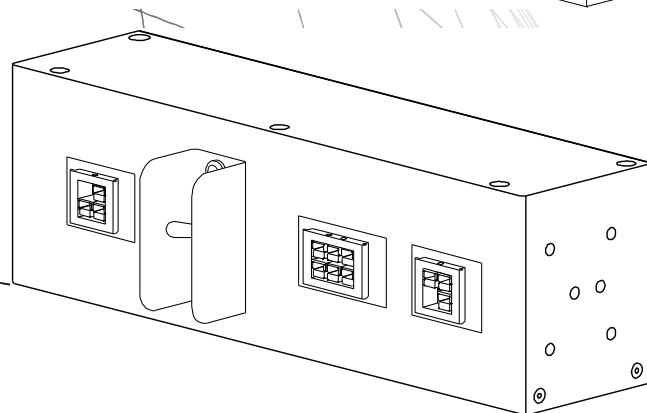
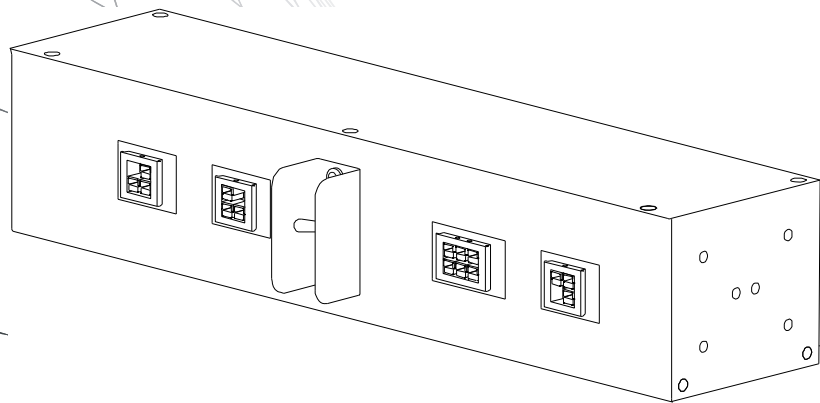




# Installation and Operation

## SecureUPS™ On-Line Service Bypass Panel

**XS30ALLXR2**  
**XS30ALLXR2G**  
**120 VAC**  
**Wall/Rack-Mount 2U**





# Important Safety Messages

SAVE THESE INSTRUCTIONS - This manual contains important instructions that should be followed during installation and maintenance of the Service Bypass Panel (SBP).

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.

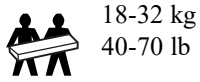
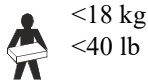
## CAUTION

**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



# Safety and General 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.
- Do not work alone under hazardous conditions.
- Install the unit in a non accessible, securely locked enclosure.
- Changes and modifications to this unit not expressly approved by Schneider Electric could void the warranty.
- Do not remove the covers. There are no serviceable internal parts.
- Do not operate this unit in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.
- The unit is capable of operating in environments up to 74° C.
- The surface of the unit will be hot when ambient temperatures exceed 60° C.
- Be sure the air vents on the unit are not blocked. Allow adequate space for proper ventilation.

## De-energizing safety

- The unit may present a shock hazard even when disconnected from AC and DC power.
- The AC output connectors may be energized by remote or automatic control at any time.
- Before installing or servicing the equipment check that the:
  - Input power cables should not be connected to the input connector.
  - External batteries on SecureUPS are disconnected.

## Electrical safety

- Use tools with insulated handles.
- Do not handle any metallic connector before power has been disconnected.
- The protective earth conductor for the unit carries the leakage current from the load devices (computer equipment). An insulated ground conductor is to be installed as part of the branch circuit that supplies the unit. The conductor must have the same size and insulation material as the grounded and ungrounded branch circuit supply conductors. The conductor will typically be green, with or without a yellow stripe.
- Connect the unit input ground conductor to the protective earth.
- If the unit input power is supplied by a separately derived system, the ground conductor must be properly bonded at the supply transformer or motor generator set.

## General information

- The model and serial numbers are on a small label, located on the top cover.
- Recycle the package materials or save them for reuse.

# Overview

The Service Bypass Panel (SBP), provides utility power to connected equipment during SecureUPS maintenance.

