

APC™ Smart-UPS™ Ultra External Battery Pack SRTL50RMBP1U-LI

Important Safety Instructions

SAVE THESE INSTRUCTIONS - This manual contains important instructions that should be followed during installation and maintenance of the Smart-UPS and batteries.



Read the user documentation to become familiar with the equipment before trying to install or operate it.

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol either to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, **can result in** death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **can result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

Electrical equipment should be installed operated and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Product Handling Guidelines



Safety and General Information

- Connect only SELV circuits to all the communication ports.
- Changes and modifications to this unit not expressly approved by Schneider Electric could void the warranty.
- This External Battery Pack must be installed in dedicated IT environments only.

Battery Safety

WARNING

RISK OF CHEMICAL HAZARD AND EXCESSIVE SMOKE

- Replace the External Battery Pack at least every 10 years or at the end of its service life, whichever is earlier.
- Replace the External Battery Pack immediately when the UPS indicates battery replacement is necessary.
- Replace with the same type as originally installed in the equipment.

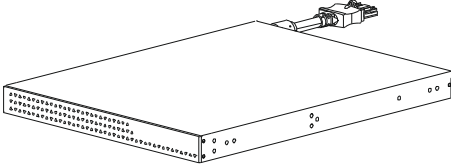
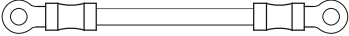
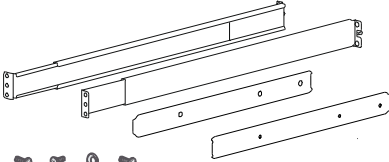



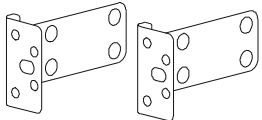
Failure to follow these instructions can result in death or serious injury.

- The External Battery Pack typically lasts for 10 years. Environmental factors impact the life of the External Battery Pack. Elevated ambient temperatures, poor quality utility power causing frequent short duration discharges will shorten the life of the External Battery Pack.
- The External Battery Pack can be replaced by the user.
- If attempting to replace the External Battery Pack:
 - Use only APC External Battery Pack.
 - Do not use third-party Battery Packs.
- APC Smart-UPS Ultra uses Lithium Ion batteries. Under normal use and handling, there is no contact with the internal components of the battery module.
- Do not drive nails into the External Battery Pack.
- Do not strike the External Battery Pack with a hammer.
- Do not stand on the External Battery Pack.
- Do not short circuit External Battery Pack.
- Do not place or use the External Battery Pack near heat or fire.
- Do not use a dropped, damaged or deformed External Battery Pack.
- Do not use the External Battery Pack to power other equipment.
- CAUTION: A battery can present a risk of electric shock and burns by high short-circuit current.
- CAUTION: Before installing or replacing the battery modules, remove conductive jewelry such as chains, wrist watches and rings. High energy through conductive materials could cause severe burns.

- CAUTION: Do not crush or dispose off the External Battery Pack in a fire. The cells may explode.
- CAUTION: Do not open or tamper with the External Battery Pack enclosure. Doing so will expose the cell terminals which pose an energy hazard.
- CAUTION: Do not open the External Battery Pack or mutilate the cells inside it. Released chemical is harmful to the skin and eyes. It may be toxic.
- CAUTION: Failed batteries can reach temperatures that exceed the burn thresholds for touchable surfaces.

Package Contents

Inspect the contents upon receipt. Notify the carrier and dealer if there is damage.

<p>External battery pack.</p> 	<p>Ground cable</p> 
<p>Rail kit</p>  <p>  (8) (10) (8) (2) </p>	<p>Flat head screws (8x) to secure the rack-mount brackets and the extensions for the stabilizer brackets</p>  <p>Extension for stabilizer brackets.</p>  <p>Rack-mounting brackets.</p> 

Specifications

For additional specifications, refer to our web site, www.se.com.

Environmental

Temperature	Operating	0° to 40° C (32° to 104° F)
	Storage	-15° to 45° C (5° to 113° F)
Maximum Elevation	Operating	0 - 3,000 m (0 - 10,000 ft)
	Storage	0 - 15,000 m (50,000 ft)
Humidity		0% to 95% relative humidity, non-condensing
International Protection Code		IP20

NOTE:

- Charge the External Battery Pack immediately upon first installation.
- Charge the External Battery Pack at least once in 12 (twelve) months during storage.
- Environmental factors impact battery life. Elevated ambient temperatures, high humidity, poor quality mains power causing frequent short duration discharges, will shorten battery life.

