Installation Manual

EN JPS78429-001 – 09/2025

APC™ Smart-UPS™ On-Line External Battery Pack SRTDBP3KR2-LA, SRTDBP2K4R2J-LA

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.



This is the “Read user manual” symbol. Read the user documentation to become familiar with the equipment.

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install or operate 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.

Electrical equipment should be installed and operated 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.

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As standards, specifications, and design change from time to time, please ask for confirmation of the information given in this publication.
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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

- Adhere to all national and local electrical codes.
- Changes and modifications to this unit not expressly approved by Schneider Electric could void the warranty.
- This unit is intended only for indoor use in a controlled environment.
- Do not operate this unit in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.
- Be sure the air vents on the unit are not blocked. Allow adequate space for proper ventilation.
- The UPS and External Battery Pack(s) must be properly grounded to each other and to the mains grounding system.
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.
- Recycle the package materials or save them for reuse.
- Additional safety information can be found in the Safety Guide supplied with this unit.
- When handling the metal parts, wear proper cut-resistant gloves.

Battery safety

⚠ WARNING

RISK OF HYDROGEN SULPHIDE GAS, CHEMICAL HAZARD, EXCESSIVE SMOKE, AND FIRE

- Replace the battery at-least every 5 years or at the end of its service life, whichever is earlier.
- Replace the battery immediately when the UPS indicates battery replacement is necessary.
- Replace batteries with the same number and type of batteries as originally installed in the equipment.
- Replace the battery immediately when
  - The UPS indicates a battery over-temperature condition
  - When there is evidence of electrolyte leakage
  - The UPS indicates any battery related alarm on a battery nearing end of its service life.

  For any of the above conditions, power off the UPS, unplug it from the AC input, and disconnect the batteries.
- Do not operate the UPS until the batteries have been replaced.
- †Replace all battery modules (including the module(s) in External Battery Packs) which are older than one year, when installing additional battery packs or replacing the battery module(s).

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

† Contact Schneider Electric Customer Support to determine the age of the installed battery modules.

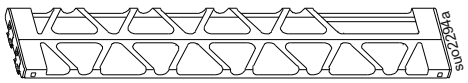
- The battery typically lasts for two to five years. Environmental factors impact battery life. Elevated ambient temperatures, poor quality mains power, and frequent short duration discharges will shorten battery life.
- Replace the battery immediately when the UPS indicates battery replacement is necessary or when the batteries reach the end of their life. Failure to do so could result in equipment damage and/or injury.
- The UPS will recognize as many as 10 XLBPs connected to the UPS.
  NOTE: For each XLBP added, increased recharge time will be required.
- The batteries are heavy. Remove the batteries before installing the UPS and External Battery Packs (XLBPs) in a rack.
- Always install XLBPs at the bottom in rack-mount configurations. The UPS must be installed above the XLBPs.
- Do not dispose off batteries in a fire. The batteries may explode.
- Do not open or mutilate batteries. Released electrolyte is harmful to the skin and eyes, and may be toxic.
- Always recycle used batteries.
- Before installing or replacing the batteries, remove jewelry such as wristwatches and rings.
- High, short circuit current through conductive materials could cause severe burns.
- Be sure to connect the ground wire before connecting the battery cable to the UPS or XLBP.

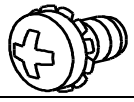
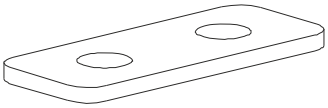
Overview

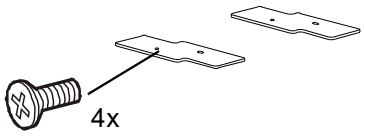
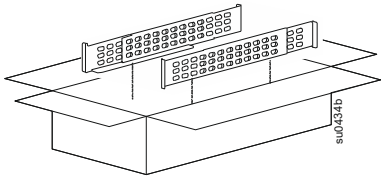
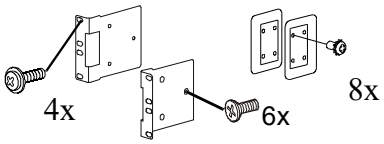
- To verify that installation of an XLBP has been successful, go to the UPS display interface.
- The LED on the XLBP will flash green if communication has been established.
- When a Replacement Battery Cartridge (RBC) needs to be replaced, perform a Runtime Calibration Test to be sure that RBC replacement is required.

Package contents

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

<table>
<tr><td colspan="3">Included with all models</td></tr>
<tr>
<td>Front bezel
</td>
<td>Ground cable

2 pan head screws to secure the ground cable
</td>
<td>2 tie brackets

4 flat head screws to secure tie brackets
</td>
</tr>
</table>

<table>
<tr>
<td>The XLBP includes 1 Set of Stabilizer foot
</td>
<td>4 flat head screws to secure tower stabilizer brackets to the XLBP
</td>
</tr>
<tr>
<td>Rail Kit with instructions and hardware for installing rails in a rack
</td>
<td>• 1 pair rack-mount brackets and cleat

• 6 flat head screws to secure rack-mount brackets to the XLBP
• 4 ornamental screws to secure rack-mount brackets to the rails.</td>
</tr>
</table>

Specifications

For additional specifications, refer to the Web site at 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 (49,212 ft)
Humidity	0% to 95% relative humidity, non-condensing	
Protection Class	IP20 rating	
NOTE: Charge the battery modules every six months during storage.		
Environmental factors impact battery life. Elevated ambient temperatures, high humidity, poor quality mains power, and frequent short duration discharges will shorten battery life.		

