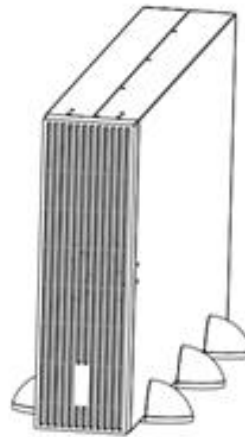
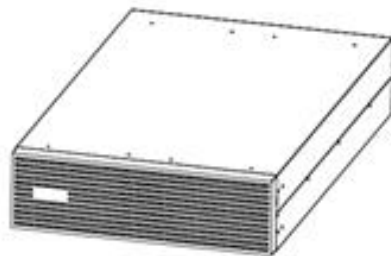
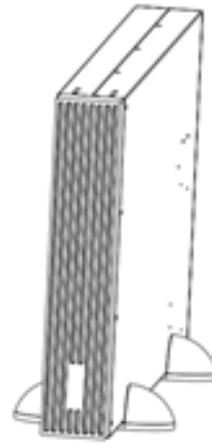
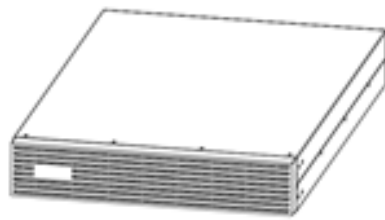


## Endeavor Series

### Battery Pack User's Manual Endeavor Series





# Table of Contents

Introduction .....	1
Installation .....	3
Connecting to a UPS.....	6
Replacing the Battery Module.....	8
Obtaining Service .....	10
Specifications .....	11
Warranty .....	12

# 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!  
CONSIGNES DE SECURITE IMPORTANTES  
SAUVEGARDEZ CES CONSIGNES!**

Please read this manual and comply with all warnings and instructions before installing your Endeavor Series Battery Pack module as it provides important information that should be followed during installation and maintenance, allowing you to correctly set up your installation for the maximum safety and performance.


Veuillez lire ce manuel et conformer à tous avertissements et instructions avant d'installer votre module Transformateur Endeavor Series, car il fournit des informations importantes qui doivent être suivies lors de l'installation et de la maintenance, vous permettant de configurer correctement votre installation pour une sécurité et des performances maximales.


## WARNINGS AND CAUTION STATEMENTS:


	<b>DANGER!</b> This symbol indicates a hazardous situation that could result in severe electrical shock or death. All precautions must be taken.
	<b>WARNING!</b> This symbol indicates a hazardous situation that could result in injury or harm. Necessary precautions must be taken

 Risk of Electrical Shock. There are hazardous live parts inside these products that can be energized from the internal batteries of a bundled UPS, even when the AC input of the UPS is disconnected. Before installation, ensure the following:

- The Main Input Circuit Breaker is in the OFF position
- The internal battery module(s) are disconnected and removed
- The DC Breaker is in the OFF position
- The connected UPS is properly grounded to an earth ground conductor.

 To reduce the risk of electrical shock from the leakage current when utilizing the internal charger, this Battery Pack must be installed using a protected earth ground.

 Installation, repairs and battery replacement must be performed by QUALIFIED SERVICE PERSONNEL ONLY and must adhere to all local electrical codes. Any changes or modifications made to this unit, without expressed written permission from Para Systems, Inc. will void the warranty of the product.

 This Battery Pack module is only intended to be installed in an indoor, temperature-controlled environment that is free of conductive contaminants, dust or direct sunlight. Never install this device near liquids, damp locations or where there is potential for contact with liquids.

The ambient operating temperature range for this device is 32° ~ 104°F (0° ~ 40°C). To ensure the proper ventilation and cooling of the UPS, do not block any of the ventilation cutouts in the case.

Adequate space must be provided around all sides of the Battery Pack to allow for proper air flow. Do not mount the device with its front or rear panel facing down at any angle.



Connect the Battery Pack to the UPS using only the included Anderson DC cord. This Battery Pack offers an optional AC input power cord for use with the internal charger. Do not plug the Battery Pack into the UPS or use extension cords, adapter plugs, or surge strips as it may damage the batteries or the connected devices of the UPS.

