HRB 109 and HRU 109 • Installation Guide

The Extron HRB 109 basic shelf and Extron HRU 109 shelf kit accommodate half-rack, quarter-rack, and eighth-rack products in a half-rack width installation. The shelves can accommodate a single device or combinations of smaller devices.

This installation guide describes how to

- Secure A/V products to the shelf.
- Secure a false front panel to the shelf (HRU 109 only).
- Secure the shelf to the rack rails.

Before Starting

Extron does not provide rails for the rack system. These must be purchased separately and need to be installed (see the user guide provided by the supplier). The distance between the rails must be half the standard rack width (8.85 inches or 22.48 cm) between the inside edges of the rails (see the figure below).

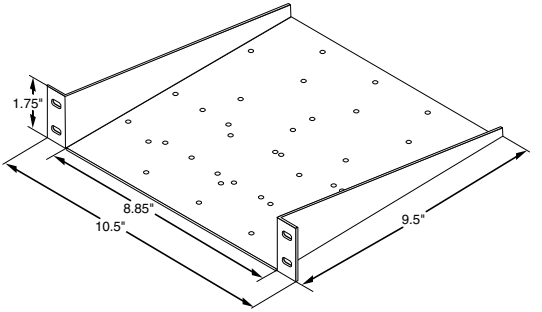


Figure 1. Dimensions

You will also need a Phillips head screwdriver.

Included Parts

HRB 109 (Basic Shelf)
Half-rack shelf: 9.5 inches (24.1 cm) deep x 10.5 inches (26.7 cm) wide (width not including mounting flanges 8.85 inches [22.5 cm])
(4) #10-32 rack shelf mounting screw with nylon captive cap washer
(8) #4-40 x 3/16 inch product mounting screw

HRU 109 (Shelf Kit)
Half-rack shelf: 9.5 inches (24.1 cm) deep x 10.5 inches (26.7 cm) wide (width not including mounting flanges 8.85 inches [22.5 cm])
(4) #10-32 rack shelf mounting screw with nylon captive cap washer
(8) #4-40 x 3/16 inch product mounting screw
1/4-rack false faceplate
1/8-rack false faceplate

Underwriters Laboratories Guidelines for Rack Mounting

The following Underwriters Laboratories (UL) guidelines are relevant to the safe installation of products in a rack:

Elevated operating ambient temperature — If a unit is installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, install the equipment in an environment compatible with the maximum ambient temperature specified by Extron.

Reduced air flow — Install the equipment in the rack so that the equipment gets adequate air flow for safe operation.

Mechanical loading — Mount the equipment in the rack so that uneven mechanical loading does not create a hazardous condition.

Circuit overloading — Connect the equipment to the supply circuit and consider the effect that circuit overloading might have on overcurrent protection and supply wiring. Give appropriate consideration to the equipment nameplate ratings when addressing this concern.

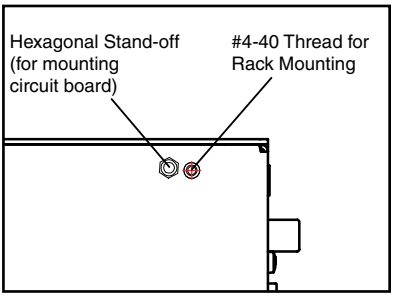
Reliable earthing (grounding) — Maintain reliable grounding of rack-mounted equipment. Pay particular attention to supply connections other than direct connections to the branch circuit (such as the use of power strips).

Secure Devices to the Shelf

TIP: It is easier to secure devices to the shelf before attaching the shelf to the rack.

All rack-mountable Extron devices have two threaded holes in diagonally opposite corners of the base plate for mounting onto the shelf.

CAUTION: Some products have hexagonal holes in their base, which anchor stand-offs for internal circuit boards (see the figure to the right). Using these holes will damage the product and will not provide secure mounting.



Before securing a device to the shelf, decide where it will be placed. If multiple smaller devices are to be placed on a single shelf they can be placed at the front of the rack or the back. Ensure that adequate space remains for running cables.

To mount the device to the shelf, follow these instructions and see figure 2 on the opposite page:

1. If the device has rubber feet attached, remove them.
2. Place the device on the rack so that the rack mounting holes are aligned with two holes in the rack.
3. Secure the device to the shelf, using two of the provided 4-40 x 3/16 inch screws.
4. Repeat steps **1** to **3** to install other devices, as desired.