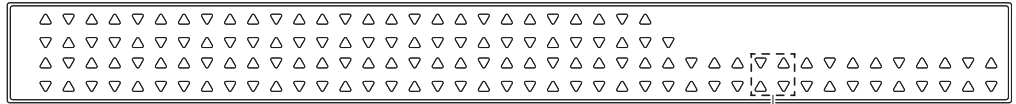
Physical

The External Battery Pack is heavy. Follow all lifting guidelines.	
Unit weight without packaging (approx.)	16.70 kg (36.82 lbs)
Unit weight with packaging (approx.)	23.90 kg (52.69 lbs)
Unit dimensions without packaging Height x Width x Depth	43 x 432 x 560 mm (1.69 x 17.00 x 22.04 in.)
Unit dimensions with packaging Height x Width x Depth	198 x 564 x 764 mm (7.80 x 22.20 x 30.08 in.)
The model and serial numbers are on a label located on the rear panel.	

Battery Module

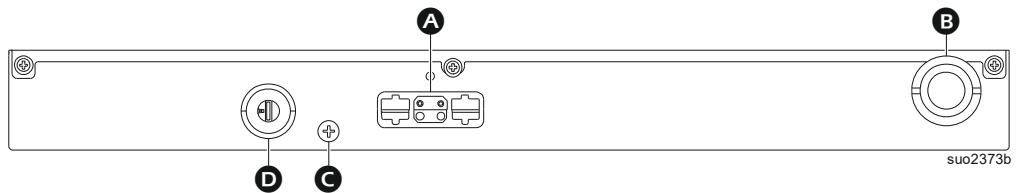
Battery type	Lithium-Ion
Number of battery modules	1
Voltage of each battery module	50.4 V
Total voltage of the External Battery Pack	50.4 V
Ah rating	18.85 Ah
External Battery Pack cable length	500 mm

Front Panel Features



<p>A External Battery Pack status LED (located behind the bezel)</p>	<ol style="list-style-type: none"> 1. Illuminates green: External Battery Pack is operating normally. 2. Illuminates amber: External Battery Pack is discharging or External Battery Pack is initializing communication with the UPS (immediately after an External Battery Pack is connected to the UPS). 3. Illuminates red: An internal error detected in the External Battery Pack.
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Rear Panel Features



<p>A Battery receptacle</p>	<p>Connect the battery connection cable from an additional External Battery Pack to this receptacle.</p>
<p>B Battery connection cable</p>	<p>Connect the cable to the battery connection receptacle on the rear panel of the UPS or another External Battery Pack.</p>
<p>C Ground terminal</p>	<p>Connect ground wires to this terminal. Refer “Connect the ground cable - Single External Battery Pack” on page 10 for details.</p>
<p>D External Battery Pack ID selector switch</p>	<p>Use this switch to set a unique ID for each External Battery Pack connected. Refer “Set unique identification (ID) number for each XLPB connected.” on page 12 for details.</p>

Rack-Mount Installation

Refer to the rail kit Installation Guide for instructions on rail installation.

CAUTION

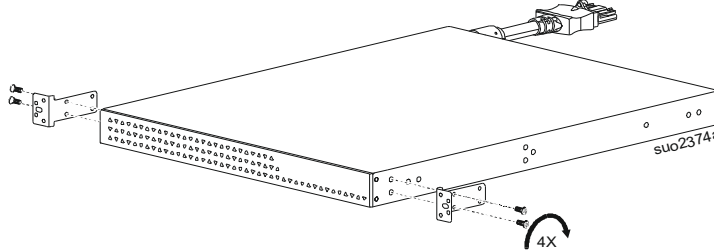
RISK OF FALLING EQUIPMENT

- The External Battery Pack is heavy. Always practice safe lifting techniques adequate for the weight of the External Battery Pack.
- Support the External Battery Pack with both hands while sliding it into the rack.
- Always use the recommended number of screws to secure brackets to the External Battery Pack.
- Always use the recommended number of screws to secure the External Battery Pack to the rack.
- Always install the External Battery Pack below the UPS in the rack.

