



by Schneider Electric

Smart-UPS™ RT External Battery Pack

SURTA48XLBP/SURTA48XLBPJ

Introduction

About this Manual

The APC™ by Schneider Electric Smart-UPS™ RT external battery pack (SURTA48XLBP or SURTA48XLBPJ) connects to the APC by Schneider Electric Smart-UPS RT uninterruptible power supply (SURTA1500XL and SURTA2000XL, or SURTA1500XLJ). Together these units provide extended protection against blackouts, brownouts, sags and surges reaching your computers, servers, and other sensitive electronic equipment.

Illustrations are representative. Your configuration, including components and optional APC by Schneider Electric equipment, may be different from the models shown in this manual. The user manual is accessible from the supplied CD and the APC by Schneider Electric web site, www.apc.com.

Contact Information

Refer to www.apc.com to contact APC by Schneider Electric or for additional information about this product.

Safety Information



Warning

Read the Safety Guide before you begin the installation, operate the battery pack, or perform equipment maintenance. Failure to comply with safety instructions could result in bodily injury or equipment damage.



Heavy

The equipment is heavy. Two people are required to lift the UPS or battery pack.

Select a location sturdy enough to handle the weight of the equipment.



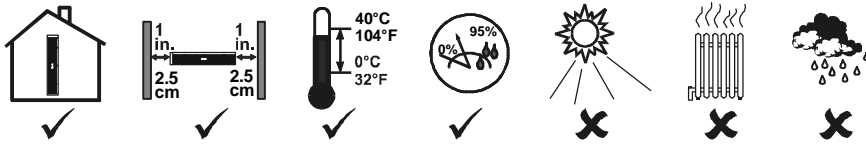
Note

The battery pack is shipped with the battery modules installed. Battery modules are shipped DISCONNECTED to be in compliance with U.S. Department of Transportation (DOT) regulations.

Unpacking and Equipment Placement

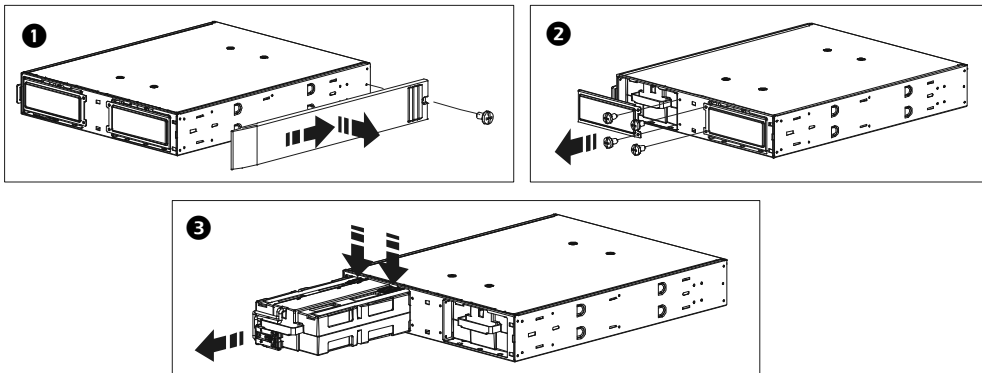
1. Unpack the equipment. The packaging is recyclable; save it for reuse or dispose of it properly.
2. Inspect the equipment upon receipt. Notify the carrier and dealer if there is damage.
3. Check the package contents:
 - the battery pack and front bezel
 - a literature kit containing user manual, two clips, two stabilizing foot extensions with hardware, product documentation, warranty documentation, and safety information.

4. Place the battery pack where it will be used.
 - Ensure that air vents on the front and rear of the unit are not blocked.
 - Do not operate the battery pack where there is excessive dust or the temperature or humidity are outside the specified limits.

