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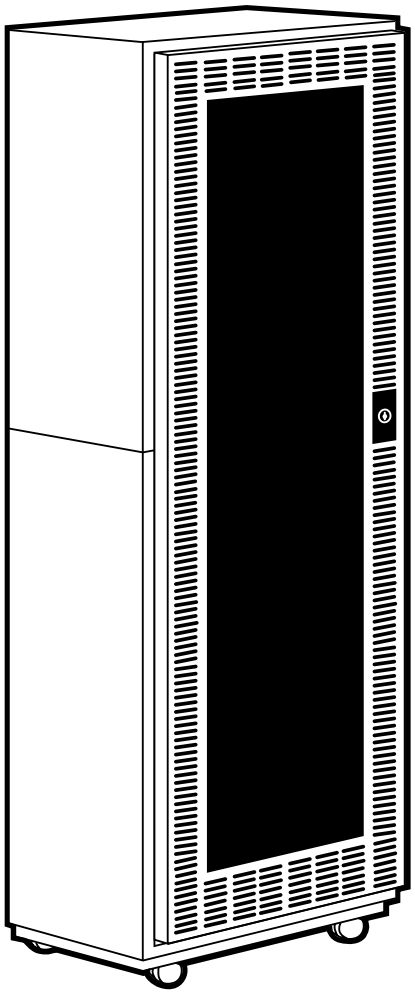
BLACK BOX®
NETWORK SERVICES

APRIL 2000

RM570A	RM575A	RM580-R2
RM571	RM576	RM581
RM572	RM577	RM582
RM573	RM578	RM670A
RM574-R2	RM579	RM675A

Server-Mount Cabinet and Accessories



CUSTOMER SUPPORT INFORMATION

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Server-Mount Cabinet (RM570A, RM575A, RM670A, and RM675A)

Specifications

Frame—Extruded aluminum

Rack Spaces—RM570A and RM575A: 44 U; RM670A and RM675A: 24 U

Side/Doors—16-gauge steel

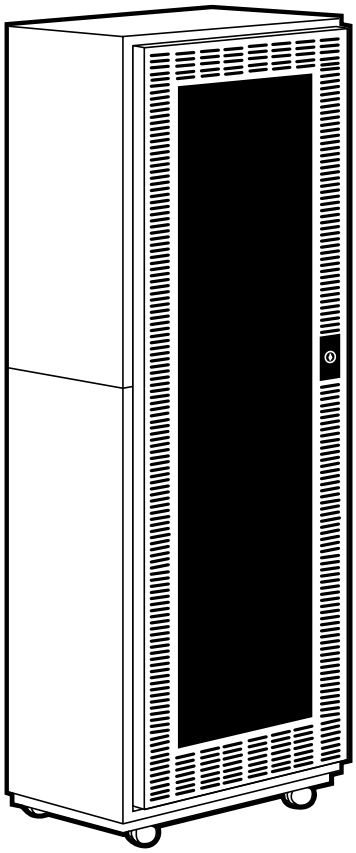
Mounting Rails—14-gauge steel

Size—

RM570A and RM575A: Exterior: 84"H x 22"W x 37"D (213.4 x 55.9 x 94 cm); Interior: 77"H x 19"W x 34"D (195.6 x 48.3 x 86.4 cm);

RM670A and RM675A: Exterior: 48.5"H x 22"W x 37"D (123.2 x 55.9 x 94 cm); Interior: 42"H x 19"W x 34"D (106.7 x 48.3 x 86.4 cm)

Weight—RM570A and RM575A: 275 lb. (124.7 kg); RM670A and RM675A: 255 lb. (115.7 kg)



Features

- Fully assembled.
- Extra-deep construction accommodates large servers.
- Removable side walls provide easy access for loading and unloading equipment.
- Casters included.
- Self-contained leveling feet can be lowered to raise the casters off the floor for extra stability.
- Servers slide in and out on rails for easy access. (Rails supplied by server manufacturer.)
- Retractable stabilizers extend out for additional stability when servers are pulled on slides.
- All mounting rails come with M6 square holes.
- Vented top panel and front and rear doors ensure proper airflow required for servers.
- Locks on front and rear doors secure your server.