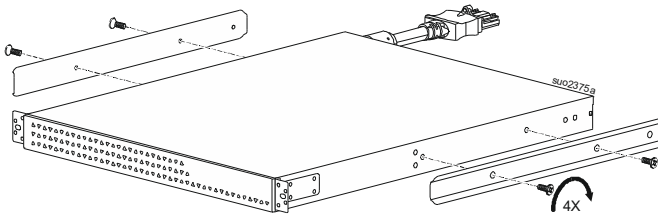
Failure to follow these instructions can result in equipment damage and minor or moderate injury.

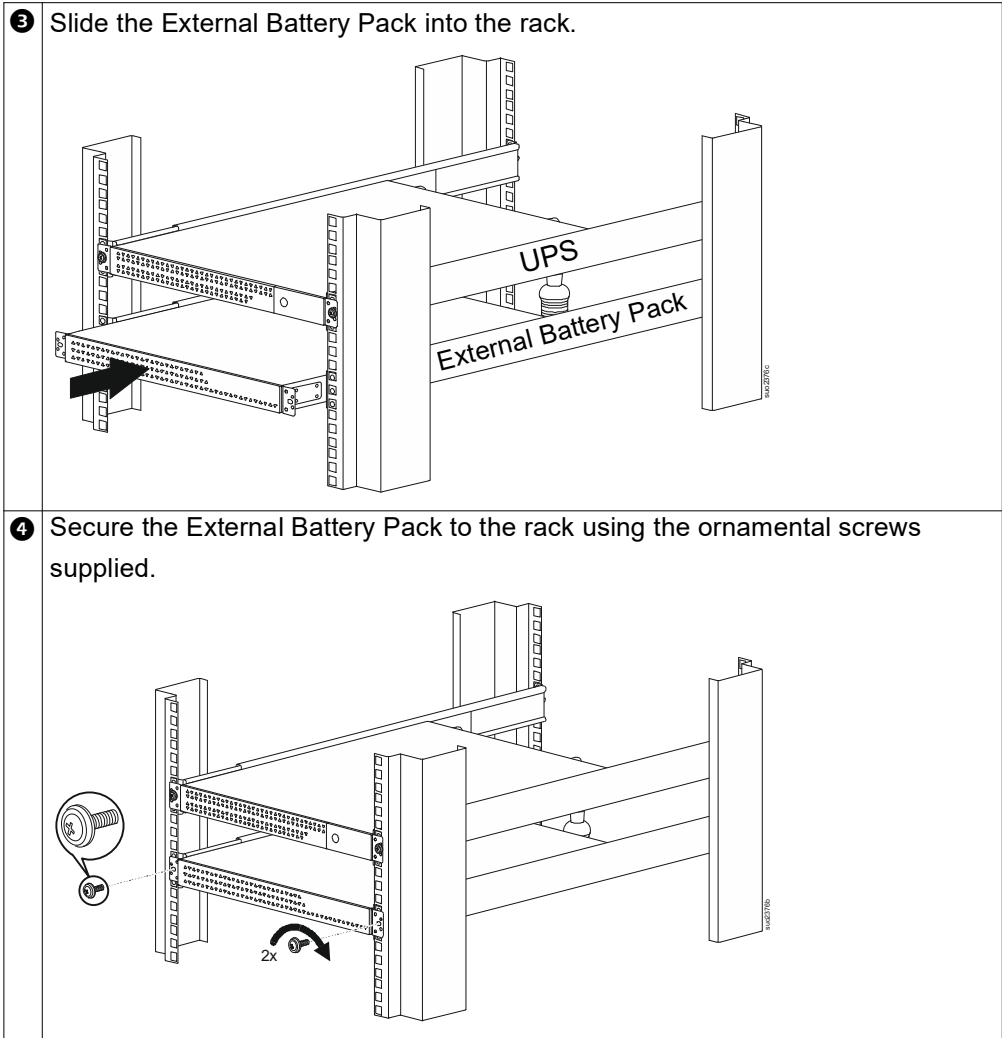
Installation in 4 post rack

- 1 Install the rack-mount brackets and secure the rack-mount brackets to the External Battery Pack using the screws supplied.