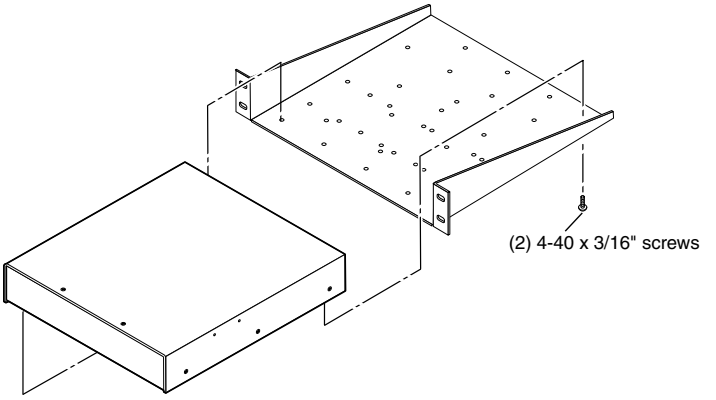


Figure 2. Securing a Device to a Shelf

Secure a False Front Panel

TIP: It is easier to secure a false front panel to the shelf after securing the devices but before attaching the shelf to the rack.

The HRU 109 is shipped with one quarter-width and one eighth-width false front panel. These panels can be used individually or in combination to fill in gaps left when smaller devices are placed at the front of the shelf.

Additional false panels can be ordered:

Product	Part Number
RFF 104 quarter-width false panel	70-338-01
RFF 108 eighth-width false panel	70-337-01

The panels leave a small (1/8 inch [0.3 cm]) gap on either side when they are installed.

To mount the false front panel to the shelf, follow these instructions and see the figure below:

1. Place the panel on the rack so that the two mounting holes in the base of the panel are aligned with two holes in the rack.
2. Secure the panel to the shelf, using two of the provided 4-40 x 3/16 inch screws.
3. Repeat steps **1** and **2** to install an additional panel, if desired.

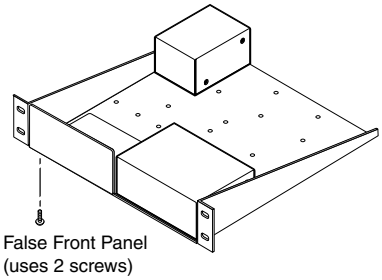


Figure 3. Securing a False Front Panel

Secure the Shelf to the Rack Rails

To secure the shelf to the rack, follow these instructions and see the figure below:

1. Use the four #10-32 screws with captive washers to attach the shelf to the rack rails.
2. When the shelf is mounted, complete the installation by connecting the input, output, and power cables to the devices (see the user guide for each device).

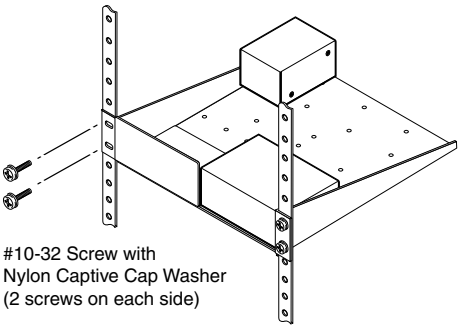


Figure 4. Securing the Shelf to the Rack

Extron USA - West Headquarters	Extron USA - East	Extron Europe	Extron Asia	Extron Japan	Extron China	Extron Middle East
+800.633.9876 Inside USA and Canada Only	+800.633.9876 Inside USA and Canada Only	+800.3987.6673 Inside Europe Only	+800.7339.8766 Inside Asia Only	+81.3.3511.7655 +81.3.3511.7656 FAX	+400.883.1568 Inside China Only	+971.4.2991800 +971.4.2991880 FAX
+1.714.491.1500 +1.714.491.1517 FAX	+1.919.863.1794 +1.919.863.1797 FAX	+31.33.453.4040 +31.33.453.4050 FAX	+65.6383.4400 +65.6383.4664 FAX		+86.21.3760.1568 +86.21.3760.1566 FAX	

68-2147-01
Rev. A 07 11

© 2011 Extron Electronics All rights reserved. www.extron.com