Physical

The XLBP is heavy. Follow all lifting guidelines.

Unit weight batteries included, without packaging	45 kg (99 lb)
Unit weight batteries included, with packaging	58 kg (127.87 lb)
Unit dimensions without packaging **Height x Width x Depth**	86.60 mm x 433 mm x 620 mm 3.40 in x 17.00 in x 26.90 in
Unit dimensions with packaging **Height x Width x Depth**	875 mm x 575 mm x 238 mm 34.45 in x 22.64 in x 9.37 in
The model and serial numbers are on a small label located on the top cover.	

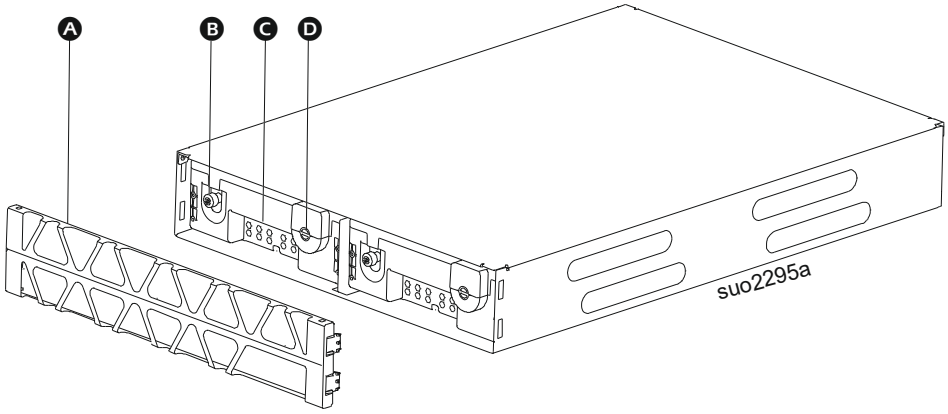
Battery

Battery type	Sealed, maintenance-free, Valve Regulated Lead-Acid battery
RBC This XLBP has RBCs. Refer to the appropriate replacement battery user manual for installation instructions. Contact your dealer or go the Schneider Electric Web site, **www.se.com** for information on replacement batteries.	**SRTDBP2K4R2J-LA:** APCRBC193J-LA All other models: APCRBC193-LA
Number of RBCs	2 RBCs
Voltage for each RBC **Total voltage for the UPS** **Ah rating**	72 V 72 V 9 Ah per battery module
XLBP cable length	640 mm (25.20 in)

Battery module	UPS	XLBP
APCRBC193-LA	SRTD2K2R2-LA/ SRTD2K2R2N-LA/ SRTD3KR2-LA/ SRTD3KR2N-LA/ SRTD3KR2TW-LA/ SRTD2K2R2-NB/ SRTD2K2R2N-NB/SRTD3KR2-NB/ SRTD3KR2N-NB/ SRTD3KR2TW-NB	SRTDBP3KR2-LA/ SRTDBP3KR2-NB
APCRBC193J-LA	SRTD2K4R2J-LA /SRTD2K4R2J-NB	SRTDBP2K4R2J-LA

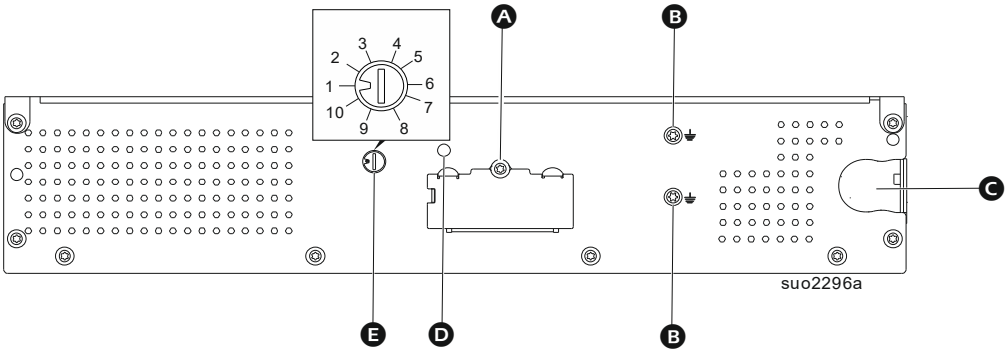
Product Overview

Front Panel Features



A	**Front Bezel**
B	**Thumbscrew / Latch - battery module**
C	**Finger Grip - battery module**
D	BATTERY ON/OFF **switch - battery module**

Rear Panel Features



A	**Battery receptacle**	Connect the battery connection cable from an additional XLBP to this receptacle.
B	**Ground terminal**	Connect ground wires to this terminal. Refer “Connect the ground wire” on page 12 for details.
C	**Battery connection cable**	Connect the cable to the battery connection receptacle on the rear panel of the UPS or to another XLBP.
D	**XLBP Status LED**	Illuminates green to indicate communication status between the XLBP and UPS is enabled.
E	XLBP ID SELECTOR **switch**	Set a unique ID for each XLBP connected, using this switch (do not set the same unique ID for multiple XLBPs).