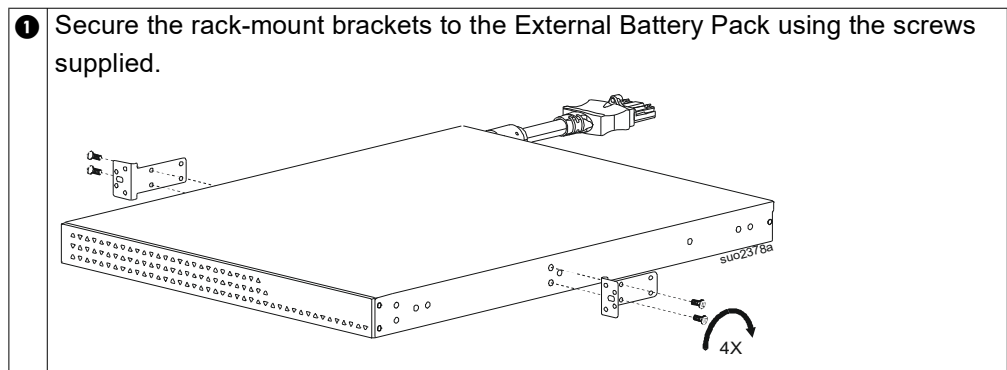


- 2 Install the cleats and secure the cleats to the External Battery Pack using the screws supplied.

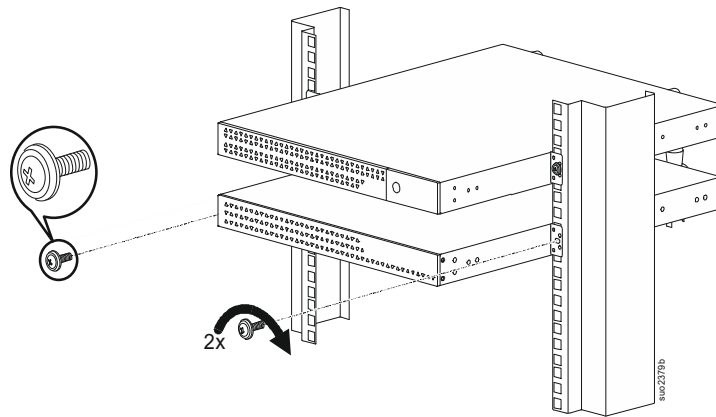




Installation in 2 post rack



2 Secure the External Battery Pack to the rack using the ornamental screws supplied.



Tower Installation

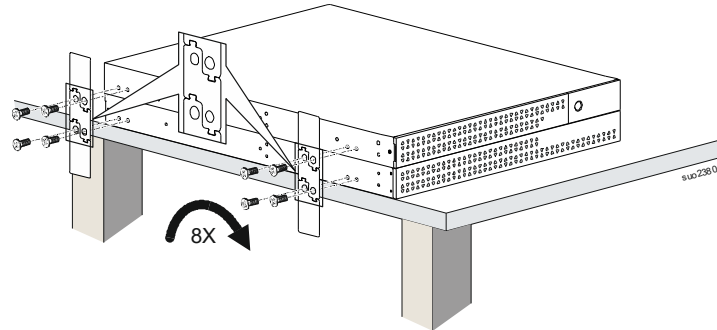
⚠ CAUTION

RISK OF FALLING EQUIPMENT

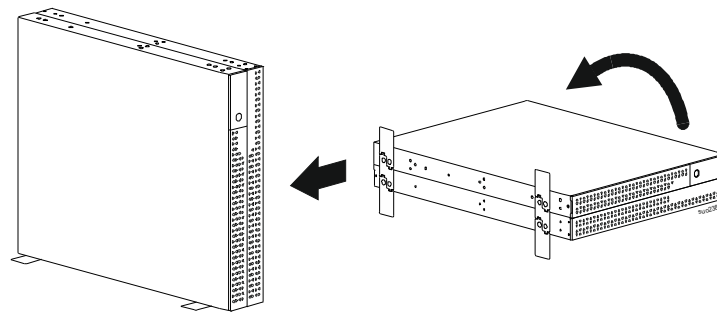
- The equipment is heavy.
- Always practice safe lifting techniques adequate for the weight of the equipment.