Installation

The Server-Mount Cabinet holds servers from Compaq®, Dell®, IBM®, HP®, and most other manufacturers. Follow these steps to install your server in the rack:

1. Select one of the three sets of mounting rails to fit your server. Choose from three adjustable front rail sets.
2. Using the rackmounting hardware that you received from your server manufacturer, rackmount your server. Follow the installation instructions that came with your server.
3. Close the front and rear doors.
4. Secure the cabinet by locking the doors. Simply twist the handle latches to lock.

Multi-Bay Joining Kit (RM576 and RM581)

Description

The Multi-Bay Joining Kit lets you secure two or more Server-Mount Cabinets together. The Multi-Bay Joining Kit does not work with the 48.5" Server-Mount Cabinets (RM670A and RM675A).

What's Included

(4) multi-bay rails, S-type vertical

(1) multi-bay rail, S-type horizontal

(6) #10-32 x 3/8" button-head cap screws

(2) #10-32 kep nuts

(16) 1/4"-20 x 1/2" Phillips pan-head screw

(16) 1/4"-20 clip nuts

Additional Tools Required

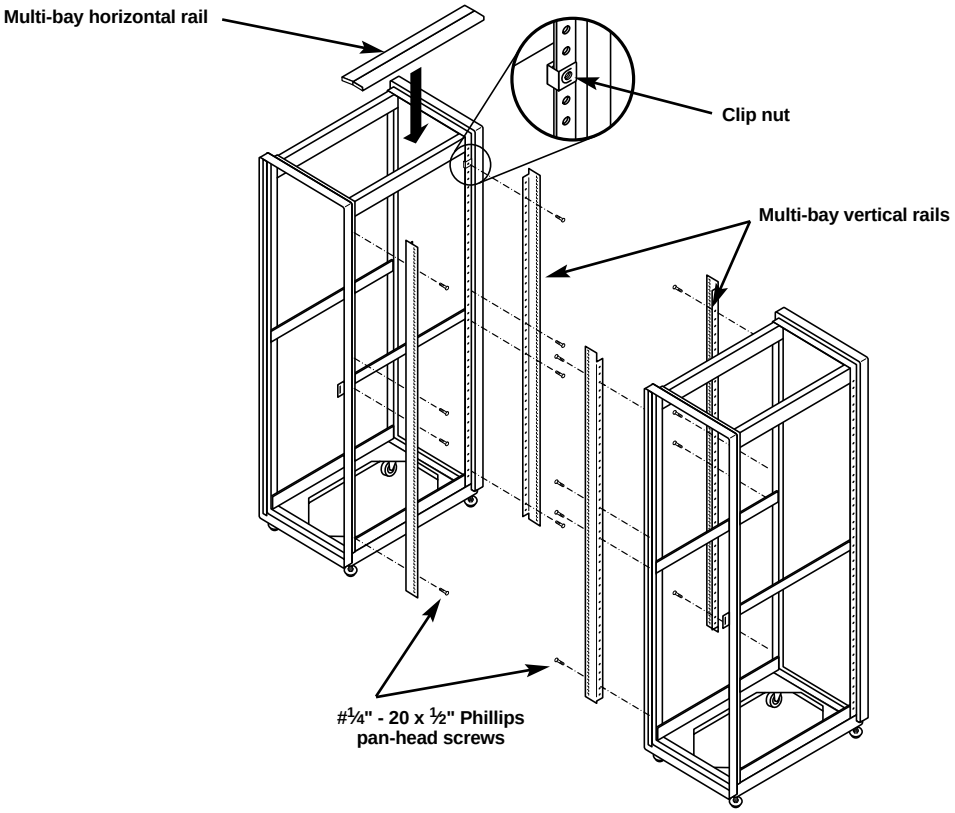
5/32" Allen wrench

5/16" socket wrench

Installation

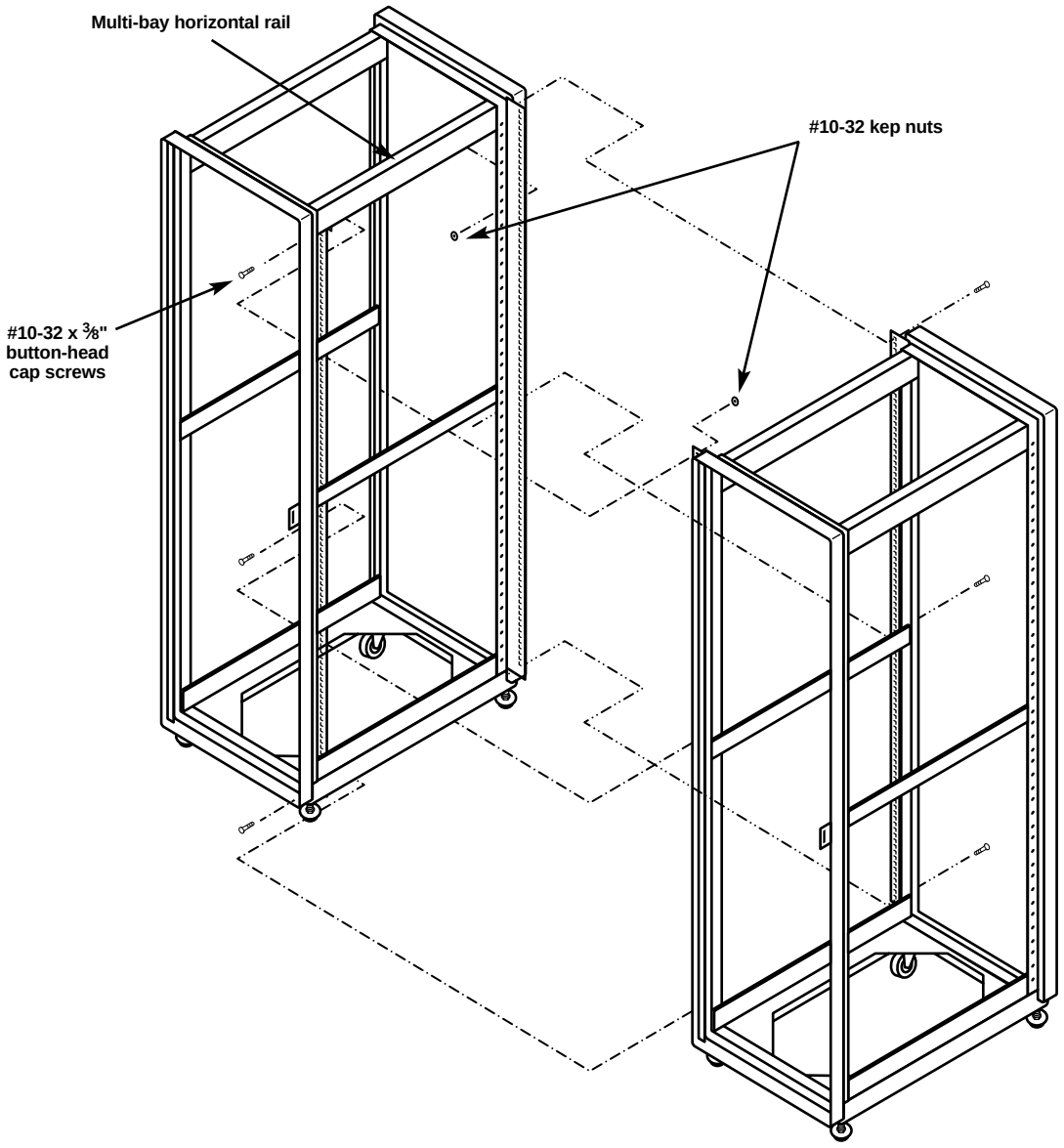
1. In order to gang units together, the side panels must first be removed. To remove a panel, loosen 4 screws using a 5/32" Allen wrench. Lift the panel out.

2. Install two multi-bay vertical rails in each Server-Mount Cabinet with the sixteen 1/4"-20 x 1/2" Phillips pan-head screws provided. (See the illustration.)



3. Push the two units together and connect the rails with six #10-32 x ⅜" button-head cap screws.

4. The multi-bay horizontal rail is attached to the rails using 10-32 screws and nuts. (See the illustration on the next page.)


Multi-bay horizontal rail
#10-32 kep nuts
#10-32 x 3⁄8" button-head cap screws

Cabinet Top with Fan (RM573 and RM577)

Description

This fan will provide adequate cooling in your Server-Mount Cabinet. The Panel mounts on top of the Cabinet. The fan measures 10 inches (25.4 cm) and features 535-CFM cooling and finger guards.