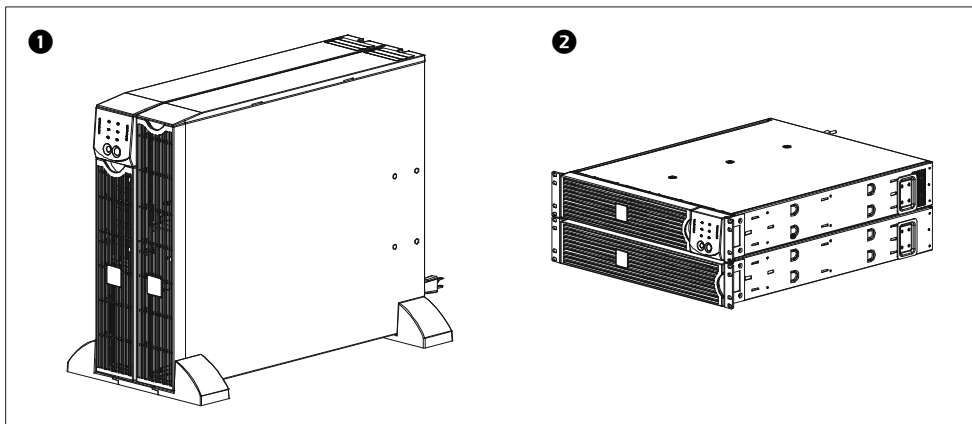


Pre-installation Procedure

1. Once the battery pack is at the installation site, remove the top cover **1** and battery modules **2** to lighten the load and prepare the battery pack to be installed in a tower or rack mount configuration.
2. To disengage the battery from the chassis, push the battery tabs **3** inward.



3. Go to the installation procedures to install the UPS and battery pack as a tower **1** (page 3) or in a rack-mount **2** (page 5) configuration.



Tower Installation



Caution

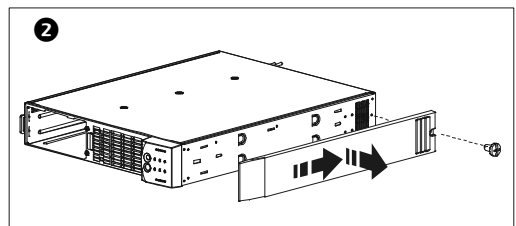
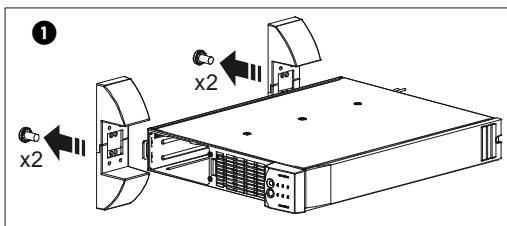
When installing the UPS and battery pack(s) as a tower configuration, they must be joined together with stabilizing feet and clips. Failure to comply to this instruction may result in bodily injury or equipment damage.



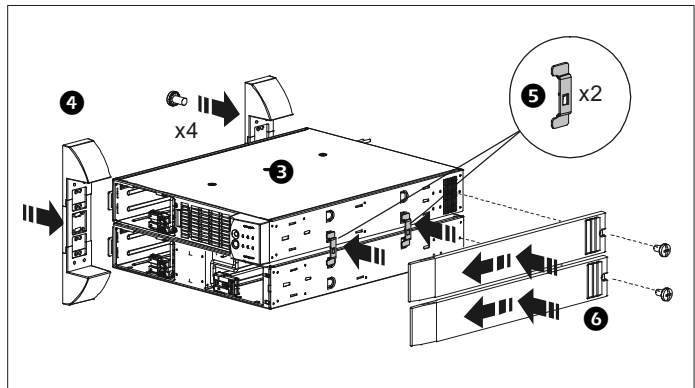
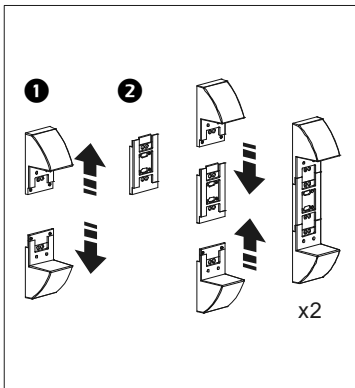
Note

When installing the UPS and battery pack(s) as a tower configuration, battery pack(s) must be installed to the right of the UPS when facing the front of the UPS. Failure to follow this instruction could result in cabling shortage.