Rack-mounting

UPS model may differ in appearance from those depicted in these graphics. The XLBP installation process is identical for all models

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

NOTE: Be sure to mount the UPS in rack having a minimum depth of 900 mm.

⚠ CAUTION

RISK OF FALLING EQUIPMENT

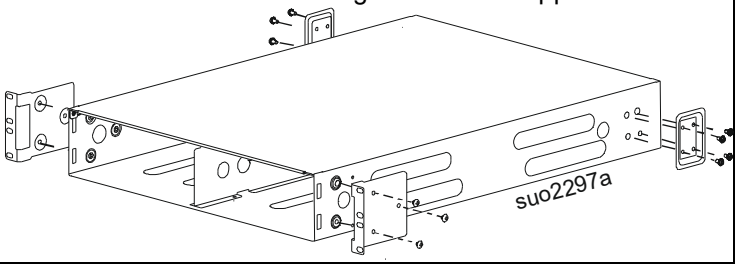
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.
- Always use the recommended number of screws to secure brackets to the UPS.
- Always use the recommended number of screws and cage nuts to secure the UPS to the rack.
- Always install the UPS at the bottom of the rack.
- Always install the external battery pack below the UPS in the rack.
- Place the rack in the location where the equipment will be used.
- Do not move the rack once the UPS is installed.

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

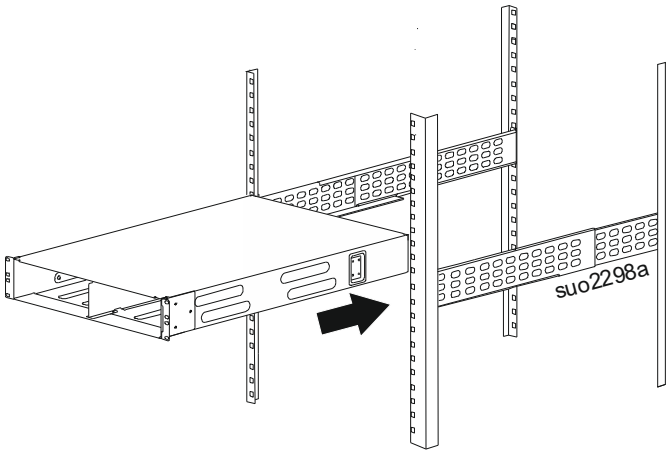
Refer to the Rail Kit Installation Guide for instructions on rail installation.

NOTE: Remove RBCs from XLBP, before XLPB rack mounting. Refer “Removing the RBC from XLBP” on page 14.

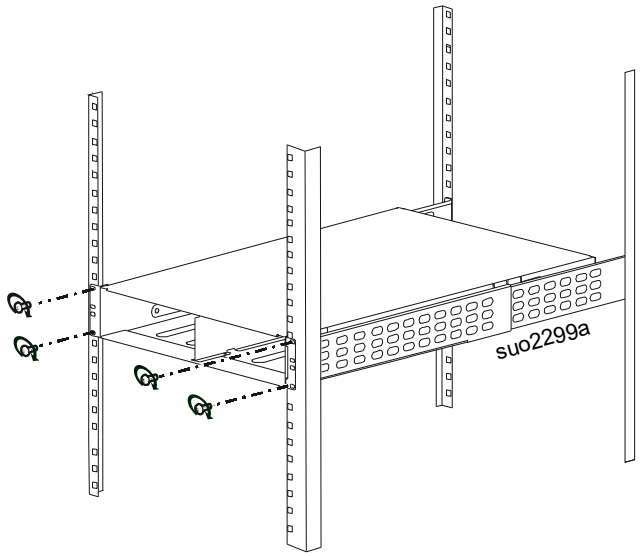
❶ Secure the brackets and cleats to the XLBP using the screws supplied.



❷ Slide the XLBP into the rack enclosure. **NOTE:** Recommended to use non-slip cut protection gloves during the installation.



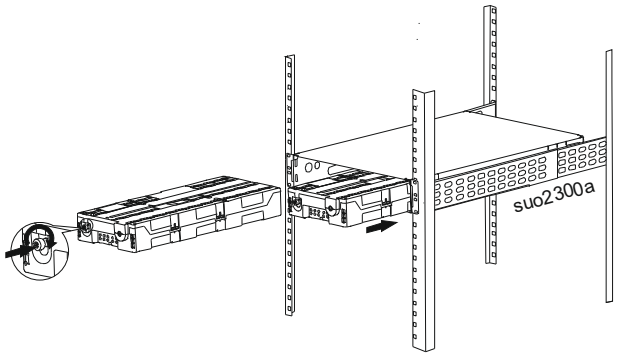
❸ Secure the XLBP to the rack.



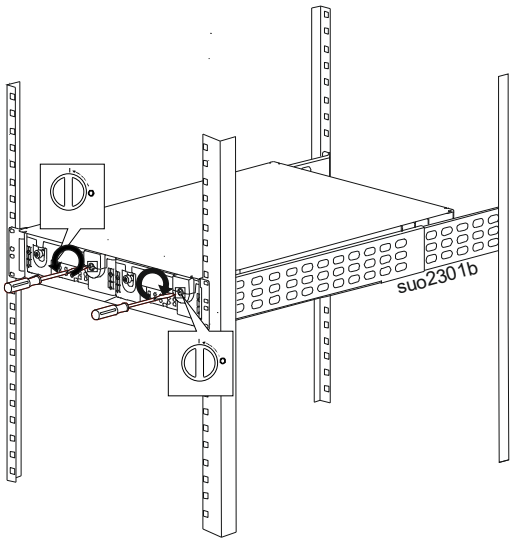
❹ a.Slide both the RBCs till they get fully inserted into the XLBP.

b.Press the thumbscrew till it engages and turn it clockwise to lock the battery .