What's Included

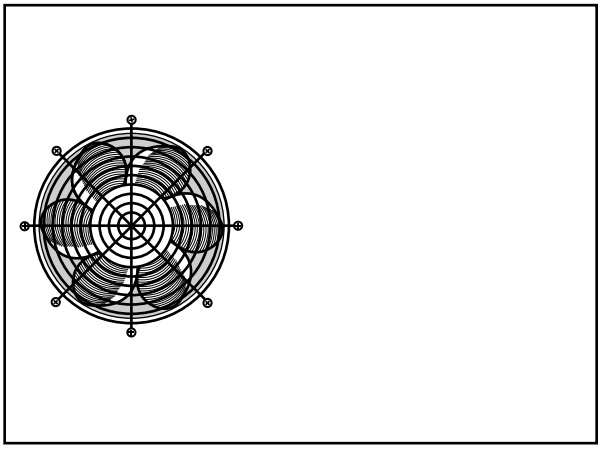
(1) Top Panel with Fan

(4) #10-32 screws

(4) #10-32 clip-nuts

Installation

1. Open front and rear doors.
2. Remove screws from inside of cabinet that hold perforated cabinet top in place.
3. Lift perforated top away from cabinet.
4. Place fan/panel top over cabinet frame.
5. Align holes in fan/panel with cagenuts.
6. Insert screws into cagenuts and tighten.



Keyboard Shelf (RM574-R2 and RM580-R2)

Description

The Keyboard Shelf accommodates keyboards up to 16¼" wide and 8½" deep. The Shelf includes a cable retractor arm, which is 19 inches (48.3 cm) wide.

What's Included

(1) 19" Keyboard Shelf

(10) #10-32 clip nuts (Tinnerman #C31758-1032-3B)