1. Complete this step if this is a new installation of the UPS with battery pack(s).
 - a. Place the UPS on its side to remove the battery. To remove the battery, refer to the “Battery Replacement Instructions” procedure in the UPS user manual.
 - b. Remove the stabilizing feet **1** and top cover **2**. Retain removed components for reuse.

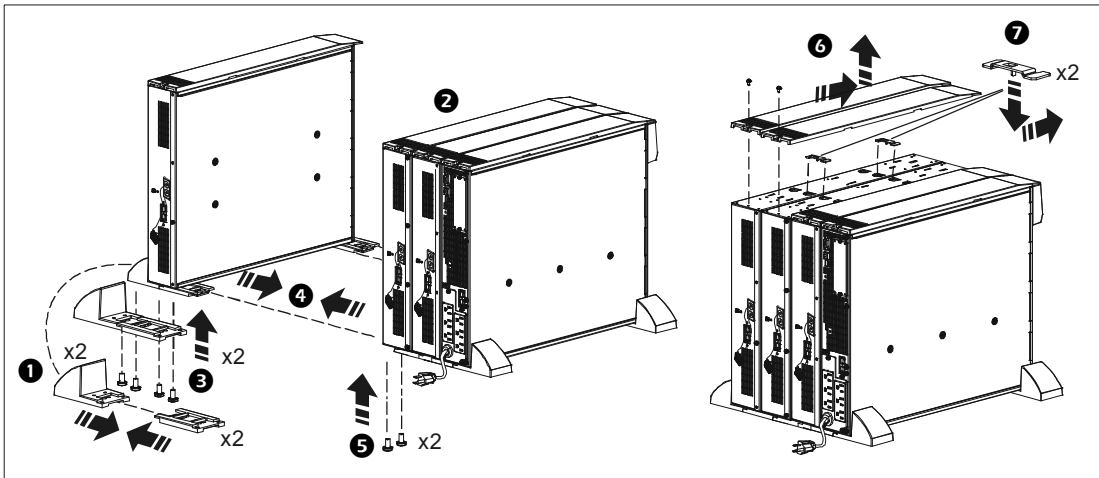


- c. Join the equipment together as shown.
 - Assemble the stabilizing feet **1** and foot extensions **2**.
 - Place the UPS **3** on top of the battery pack.
 - Attach the stabilizing feet **4**, clips **5**, and top covers **6**.

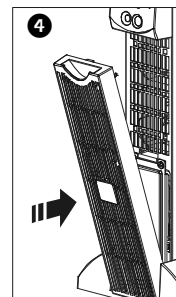
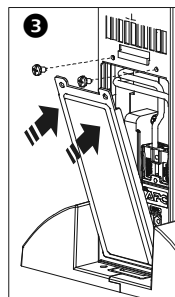
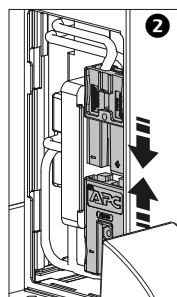
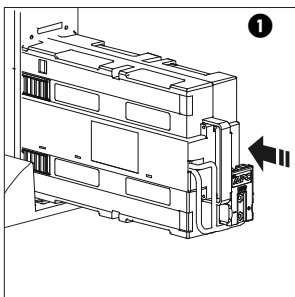


- d. Place the equipment in an upright position.