## FCC Class A Radio Frequency Warning:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## Safety Details:

- The external vents and openings on the Battery Pack are provided for ventilation. To ensure reliable operation of the UPS and to protect the UPS from overheating, these vents and openings must not be blocked or covered. Do not insert any object into any of the vents or openings that may hinder the ventilation.
- Install the Battery Pack in a well-ventilated area, away from excess moisture, heat, dust, flammable gas or explosives.
- Leave adequate space (at least 15cm) around all sides of the Battery Pack for proper ventilation.
- Do not mount the Battery Pack with its front or rear panel facing down at any angle.
- Before usage, you must allow the Battery Pack to adjust to room temperature (20°C~25°C or 68°F~77°F) for at least one hour to avoid moisture condensing inside the Battery Pack.
- Servicing of batteries should be performed or supervised by trained personnel with knowledge of batteries and the required precautions.
- When replacing batteries, it is necessary to replace ALL batteries with the same quantity, type & capacity.
- CAUTION – Do not dispose of battery or batteries in a fire. The battery may explode.
- CAUTION – Do not open or mutilate the batteries. The electrolyte from the batteries is toxic and harmful to the skin and eyes.
- CAUTION – Risk of Electric Shock –Hazardous voltage may exist between battery terminals and ground. Test before touching with bare hands.
- CAUTION – A battery can present a risk of electrical shock and high short circuit current. The following precaution should be observed when working on batteries:
  1. Remove watches, rings, or other metal objects.
  2. Use tools with insulated handles.
  3. Wear rubber gloves and boots.
  4. Do not lay tools or metal parts on top of batteries.
  5. Disconnect charging source prior to connecting or disconnecting battery terminals.
- Do not plug or unplug the battery connector if UPS works in DC (discharging) mode.

## Life Support Policy:

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

## Installation

The battery Pack is compatible with multiple UPS models and configurations of the Endeavor line. The table below outlines the available compatible configurations:

Models	Rating	
	VA	WATTS
ED5KRT	5,000	4,500
ED5KRT-3KTF	5,000	4,365
ED5KRT-5KTF	5,000	4,275
ED6KRT	6,000	5,400
ED6KRT-3KTF	6,000	5,265
ED6KRT-5KTF	6,000	5,175
ED6KRT-6KTF2	6,000	5,130
ED8KRT	8,000	7,200
ED8KRT-3KTF	8,000	7,065
ED8KRT-5KTF	8,000	6,975
ED8KRT-6KTF2	8,000	6,930
ED8KRT-8KTF2	8,000	6,840
ED10KRT	10,000	9,000
ED10KRT-3KTF	10,000	8,865
ED10KRT-5KTF	10,000	8,775
ED10KRT-6KTF2	10,000	8,730
ED10KRT-8KTF2	10,000	8,640
ED10KRT-10KTF2	10,000	8,550

## Package Contents:

Prior to installing the Battery Pack, inspect all contents and notify the manufacturer immediately if the unit is damaged or parts are missing. Save the original packing materials in a safe location for future use.

- Battery Pack
- 4-post Rail Kit
- Tower Feet Extension (Set of 2)
- 19" Rack mount brackets with retaining screws, (Set of 2), installed
- User Manual
- Lifting Straps

## Receiving Inspection:

Once the product arrives, it should be visually inspected for any 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 are the responsibility of the purchaser. The product packing materials were carefully designed to meet ISTA 1A and minimize any potential shipping damage. Please save the packing materials in the unlikely event that the product needs to be returned to the manufacturer. The manufacturer is not responsible for shipping damage incurred when the product is returned and is not properly packaged. Keep all invoices and packing materials to ensure the relevant version for installation.

## Battery Pack Connections:

- Use only qualified, licensed electricians for the installation
- Follow all national and local electrical codes for the installation
- Ensure that all Utility and UPS input circuit breakers are in the OFF position prior to the connection of the Battery Pack.

## Rack/Cabinet Installation:

Use caution as the battery pack is very heavy. It is recommended to remove the internal battery modules from the battery pack prior to installation in order to reduce the weight. (See **“Replacing the Battery Module”** section for instructions). Two or more individuals are recommended for installation.

All additional battery packs should be installed beneath the primary UPS module.

Locate and attach the rack/cabinet mounting rails (FIG. 1). Rest the battery pack on the front of the rack/cabinet mounting rails. Slide the battery pack into the rack until the ears contact the front posts and anchor the unit using the included mounting screws. (FIG. 2)

Repeat this same process for any additional battery packs.