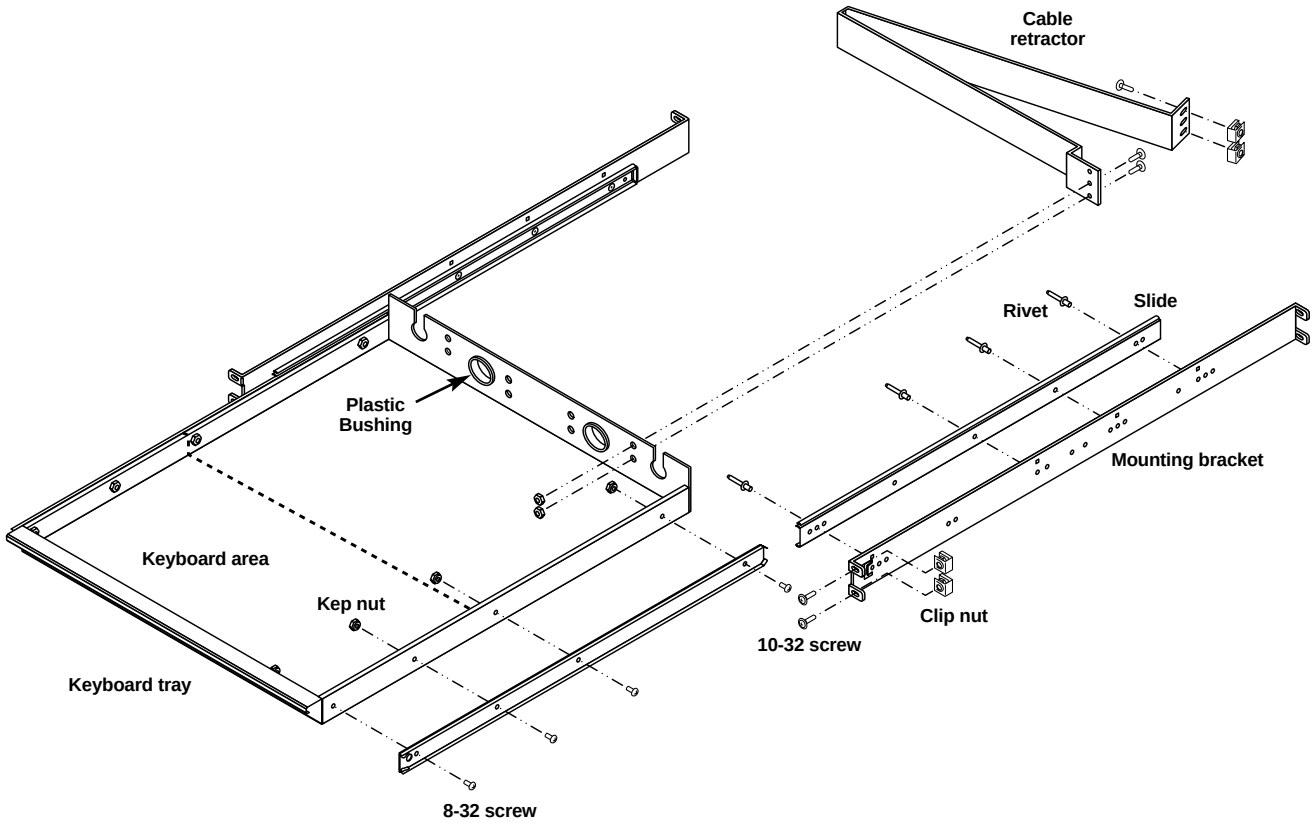
(10) Phillips-head screws

Additional Tools Required

Phillips-head screwdriver

Installation

1. Before installing the Keyboard Shelf, adjust the mounting rails to the proper depth.
2. Determine the desired location for the shelf. Install clip-nuts into mounting rails. Attach the shelf mounting brackets to the mounting rails with the 10-32 Phillips-head screws provided.
3. Slide the shelf into the bracket.
4. Install a cable retractor between the shelf and the back mounting rail, if desired. (See the illustration on the next page.)


Cable
retractor
Rivet
Slide
Plastic
Bushing
Mounting bracket
Keyboard area
Kep nut
Clip nut
10-32 screw
Keyboard tray
8-32 screw

Vented Shelves (RM571 and RM578)

Description

These vented shelves make it easy to customize the Server-Mount Cabinet. The Vented Shelf (RM571 and RM578) lets you put servers and other equipment where you want it. Vents ensure proper front-to-back airflow. The shelf supports 125 pounds (56.7 kg) of equipment and is 19 inches (48.3 cm) wide.

