir une protection raisonnable contre telle interférence dans une installation résidentielle. Cet équipement génère et emploie une fréquence radio et s'il n'est pas installé et utilisé correctement, ce qui veut dire, dans la conformité stricte avec les instructions des fabricants, il peut être une source d'interférence de réception radio et de télévision. Si cet équipement est la cause d'interférence de réception radio ou télévision, ce qui peut être déterminée en branchant et en débranchant l'équipement, l'utilisateur est encouragé d'essayer de corriger l'interférence par une ou plusieurs des mesures suivantes:

- Réorienter l'antenne
- Resituer l'ordinateur relativement au récepteur
- Déplacer l'ordinateur loin du récepteur
- Brancher l'ordinateur dans une prise différente pour que l'ordinateur et le récepteur soient sur des circuits de branche différents.
- Des câbles de communications protégées doivent être employées avec ce produit.



ATTENTION: Les changements ou modifications à cette unité pas approuvés expressément par la personne responsable pour sa conformité pourrait mener à la perte du droit d'utiliser ou d'opérer l'équipement.