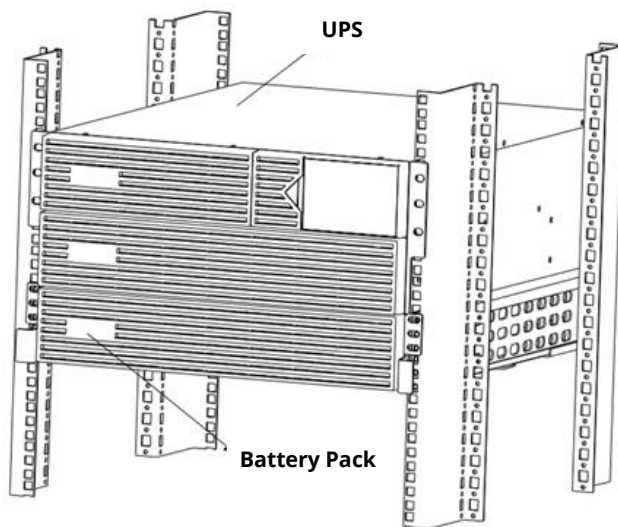


Figure 1

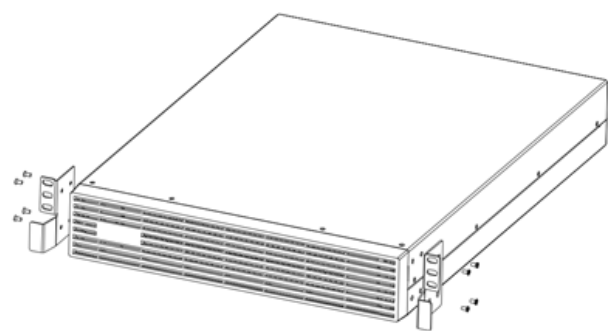


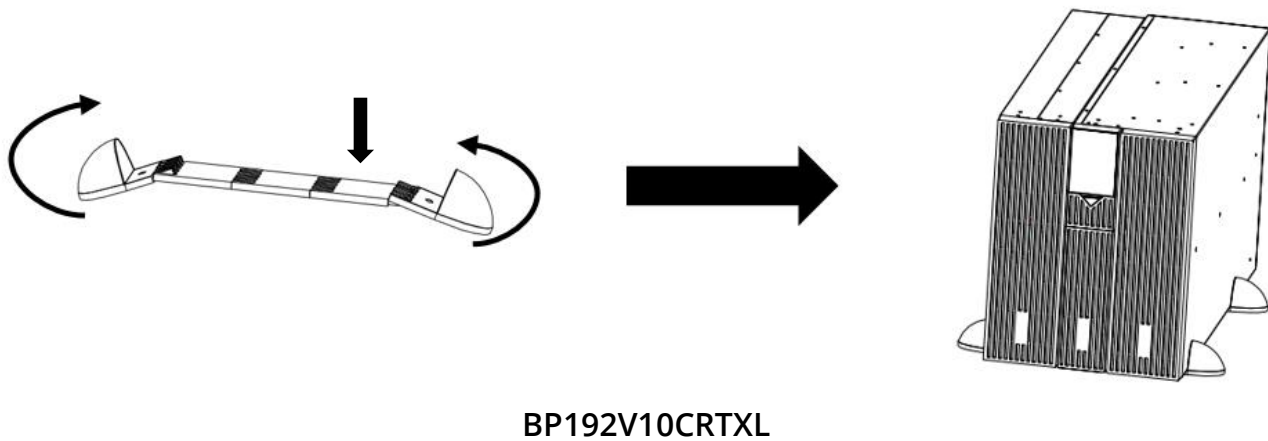
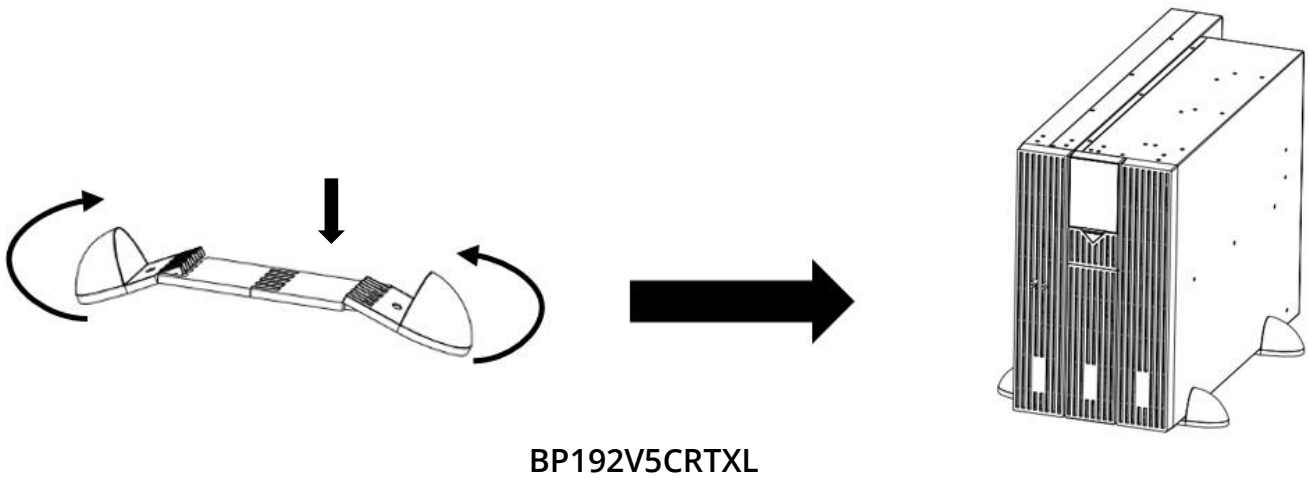
Figure 2