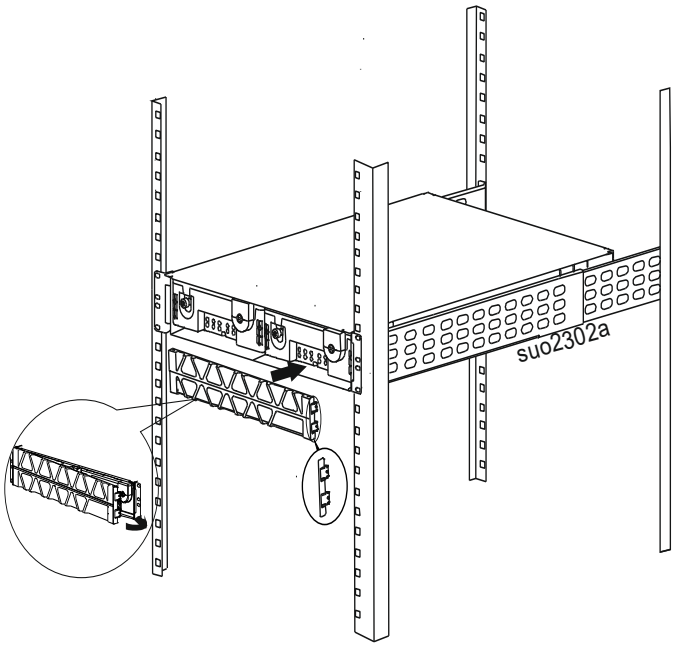
NOTE: If the thumbscrew fails to engage, then push the battery pack further inside the UPS till it gets fully inserted.



❺ Rotate the **BATTERY ON/OFF** switch counter clockwise, using a screw driver, to turn on the battery pack.



❻ Install the bezel. First align the left side of the bezel on the XLBP and then push the right part on the XLBP.



Tower Mount

⚠ CAUTION

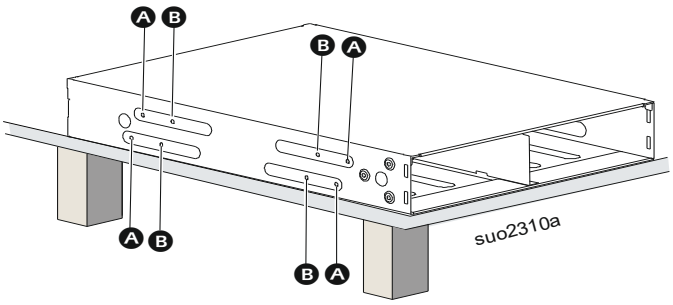
RISK OF FALLING EQUIPMENT

- The equipment is heavy. Each battery module weighs 17-18 kg (approx.).
- Always practice safe lifting techniques adequate for the weight of the equipment.

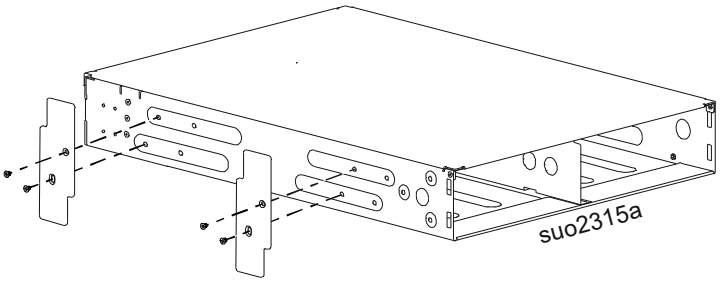
Failure to follow these instructions can result in equipment damage and minor or moderate injury.

NOTE: The installation process is identical for all UPS models and the respective compatible XLBP models.

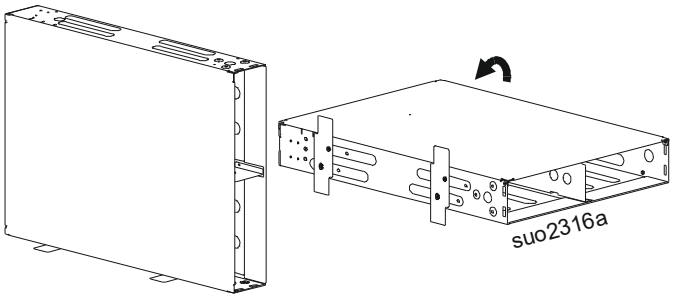
❶ Locate hole set Ⓑ for installing stabilizer brackets to odd numbered XLBPs or hole set Ⓐ for installing stabilizer brackets to even numbered XLBPs.