Failure to follow these instructions can result in equipment damage and minor or moderate injury.

1 Install the stabilizer brackets to both the UPS and the External Battery Pack using the screws supplied.



2 Turn the UPS to vertical orientation.



Wall mounting

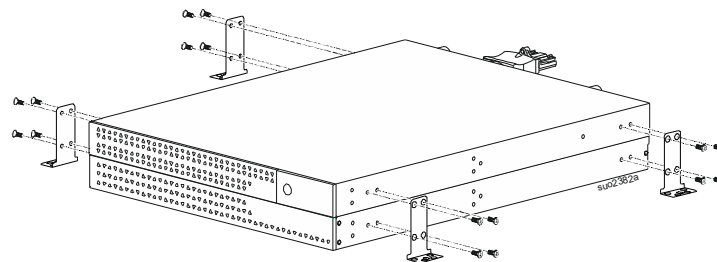
⚠ CAUTION

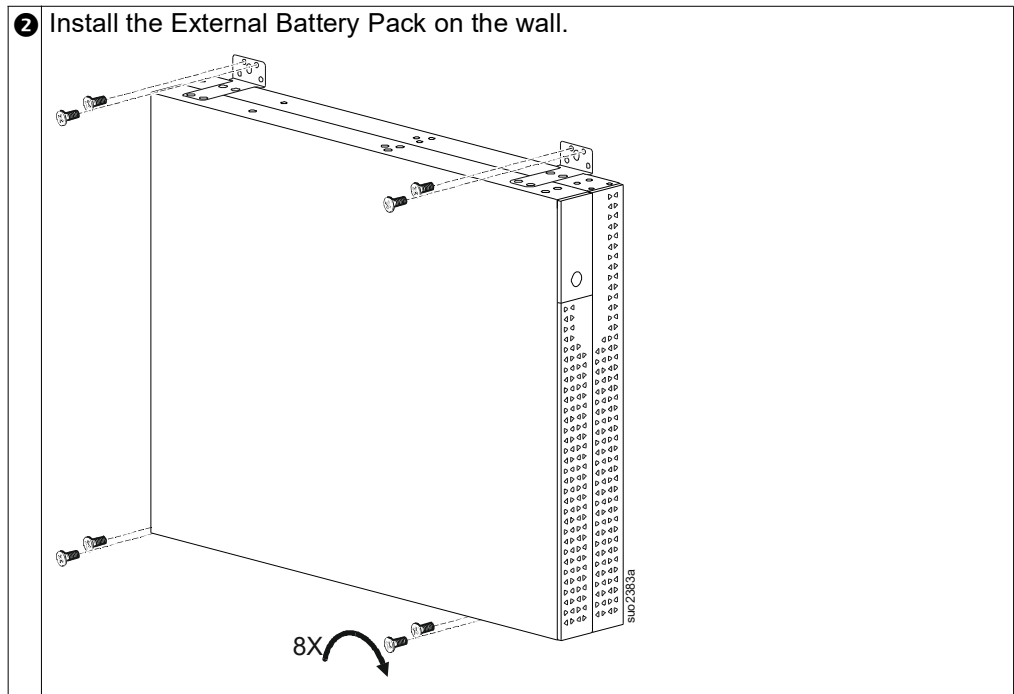
RISK OF FALLING EQUIPMENT

- The equipment is heavy.
- Always practice safe lifting techniques adequate for the weight of the equipment.

Failure to follow these instructions can result in equipment damage and minor or moderate injury.

