

Powerware Series

**Eaton® 9170+ Rail Kit
9- and 12-Slot Cabinets
Installation Guide**



Powering Business Worldwide

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Rackmount Installation

To install a 9- or 12-slot uninterruptible power system (UPS) cabinet into a rack, you must order a cabinet specifically designed for rackmounting. Nine- and 12-slot battery cabinets are also available for rackmounting. These models can be installed in an EIA-standard 48.3 cm (19") equipment rack and include a rackmounting kit with the brackets and required hardware.

Checking the Rail Kit Accessories

Verify that the following items are included inside each rail kit:

- (2) front rails (left and right)
- (2) rear rails (left and right)
- (12) #6-32 × 0.75" screws
- (12) #6 flat-head washers
- (12) #6-32 Keps nuts
- (4) adapter plates
- (8) #10-32 × 0.5" pan-head screws
- (8) #10 washers
- **9-Slot Cabinets:**
 - (12) metal clip nuts
 - (4) rackmount ears
 - (12) 1/4-20 × 1/2" Phillips-head bolts
- **12-Slot Cabinets:**
 - (18) metal clip nuts
 - (6) rackmount ears
 - (18) 1/4-20 × 1/2" Phillips-head bolts

Tools Required

To assemble the components, the following tools may be needed:

- Medium flat-bladed screwdriver
- Phillips® #2 screwdriver

Installing the Rail Kit



CAUTION

The 9- and 12-slot cabinets are heavy [9-slot: 72 kg (158 lb); 12-slot: 89 kg (196 lb)]. This procedure requires two people to lift and position the cabinet into the equipment rack. Install the cabinet in the rack before installing power and battery modules and before making connections to the intended power source.

To install the UPS or battery cabinet in the equipment rack:

1. Measure the distance from the front to back of the mounting posts in your rack.
2. Position the front and rear rails for the depth of your rack.
3. Loosely assemble the left and right rails using six #6-32 \times 0.75" screws, #6 flat-head washers, and #6-32 Keps nuts (see Figure 1).

Set aside the loosely assembled rails.

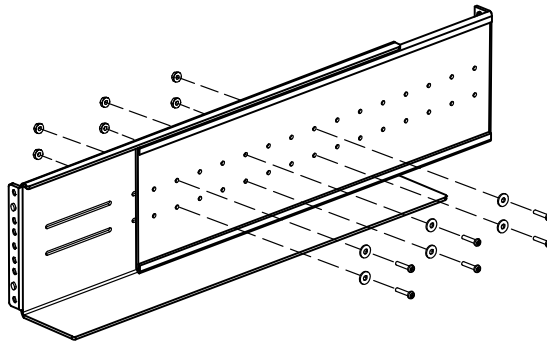


Figure 1. Assembling the Rails

4. Install six metal clip nuts (nine clip nuts for 12-slot cabinets) onto each side flange along the front of the cabinet (see Figure 2).



NOTE DO NOT install metal clip nuts in the bottom cabinet section.