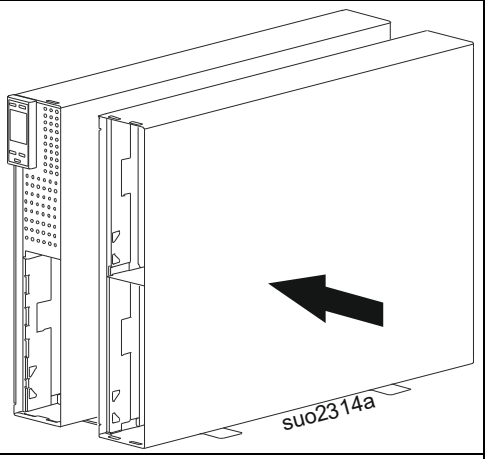
❷ Install the stabilizer brackets with the screws supplied.



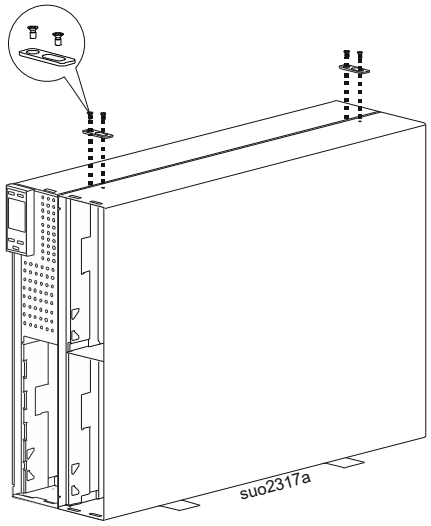
❸ Turn XLBP for getting the right side up.



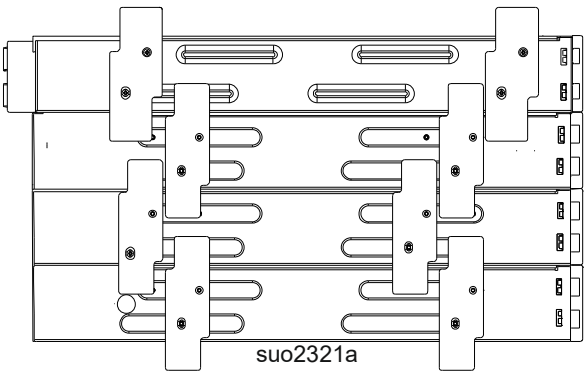
❹ Place the XLBP beside the UPS by sliding the stabilizer bracket of the XLBP under the UPS.



❺ Secure the UPS and the XLBP with the tie brackets and screws supplied.

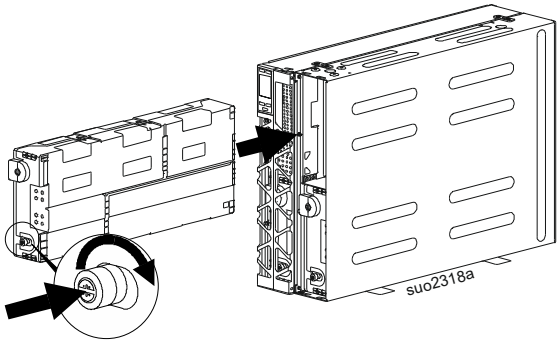


NOTE: Refer below illustration for foot assembly of UPS with 3XLBP.

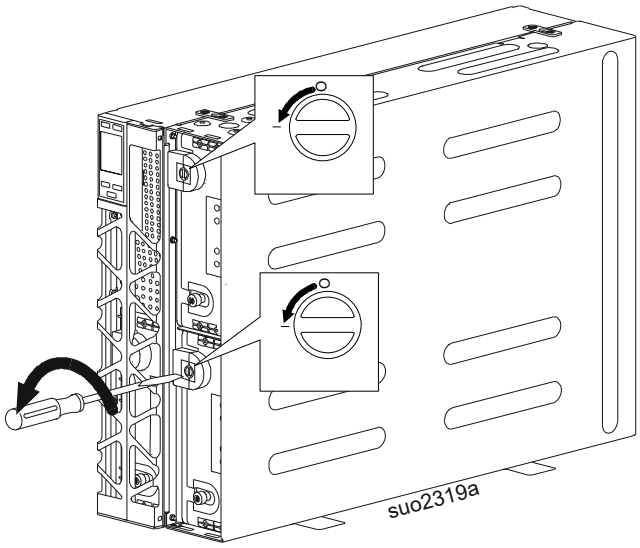


❻ a. Hold the XLBP firmly and slide both the battery packs till they get fully inserted into the XLBP.