What's Included

(1) 19"W x 28"D Vented Shelf

(4) #10-32 clip nuts

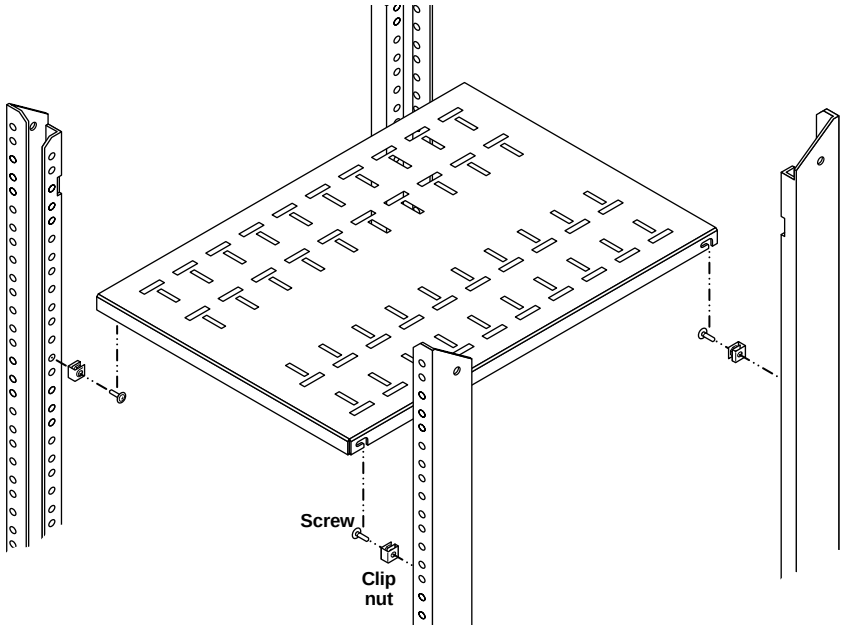
(4) #10-32 x ½" pan-head machine screws

Additional Tools Required

Phillips-head screwdriver

Installation

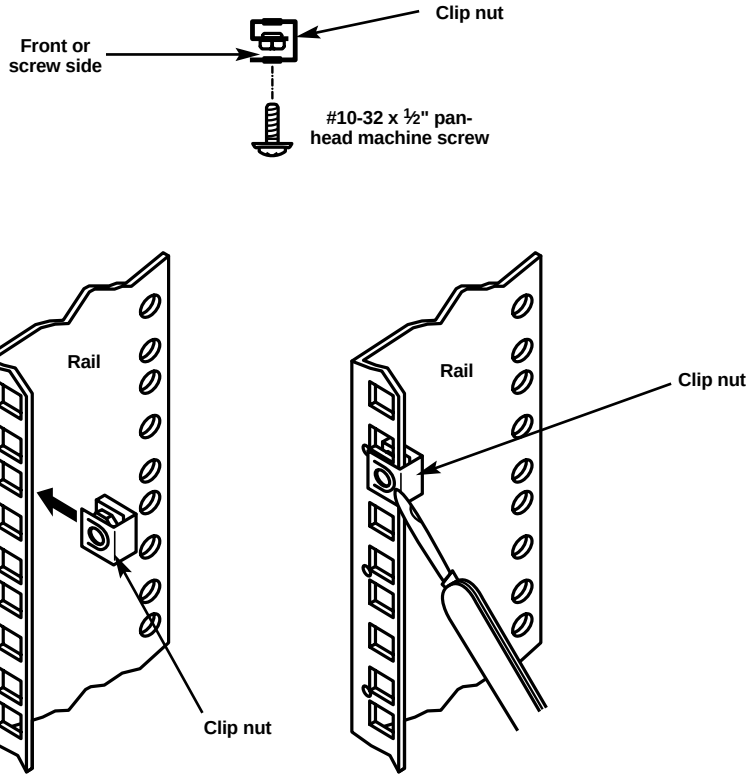
1. Determine the desired location for the shelf.
2. Attach clip-nuts to the mounting rails (side mount).
3. Install shelf with #10-32 screws.



Clip Nut Installation

Clip nuts (included in the Rack Mount Rail upgrade kit that comes with the Rack) provide mounting points on 19" and 24" rackmount equipment rails.

Clip nuts have a front or screw side. Consider which way it should face for ease of access to the screw head during component installation. See the illustration below.



To remove a clip nut from a rail, insert a flat-blade screwdriver or knife under the tab on the front and pry up, freeing the retaining ring from the rail. See the illustration above.

1. Select the location where the shelf will be installed.
2. Snap one clip nut into the top hole at the selected position.
3. Measure from the bottom of the vertical rail to the top clip nut. Snap clip nuts onto the three other rails at the measured height.

Vented Sliding Shelves (RM572 and RM579)

Description

The Vented Sliding Shelf (RM572 and RM579) enables you to access equipment easily—just slide the shelf out. The shelf includes a cable retractor arm. The Shelf holds 100 pounds (45.5 kg) of equipment and is 19 inches (48.3 cm) wide.

