Smart-UPS™ RC

External Battery Pack
Tower/Rack-Mount 4U

SRC96XLBP

SRC96XLBP2S

English

General Information

Safety Messages

Read the instructions carefully to become familiar with the equipment before attempting to install, operate, service or maintain the UPS. The following special messages may appear throughout this manual 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 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.

The addition of this symbol to a Warning or Caution product safety label indicates that a hazard exists that can result in injury and product damage if the instructions are not followed.

⚠ CAUTION

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

CAUTION

CAUTION addresses practices not related to physical injury including certain environmental hazards, potential damage or loss of data.

Safety Information

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

- Adhere to all national and local electrical codes.

- All wiring must be performed by a qualified electrician.

- Changes and modifications to this unit not expressly approved by APC could void the warranty.

- This UPS is intended for indoor use only.

- Do not operate this UPS in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.

- Be sure the air vents on the UPS are not blocked. Allow adequate space for proper ventilation.

- For a UPS with a factory installed power cord, connect the UPS power cable directly to a wall outlet. Do not use surge protectors or extension cords.

- The battery typically lasts for two to five years. Environmental factors impact battery life. Elevated ambient temperatures, poor quality utility power, and frequent short duration discharges will shorten battery life.

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

- 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.

- Always install peripheral equipment above the UPS in rack-mount configurations.

Deenergizing safety

The UPS contains internal batteries and may present a shock hazard even when disconnected from the branch circuit (mains). Before installing or servicing the equipment check that the;

- input circuit breaker is in the **OFF** position

- XLBP battery modules are disconnected

Battery safety

- Before installing or replacing the batteries, remove jewelry such as wristwatches and rings. High short circuit current through conductive materials could cause severe burns.

- Do not dispose of batteries by burning them. The batteries may explode.

- Do not open or mutilate batteries. Released electrolyte is harmful to the skin and eyes, and may be toxic.

General information

- The UPS will recognize as many as 9 external battery packs connected to the UPS.
  Note: For each XLBP added, increased recharge time will be required.

- The model and serial numbers are located on a small, rear panel label. For some models, an additional label is located on the chassis under the front bezel.

- Always recycle used batteries.

- Recycle the package materials or save them for reuse.

Introduction

Overview

The American Power Conversion (APC™) SRC96XLBP external battery pack (XLBP) connects to an APC Smart-UPS™ RC. Together these units provide extended protection for electronic equipment (load) from utility power blackouts, brownouts, sags and surges. The UPS and the XLBP together provide continuous power from the batteries until utility power returns to safe levels or the batteries are fully discharged.

Inventory

Read the Safety Guide before installing the unit.

Inspect the battery pack upon receipt. Notify the carrier and dealer if there is damage.
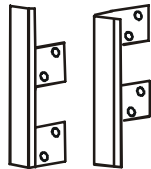
The packaging is recyclable; save it for reuse or dispose of it properly.

Check the battery pack package contents:

- External Battery Pack (XLBP)
- Front bezel
- Stabilizer/rack-mount brackets
- XLBP connector cable
- Hardware supplied listed in table below

- Literature kit containing:
    – Product documentation
    – Smart-UPS™ RC User Manuals CD
    – Safety information
    – Warranty information

NOTE: The model and serial numbers are located on a small, rear panel label. For some models, an additional label is located on the chassis under the front bezel.

Hardware supplied

8		Rack-mount configuration: Pan head screws for securing rack-mount brackets to unit
8		Rack-mount configuration: Washers for securing rack-mount brackets to unit
2		Tower configuration: Flat head screws for securing stabilizer brackets unit
2		Rack-mount configuration brackets Tower configuration stabilizer brackets

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Accessories

Install accessories prior to connecting power to the UPS.