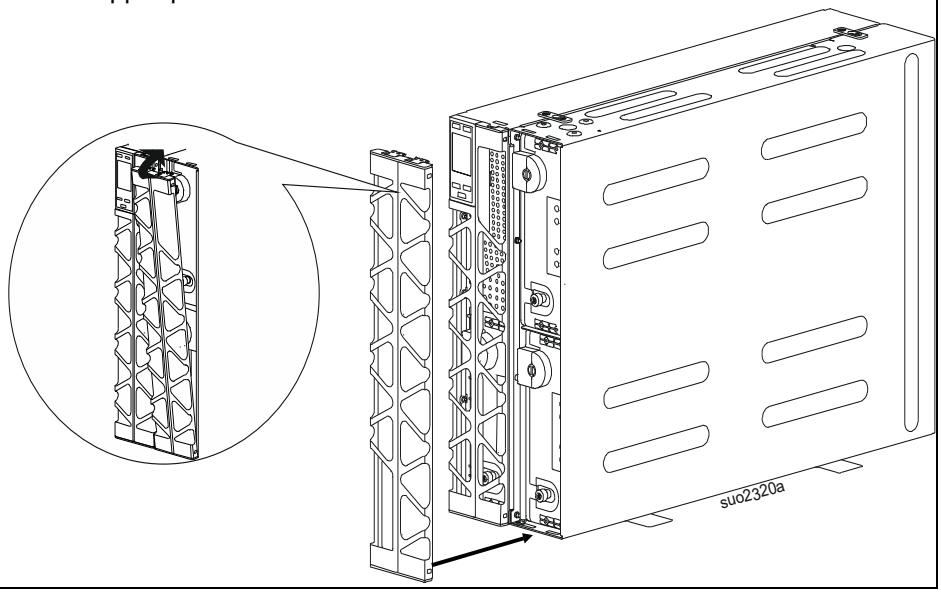
b. Press the thumbscrew till it engages and turn it clockwise to lock the battery and enable battery communication.
NOTE: If the thumbscrew fails to engage, then push the battery pack further inside the UPS till it gets fully inserted.



❼ Turn the **BATTERY ON/OFF** switch counter clockwise, using a screwdriver, to switch on the battery pack.



❽ Install the bezel. First align the down side of the bezel on the XLBP and then push the upper part on the XLBP.

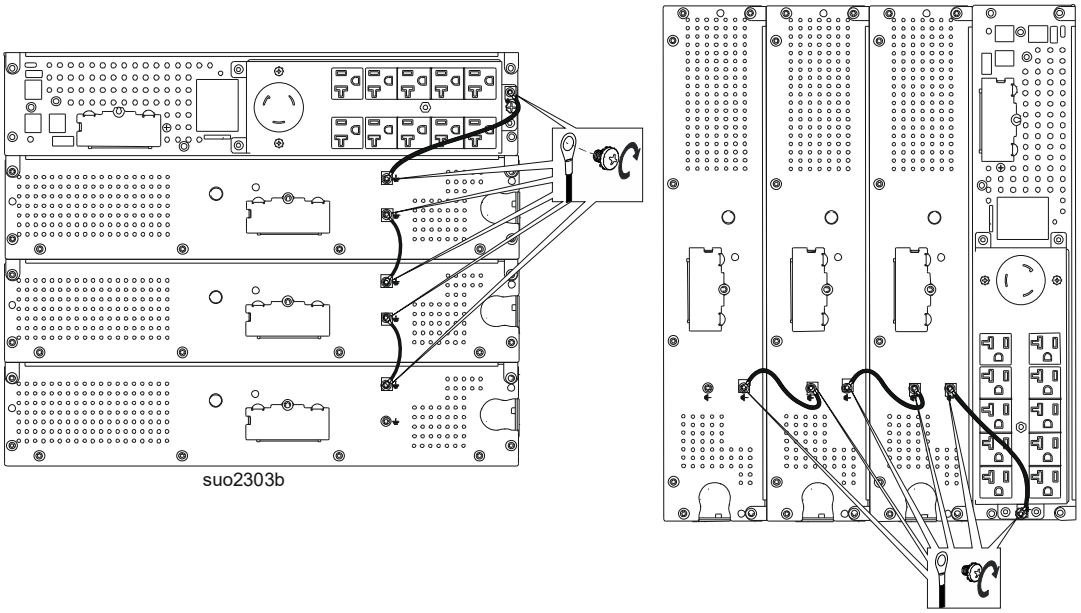


Connect Ground Wire and Battery Cables

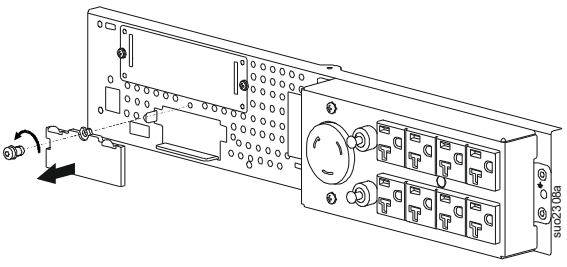
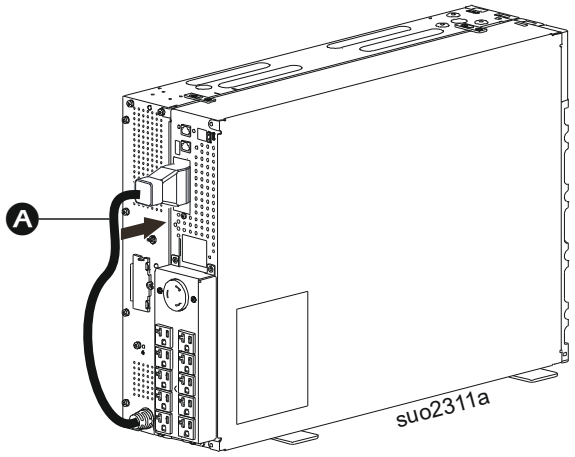
NOTE: The installation process is identical for all UPS models and the respective compatible XLBP models.

Connect the ground wire

1. Locate and remove the ground screw on the rear panel of both the UPS and XLBP.
2. Secure cable lug on one end of the ground wire to the ground terminal on the UPS and the cable lug at the other end to the ground terminal on the XLBP with the screw removed in *step 1*.