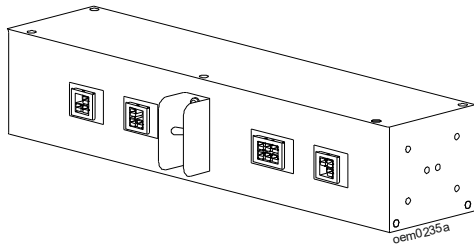
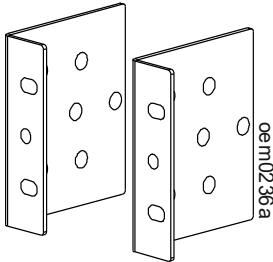



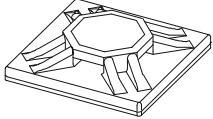
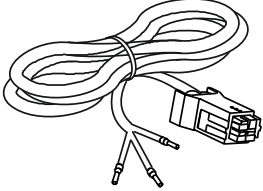
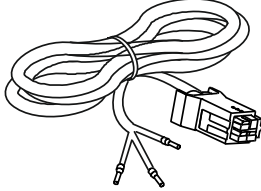
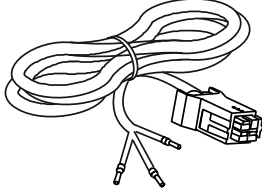
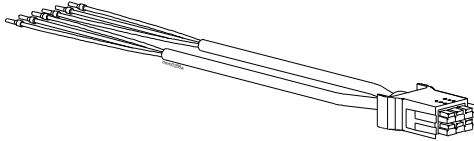
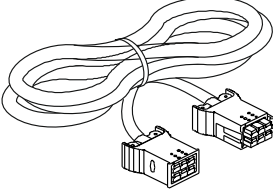

SBP is intended for using along with SecureUPS XU1K3LLXXRCC and XU2K0LLXXRCC models only.

This user manual is available on the APC by Schneider Electric Web site, [www.apc.com](http://www.apc.com).

## Package Contents

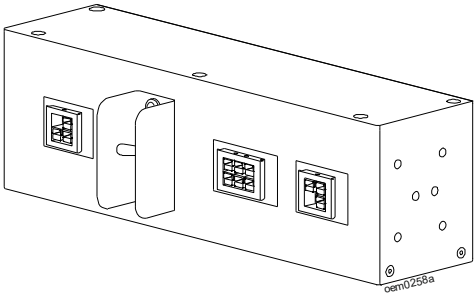
Inspect the package upon receipt. Notify the carrier and dealer if there is damage.

The package is recyclable; save it for reuse or dispose of it properly.

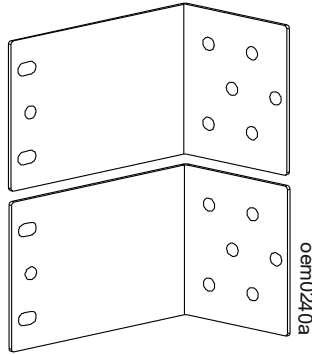
| <b>XS30ALLXXR2G model</b>   |  |   |
|---|--|---|
| <p><b>SBP unit</b></p>                              | <p><b>Mounting bracket</b></p>                        | <p><b>Ornamental screw x4</b></p>    |
| <p><b>Cage nut x4</b></p>                          | <p><b>Flat head screw x6</b></p>                      | <p><b>Cable tie mount x10</b></p>  |
| <p><b>Utility input cable</b></p>                  | <p><b>Generator cable</b></p>                        | <p><b>Output cable</b></p>         |
| <p><b>UPS input and output two feet cable</b></p>  | <p><b>UPS input and output seven feet cable</b></p>  | <p><b>Cable tie x10</b></p>        |

**XS30ALLXR2 model**

**SBP unit**



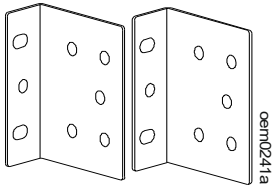
**Rack-Mount bracket**



**Ornamental screw x4**



**Wall mount bracket**



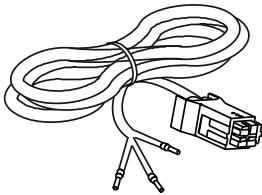
**Flat head screw x6**



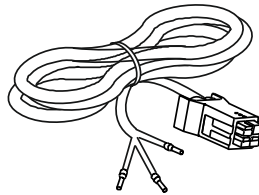
**Cage nut x4**



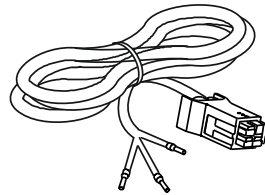
**Utility input cable**



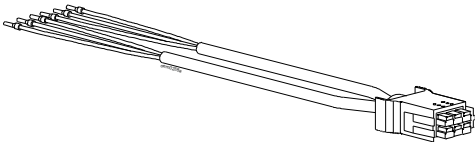
**Output cable**



**UPS input and output seven feet cable**



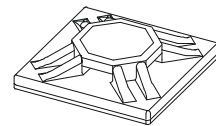
**UPS input and output two feet cable**



**Cable tie x10**



**Cable tie mount x10**



# Specifications

## Environmental

|                          |                  |  |
|--------------------------|------------------|--|
| <b>Temperature</b>       | <b>Operating</b> | -40° to 74 °C (-40° to 165.2 °F)           |
|                          | <b>Storage</b>   | -40° to 85 °C (-40° to 185 °F)             |
| <b>Maximum Elevation</b> | <b>Operating</b> | 3,000 m (10,000 ft)                        |
|                          | <b>Storage</b>   | 15,000 m (50,000 ft)                       |
| <b>Humidity</b>          |                  | 0 to 95% relative humidity, non-condensing |