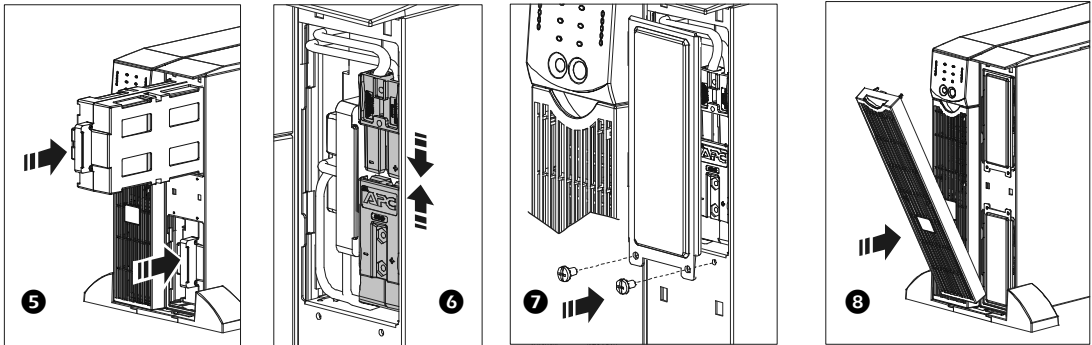
2. Complete this step if adding battery pack(s) to an existing tower system.
 - a. Turn Off the UPS and disconnect all equipment. Refer to the UPS user manual for instructions.
 - b. Remove bezels, battery covers, and battery modules from all previously installed equipment. For additional instructions, refer to the UPS user manual and “Transporting the Battery Pack to Another Location” on page 10.
 - c. Remove the feet **1** from the last battery pack **2**.
 - d. Attach and mount the feet to the new battery pack(s) **3** as shown.
 - e. Attach new battery pack(s) to the existing assembly by joining the two assemblies **4** and securing screws in the foot extensions **5**.
 - f. Remove the top covers **6** as shown. Install clips **7** between the chassis, then install the top covers.



3. Go to “Battery Pack and UPS Connection Procedure” on page 7 to:
 - Connect the TVSS ground wire.
 - Connect the UPS to the battery pack.
 - Connect battery packs to one another.
4. To complete the installation:
 - a. Install **1** and connect **2** the UPS battery module.
 - b. Install the UPS battery cover **3** and bezel **4**.



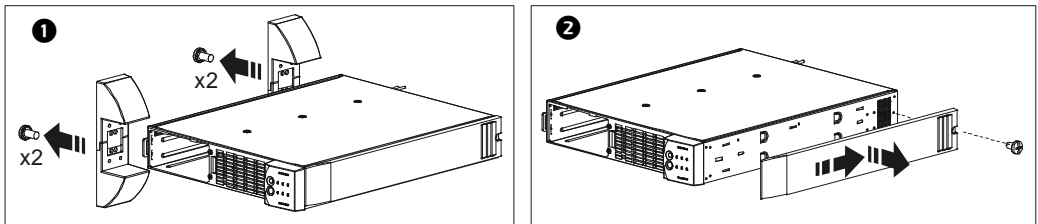
- c. Install **5** and connect **6** the battery pack battery modules.
- d. Install the battery pack covers **7** and bezel **8**.



- 5. Go to “Terminal Mode Configuration” on page 9 to configure the UPS to recognize the battery pack(s).

Rack-Mount Installation

- 1. Complete this step if this is a new installation of the UPS with battery pack(s).
 - a. Place the UPS on its side to remove the battery. To remove the battery, refer to the “Battery Replacement Instructions” procedure in the UPS user manual.
 - b. Remove the stabilizing feet **1** and top cover **2**. Retain removed components for reuse.



- 2. Complete this step if adding battery pack(s) to an existing rack-mount system.



Before removing the UPS from the rack: ensure that the UPS is NOT connected to utility or battery power circuits; the UPS is turned OFF, and equipment is disconnected from the UPS.

- a. When installing battery pack(s), ensure that the UPS is installed directly above the battery pack(s).
- b. If removal of the UPS is required, refer to “Transporting the UPS to Another Location” procedure in the UPS user manual.

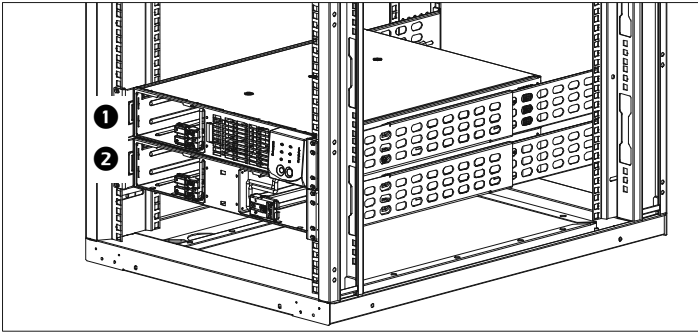
3. Install the battery pack(s) and the UPS in the rack.