## Tower Installation:

Use caution as the Battery Pack is very heavy. Two or more individuals are recommended for installation.

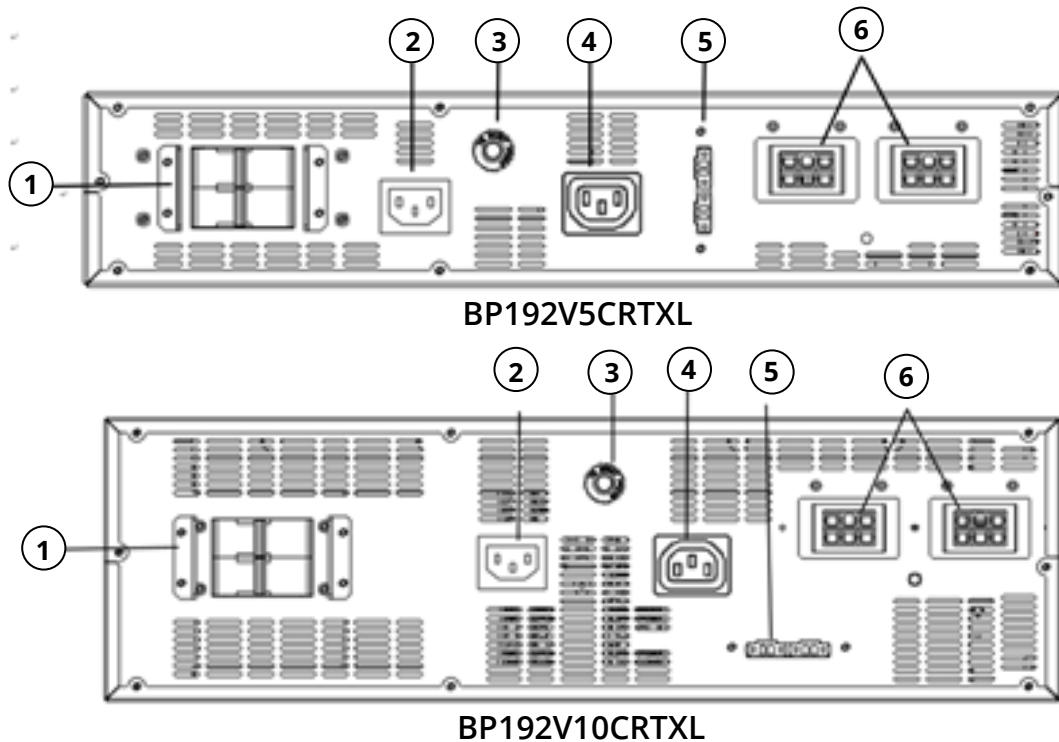
1. Locate the UPS to its final installation location.
2. Orient the Battery Pack vertically with the nameplate in line with the UPS.
3. Insert the required quantity of Battery Pack tower extensions into center of current UPS tower stand (front and back).

**NOTE:** Lifting the UPS and Battery Pack modules are extremely heavy. Two individuals are recommended to remove from packaging.





## Battery Pack Rear Panels:



1	DC Breaker – Overcurrent Protection	4	AC Output
2	AC Input	5	Battery Pack Detection Port
3	AC Circuit Breaker	6	CD Connector (to UPS or 2 <sup>nd</sup> Battery Pack)

## Connecting to a UPS

All wiring used for the installation of the UPS must be in accordance with the local electrical codes and regulations and performed using the following instructions by a licensed electrician.

### Connecting the Battery Pack to an AC Source

These Battery Packs have a universal input voltage range of 100 - 240VAC. Before connecting the Battery Pack to an AC source read all the Cautions and Warnings.

