Schneider Electric

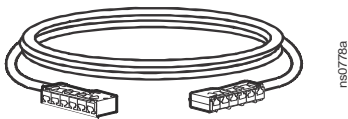# Data Distribution Cable System Installation

Overview

The Data Distribution Cable System provides a high-density, rack-to-rack connection system for data and telecommunication equipment. When properly installed, this device meets all TIA-EIA-568-B.2-1 Category 5e and 6 requirements. Cat 5e supports 10 Base-T Ethernet, 100 Base-T Fast Ethernet, and 1000 Base-T Gigabit Ethernet operating environments. Cat 6 supports all of the above plus 10 Gigabit Ethernet 10GBASE-T.
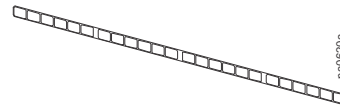
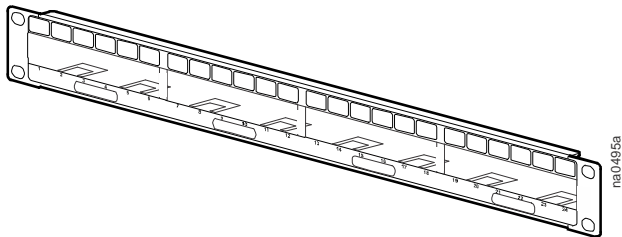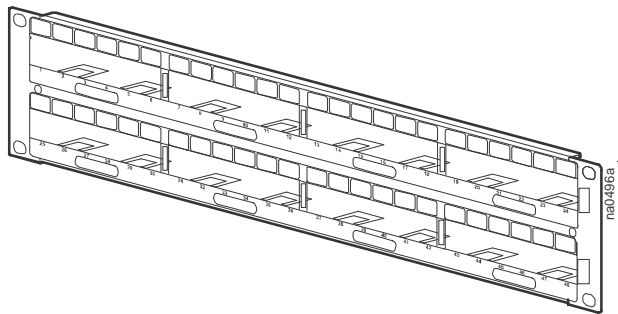| *NOTICE* |
| --- |
| Proper handling of the coiled cable is necessary to ensure the correct operation of the data distribution cable. See "Unroll the Cable" on page 2 for proper handling instructions. |

Component Identification

6-port data distribution cable

24-port label strip: Each Data Distribution Panel comes with a label strip. to renumber or identify ports.
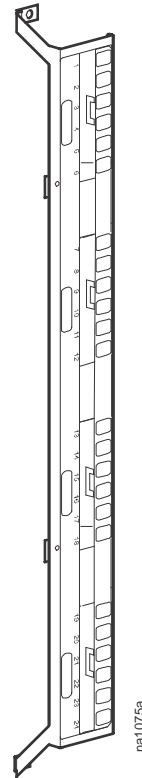
AR8451: 1U 24-port panel for mounting 4 data distribution cables

AR8452: 2U 48-port panel for mounting 8 data distribution cables

AR8453 0U NetShelter™ VX Channel 24-port panel for mounting 4 data distribution cables

AR8457 0U NetShelter™ SX Channel 24-port panel for mounting 4 data distribution cables

Hardware Accessories

Hardware (provided)

Panel type	M6 cage nut	M6 Phillips screw	#12-24 screw	Plastic cup washer
0U	2	2	0	2
1U	4	4	4	4
2U	4	4	4	4

Tools required

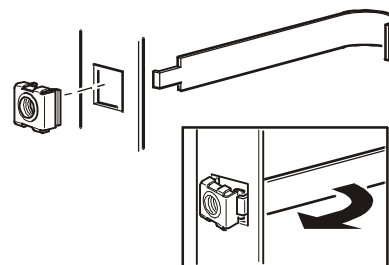**Cage nut tool**   **#2 Phillips screwdriver**

Cage nuts

Installation:

NOTICE

Install the cage nut horizontally. Do not install the cage nut vertically with the sides of the cage nut engaging the top and bottom of the square hole.