## Physical

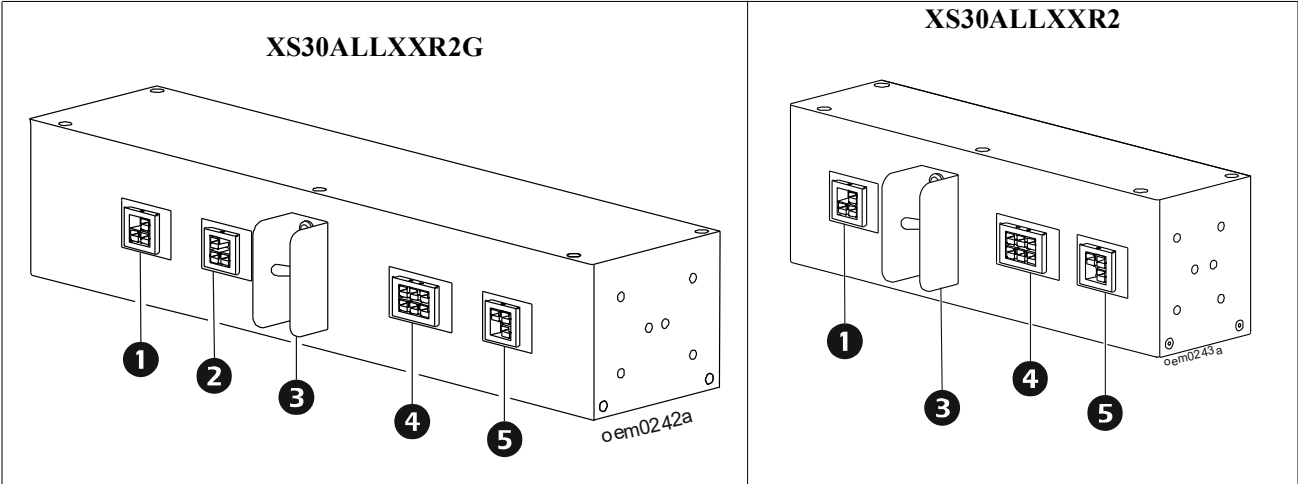
|   | <b>XS30ALLXXR2G</b>                                      | <b>XS30ALLXXR2</b>                                       |
|---|--|--|
| <b>Dimensions without packaging (W x H x D)</b> | 432 mm (17 in) x 88 mm (3.46 in) x 100 mm (3.93 in)      | 280 mm (11 in) x 88 mm (3.46 in) x 72 mm (2.83 in)       |
| <b>Dimensions with packaging (W x H x D)</b>    | 460 mm (18.11 in) x 150 mm (5.91 in) x 295 mm (11.61 in) | 460 mm (18.11 in) x 150 mm (5.91 in) x 295 mm (11.61 in) |
| <b>Net weight</b>                               | 2.2 kg   | 1.25 kg  |
| <b>Shipping weight</b>                          | 5.7 kg   | 4.5 kg   |

## Electrical

| <b>Models</b>            | <b>Voltage</b> | <b>Amps</b> |
|--------------------------|----------------|-------------|
| XS30ALLXXR2/XS30ALLXXR2G | 120 VAC        | 30 A*       |

**Note:** \*For ambient temperature >55 °C, current limited to <24 A only.

# Front Panel Features



|          |                                      |
|----------|--------------------------------------|
| <b>1</b> | Utility input connector              |
| <b>2</b> | Generator input connector            |
| <b>3</b> | BYPASS/UPS switch                    |
| <b>4</b> | UPS input and output power connector |
| <b>5</b> | Output connector                     |



# Installation

**Note:** The illustrations appear different but the procedure of installing the brackets remains the same for both the models.