1. Connect the Battery Pack's input power cord into the AC Inlet on the rear panel of the Battery Pack.
2. Plug the other end of the Battery Pack's input power cord into the AC wall outlet, use a two pole, three wire, grounded AC wall outlet. The AC wall outlet shall be near the Battery Pack and shall be easily accessible. The input power cord on this Battery Pack series is intended to serve as a disconnect device. Do not use extension cords, adapter plugs, or surge strips. Do not connect the Battery Pack's input power cord into the output receptacles on the UPS.
3. Turn the DC breaker on the Battery Pack's rear panel to the On position. See the UPS User's Manual for the normal startup of the UPS.

**NOTE:** If connecting more than one Battery Pack see Daisy Chaining.

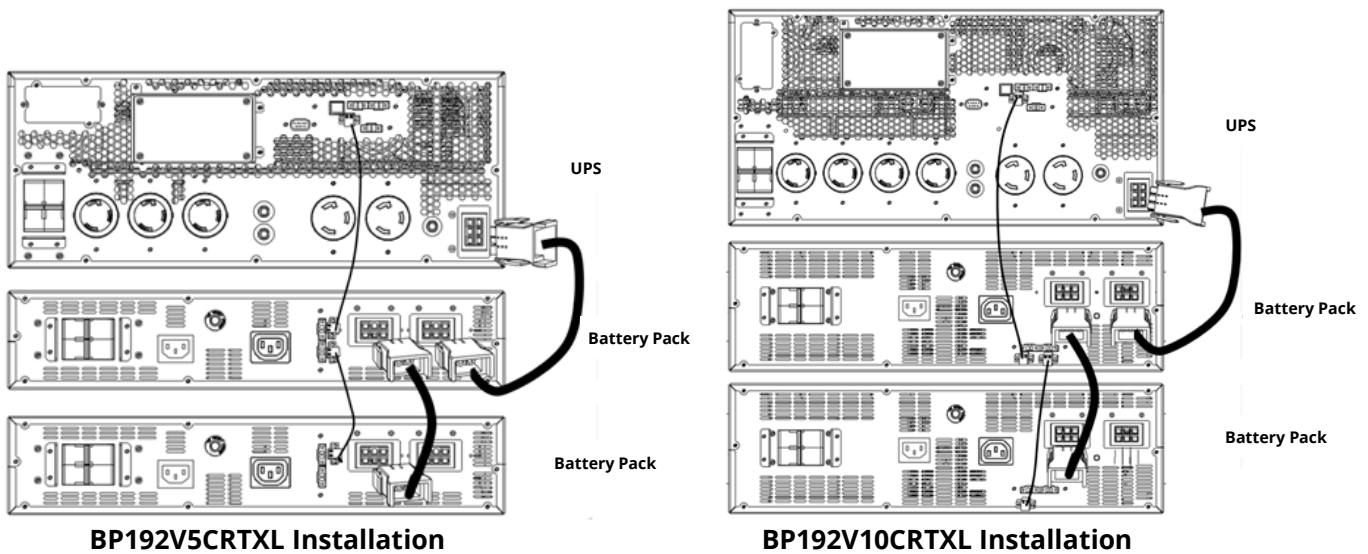
## Charging the Battery

These Battery Packs will charge the internal batteries whenever the Battery Pack is connected to an AC source and there is an acceptable AC voltage present (100 - 240VAC). It is recommended that the Battery Packs be charged for a minimum of 4 hours before use. The Battery Pack maybe used immediately, however, the "On-Battery" runtime of the UPS may be less than normally expected.

**NOTE:** If the Battery Pack is going to be out of service or stored for a prolonged period, the batteries must be recharged for at least 24 hours every ninety days.

## Daisy Chaining

(QUALIFIED SERVICE PERSONNEL ONLY)



"Daisy Chaining" refers to the connection of multiple battery packs in a string, connected to the UPS. If required, there is no limit to the number of battery packs that can be connected in a string. Follow the steps below to Daisy Chain the Battery Packs:

1. Be sure to read the installation placement procedure, all the cautions and the safety precautions before Daisy Chaining the Battery Pack(s).
2. Make sure the DC breaker on the Battery Packs and the UPS are turned Off (or open). **CAUTION:** If the Battery Pack's DC breaker is in the On, (or closed), position, battery voltage will be present at the open end of the Battery Pack's external battery cable and external battery connector. Unplug all the equipment that is plugged into the UPS output receptacles. Disconnect the UPS power cord from the AC wall outlet.
3. Verify, before plugging the external battery cable into the UPS external battery connector that they mate red to red and black to black.
5. Connect the external battery cable from the first Battery Pack into the external battery connector on the rear panel of the UPS.
6. Connect the external battery cable from the second Battery Pack into the external battery connector on the rear panel of the first Battery Pack.
7. Connect one end of the first External Battery Detection cable to the External Battery Detection Port on the rear panel of the UPS.
8. Connect the other end of the first External Battery Detection cable to the top External Battery Detection Port on the rear panel of the first Battery Pack.