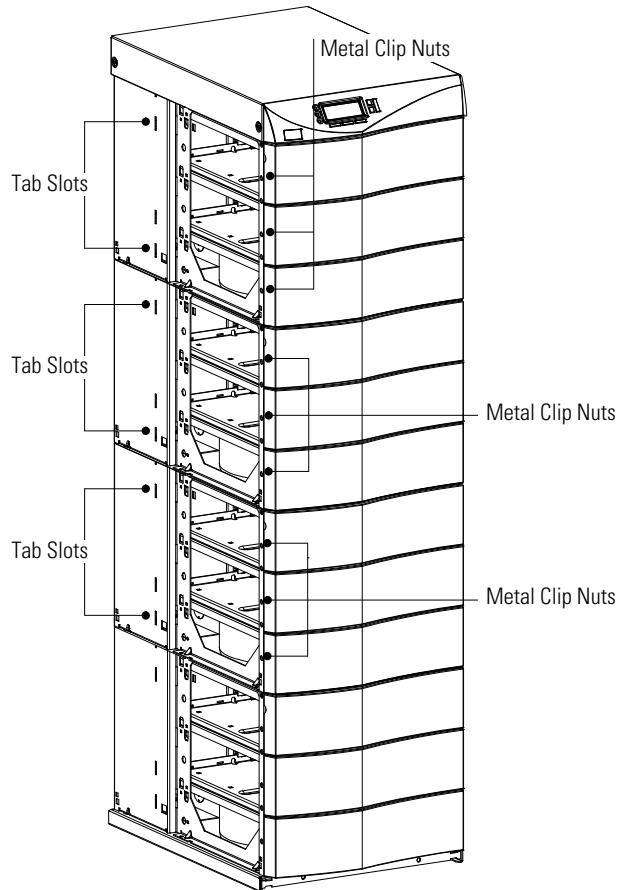


Figure 2. Metal Clip Nut and Tab Slot Locations

5. Install two rackmount ears (three for 12-slot cabinets) on each side of the cabinet (see Figure 3).

Insert the two offset tabs on the rear edge of the ear into the matching tab slots on the cabinet side frame (see Figure 2). Pivot the ear forward until it is flush against the cabinet side frame. Secure each ear with three 1/4-20 × 1/2" Phillips-head bolts; screw the bolts into the metal clip nuts installed in Step 4.



NOTE *DO NOT install rackmount ears in the bottom cabinet section.*

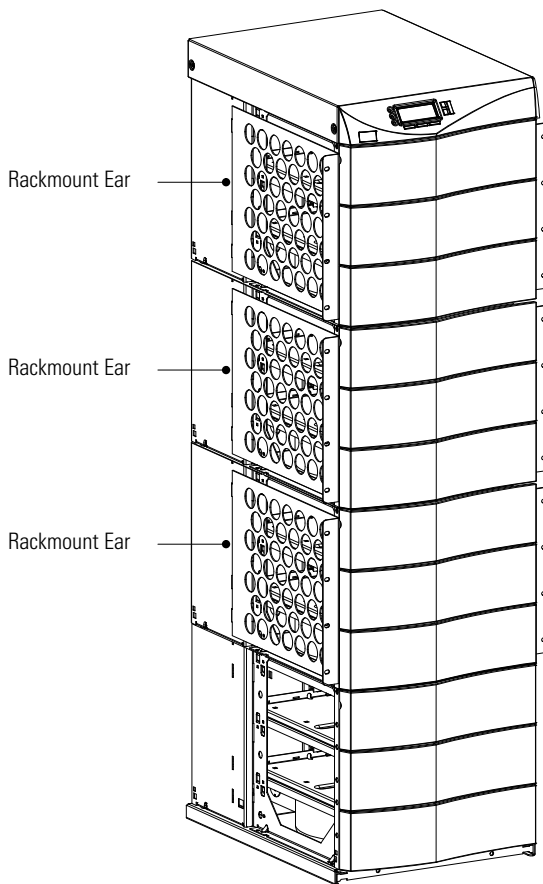


Figure 3. Rackmount Ears Installed

6. Select the proper holes in the rail that position the cabinet at the desired location in the rack.
7. Secure the loosely assembled rail to the front and rear of the rack with the supplied adapter plate in front of the mounting post using two supplied #10-32 × 0.5" pan-head screws and #10 washers.

Repeat for the other side of the rack.



NOTE Figure 4 shows the mounting installation for a rack with the rail return on the outside. If the rail return is on the inside, the adapter plate must go behind the mounting post.