## NOTICE

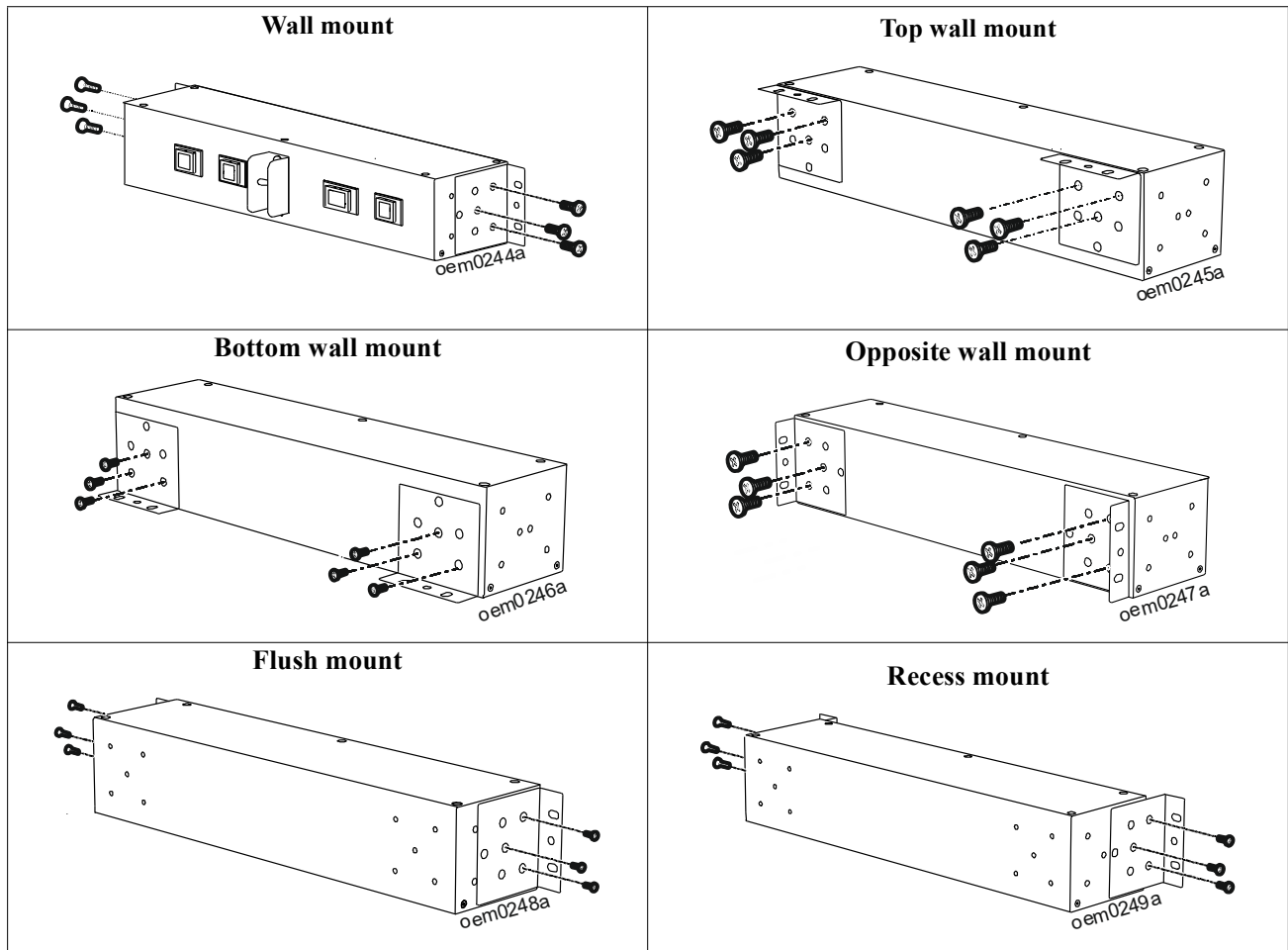
### RISK OF FALLING EQUIPMENT

- Follow the installation instructions.
- Secure the rack-mount brackets to the unit using all of the screws supplied for this purpose.
- Secure the unit in the rack using all of the screws supplied for this purpose.