Refer to the APC Web site, **www.apc.com** for available accessories.
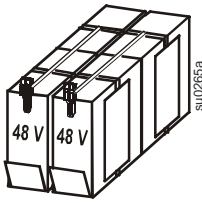
Optional accessories

- Additional external battery packs (XLBP)
- Additional battery strings
- 4-post rail kit

Specifications

Environmental Specifications

Temperature	**Operating**	0° to 40° C (32° to 104° F)	This unit is intended for indoor use only. Select a location sturdy enough to handle the weight.
	Storage	-15° to 30° C (5° to 86° F) charge UPS battery every six months 30° to 70° C (86° to 158° F) charge UPS battery every three months	Do not operate unit where there is excessive dust or temperature or humidity are outside specified limits.
Maximum Elevation	**Operating**	3,000 m (10,000 ft)	Environmental factors impact battery life. High temperatures, poor utility power, and frequent, short duration discharges will shorten battery life.
	Storage	15,000 m (50,000 ft)	
Humidity		0 to 95% relative humidity, non-condensing	

Physical Specifications

Weight - Refer to Safety Guide supplied with this unit for lifting guidelines.		
XLBP model	SRC96XLBP2S • without batteries • with two 48 V battery modules	15 kg (32 lbs) 35 kg (76 lbs)
	SRC96XLBP • without batteries • with six 48 V battery modules	15 kg (32 lbs) 75 kg (164 lbs)
	each 48 V battery module	10 kg (22 lbs)
Each 96 V battery string consists of two 48 V battery modules.		
Maximum number of external battery packs (XLBPs) supported by Smart-UPS RC	9 **Combined weights of UPS and all XLBPs installed in a rack must not exceed rack weight limits.**	
Dimensions **Length x Width x Height:** 48 cm (19 in) **x** 43 cm (17 in) **x** 18 cm (7 in)		

Installation

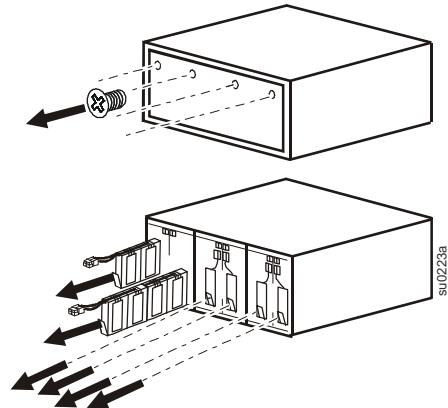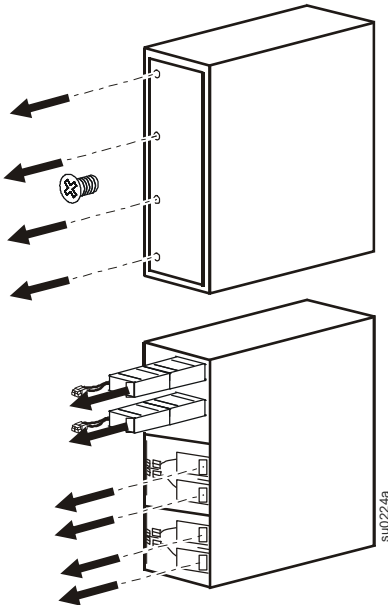⚠️ **Units may vary in appearance from those depicted in this manual.**

Always place UPS above XLBPs in rack-mount configuration.

Connect all battery strings. Failure to do so may cause equipment damage.

Refer to *Physical Specification***s in this manual and the Safety Guide before installing unit.**

Unit is heavy. Batteries must be removed from unit prior to installation.

1. Remove screws securing battery compartment door. Remove door.

2. Grasp plastic flap attached to battery and pull to remove battery module.
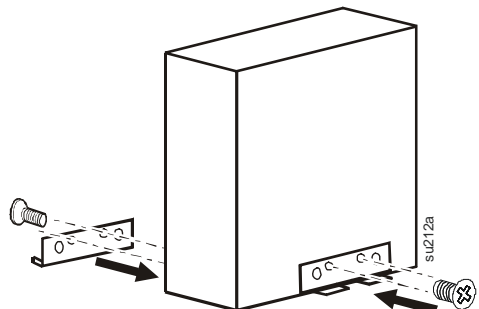   Units in tower configuration, remove batteries at top of unit first.