The UPS must be installed ABOVE the battery pack(s) when in a rack. Failure to follow this instruction could result in cabling shortage.

Note

- a. Refer to the installation sheet contained in the SURTRK rail box for instructions on how to install the cleats, rack-mount brackets, and labels on the UPS and battery pack(s).
- b. Refer to the installation sheet contained in the SURTRK rail box for instructions on how to install the battery pack and UPS rails and chassis in the rack.
 - Install the battery pack rails in the lowest available u-space in the rack.
 - Install the UPS **1** directly above the battery pack(s) **2**.

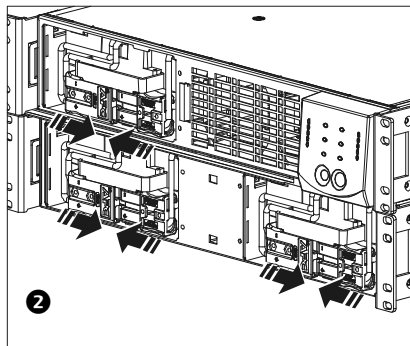
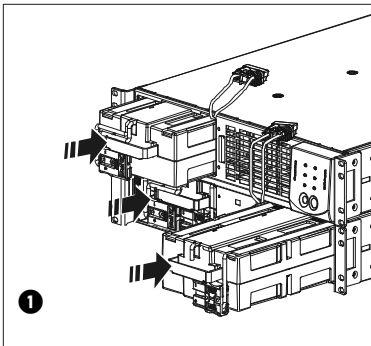


4. Go to “Battery Pack and UPS Connection Procedure” on page 7 to:

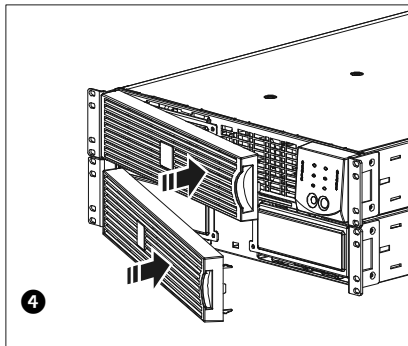
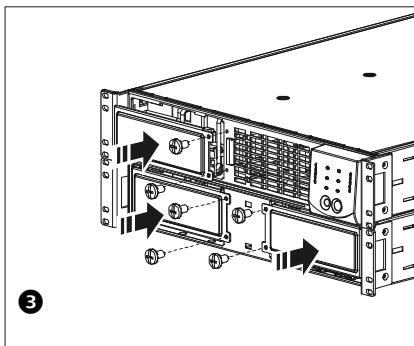
- Connect the TVSS ground wire.
- Connect the UPS to the battery pack.
- Connect battery packs to one another.

5. To complete the installation:

- a. Install **1** and connect **2** the UPS and battery pack battery modules.




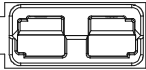
- b. Install the UPS and battery pack battery covers **3** and bezels **4**.



6. Go to “Terminal Mode Configuration” on page 9 to configure the UPS to recognize the battery pack(s).

Battery Pack and UPS Connection Procedure

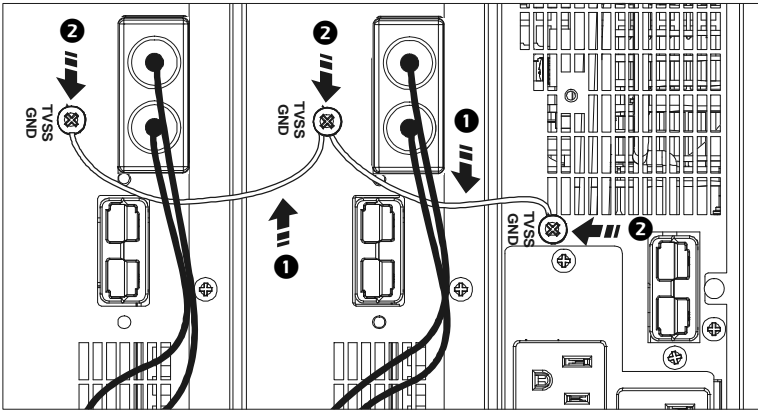
The battery pack is equipped with the following connectors. Refer to the UPS user manual for UPS connector types and definitions.