**Failure to follow these instructions could result in equipment damage.**

## XS30ALLXR2G Model

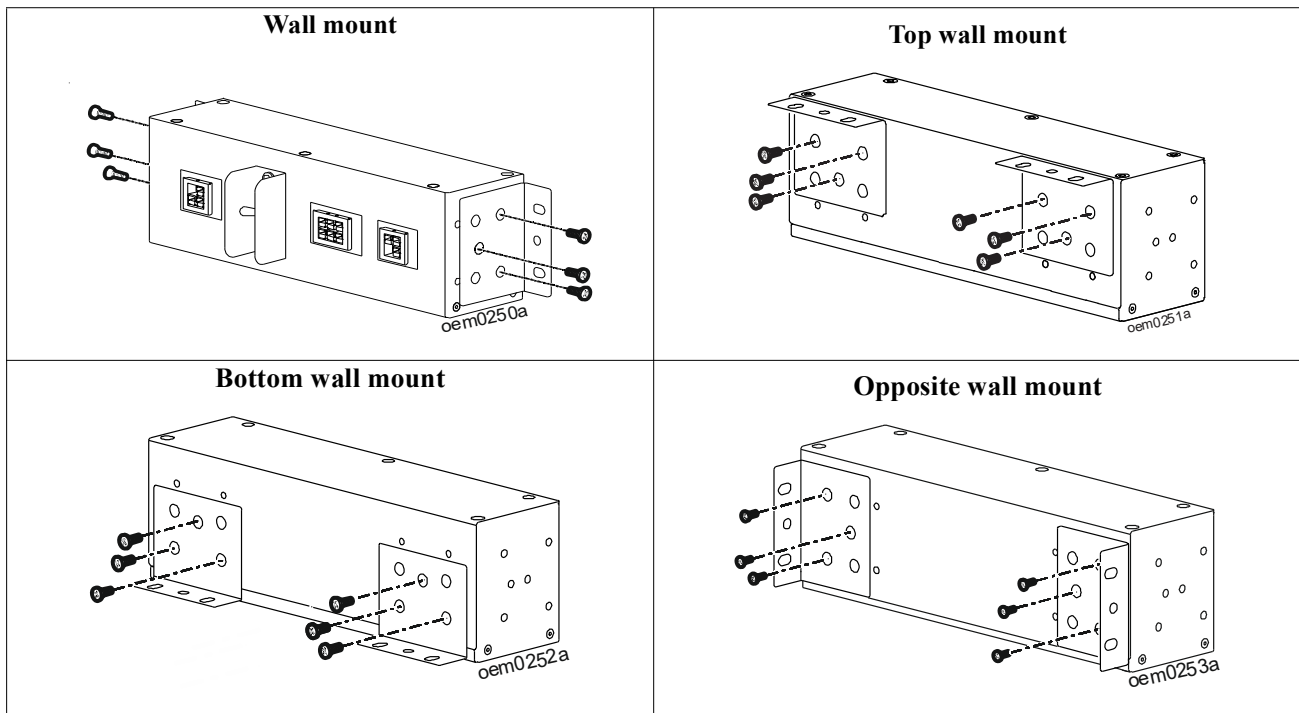
### Mounting options



# XS30ALLXR2 Model

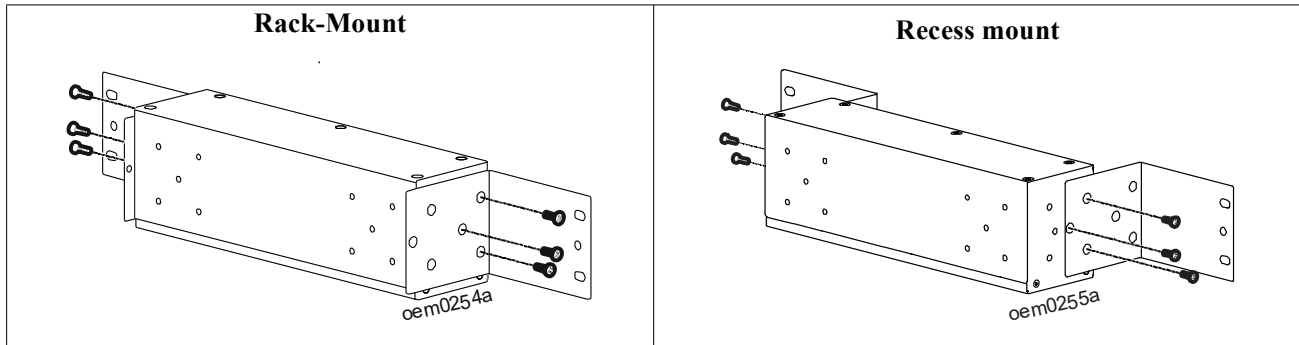
## Wall mount options

Install wall mount brackets to the SBP.