1 Secure the brackets to the External Battery Pack using the screws supplied.

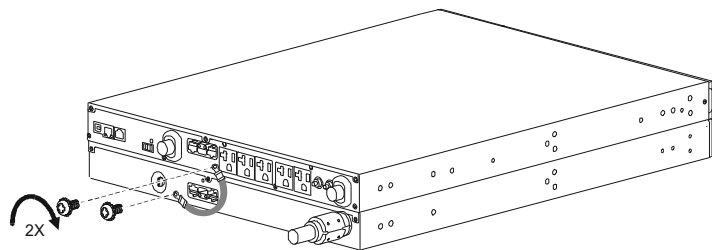




Connect Ground and Battery Cables

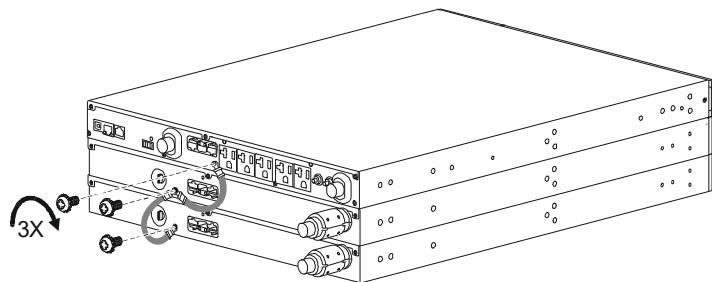
Connect the ground cable - Single External Battery Pack

1. Locate the screws of the ground terminal on the rear panel of both the UPS and External Battery Pack and remove them.
2. Secure cable lug to the ground terminals on the UPS and the External Battery Pack using the screws removed in *step 1*.



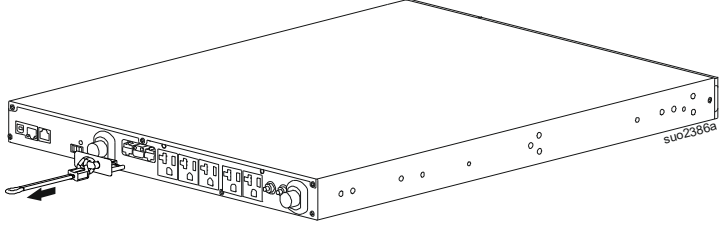
Connect the ground cable - Multiple External Battery Pack

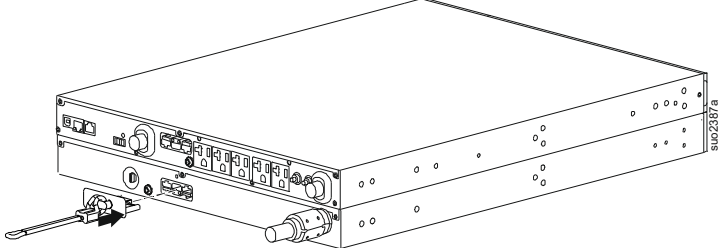
1. Locate the screws of the ground terminal on the rear panel of both the UPS and External Battery Packs and remove them.
2. Secure cable lug to the ground terminals on the UPS and the External Battery Packs using the screws removed in *step 1*.

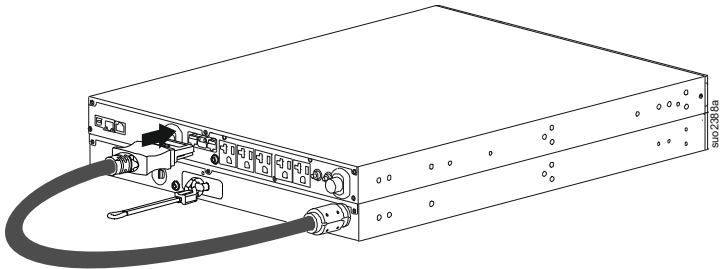


Connect a single External Battery Pack to UPS

- 1** Remove the CAN Bus Terminator dongle from the UPS.

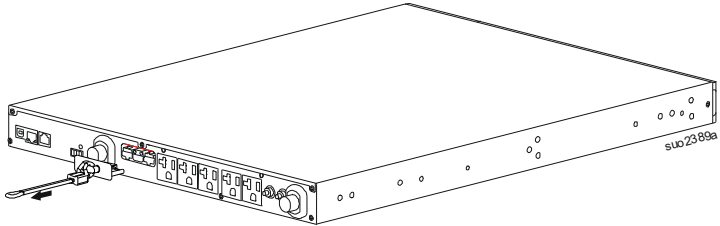

- 2** Insert the CAN Bus Terminator dongle into the battery receptacle of the External Battery Pack.