1. Hook one side of the cage nut through the far side of the hole. The view shown is from the inside of a rack.
2. Place the cage nut tool on the other side of the cage nut and pull to snap it into position.
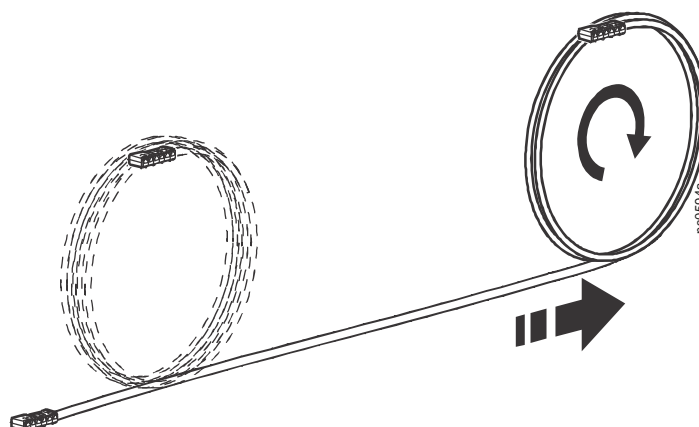
Removal:

1. Remove any attached screw.
2. Grasp the cage nut and squeeze one side firmly, then rotate the cage nut to release it from the square hole.

Unroll the Cable

Lay one end of the cable on the floor and roll the rest of the cable on the coil away from that end.

Notes:

1. Unroll the cable from the coil. Pulling the cable end off the side of the coil can cause permanent damage, adversely affecting performance and voiding your warranty.
2. When routing and pulling cable, maintain a minimum 5 inch radius for all bends.
3. Do not over-tighten the cable ties or fasteners. Fasteners that are too tight can damage the cables.
4. If cables are ever removed for storage or relocation, recoil them in the same manner.
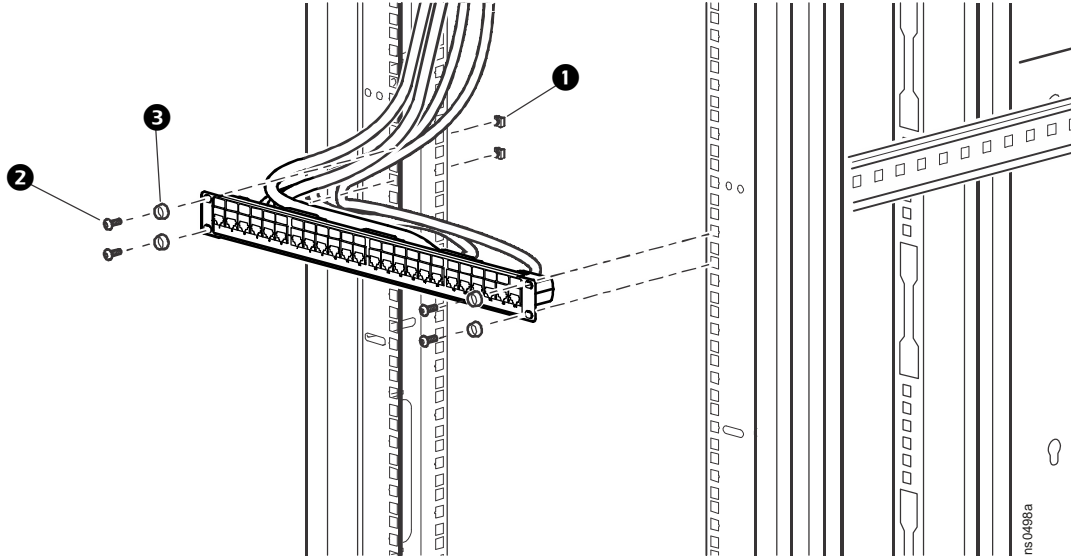
ns0594a

Install a 1U or 2U Data Distribution Panel

The 1U and 2U Data Distribution Panels are TIA-EIA-310-D-compliant and can be mounted on the front or rear rails of a NetShelter cabinet or any other standard cabinet.