9. Connect one end of the second External Battery Detection cable to the bottom External Battery Detection Port on the rear panel of the first Battery Pack.
10. Connect the other end of the second External Battery Detection cable to the top External Battery Detection Port on the rear panel of the second Battery Pack.
11. Connect the Daisy Chain power cord from the AC Outlet of the first Battery Pack to the AC Inlet of the second Battery Pack.
12. Connect the input power cord with the NEMA 5-15P Plug into the AC Inlet on the first Battery Pack.
13. Connect the input power cord (with the NEMA 5-15P Plug) from the first Battery Pack into the AC wall outlet, use a two pole, three wire, grounded AC wall outlet. The AC wall outlet shall be near the UPS and shall be easily accessible. Do not use extension cords, adapter plugs, or surge strips. Do not connect the Battery Packs input power cord into the output receptacles on the UPS.
14. Turn ALL of the DC breakers on the rear panel of all of the Battery Packs to the On, (or closed), position.
15. The Battery Packs are ready for normal operation, see the UPS User's Manual for the normal startup of the UPS.

**NOTE:** The maximum number that can be Daisy Chained for the AC source is five Battery Packs. There is no maximum number for Daisy Chaining the DC bus voltage for the Battery Packs

## Turning the Battery Pack ON/OFF

Turning the DC breaker to the On position will connect the DC bus voltage from the Battery Pack to the UPS. Turning the DC breaker to the Off position will disconnect the DC bus voltage from the Battery Pack to the UPS. The DC breaker does NOT turn on or turn off the internal charger. Plug the input power cord into the AC wall outlet to turn on the internal charger. Unplug the input power cord to turn off the internal charger. The Battery Pack's internal charger will continue to charge the batteries whenever it is plugged into an AC wall outlet and there is an acceptable AC voltage present (100 - 240VAC).

## External Battery Pack Detection Port

Connecting the External Battery Detection cable from the Battery Pack(s) to the UPS allows the UPS to automatically detect the External Battery Pack(s). Once the UPS detects that there is an External Battery Pack(s) connected it will automatically recalculate the estimated runtime based on the number of External Battery Packs detected and the attached load on the UPS.

**NOTE:** The External Battery Pack can also be set by the LCD screen on the UPS, or the Power Monitoring Software or the SNMP card.

## Replacing the Battery Module

The batteries provided with the Endeavor UPS will provide several years of service. Replacement of the battery modules should be performed by qualified service personnel only. Review all the warning and caution statements prior to attempting battery module replacement.

Do not open or mutilate the batteries, as there is a risk of shock, explosion or the release of hazardous gas.

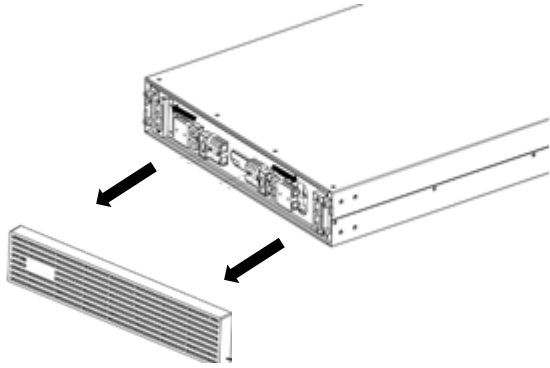
The original batteries are recyclable, refer to your local codes for disposal at a recycling center.

If you need assistance with the disposal of the batteries, please contact Minuteman at [service@minutemanups.com](mailto:service@minutemanups.com) for additional details and support or call 800.238.7272.

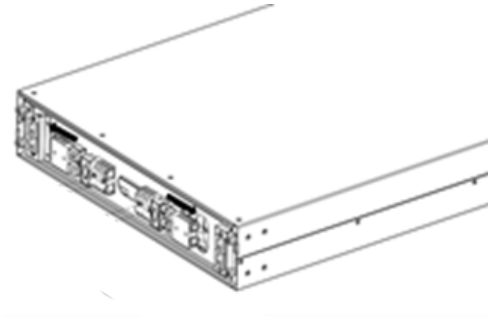
To maintain the optimal performance of the Endeavor UPS, it is important to only use battery modules designed to work with the series. Using third-party or inferior batteries will affect the negatively affect the performance and life of the UPS.