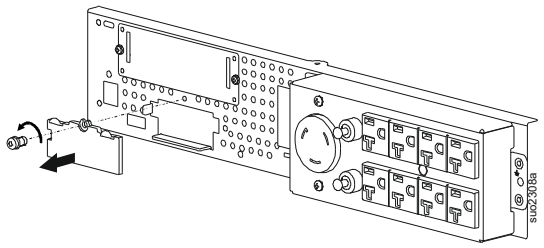
Connect a single XLBP to UPS

❶	Remove the battery receptacle protection cover in the UPS. 
❷	Connect the battery connector cable Ⓐ. 

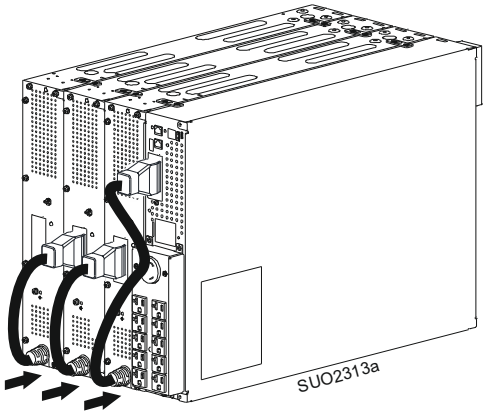
Connect multiple XLBPs to UPS

❶ Connect the first XLBP to the UPS. Refer “Connect a single XLBP to UPS” on page 12 for details.

❷ Remove the battery receptacle protection cover in the other XLBPs.



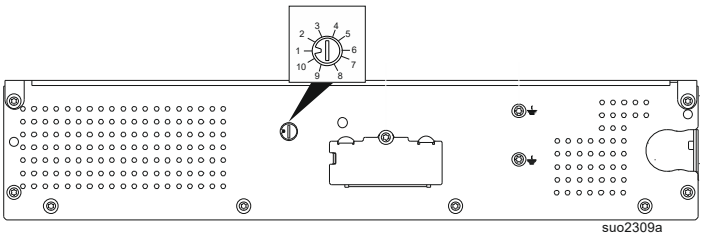
❸ Connect the battery connector cables and communication cables.



❹ Set unique identification (ID) number for each XLPB connected.

Set the unique identification (ID) number on the XLPB ID SELECTOR Switch for each XLBP.

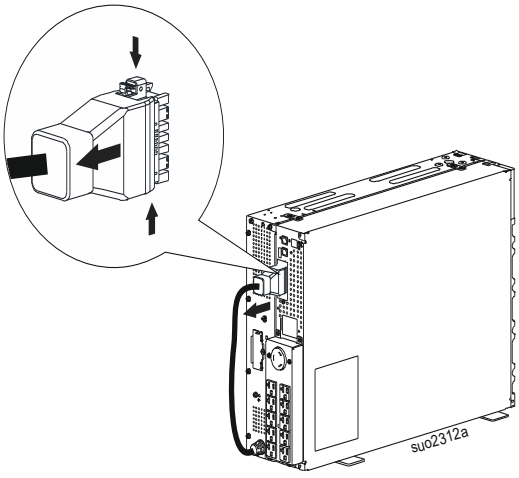
The position of the notch on the switch dial indicates the set unique ID number.



NOTE: Set unique ID for each XLBP.

Disconnecting the XLBP

Hold the cable and press both the snaps provided on the battery connector and pull it toward yourself. The battery connector will get released from the receptacle, disconnecting the XLBP.



Removing the RBC from XLBP

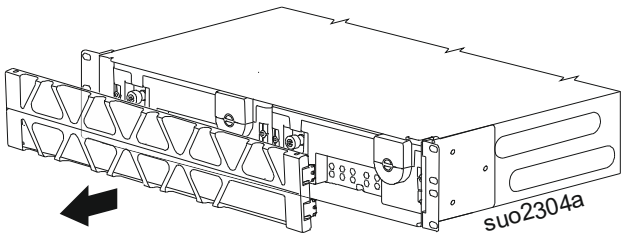
⚠ CAUTION

RISK OF FALLING EQUIPMENT

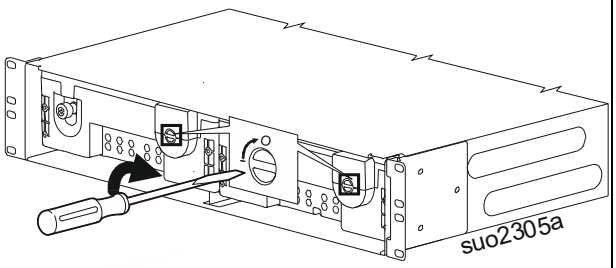
- The equipment is heavy. Always practice safe lifting techniques adequate for the weight of the equipment.
- Support the RBC with both hands while sliding the RBC out from the XLBP.

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

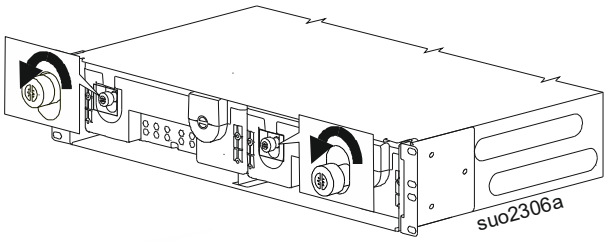
❶ Remove the front bezel of the XLBP.