Cabinets with unthreaded holes

For cabinets with unthreaded holes (including NetShelter cabinets), install four caged nuts ❶ (two per side) into the upper- and lower-most holes at the desired mounting location in the cabinet. Secure the Data Distribution Panel in place using four M6 screws ❷ and four plastic cup washers ❸ (two per side).
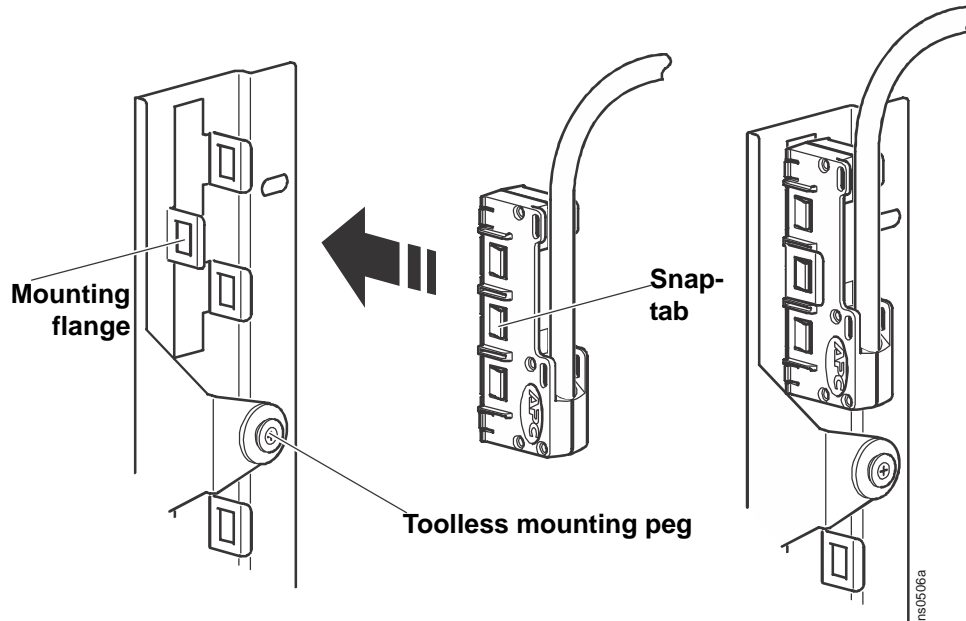

Racks with threaded holes

Secure the Data Distribution Panel in place using as many M6 screws ❷ or #12-24 screws as needed.
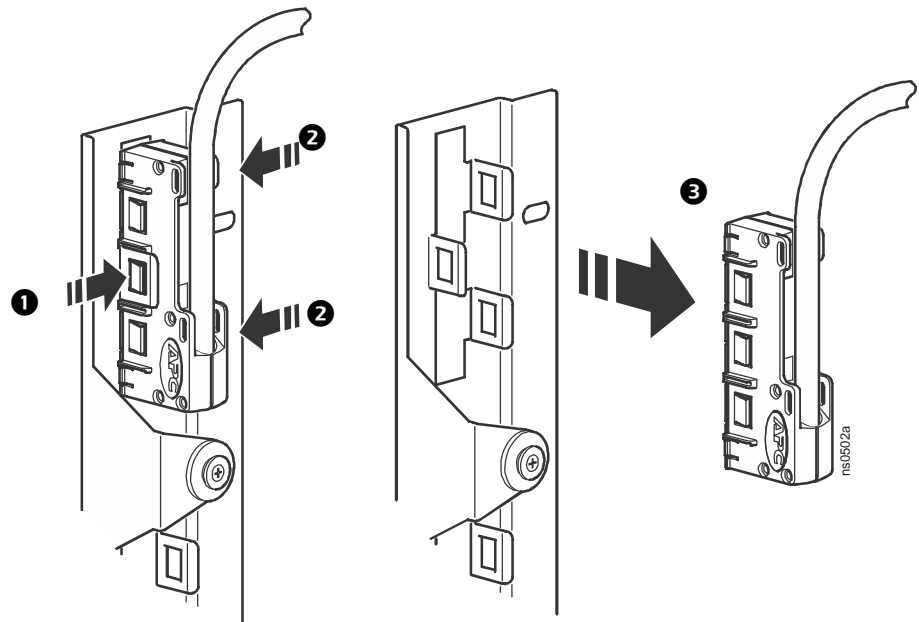
Cable Heads

To install: Insert the cable head between the metal mounting flanges until the three snap-tabs (two on one side and one on the other side) lock into place. Verify that the cable head is secure by grasping it and gently pulling back and forth.

