Life Is On | Schneider Electric

Installation Guide 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, **could result in** death or serious injury.

⚠ CAUTION

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

NOTICE

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

Product Handling Guidelines

<18 kg
<40 lb

18-32 kg
40-70 lb

32-55 kg
70-120 lb

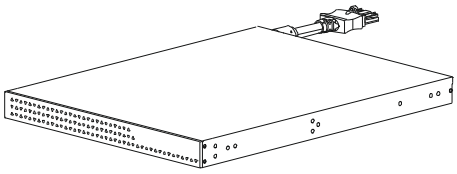
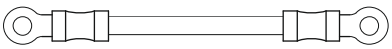
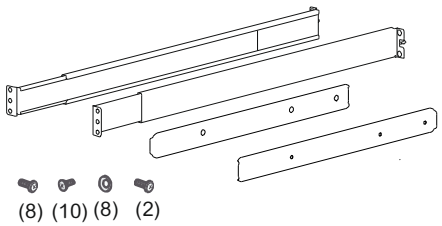
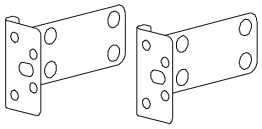
>55 kg
>120 lb

Safety and General Information

- Connect only SELV circuits to all the communication ports.
- The External Battery Pack (XLBP) typically lasts for 10 years. Environmental factors impact the life of the battery module. Elevated ambient temperatures, poor quality utility power causing frequent short duration discharges will shorten the life of the battery module.
- Replace the XLBP immediately if the unit indicates battery replacement is necessary.
- Replace the XLBP at least every 10 years or at the end of its service life, whichever is earlier.
- The XLBP is user replaceable. If attempting to replace the XLBP:
  - Use only APC XLBPs.
  - Do not use third-party XLBPs as replacements.
- APC Smart-UPS Ultra XLBP uses NMC chemistry Lithium Ion batteries. Under normal use and handling, there is no contact with the internal components of the XLBP.
- Do not drive nails into the XLBP.
- Do not strike the XLBP with a hammer.
- Do not stand on the XLBP.
- Do not short circuit XLBP.
- Do not place or use the XLBP near heat or fire.
- Do not use a dropped, damaged or deformed XLBP.
- Do not use the XLBP 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 XLBPs, 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 XLBP in a fire. The cells may explode.
- CAUTION: Do not open or tamper with the XLBP enclosure. Doing so will expose the cell terminals which pose an energy hazard.
- CAUTION: Do not open the XLBP. 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.

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

Specifications

For additional specifications, refer to our web site, **www.apc.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 XLBP immediately upon first installation.
- Charge the XLBP 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 XLBP is heavy. Follow all lifting guidelines.

Unit weight without packaging (approx.)	19.50 kg (43 lbs)
Unit weight with packaging (approx.)	24.50 kg (54 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 small label located on the rear panel.	

Battery Module

⚠ WARNING

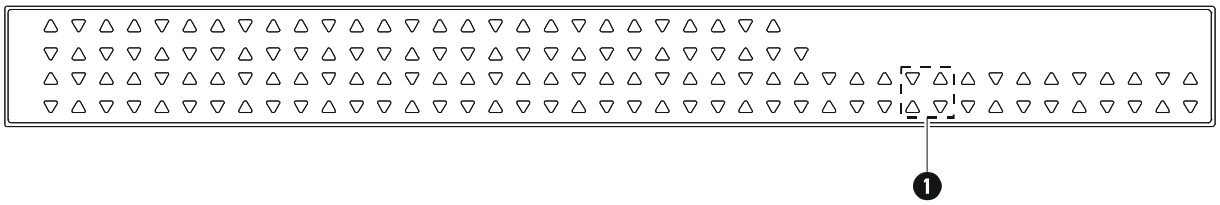
RISK OF CHEMICAL HAZARD AND EXCESSIVE SMOKE

- Replace the XLBP at least every 10 years or at the end of its service life, whichever is earlier.
- Replace the XLBP 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.