## Rack-Mount options

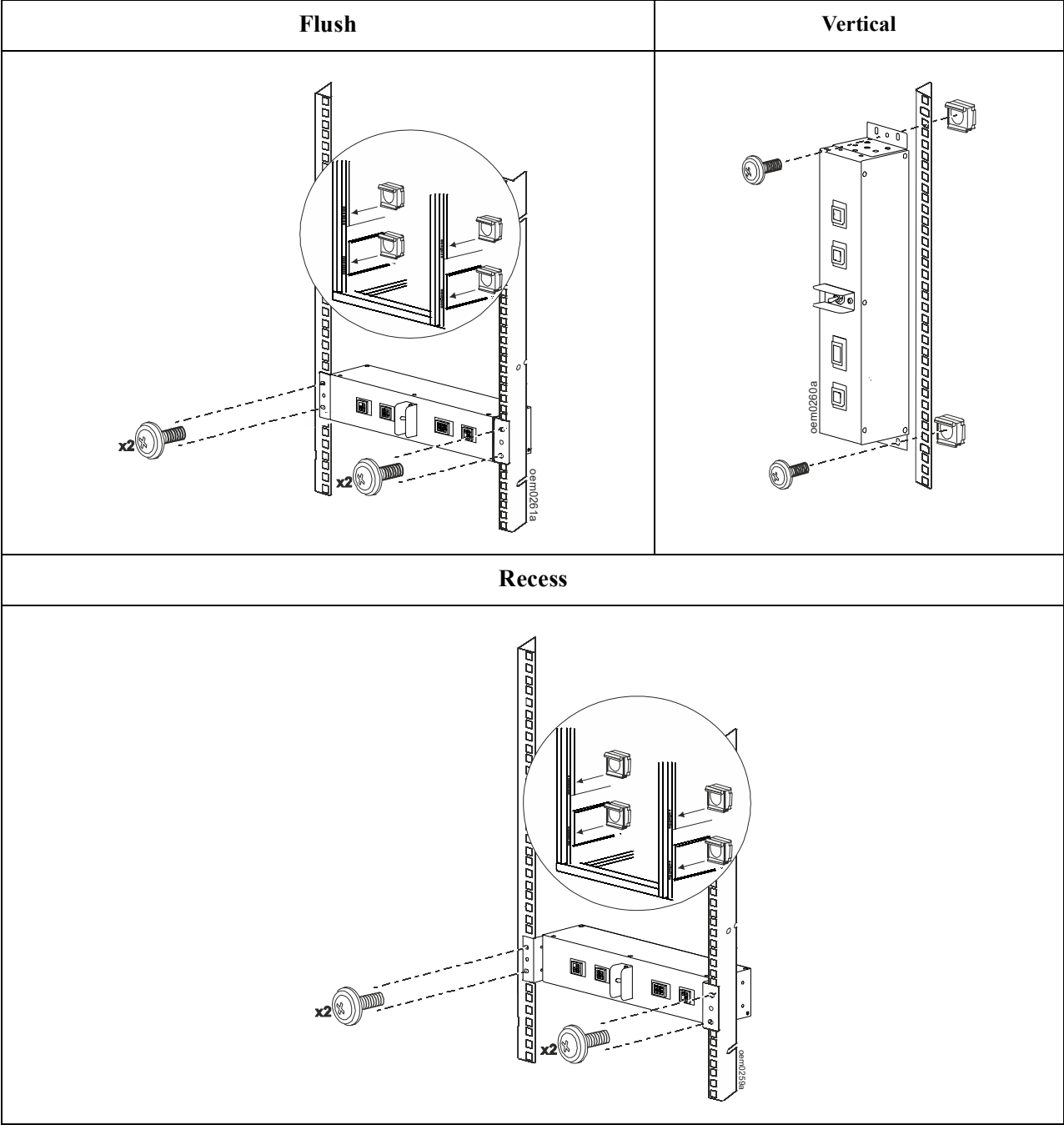
Install rack-mount brackets to the SBP.



# Rack-Mount Installation

For horizontal installations use two screws and two cage nuts with each bracket on the SBP.

For vertical installations use one screw and one cage nut with each bracket on the SBP.

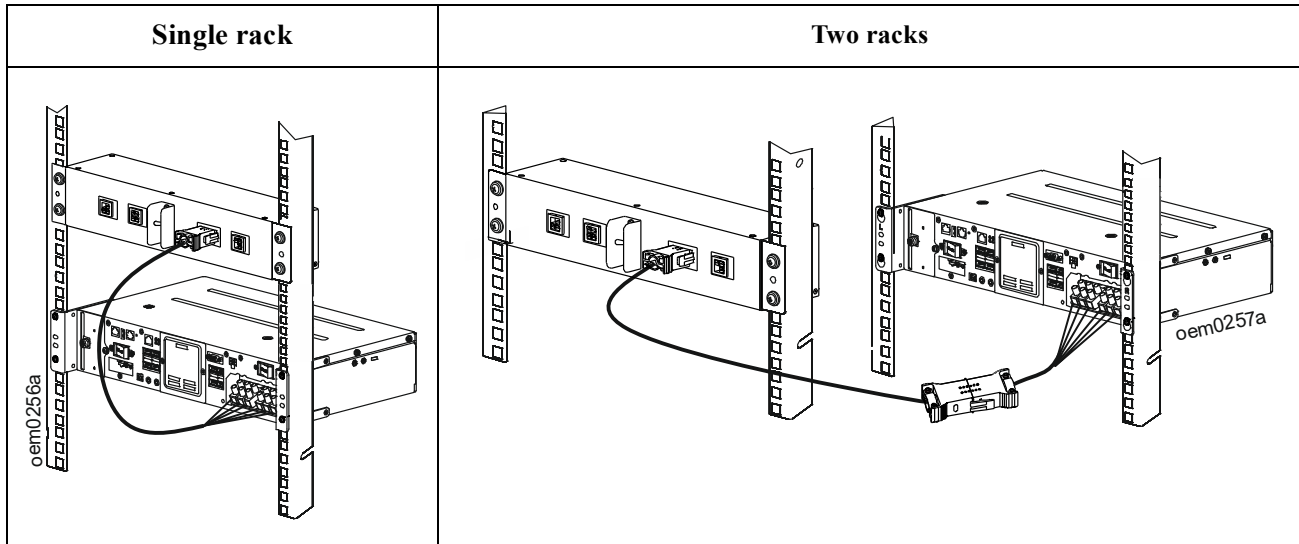


# UPS Input and Output Cable Connection

## SecureUPS and SBP mounting

Use UPS input and output two feet cable to connect the SBP with SecureUPS.