Tower configuration

Install stabilizer brackets

1. Stabilizer brackets must be installed on tower units.
2. Each bracket must be secured with two flat head screws (supplied).

   NOTE: Screws are pre-installed on left side of unit. These screws must be removed from unit and used to secure stabilizer bracket. Screws for securing stabilizer bracket to right side of unit are included in hardware bag supplied with unit.
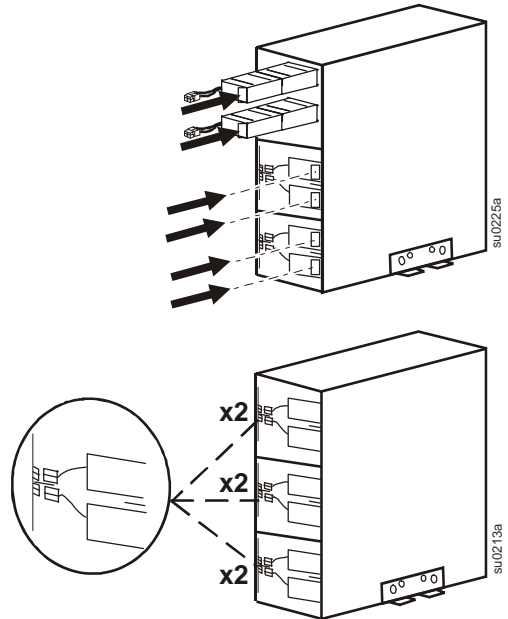
Install and connect batteries

This unit is equipped with battery modules.

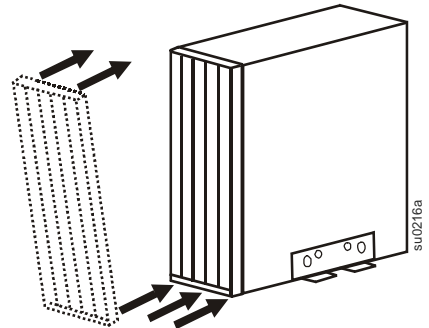Install batteries into unit beginning with batteries at the bottom.

Each string must be connected to battery connectors on chassis.

1. Install batteries.

2. Connect batteries.

3. Replace battery compartment door and secure door with screws previously removed.

Install bezel

1. Fit three tabs on the bottom inside edge of bezel into slots in chassis.
2. Tip bezel forward. Fit two tabs on top inside edge of bezel into slots in chassis and snap bezel into position.

2-post rack-mount configuration

This unit is intended for installation in a 19", two-post or four-post rack.
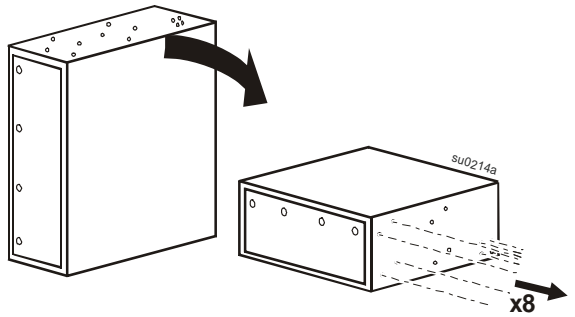
For details on 4-post rail and rack installation refer to instructions in rail kit.

Remove stabilizer brackets if they are installed. Remove four screws that secure each bracket.
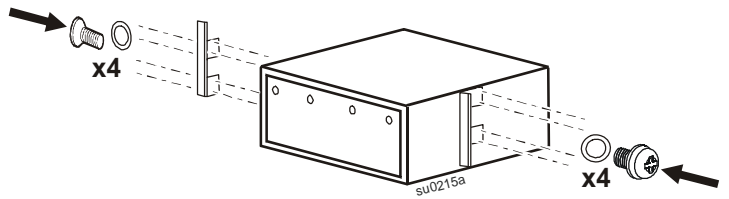
Position unit for mounting in rack

The unit is heavy. Use caution when positioning unit.

NOTE: The holes for securing rack-mount brackets are plugged. Remove the appropriate plugs prior to installing brackets on the unit.