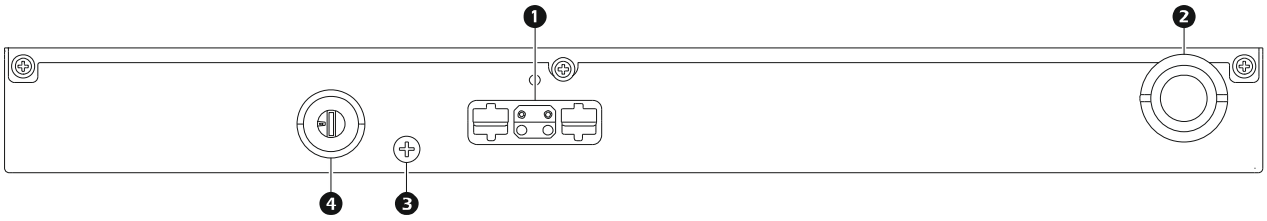
Battery type	Lithium-Ion
Number of battery modules	1
Voltage of each battery module	50.4 V
Total voltage of the XLBP	50.4 V
Ah rating	18.85 Ah
XLBP cable length	500 mm

Front Panel Features



1	**XLBP status LED (located behind the bezel)**	• Illuminates green: XLBP is operating normally. • Illuminates amber: XLBP is discharging or XLBP is initializing communication with the UPS (immediately after an XLBP is connected to the UPS). • Illuminates red: An internal error detected in the XLBP.

Rear Panel Features



1	**Battery receptacle**	Connect the battery connection cable from an additional XLBP to this receptacle.
2	**Battery connection cable**	Connect the cable to the battery connection receptacle on the rear panel of the UPS or another XLBP.
3	**Ground terminal**	Connect ground wires to this terminal. Refer “Connect the ground cable - Single XLBP” on page 9 for details.
4	**XLBP ID selector switch**	Set a unique ID for each XLBP connected, using this switch. Refer “Set unique identification (ID) number for each XLPB connected.” on page 10 for details.

Rack-Mount Installation

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

⚠ CAUTION

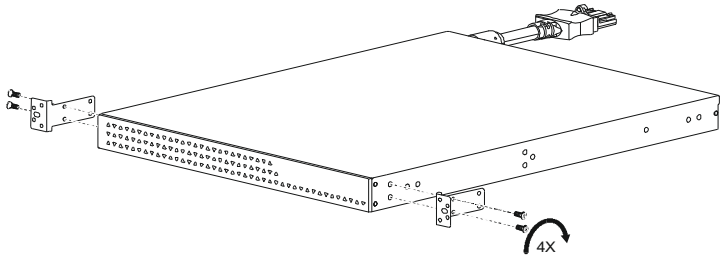
RISK OF FALLING EQUIPMENT

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

❶ Secure the rack-mount brackets to the XLBP using the screws supplied.



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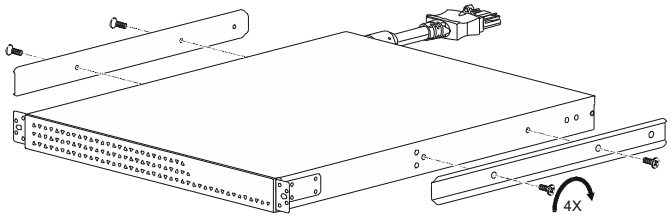
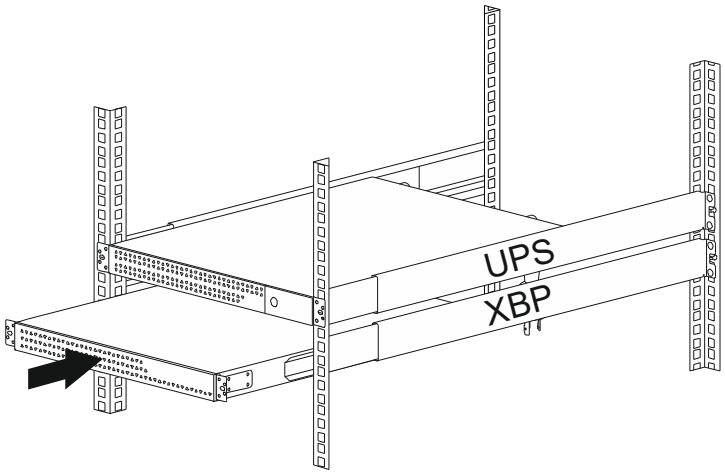
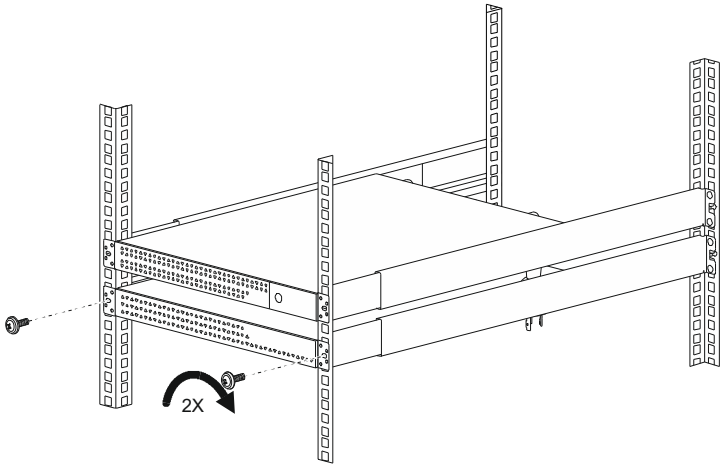