Replacement battery modules are available from Minuteman at <https://minutemanups.com/buy-ups-replacement-batteries/> or by contacting Minuteman service at 800.238.7272.

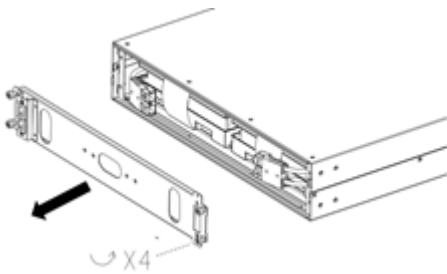
Powering off the UPS is not required to replace the battery module. Remove all watches, rings or the metal objects during the process.



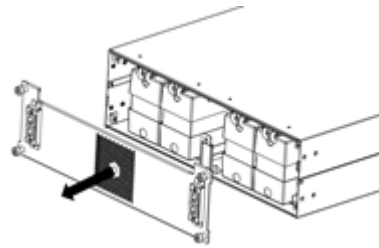
**Figure 1**



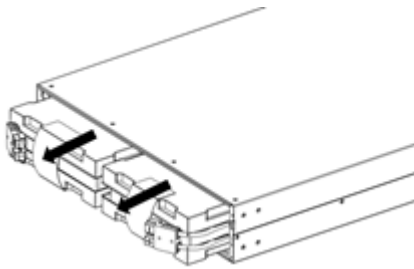
**Figure 2**



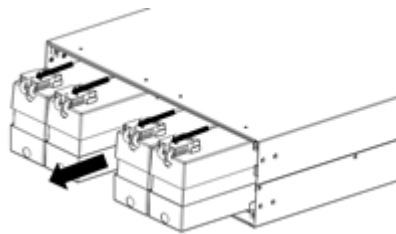
**Figure 3**



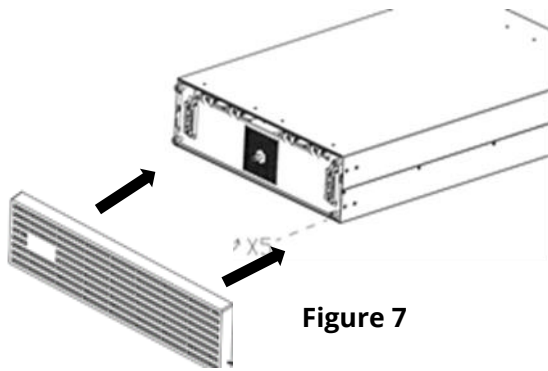
**Figure 4**



**Figure 5**



**Figure 6**



**Figure 7**

- 1) Remove the front panel of the battery pack by pulling from each end, directly away from the metal case. (Figure 1)
- 2) Separate the black Anderson connectors for the battery modules. (Figure 2)
- 3) Using a Philips screwdriver, loosen and remove the battery retention bracket by turning screws counterclockwise until they release from the battery cage. (Figure 3 for BP192V5CRTXL, Figure 4 for BP192V10CRTXL)
- 4) Slide the individual battery modules out of the battery cage.
  - a. There are two module packs for the BP192V5CRTXL. (Figure 5)
  - b. There are four module packs for the BP192V10CRTXL. (Figure 6)
- 5) Slide the new battery modules back into the battery pack case.
- 6) Replace the battery retention bracket by turning the screws clockwise, using a Philips screwdriver, until they are tight.
- 7) Re-attach the black Anderson connectors.
- 8) Re-attach the plastic front panel by pressing it directly into battery pack case until it locks into place. (Figure 7)

## Obtaining Service:

### If the Battery Pack Requires Service:

- 1) Verify there are no tripped circuit breakers and that the batteries are good. A tripped circuit breaker and defective batteries are the most common issues.
- 2) Call your dealer for assistance. If you cannot reach your dealer, or if they cannot resolve the issue call or fax the Technical Support department at the following numbers: Voice phone (972) 446-7363, FAX line (972) 446-9011 or visit the customer support page on our Web site at [www.minutemanups.com/contact](http://www.minutemanups.com/contact). Before contacting the Technical Support Department have the following information available:
  - a) Contact name and address.
  - b) Where and when the unit was purchased.
  - c) All of the model information about your unit.
  - d) The serial number of your unit.
  - e) Any information on the failure, including LEDs that may be illuminated or error codes displayed.
  - f) A description of the protected equipment including model numbers, if possible.
  - g) A technician will ask you for the above information, and if possible, help solve the issue over the phone. In the event that the unit requires factory service, the technician will issue you a Return Material Authorization Number (RMA #). **NOTE: We must have the model number and the serial number of the product to issue an RMA #.**
  - h) If the unit is under warranty, the repairs will be done at no charge. If the unit is not under warranty there will be a charge for the repair.