Connectors	Type	Description
	TVSS screw	The UPS and battery pack features a Transient Voltage Surge suppression (TVSS) screw located on the rear panel, for connecting the ground cable on surge suppression devices such as telephone and network line protectors. NOTE: Prior to connecting the grounding cable, turn off the UPS and disconnect it from the utility power outlet.
	battery pack connector	Smart-UPS RT battery packs provide extended run-time during power outages. A maximum of 10 battery packs can be used with the UPS. NOTE: See the APC by Schneider Electric web site, www.apc.com for information on the battery pack, SURTA48XLBP or SURTA48XLBPJ.

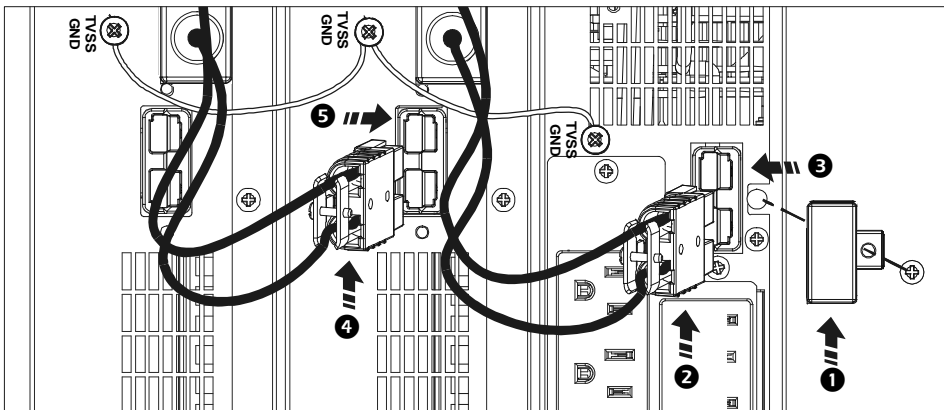


Prior to connecting the grounding cable, ensure that the UPS is NOT connected to utility or battery power circuits. See the UPS user manual for additional instructions.

1. Connect the green/yellow ground wire(s) **1** to the TVSS screw locations **2** between the UPS and battery pack, or between battery packs as shown.



2. To connect the battery pack to the UPS and to connect battery packs to one another:
 - a. Remove the UPS battery connector plate **1**.
 - b. Insert the adjacent battery pack connector cable plug **2** into the connector receptacle **3** on the UPS.
 - c. If applicable, insert the battery pack connector cable plug **4** into the connector receptacle **5** on the adjacent battery pack.



Terminal Mode Configuration

This configuration affects the accuracy of the runtime calculations that the UPS performs while running on battery power.

Settings are made through supplied PowerChute™ *Business Edition* or Terminal Mode.



Terminal mode can only be used with the serial cable provided with the UPS. If using a USB cable, disconnect the USB cable from the UPS, and connect the serial cable to the UPS before using the terminal program.

Shown below is an example of how to use terminal mode to configure the number of battery packs.

1. Exit the PowerChute Business Edition software.
 - a. From the windows PC desktop, select START => Settings => Control Panel => Administrative Tools => Services.
 - b. Select APC by Schneider Electric PCBE Server and APC by Schneider Electric PCBE Agent. Right click the mouse and select Stop.
2. Open a terminal program. Example: HyperTerminal
From the computer desktop, select START => Programs => Accessories => Communication => HyperTerminal.
3. Double-click the HyperTerminal icon.
 - a. Follow the prompts to choose a name and select an icon. Disregard the message, "...must install a modem," if it is displayed. Click OK.
 - b. Select the COM port that is connected to the UPS. The port settings are:
 - Bits per second - 2400
 - data - bits 8
 - parity - none
 - stop bit - 1
 - flow control - none
 - c. Press Enter.
4. Once the terminal window is open, follow these steps to set the number of battery packs (SURTA48XLBP or SURTA48XLBPJ):
 - a. Press Enter to initiate terminal mode. Follow the prompts.
 - b. Press 1 to modify UPS settings. Press e (or E) to modify the number of battery packs.
 - c. Enter the number of battery packs, including the internal UPS battery (Number of packs: 1 = internal UPS battery, 2 = one SURTA48XLBP or SURTA48XLBPJ, 3 = two SURTA48XLBP or SURTA48XLBPJ, etc.)
 - d. Press Enter.
 - e. Follow the prompts.
5. Exit the terminal program.