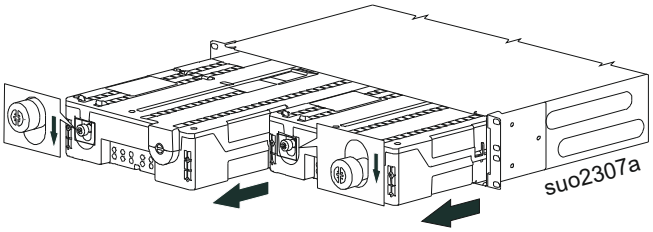
❷ Turn the battery switch in clockwise direction, using a screwdriver, to switch off the battery.



❸ Turn the thumbscrew in counter clockwise direction to unlock the battery module.



❹ Push and completely hold the thumbscrew and slide out the battery module using the finger grip provided for the purpose.



- Push downwards for both the battery modules.

NOTE: Support the battery module while sliding out the RBC from the XLBP.

Smart Battery Management

Definitions

- Replaceable Battery Cartridge (RBC): Replacement RBCs can be ordered from the Schneider Electric Web site, www.se.com.
- Smart External Battery Pack (XLBP): An enclosure that contains RBC(s) and battery management electronics.
- User Interface (UI): Any interface by which a user can interact with the system. This may include a UPS display interface, a network management interface or PowerChute™ Network Shutdown software.

NOTE: Do not use a battery that is not approved by Schneider Electric.

The system will not detect the presence of a non approved battery and may adversely affect the operation of the system.

Use of a non approved battery will void the manufacturer warranty.

Maintenance

- **RBC maintenance:** The APC RBC uses lead acid 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** 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 each RBC is approaching the end of its useful life. For configuration details refer to **Replacement Notification Time** and **Replacement Battery Alarm Time** in the UPS User Manual.
- The estimated replacement date for each RBC is available through the UI.
- **Needs replacement notification:** The UPS display interface screen shows when RBC replacement is required. The RBC must be replaced as soon as possible.
- When an RBC requires replacement, the UPS display interface may recommend that additional RBCs be replaced if they will soon reach the end of their useful life.

  NOTE: Continued operation after end of useful life notification may cause damage to the batteries.
- Recycling: Remove the RBC from the XLBP. Recycle the RBC. Do not disassemble an RBC.

Recommended actions after installing new RBCs or XLBPs

Refer to the UPS Operation Manual for details on **Test and Diagnostics Menu** options for the following tests:

- Self Test
- Runtime Test

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

- Verify that the UPS is connected to input power and output power is turned on.
- To verify that installation of a replacement battery cartridge (RBC), has been successful, go to the UPS display interface. Use the Status menus to verify that the UPS recognizes the RBCs.
- Verify that the UPS load is greater than 400 watts. This will appear on the UPS display interface.
- Perform a UPS **Self 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 RBCs.
- Refer to the UPS User Manual for instructions on how to turn the UPS on and off.
- Verify on the UPS display interface that the installation dates for the replaced RBCs are set to the current date. The installation dates can be changed manually on the UPS display interface.If all RBCs have been replaced at the same time, all installation dates can be changed simultaneously. For configuration details refer to **Battery Install Dat**e in the User Manual.
- Allow the system to charge for 24 hours to ensure full runtime capability.
- Initiate a **Runtime Calibration Test** through the UI.

User interface

View Status/Error notifications: The status of connected XLBPs can be viewed using the UPS display interface menu options.

- **XLBP Status LED:** The XLBP LED illumination indicates four possible states.
  - **Off:** No message. This is the default state.
  - **Solid red:** XLBP just Powered up or some Fault exists.
  - **Flashing red:** XLBP is trying to establish communication.
  - **Solid Green LED:** Communication is stable.
- **System interfaces:** Battery status, alerts, and measurements are shown on the UPS display interface screen. Refer to the UPS User Manual.

Troubleshooting

Issues	Possible Cause	Solution
XLBP LED flashes red	• XLBP is trying to establish communication.	• Be sure the connection between the XLBPs and the UPS is secure. • If issue persists, contact Schneider Electric Customer Support.
XLBP LED remains illuminates red	Potential hardware error exists	• Contact Schneider Electric Customer Support.
UPS display interface shows an RBC disconnected message.	• RBC is not connected • RBC hardware error exists	Connect the RBCs. Verify that the UPS recognizes the RBCs. Perform a UPS **Self Test**. If the message remains on the display interface screen replace the RBC.
XLBP is not recognized.	• Communication issue exists • Potential hardware error exists	• Be sure the battery connections to the XLBPs are secure. • Be sure the connection between the XLBPs and the UPS are secure. • If issue persists, contact Schneider Electric Customer Support.
UPS display interface shows XLBP disconnected message.	• Power cable is not securely connected to an XLBP or to the UPS • XLBP hardware error	• Be sure the battery connections to the XLBPs are secure. • If issue persists, contact Schneider Electric Customer Support.

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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.se.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.

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- Visit our web site to access documents in the Schneider Electric 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 Schneider Electric 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/support/contact** for contact information.
  - For information on how to obtain local customer support, contact Schneider Electric representative or other distributor from whom you purchased your APC product.