- 3) Pack the unit 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 unit properly in order to avoid damage in transit. Never use Styrofoam beads for a packing material.
  - a) Include a letter with your name, address, daytime phone number, RMA number, a copy of your original sales receipt, and a brief description of the problem.
- 4) Mark the RMA # on the outside of all packages. The factory cannot accept any package without the RMA # marked on the outside.
- 5) Return the unit by insured, prepaid carrier to:

Para Systems Inc.  
 MINUTEMAN UPS  
 2425 Technical Drive  
 Miamisburg, OH 45342  
 ATTN: RMA #

## Specifications:

UPS Model	BP192V5CRTXL	BP192V10CRTXL
<b>Battery System</b>		
Battery Type	Sealed, Non-spillable, Maintenance Free, Valve-regulated, Lead Acid	
Typical Recharge Time	8 hours to 90% after full load discharge	
Typical Battery Life	3-5 years, depending on discharge cycles and ambient environmental conditions	
System Voltage	192VDC	
DC Current	28.1A	46.9A
Battery Quantity	(16) Batteries	
Replacement Battery Module	BM0099	BM0100
Output Protection	Resettable Circuit Breaker	
<b>Environmental</b>		
Operating Temperature Range	+32° to +104°F (0° to +40°C)	
Storage Temperature Range	+5° to +122°F (-15° to +50°C)	
Operating (Storage) Humidity Range	0 to 95%, non-condensing	
Operating Elevation	0 to +15,000 ft. (0 to +3,000m)	
Storage Elevation	0 to +50,000 ft. (0 to +15,000m)	
<b>Physical</b>		
Unit Dimensions (L x W x H)	27.20" x 17.24" x 3.41" (691*438*86.5 mm)	28.0" x 17.24" x 5.14" (711*438*130.6 mm)
Shipping Dimensions (L x W x H)	32.68" x 23.43" x 9.45" (830*595*240 mm)	34.65" x 23.43" x 10.63" (880*595*270 mm)
Unit Weight	98.08 lbs. (44.5 Kgs.)	13.55 lbs. (61.5 Kgs.)
Shipping Weight	110.20 lbs. (50.0 Kgs.)	148.77 lbs. (67.5 Kgs.)
<b>Warranty &amp; Certifications</b>		
Standard Warranty	3 Years (Electronics and Batteries)	
Safety Agency Approvals	cUL (UL1778)	
Certifications and Compliancy	CE, FCC Class A, RoHS2	

**NOTE:** Specifications are subject to change without notice.



## 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 purchase. For equipment sites within the United States and Canada, this warranty covers depot repair or replacement of defective equipment at the discretion of Para Systems. Depot repair will be from the nearest authorized service center. The customer pays for shipping the product to Para Systems. Para Systems pays ground freight to ship the product back to the customer. 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 that are depot repaired or replaced pursuant to this warranty shall only 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 User's Manual or other written instructions.

Any technical advice furnished before or after delivery in regard to use or application of Para Systems' equipment is furnished without charge and on the basis that it represents Para Systems' 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; labor for on-site installation, on-site maintenance or on-site service, 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' products and the only obligation of Para Systems hereunder, shall be depot repair or replacement of defective equipment, components, or parts; or, at Para Systems' 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.

No employee, salesman, or agent of Para Systems is authorized to add to or vary the terms of this warranty.

Please go to our website at [www.minutemanups.com/warranty/](http://www.minutemanups.com/warranty/) to fill out the Warranty Registration.

## Additional Notices:

**NOTICE:** This product complies with the rules for Class A device, pursuant to Part 15 of the FCC rules for radio noise emissions from a digital apparatus.

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, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. If this device 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:

- Reorient 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.

### **Life Support Policy**

Para Systems does not support the use of any of its products in life support applications where the failure or malfunction of the product can be reasonably expected to cause failure to life support devices or to significantly affect their safety or effectiveness. Furthermore, Para Systems does not recommend the use of any of its products in direct patient care.

RoHS2

FCC Class A

cULus (UL1778 5<sup>th</sup> Edition)

CE Compliant

Para Systems, Inc.  
1455 LeMay Drive  
Carrollton, TX 75007  
800.238.7272

[www.minutemanups.com](http://www.minutemanups.com)

### **© 2023 PARA SYSTEMS, INC.**

Minuteman Power Technologies, Endeavor and SentryHD are owned by Para Systems, Inc. All other trademarks are property of their irrelative owners.