Connect the two feet cable with the seven feet cable, if extension is required. Use this to connect the SBP with the SecureUPS.



## Install and Connect SecureUPS to the SBP

### ⚠ CAUTION

#### RISK OF ELECTRIC SHOCK

- Adhere to all national and local electrical codes.
- All electrical work must be performed by a qualified electrician.
- Turn off all power to this equipment before working on the equipment. Practice lockout/tagout procedures.
- Do not wear jewelry when working with electrical equipment.
- Ensure that line, neutral and ground cables of the input and output terminals are connected.
- The SBP must be wired into a branch circuit, equipped with a circuit breaker rated as specified in the tables below.
- Disconnect the cabinet circuit breaker before installing or servicing the SBP or connected equipment.
- The SecureUPS connected to SBP, utilizes external batteries that may present a shock hazard even when disconnected from the mains. Disconnect the batteries from the SecureUPS.

**Failure to follow these instructions could result in minor or moderate injury.**

| Wiring              | External input circuit breaker rating, (typical) |                |
|---------------------|--|----------------|
| Utility Input Cable | 120 VAC nominal                                  | 30 A* / 2 pole |

1. Before installing the equipment check:
  - a. Switch OFF the utility circuit breaker.
  - b. Utility power cables should not be connected to the input connector of SBP.
2. Keep the TOGGLE switch in the **bypass** mode.

3. Connect one end of the utility input cable to utility and other end to SBP (XS30ALLXXR2G/XS30ALLXXR2).
4. Connect one end of the output cable to load and other end to SBP (XS30ALLXXR2G/XS30ALLXXR2).
5. Connect the UPS input and output two feet cable to SecureUPS. Ensure that line, neutral and ground cables of the input and output terminals are connected.
6. Connect the UPS input and output two feet cable to the SBP (if required use UPS input and output seven feet cable for extension).
7. Turn ON the SecureUPS (XU1K3LLXXRCC) in following fashion:
  - a. Connect the batteries to the SecureUPS.
  - b. Turn ON the input and battery circuit breaker.
  - c. Turn ON the utility circuit breaker.
  - d. Toggle the switch to the **UPS** mode in SBP.
  - e. Command the SecureUPS to the online mode through display on SecureUPS.
8. Turn ON the SecureUPS (XU2K0LLXXRCC) in following fashion:
  - a. Connect the batteries to the SecureUPS.
  - b. Turn ON the UPS with PUSH button on the SecureUPS.
  - c. Command the UPS to command **bypass** mode through display on SecureUPS.
  - d. Turn ON the utility circuit breaker.
  - e. Toggle the switch to the **UPS** mode in SBP.
  - f. Command the UPS to the **online** mode through display on SecureUPS.

# Service the SecureUPS Connected to SBP

**Note:** Please ensure continuous utility input to avoid load drop during servicing of the SecureUPS connected to SBP.

**Note:** Proper operation of toggle switch is recommended for seamless load support during switch changeover.

## Transferring SBP from UPS mode to BYPASS mode

1. Verify the SecureUPS is in **bypass** mode.
2. If its not in **bypass** mode, command the SecureUPS to the command bypass through display.
3. Toggle the switch to the **bypass** mode in SBP.
4. Turn OFF the SecureUPS.
5. Disconnect the UPS (input and output cable) connected to the SBP, with the help of UPS input and output cable.
6. Disconnect the batteries, connected to the SecureUPS.

## Transferring SBP from BYPASS mode to UPS mode

1. Verify the TOGGLE switch in the **bypass** mode.
2. Before installing the SecureUPS, Switch OFF the input circuit breaker and battery circuit breaker located in front of the SecureUPS panel.
3. Connect the UPS input and output two feet cable to SecureUPS. Ensure that line, neutral and ground cables of the input and output terminals are connected.
4. Connect the UPS input and output two feet cable to the SBP (if required use UPS input and output eight feet cable for extension).
5. Turn ON the UPS (XU1K3LLXXRCC) in following fashion:
  - a. Connect the batteries to the SecureUPS.
  - b. Turn ON the input and battery circuit breaker.
  - c. Toggle the switch to the **UPS** mode in SBP.
  - d. Command the UPS to the **online** mode through display on SecureUPS.
6. Turn ON the UPS (XU2K0LLXXRCC) in following fashion:
  - a. Connect the batteries to the SecureUPS.
  - b. Turn ON the input and battery circuit breaker.
  - c. Turn ON the UPS with PUSH button on the SecureUPS.
  - d. Command the UPS to command **bypass** mode through display on SecureUPS.
  - e. Toggle the switch to the **UPS** mode in SBP.
  - f. Command the UPS to the **online** mode through display on SecureUPS.