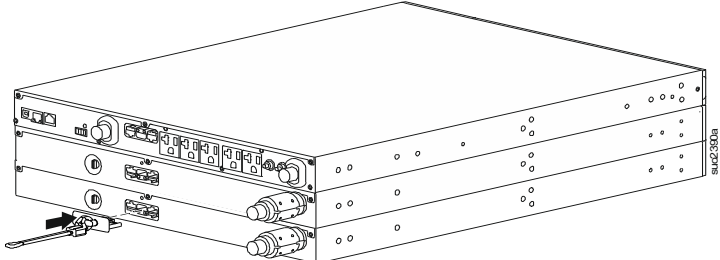

- 3** Plug the battery connection cable connector from the External Battery Pack to the battery receptacle in the UPS



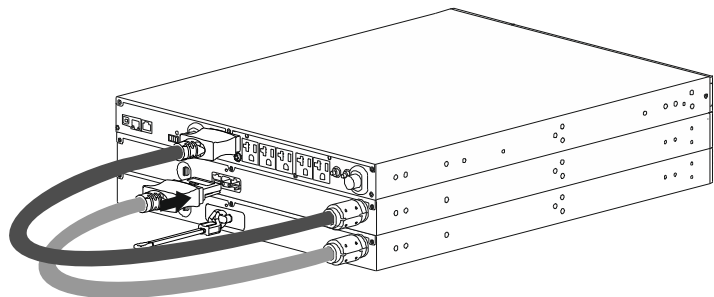
Connect multiple External Battery Packs to UPS

- 1** Remove the CAN Bus Terminator dongle from the UPS.


- 2** Insert the CAN Bus Terminator dongle into the battery receptacle of the last External Battery Pack.

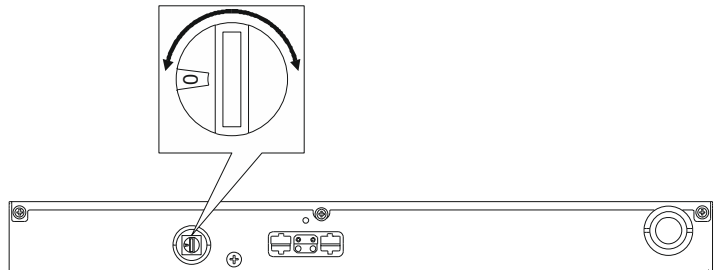


- ③ Plug the battery connection cable connector from
1. External Battery Pack to the UPS
 2. Additional External Battery Packs to the previous External Battery Pack.



- ④ Set unique identification (ID) number for each XLPB connected.
- Rotate the knob on the switch to set the unique identification (ID) number for each connected External Battery Pack.

NOTE: Set the range from 1 to 5.



Smart Battery Management

Definitions

- **External Battery Pack:** An enclosure that contains batteries and battery management electronics.
- **User Interface (UI):** An interface by which a user can interact with the system. This may include an UPS display interface, a network management interface or PowerChute™ Network Shutdown software.

NOTE: Do not use a **External Battery Pack** that is not approved by **Schneider Electric**.

The system will not detect the presence of a non **Schneider Electric** approved **External Battery Pack** and may adversely affect the operation of the system. Use of a non **Schneider Electric** approved **External Battery Pack** will void the manufacturer warranty.

Maintenance

- **External Battery Pack maintenance:** The APC Smart-UPS Ultra External Battery Pack uses Lithium ion battery cells and does not require maintenance.
- **Battery health monitoring:** The battery energy output and voltage are monitored to assess the health of the installed batteries when the UPS is operating on battery. Battery health monitoring is done during a UPS **Self Test**, and when the UPS is operating on battery power.

End of useful life

- **Near end of life notification:** An alert message will appear on the UPS display interface screen when an External Battery Pack is approaching the end of its useful life. For configuration details, refer to the UPS Operations Manual. The estimated replacement date for each External Battery Pack is available through the UI.
- **Needs replacement notification:** The UPS display interface screen shows when External Battery Pack replacement is required. The External Battery Pack must be replaced as soon as possible. When an External Battery Pack requires replacement, the UPS display interface may recommend that additional External Battery Packs be replaced if they will soon reach the end of their useful life.

NOTE: Continued operation after the *Needs Replacement* notification may cause damage to the batteries.

Recycling the External Battery Pack

1. Disconnect the External Battery Pack.
2. Recycle the External Battery Pack.

CAUTION: Do not disassemble the External Battery Pack.