Install rack-mount brackets

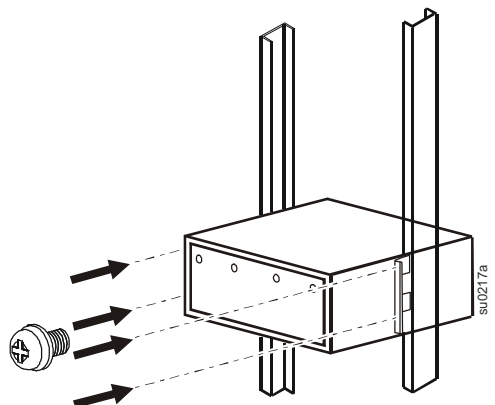Four pan head screws and four washers must be used to secure each rack-mount bracket to unit.

Secure 2-post rack to floor

Install units in rack

The UPS and XLBPs should be installed at or near bottom of rack. Always place the UPS above XLBPs. Batteries must be removed from units prior to installation in a rack.

Two screws (not supplied), must be used to secure each rack-mount bracket to rack.

Install and connect batteries

This UPS is equipped with battery modules. Each module must be connected to battery connectors on chassis.

1. Install batteries.

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2. Connect internal batteries.

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3. Replace battery compartment door and secure door with screws previously removed.

Install bezel

1. Fit three tabs on inside edge of bezel into slots in chassis.
2. Tip bezel toward chassis. Fit two tabs on inside edge of bezel into slots in chassis and snap bezel into position.

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Connect XLBPs to UPS

Tower configuration

UPS	XLBP	XLBP	XLBP

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Rack-mount configuration

UPS

XLBP

XLBP

XLBP

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There is small cover over each external battery pack connector on the UPS and XLBP. Remove the screw that secures the cover and remove the cover

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Configure UPS parameters

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

Refer to the *Battery String Configuration* tables at the end of this section for detailed instructions.

Smart-UPS RC models must be programed to recognize the number of battery strings connected to the UPS. There are four options available for configuring the UPS to recognize the number of battery strings

1. PowerChute™ *Business Edition*: Refer to the instructions included with the software

2. Network Management Card (NMC) Web interface: Refer to the instructions included with NMC

3. Network Management Card (NMC) terminal mode: Refer to the instructions below

4. UPS terminal mode

Configure UPS connection settings using NMC terminal mode

Connect the serial cable to the serial com port on rear side of UPS.

1. Open a terminal program, such as HyperTerminal.
   From the Desktop, go to: **Start, Programs, Accessories, Communication, HyperTerminal**

2. Follow the prompts to choose a name and select an icon. If the message, "...must install a modem," click **Cancel**.

3. Go to **File, Properties.** Select the COM port that is connected to your UPS. The port settings are:

   – **bits per second - 2400**

   – **data - bits 8**

   – **parity - none**

   – **stop bit - 1**

   – **flow control - none**

4. Click **OK** in each of two windows

5. Press **ENTER** to initiate connection to UPS.

Configure the number of battery strings using NMC terminal mode

1. Once the blank terminal window is open:

2. Press **ENTER** to initiate terminal mode. Press **ENTER** multiple times, until the prompt **User Name:** is displayed. Follow the prompts. Type slowly, waiting until each character appears on the screen prior to typing the next character.
   Network Management Card defaults:

   - User Name: **apc**

   - Password: **apc**

3. Press **1** and **ENTER** to select Device Manager.
   Select the model by entering the corresponding number, then press **ENTER.**

4. Press **3** and **ENTER** to select **Configuration.**

5. Press **1** and **ENTER** to select **Battery.**

6. Press **2** and **ENTER** to change **Battery Settings.**

7. Type in the number of battery strings then press **ENTER.**

8. Press **3** and **ENTER** to accept the changes.

9. Press **ESC** five times to return to the main menu.

10. Press 4 and **ENTER** to log out.

Configure UPS connection settings using UPS terminal mode

Connect the serial cable to the serial port on the back of the UPS. If using USB communication to the UPS, disconnect USB cable prior to connecting serial cable.