# Troubleshooting

Use the table to solve minor installation and operation problems.

Refer to the APC by Schneider Electric Web site, [www.apc.com](http://www.apc.com) for assistance with complex problems.

| Problem and/or Possible Cause   | Solution   |
|---|--|
| <p>SBP output does not provide power to connected equipment when toggle switch is in BYPASS position.</p> | <ol style="list-style-type: none"> <li>1. Check the position of the utility circuit breaker.</li> <li>2. If it is in off position, remove the non-essential equipment connected to the SBP and reset the breaker.</li> <li>3. If the circuit breaker is in ON position then have the building utility voltage checked by a qualified electrician.</li> <li>4. Verify that the SBP is functioning properly.               <ol style="list-style-type: none"> <li>a. Short the UPS input and output on the SBP panel.</li> <li>b. Provide the utility voltage to the SBP and verify the output voltage in both UPS and <b>bypass</b> mode.</li> </ol> </li> <li>5. If output voltage does not return, the SBP is defective. Contact APC by Schneider Electric. Refer to “Service” on page 14 in this user manual.</li> </ol>   |
| <p>SBP output does not provide power to connected equipment when toggle switch in UPS position.</p>       | <ol style="list-style-type: none"> <li>1. Check the position of the utility and unit circuit breaker.</li> <li>2. If they are in off position, remove the non-essential equipment connected to the SBP and reset the breakers.</li> <li>3. If the circuit breakers are in ON position then have the building utility voltage checked by a qualified electrician.</li> <li>4. Verify whether the unit is not showing any fault.</li> <li>5. Verify unit output voltage.</li> <li>6. If there is no output voltage, follow instructions to disconnect the UPS. Refer to “Transferring SBP from UPS mode to BYPASS mode” on page 12 in this user manual.</li> <li>7. Change the TOGGLE switch position to <b>bypass</b> mode.</li> <li>8. Disconnect the quick disconnect cable to isolate the UPS.</li> <li>9. Verify that the SBP is functioning properly.               <ol style="list-style-type: none"> <li>a. Short the UPS input and output on the SBP panel.</li> <li>b. Provide the utility voltage to the SBP and verify the output voltage in both UPS and <b>bypass</b> mode.</li> </ol> </li> <li>10. If there is no output voltage then the SBP is defective. Contact APC by Schneider Electric. Refer to “Service” on page 14 in this user manual.</li> </ol> |

# Service

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

1. Review the Troubleshooting section of the manual to eliminate common problems.
2. If the problem persists, contact APC by Schneider Electric Customer Support through the APC by Schneider Electric Web site, **www.apc.com**.
  - a. Note the model number and serial number and the date of purchase. The model and serial numbers are located on the top of the unit.
  - b. Call APC by Schneider Electric Customer Support and a technician will attempt to solve the problem over the phone. If this is not possible, the technician will issue a Returned Material Authorization Number (RMA#).
  - c. If the unit is under warranty, the repairs are free.
  - d. Service procedures and returns may vary internationally. Refer to the APC by Schneider Electric Web site for country specific instructions.
3. Pack the unit in its original packaging. If this is not available, refer to **www.apc.com** to obtain a new set. Pack the unit properly to avoid damage in transit. Never use foam beads for packaging. Damage sustained in transit is not covered under warranty.
4. Write the RMA# provided by Customer Support on the outside of the package.
5. Return the unit by insured, pre-paid carrier to the address provided by Customer Support.

## Transport the unit

1. Shut down and disconnect all connected equipment.
2. Disconnect the unit from utility power.
3. Follow the shipping instructions outlined in the *Service* section of this manual.



# Limited Factory Warranty

Schneider Electric IT Corporation (SEIT), warrants its products to be free from defects in materials and workmanship for a period of three (3) years. 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 part 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](http://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 of 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.**

**SEIT EXPRESS WARRANTIES WILL NOT BE ENLARGED, DIMINISHED, OR AFFECTED BY AND NO OBLIGATION OR LIABILITY WILL ARISE OUT OF, SEIT RENDERING OF TECHNICAL OR OTHER ADVICE OR SERVICE IN CONNECTION WITH THE PRODUCTS.**

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**NOTHING IN THIS LIMITED WARRANTY SHALL SEEK TO EXCLUDE OR LIMIT OR DEATH OR PERSONAL INJURY RESULTING FROM ITS NEGLIGENCE OR ITS FRAUDULENT MISREPRESENTATION OF TO THE EXTENT THAT IT CANNOT BE EXCLUDED OR LIMITED BY APPLICABLE LAW.**

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



# APC™ by Schneider Electric Worldwide Customer Support

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

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

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