What's Included

(1) Vented Sliding Shelf

(10) #10-32 clip-nuts

(8) #10-32 x ½" screws

(2) 10-32 screws

(2) #8-32 x ⅜" screws

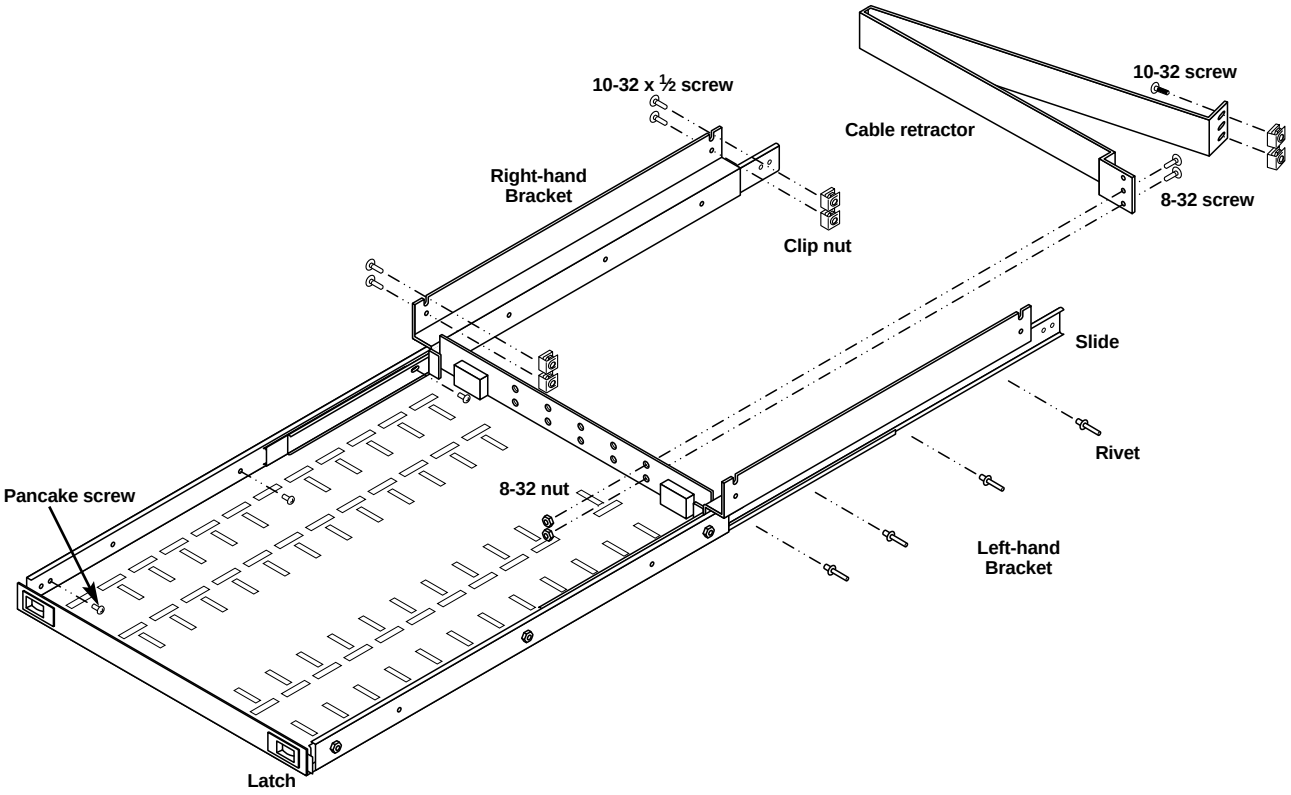
(2) #8-32 nuts

Additional Tools Required

Phillips-head screwdriver

Installation

1. Determine the desired location for the shelf.
2. Attach clip-nuts to the mounting rails (side mount).
3. Attach the shelf assembly with #10-32 screws.
4. Install the cable retractor between the shelf and the back mounting rail, if desired. (See the illustration on the next page.)

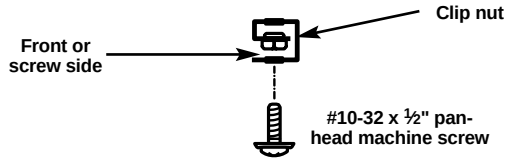

10-32 x ½ screw
10-32 screw
Cable retractor
Right-hand Bracket
8-32 screw
Clip nut
Slide
Rivet
Pancake screw
8-32 nut
Left-hand Bracket
Latch

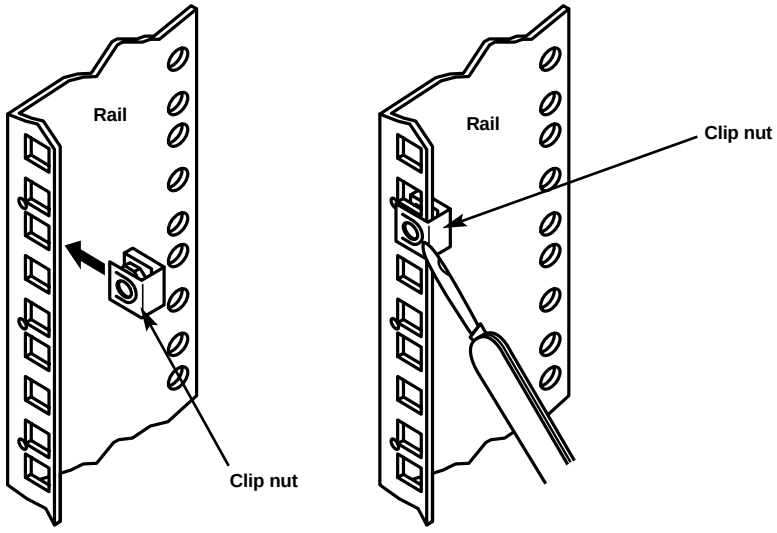
Bottom View

Clip Nut Installation

Clip nuts (included in the Rack Mount Rail upgrade kit that comes with the Rack) provide mounting points on 19" and 24" rackmount equipment rails.