8. Tighten the rail assembly screws.

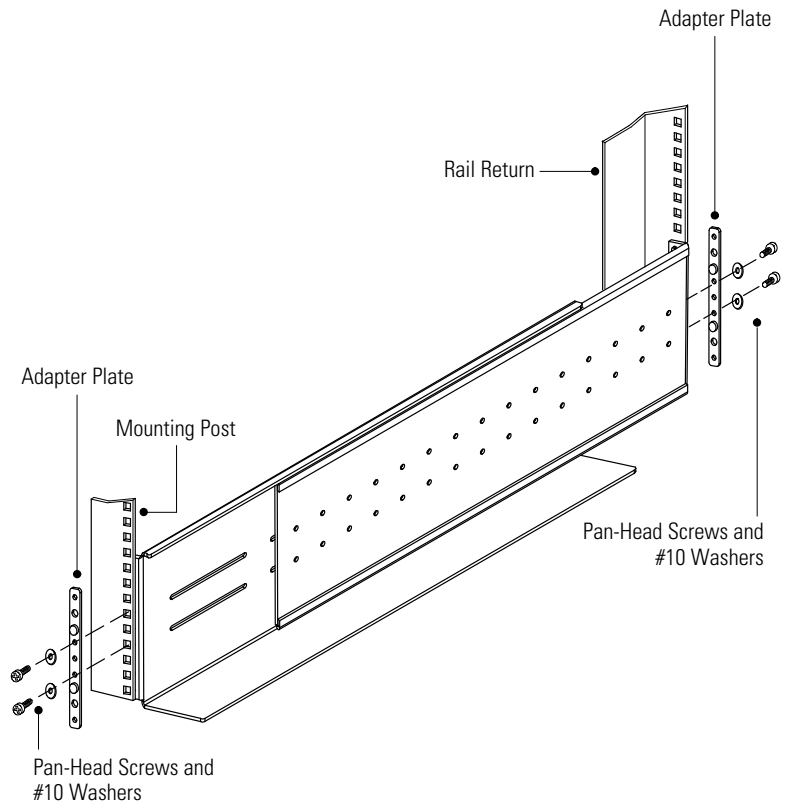


Figure 4. Securing the Rails

9. With one person lifting each side of the cabinet, position the cabinet onto the two equipment rails (see Figure 5).

Carefully slide the cabinet into the equipment rack until the rackmount ears of the cabinet are flush with the front vertical rails of the rack. Verify that the holes in the ears align with the holes in the rack.

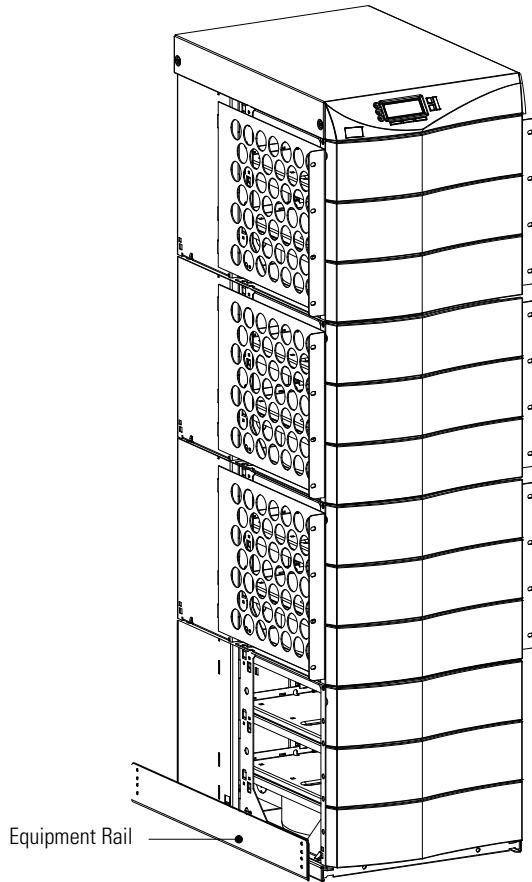


Figure 5. Rails Holding UPS Cabinet

10. Secure the cabinet in the rack using #10-32 × 1/2" Torx® screws or other appropriate customer-specified screws.
11. Follow the instructions in the UPS user's guide to install the power and battery modules.

Service and Support

If you have any questions or problems with the UPS, call your **Local Distributor** or the **Help Desk** at one of the following telephone numbers and ask for a UPS technical representative.

United States: **1-800-356-5737**
Canada: **1-800-461-9166 ext 260**
All other countries: **Call your local service representative**

Please have the following information ready when you call the Help Desk:

- Model number
- Serial number
- Version number (if available)
- Date of failure or problem
- Symptoms of failure or problem
- Customer return address and contact information

If repair is required, you will be given a Returned Material Authorization (RMA) Number. This number must appear on the outside of the package and on the Bill Of Lading (if applicable). Use the original packaging or request packaging from the Help Desk or distributor. Units damaged in shipment as a result of improper packaging are not covered under warranty. A replacement or repair unit will be shipped, freight prepaid for all warrantied units.



NOTE For critical applications, immediate replacement may be available. Call the **Help Desk** for the dealer or distributor nearest you.

RACKMOUNT INSTALLATION



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