1. Open a terminal program, such as HyperTerminal
   From the Desktop, go to: **Start, Programs, Accessories, Communication, HyperTerminal**

2. Follow the prompts to choose a name and select an icon. Disregard the message, "...must install a modem," if it is displayed. Click **Cancel**

3. Go to **File, Properties.** Select the COM port that is connected to your UPS. The port settings are:
   – **bits per second - 2400**
   – **data - bits 8**
   – **parity - none**
   – **stop bit - 1**
   – **flow control - none**

4. Click **OK** in each of two windows

5. Press **ENTER**

Configure the number of battery strings using UPS terminal mode

1. Once the blank terminal window is open, follow these steps to enter the number of battery strings:
   NOTE: Letter key commands are case sensitive. Use capital letters when using letter key commands.

2. Press **Y**. The UPS will respond with **SM** in the command box. If the UPS does not respond to the **Y** command, ensure the serial cable is securely connected to the serial port on the UPS. Use only an APC supplied serial cable.

3. When **SM** appears in the command box press the **>** key. The UPS will respond with the number of battery strings connected to the UPS. If the UPS has not been previously programmed to recognize the number of battery strings this number will be zero.

4. Use the **+** or **-** keys to change the number of battery strings. **OK** will appear in the command box.

5. Press **>** key. The number of battery strings will appear in the command box.
   NOTE: The **+** or **-** keys and the **>** key must be used again to change the number of battery strings from this point in the programming.

6. Press **R**. The UPS will respond with **BYE** in the command box.

Smart-UPS SRC XLI Models - Configure Number of Battery Strings		
Each 96 V battery string consists of two 48 V battery modules. Count the number of battery strings being used and enter that number.		
Configuration		**# of Battery Strings**
Factory Default for all Models	UPS internal battery string	1
SRC96XLBP2S	UPS internal battery string + 1 SRC96XLBP2S	2
	UPS internal battery string + 1 SRC96XLBP2S + 1 SRC004 (1 additional battery string)	3
	UPS internal battery string + 1 SRC96XLBP2S + 2 SRC004 (2 additional battery strings)	4
SRC96XLBP	The formula for configuring **SRC96XLBP** units is as follows: *UPS internal battery string + 3 x the number of SRC96XLBP units*	# of battery strings to be entered
	UPS internal battery string + 1 SRC96XLBP	4
	UPS internal battery string + 2 SRC96XLBP units	7
	UPS internal battery string + 3 SRC96XLBP units	10

Smart-UPS SRC UXI Models - Configure Number of Battery Strings		
Each 96 V battery string consists of two 48 V battery modules. Count the number of battery strings being used and enter that number.		
Configuration		**# of Battery Strings**
Factory Default for all Models	No UPS internal battery string	0
SRC96XLBP2S	1 SRC96XLBP2S	1
	1 SRC96XLBP2S + 1 SRC004 (1 additional battery string)	2
	1 SRC96XLBP2S + 2 SRC004 (2 additional battery strings)	3
SRC96XLBP	The formula for configuring **SRC96XLBP** units is as follows: *3 x the number of SRC96XLBP units*	# of battery strings to be entered
	1 SRC96XLBP	3
	2 SRC96XLBP units	6
	3 SRC96XLBP units	9

Contact Information

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 Web site to access documents in the APC Knowledge Base and to submit customer support requests.
    - **www.apc.com** (Corporate Headquarters)
      Connect to localized APC Web sites 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 distributors from whom you purchased your APC by Schneider Electric product.

Maintenance, Transport, and Service

Replace battery modules

This UPS 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 batteries are disconnected the connected equipment is not protected from power outages.

Refer to the appropriate replacement battery user manual for battery module installation instructions. See your dealer or contact APC 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 in the replacement battery packing material.

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 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 APC 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 Web site 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.

Two-Year 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's or any third person's misuse, negligence, improper installation, testing, operation or use of the product contrary to SEIT's 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 SEIT 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.