Clip nuts have a front or screw side. Consider which way it should face for ease of access to the screw head during component installation. See the illustration below.





To remove a clip nut from a rail, insert a flat-blade screwdriver or knife under the tab on the front and pry up, freeing the retaining ring from the rail. See the illustration above.

1. Select the location where the shelf will be installed.
2. Snap one clip nut into the top hole at the selected position.
3. Measure from the bottom of the vertical rail to the top clip nut. Snap clip nuts onto the three other rails at the measured height.

48"Mounting Rail Kit (RM582)

Description

These are 48" mounting rails for accommodating your specific custom applications. These rails go in either the top half or bottom half of the cabinet and give you the extra rail depth you need to add additional equipment.

What's Included

(1) Right-hand rail

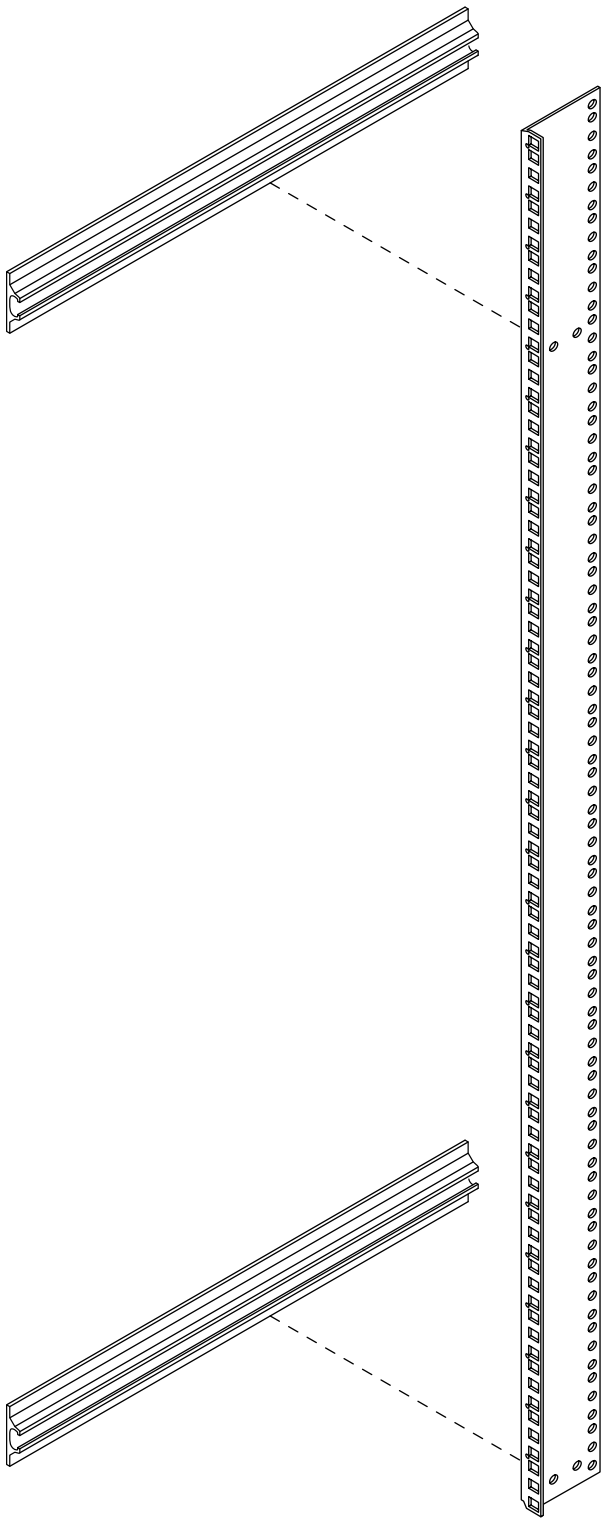
(1) Left-hand rail

(4) ¼-20 hex bolts

(4) ¼-20 spring nuts

Additional Tools Required

⅜" wrench or socket

Installation

1. Determine the desired location for the rails. (Rails can be installed at the top half or bottom half of the cabinet.)
2. Install spring nuts into extrusions.
3. Attach rails using ¼-20 bolts. (See the illustration on the next page.)