❸ Slide the XLBP into the rack closure.

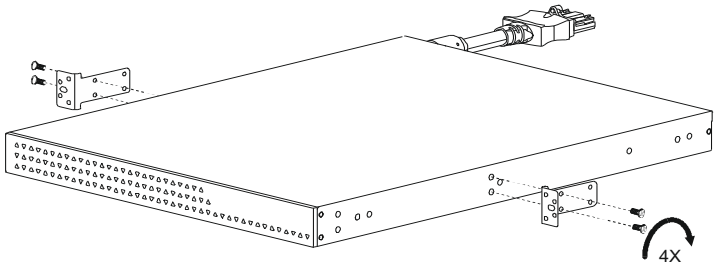


❹ Secure the XLBP to the rack.

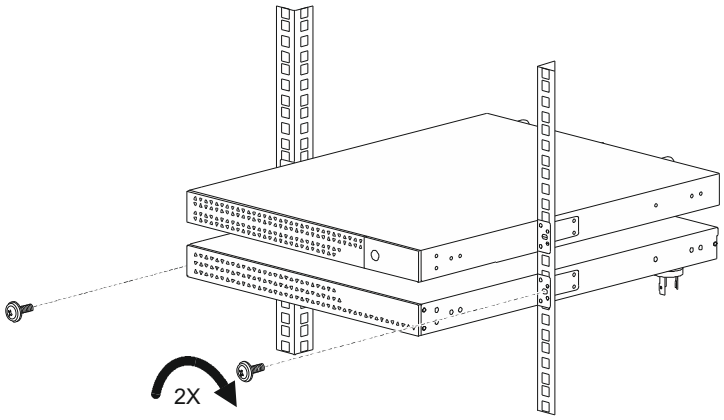


Installation in 2 post rack

❶ Secure the rack-mount brackets to the XLBP using the screws supplied.



❷ Secure the XLBP to the rack.



Tower Installation

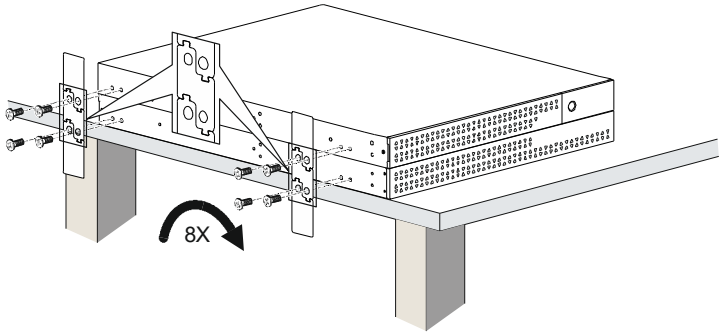
⚠ CAUTION

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.

❶ Install the stabilizer brackets to both the UPS and the XLBP using the screws supplied.



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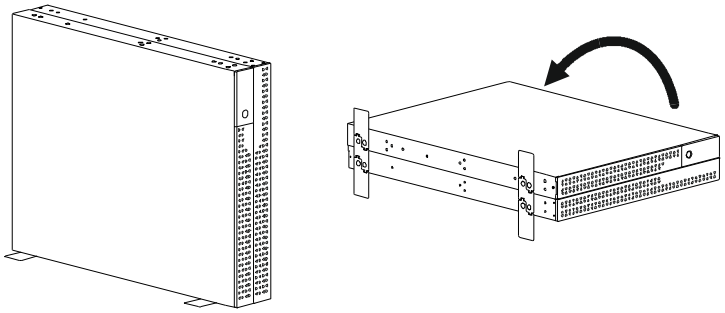