Operation and Troubleshooting

Refer to the "Operation" section in the UPS user manual for instructions on how to operate the UPS and battery pack.

Refer to the “Troubleshooting” section in the UPS user manual to solve minor battery pack or UPS installation and operation problems. Refer to www.apc.com with complex battery pack or UPS problems.

Storage, and Transport

Storage

Store the battery pack covered in a cool, dry location with the battery modules fully charged.

At 5° to 113° F (–15° to 45° C), charge the battery modules every six months.

To Install a Replacement Battery

This battery pack has easy to replace, hot swappable battery modules. Replacement is a safe procedure, isolated from electrical hazards. You may leave the UPS and connected equipment on during the replacement procedure.



Once the battery modules are disconnected, the connected equipment is not protected from power outages.

Refer to the appropriate replacement battery user manual for battery installation instructions. See your dealer or contact APC by Schneider Electric at www.apc.com for information on replacement battery modules.

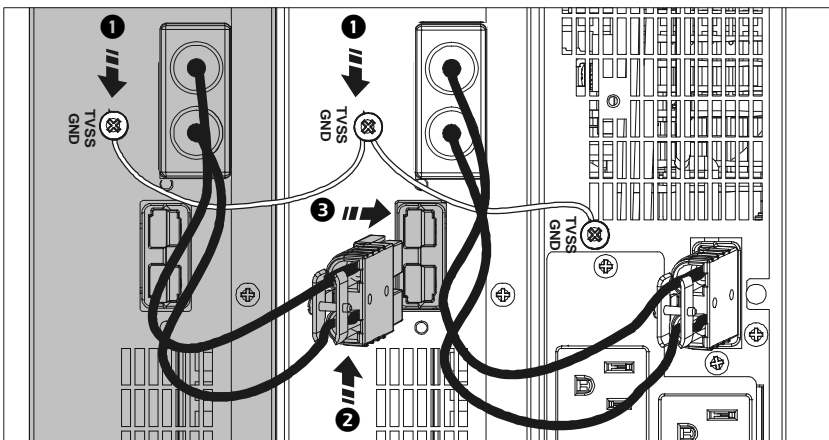


Be sure to deliver the spent battery(s) to a recycling facility or ship it to APC by Schneider Electric in the replacement battery packing material.

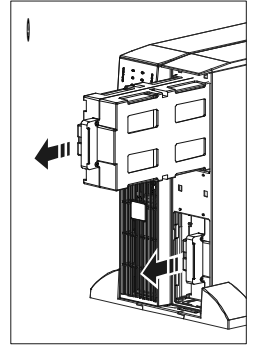
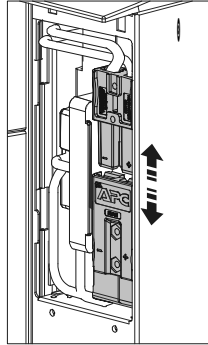
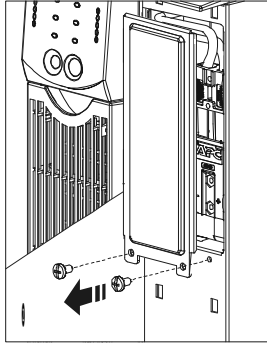
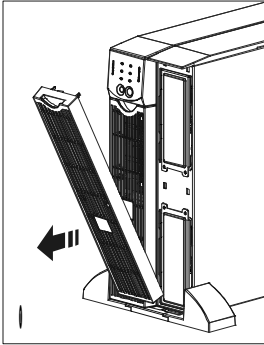
Transporting the Battery Pack to Another Location

Perform these steps before transporting the battery pack to another location.