Mount cable heads either in a vertical configuration (routing cables up or down), or in a horizontal configuration (routing cables left or right).
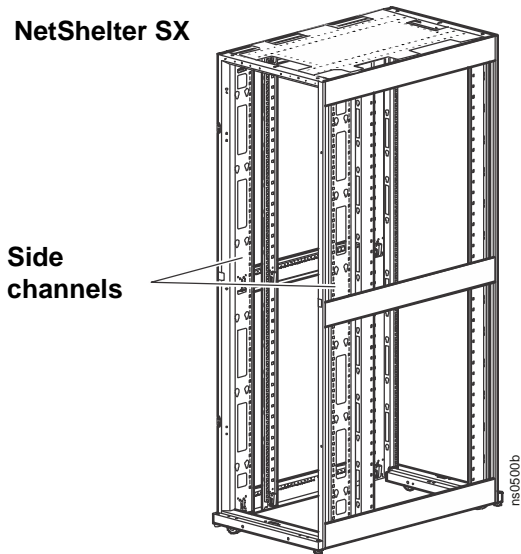
Mounting flange

Snap-tab

Toolless mounting peg

ns0506a

To remove: Gently squeeze in the snap-tab ❶ and pull the housing. To release the cable head from the metal mounting flange, press on the other two snap-tabs ❷ and then pull the cable head ❸ out.
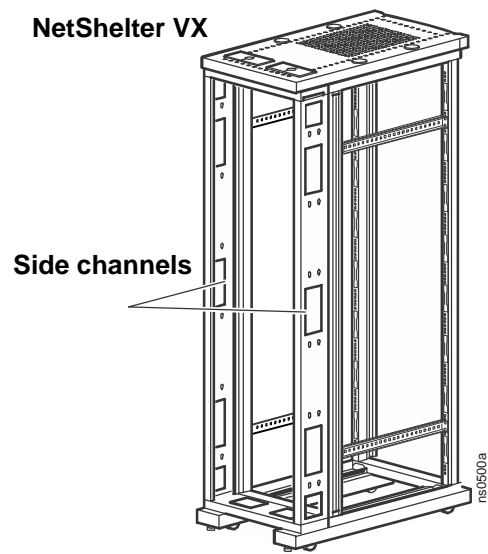
ns0502a

Install 0U Data Distribution Panels

Attach up to four 0U Data Distribution Panels (96 ports) in each side channel at the rear of a NetShelter SX or VX rack. The 0U Data Distribution Panels are compatible only with NetShelter SX and VX cabinets. 0U Data Distribution Panels with Cat 6 cables only support 72 ports on each side channel, or 24 ports on each side channel if a Rack PDU is placed alongside the panel.
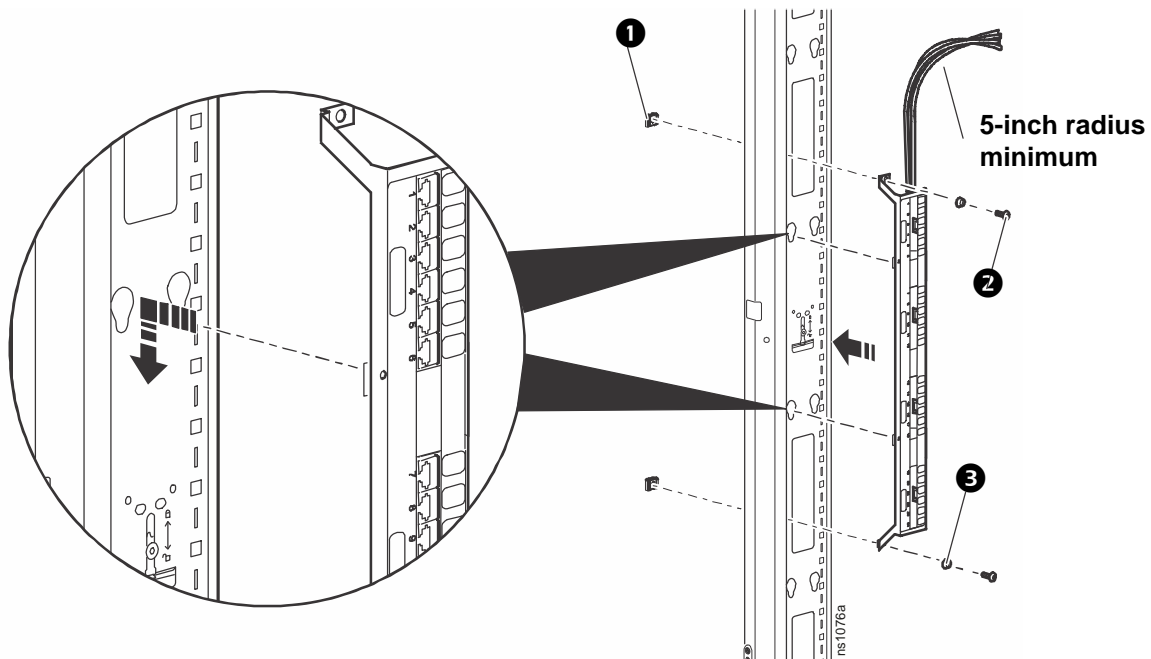
NetShelter SX