Wall mounting

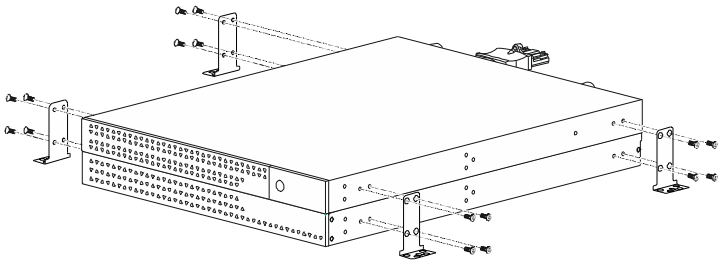
⚠ CAUTION

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.

❶



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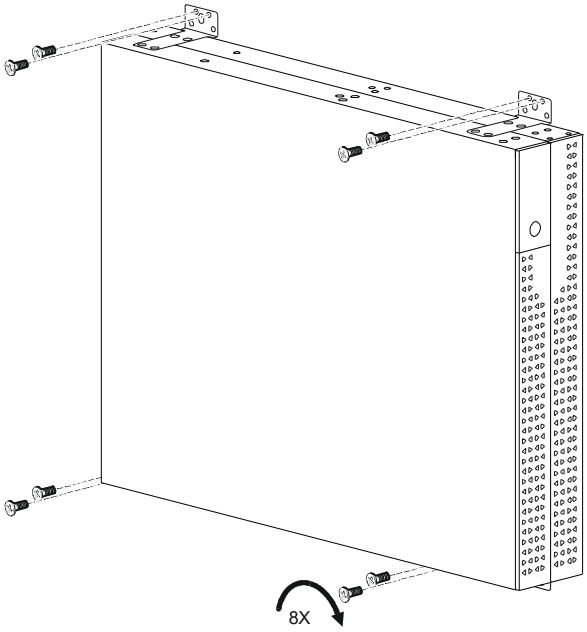
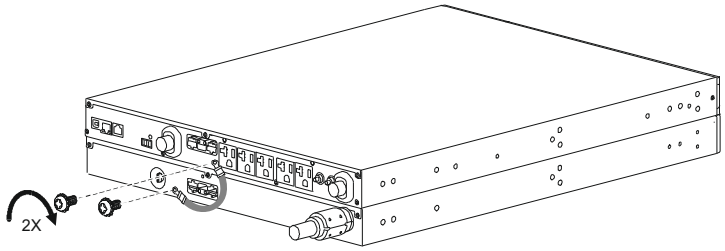


Connect Ground and Battery Cables

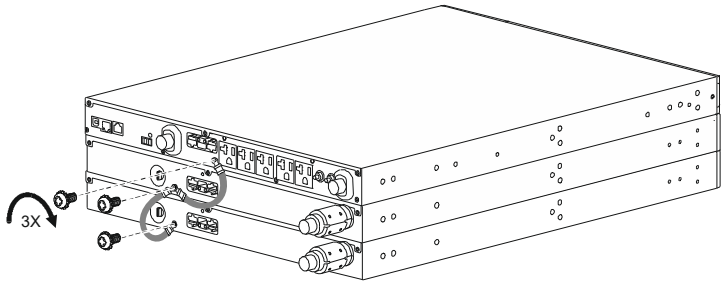
Connect the ground cable - Single XLBP

1. Locate the screws of the ground terminal on the rear panel of both the UPS and XLBP and remove them.
2. Secure cable lug to the ground terminals on the UPS and the XLBP using the screws removed in *step1*.