1. Disconnect the green/yellow ground wire **1** attached to the battery pack to be transported.
2. Disconnect the battery pack connector cable plug **2** from the connector receptacle(s) **3**.



3. To lighten the load, remove the battery modules before transporting the battery pack to another location.
 - a. Remove the bezel ❶ and battery covers ❷.
 - b. Disconnect ❸ and remove ❹ the battery modules.



Service

If the unit requires service, do not return it to the dealer. Follow these steps:

1. Review the *Troubleshooting* section of the manual to eliminate common problems.
2. If the problem persists, contact APC by Schneider Electric Customer Support through the APC by Schneider Electric web site, **www.apc.com**.
 - a. Note the model number and serial number and the date of purchase. The model and serial numbers are located on the rear panel of the unit and are available through the LCD display on select models.
 - b. Call Customer Support and a technician will attempt to solve the problem over the phone. If this is not possible, the technician will issue a Returned Material Authorization Number (RMA#).
 - c. If the unit is under warranty, the repairs are free.
 - d. Service procedures and returns may vary internationally. Refer to the APC by Schneider Electric web site, **www.apc.com** for country specific instructions.
3. Pack the unit properly to avoid damage in transit. Never use foam beads for packaging. Damage sustained in transit is not covered under warranty.
 - a. **Note: When shipping within the United States, or to the United States always DISCONNECT ONE UPS BATTERY before shipping in compliance with U.S. Department of Transportation (DOT) and IATA regulations.** The internal batteries may remain in the UPS.
 - b. Batteries may remain connected in the XBP during shipment. Not all units utilize XLBPs.
4. Write the RMA# provided by Customer Support on the outside of the package.
5. Return the unit by insured, prepaid carrier to the address provided by Customer Support.

Limited Factory Warranty

Schneider Electric IT Corporation (SEIT), warrants its products to be free from defects in materials and workmanship for a period of two (2) years from the date of purchase. The SEIT obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. Repair or replacement of a defective product or parts thereof does not extend the original warranty period.

This warranty applies only to the original purchaser who must have properly registered the product within 10 days of purchase. Products may be registered online at warranty.apc.com.

SEIT shall not be liable under the warranty if its testing and examination disclose that the alleged defect in the product does not exist or was caused by end user or any third person misuse, negligence, improper installation, testing, operation or use of the product contrary to SEIT recommendations or specifications. Further, SEIT shall not be liable for defects resulting from: 1) unauthorized attempts to repair or modify the product, 2) incorrect or inadequate electrical voltage or connection, 3) inappropriate on site operation conditions, 4) Acts of God, 5) exposure to the elements, or 6) theft. In no event shall SEIT have any liability under this warranty for any product where the serial number has been altered, defaced, or removed.

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To obtain service under warranty you must obtain a Returned Material Authorization (RMA) number from customer support. Customers with warranty claims issues may access the SEIT worldwide customer support network through the APC web site: www.apc.com. Select your country from the country selection drop down menu. Open the Support tab at the top of the web page to obtain information for customer support in your region. Products must be returned with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase.

APC by Schneider Electric Worldwide Customer Support

Customer support for this or any other APC by Schneider Electric product is available at no charge in any of the following ways:

- Visit the APC by Schneider Electric web site, www.apc.com to access documents in the APC Knowledge Base and to submit customer support requests.
 - **www.apc.com** (Corporate Headquarters)
Connect to localized APC by Schneider Electric web site for specific countries, each of which provides customer support information.
 - **www.apc.com/support/**
Global support searching APC Knowledge Base and using e-support.
- Contact the APC by Schneider Electric Customer Support Center by telephone or e-mail.
 - Local, country specific centers: go to **www.apc.com/support/contact** for contact information.
 - For information on how to obtain local customer support, contact the APC by Schneider Electric representative or other distributor from whom you purchased your APC by Schneider Electric product.

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