Recommended actions after installing new External Battery Pack

The following actions should be performed after installing a new External Battery Pack:

- When a new External Battery Pack is installed, the **Battery status LED** illuminates green indicating that the External Battery Pack is detected by the system and is working normally. If **Battery status LED** illuminates either Red or Yellow, refer to “Replace the External Battery Pack” on page 13 for details.
- Verify that the UPS is connected to input power and output power is turned on.
 - Go to the UPS display interface, use the status menus to verify that the UPS recognizes the External Battery Packs.
 - Be sure that the connected load to the UPS is greater than 400 watts. This information will appear on the UPS display interface.
 - Perform a **Discharge Test**.
 - If at the time of External Battery Pack installation, UPS input power is not available, turn on the UPS output from battery power for 30 seconds. This will allow the UPS to detect all installed External Battery Packs. Refer to Operations Manual for detail on turning the UPS on and off.
 - Allow the system to charge for 24 hours to ensure full runtime capability.
 - Initiate a **Runtime Calibration Test** through the User Interface (UI).

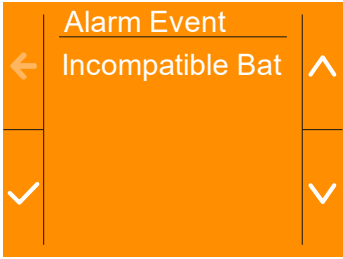
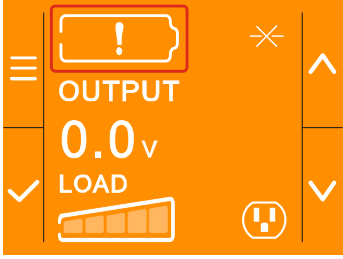
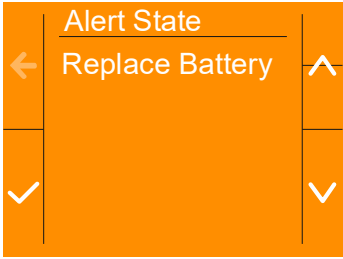
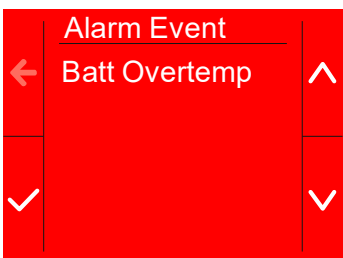
For details on Self Test refer to the Test and Diagnostics Menu options in the UPS User Manual.

Replace the External Battery Pack

An External Battery Pack should only be disconnected temporarily as part of the External Battery Pack replacement procedure.

After installing the External Battery Pack, the UPS display interface may prompt the user to verify the status of the replaced External Battery Pack. If the External Battery Pack is new, respond YES. If the External Battery Pack is not new, respond NO.

Troubleshooting

Problem	Possible Cause	Solution
<p>Incompatible battery pack</p> 	<ol style="list-style-type: none"> 1. Non APC External Battery Pack is connected to the UPS. 2. External Battery Pack cable not securely connected to the UPS. 3. External Battery Pack firmware needs to be updated. 	<ol style="list-style-type: none"> 1. Connect a APC External Battery Pack. 2. Be sure that the External Battery Pack cable is connected securely to the UPS. 3. Update the External Battery Pack firmware. <p>If the problem persists, contact customer support.</p>
<p>Battery pack disconnected</p> 	<p>Improper cable connection between the External Battery Pack and UPS.</p>	<p>Disconnect the External Battery Pack connector from the UPS and re-connect it again.</p> <p>If the problem persists, contact customer support.</p>
<p>Replace battery</p> 	<p>The External Battery Pack is nearing end of service life and needs to be replaced.</p>	<p>Replace the External Battery Pack.</p>
<p>Battery temperature high in online mode</p> 	<p>External Battery Pack temperature exceeds 60 °C.</p>	<p>Wait for the External Battery Pack temperature to come down to 55 °C. The message on the LCD display will disappear.</p>
<p>External Battery Pack status LED illuminates red</p>	<p>An internal error detected in the External Battery Pack.</p>	<p>Be sure that the cable connection between the UPS and External Battery Pack is secure.</p> <p>If the problem persists, contact customer support.</p>

Limited Factory Warranty

Schneider Electric IT Corporation (SEIT), warrants its products to be free from defects in materials and workmanship for a period of five (5) years from the date of purchase. 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 our 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.

Schneider Electric Worldwide Customer Support

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

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