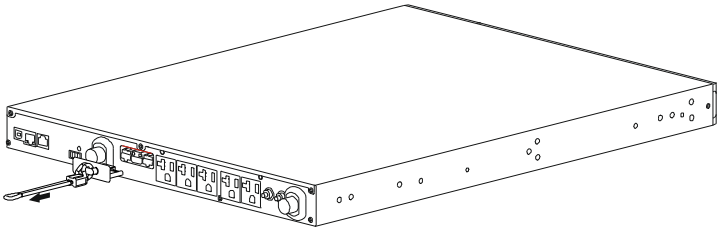
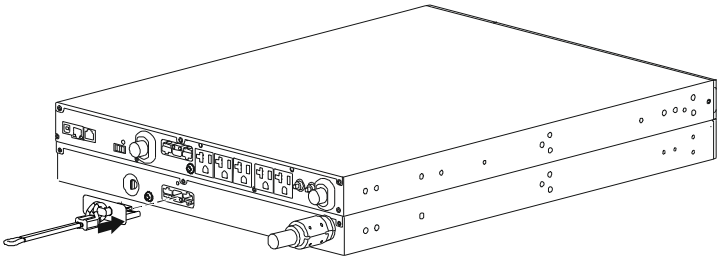
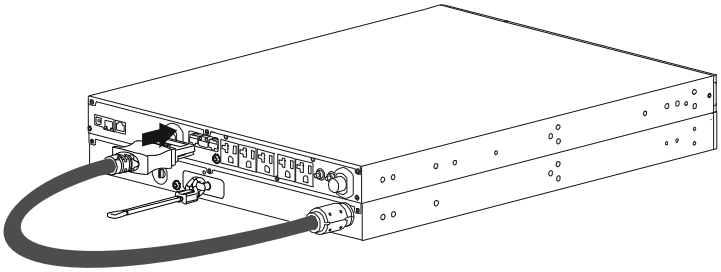


Connect the ground cable - Multiple XLBP

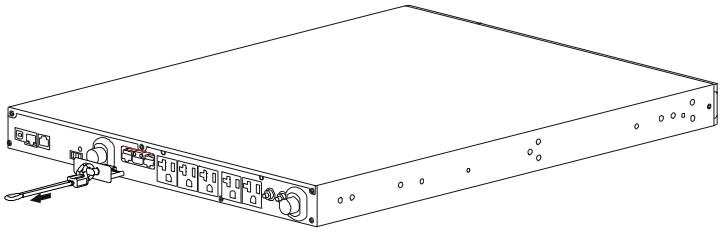
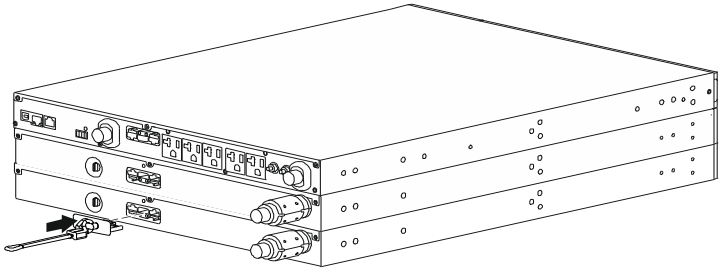
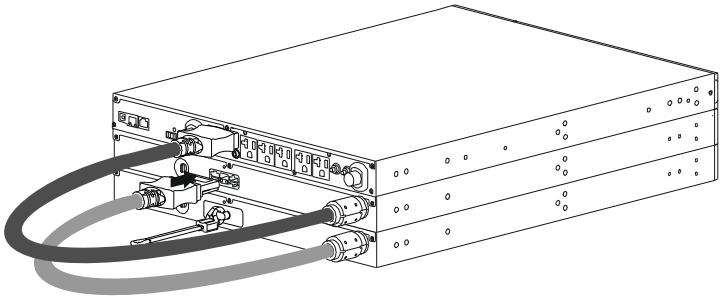
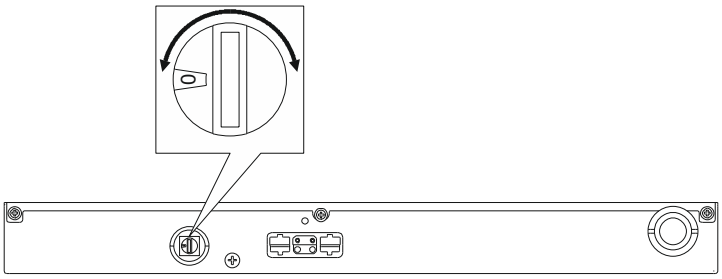
1. Locate the screws of the ground terminal on the rear panel of both the UPS and XLBPs and remove them.
2. Secure cable lug to the ground terminals on the UPS and the XLBPs using the screws removed in *step1*.