NetShelter VX

Side channels
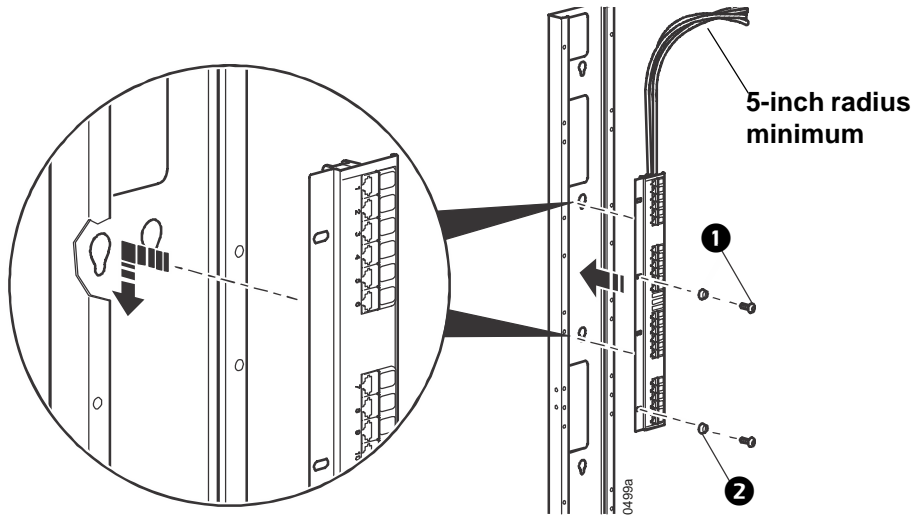
Side channels

Install panel AR8457

Panels can be installed in the left or right channel on either side of the rack. The following procedure describes left-channel, left-side installation. Cables can be routed from the top or bottom of the rack. The procedure below illustrates top routing.

1. Install cage nuts ❶ in the two square holes of the channel that align with the mounting holes of the 0U Data Distribution Panels.
2. With the cable heads attached (see "Cable Heads" on page 4), mount the 0U Data Distribution Panel to the channel by inserting the toolless mounting pegs into the slotted holes of the channel. Then slide the panel downward into place.
3. Secure the 0U Data Distribution Panel to the channel with two M6 screws ❷ and two cup washers ❸ (for each panel).

5-inch radius minimum

Install channel AR8453 in a NetShelter VX cabinet

1. With the cable heads attached (see "Cable Heads" on page 4), mount the 0U Data Distribution Panel to the channel by inserting the toolless mounting pegs into the slotted holes of the channel. Then slide the panel downward into place.

5-inch radius minimum

2. Secure the 0U Data Distribution Panel mounting flange to the channel with two M6 screws ❶ and two cup washers ❷ (for each panel) using any two holes in the panel that line up with the channel.

Install panels with Category 6 cable

Route the Cat 6 cables to each side of the 0U Data Distribution Panel to allow space for routing cables from multiple panels and to ensure proper operation of the Cat 6 cable.