Connect a single XLBP to UPS

❶	Remove the CAN Bus Terminator dongle from the UPS.	
❷	Insert the CAN Bus Terminator dongle into the battery receptacle of the XLBP.	
❸	Plug the battery connection cable connector from the XLBP to the battery receptacle in the UPS	

Connect multiple XLBPs to UPS

❶ Remove the CAN Bus Terminator dongle from the UPS.	
❸ Insert the CAN Bus Terminator dongle into the battery receptacle of the last XLBP.	
❹ Plug the battery connection cable connector from • XLBP to the UPS • Additional XLBPs to the previous XLBP.	
❸ 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 XLBP. **NOTE**: Set the range from 1 to 5.	

Smart Battery Management

Definitions

- External Battery Pack (XLBP): 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 XLBP that is not approved by APC.
The system will not detect the presence of a non APC approved XLBP and may adversely affect the operation of the system.
Use of a non APC approved XLBP will void the manufacturer warranty.

Maintenance

- **XLBP maintenance:** The APC Smart-UPS Ultra XLBP 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 XLBP is approaching the end of its useful life. For configuration details, refer to the UPS Operations Manual.
  The estimated replacement date for each XLBP is available through the UI.
- **Needs replacement notification:** The UPS display interface screen shows when XLBP replacement is required. The XLBP must be replaced as soon as possible.
  When an XLBP requires replacement, the UPS display interface may recommend that additional XLBPs 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 XLBP

1. Disconnect the XLBP.
2. Recycle the XLBP.
   CAUTION: Do not disassemble the XLBP.

Recommended actions after installing new XLBP

The following actions should be performed after installing a new XLBP:

- When a new XLBP is installed, the **Battery status LED** illuminates green indicating that the XLBP is detected by the system and is working normally.
  If **Battery status LED** illuminates either Red or Yellow, refer to “Replace the XLBP” on page 12 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 XLBPs.
  - 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 XLBP 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 XLBPs.
    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).

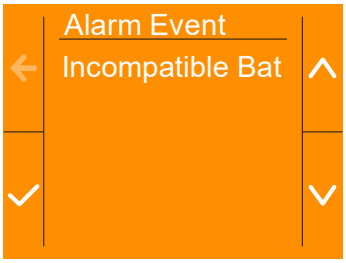
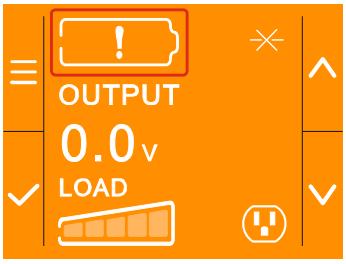
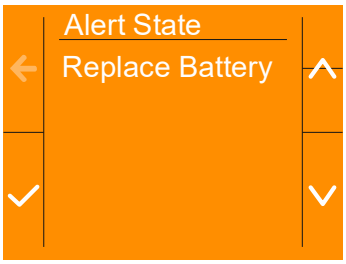
For details on Self Test refer to the Test and Diagnostics Menu options in the UPS User Manual.

Replace the XLBP

An XLBP should only be disconnected temporarily as part of the battery replacement procedure.

After installing the XLBP, the UPS display interface may prompt the user to verify the status of the replaced battery modules. If the XLBP is new, respond YES. If the XLBP is not new, respond NO.

Troubleshooting

Problem	Possible Cause	Solution
Incompatible battery pack 	• Non APC XLBP is connected to the UPS. • XLBP cable not securely connected to the UPS. • XLBP firmware needs to be updated.	• Connect a APC XLBP. • Be sure that the XLBP cable is connected securely to the UPS. • Update the XLBP firmware. If the problem persists, contact customer support.
Battery pack disconnected 	Improper cable connection between the XLBP and UPS.	Disconnect the XLBP connector from the UPS and re-connect it again. If the problem persists, contact customer support.
Replace battery 	The XLBP is nearing end of service life and needs to be replaced.	Replace the XLBP.
Battery temperature high in online mode 	XLBP temperature exceeds 60 °C.	Wait for the XLBP temperature to come down to 55 °C. The message on the LCD display will disappear.
XLBP status LED illuminates red	An internal error detected in the XLBP.	Be sure that the cable connection between the UPS and XLBP is secure. If the problem persists, contact 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 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.

EXCEPT AS SET FORTH ABOVE, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, APPLICABLE TO PRODUCTS SOLD, SERVICED OR FURNISHED UNDER THIS AGREEMENT OR IN CONNECTION HEREWITH.

SEIT **DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, SATISFACTION AND FITNESS FOR A PARTICULAR PURPOSE.**

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