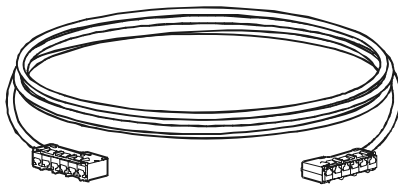# Data Distribution Cable System

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 and provides optimum performance in 10 Base-T Ethernet, 100 Base-T Fast Ethernet, and 10000 Base-T Gigabit Ethernet operating environments.
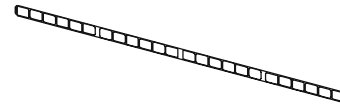
> **(!) Note** Proper handling of coiled cable is necessary to ensure the correct operation of the data distribution cable. See "How to Unroll a Cable" on page 3 for proper handling instructions.
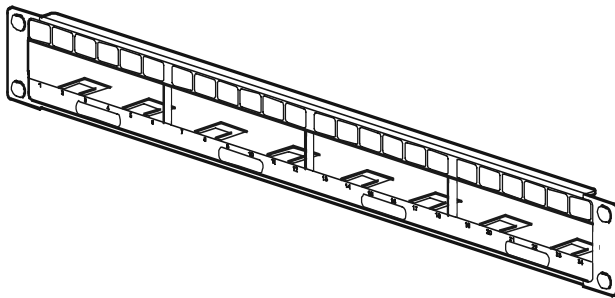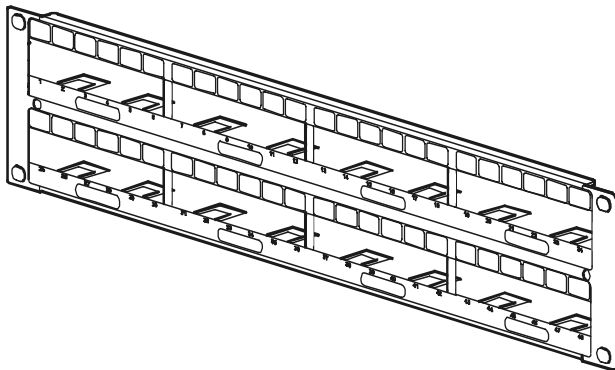
Identifying parts

6-port data distribution cable

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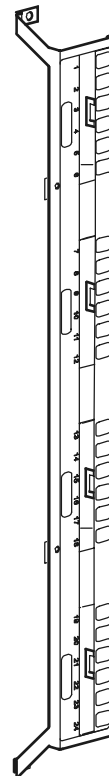
AR8451—1-U 24-port panel for mounting 4 data distribution cables

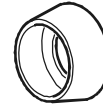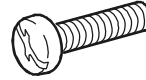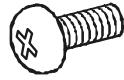AR8452—2-U 48-port panel for mounting 8 data distribution cables

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

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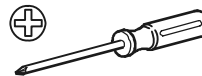
Hardware Accessories

Hardware (provided)

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

Tools required (not provided)

Cage nut tool   #2 Phillips screwdriver

How to install and remove cage nuts

To install a cage nut:

⚠ Warning   **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. Insert the cage nut into the square hole by hooking one side of the cage nut assembly 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.
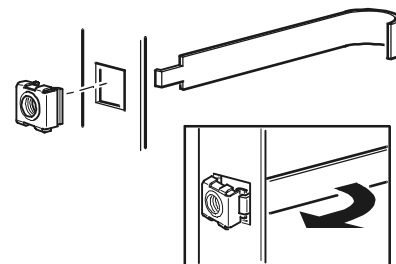
To remove a cage nut:

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.

How to Unroll a Cable

⚠️ **Caution**

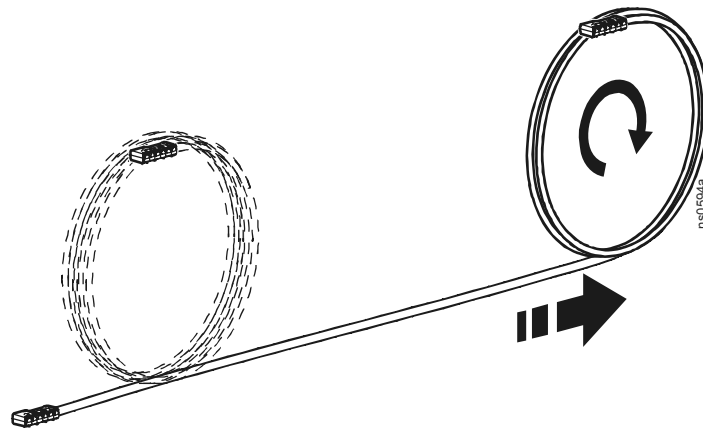**You must unroll cables from the coil. Pulling the cable end off the side of the coil can cause permanent damage, adversely affecting performance and voiding your warranty.**

⚠️ **Caution**

When routing and pulling cables, maintain a minimum 5-inch radius for all bends.

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

🛈 **Note**

If cables are ever removed for storage or relocation, you must recoil them in the same manner.

⚠️ **Caution**

Do not overly tighten cable ties or other fasteners. Fasteners that are too tight can cause damage to the cables.

How to Install a 1U or 2U Data Distribution Panel

The 1-U and 2-U Data Distribution Panels are TIA-EIA-310-D-compliant and can be mounted on the front or rear rails of an APC NetShelter or any other standard rack. Do one of the following, depending on whether your rack has unthreaded or threaded holes.

Racks with unthreaded holes

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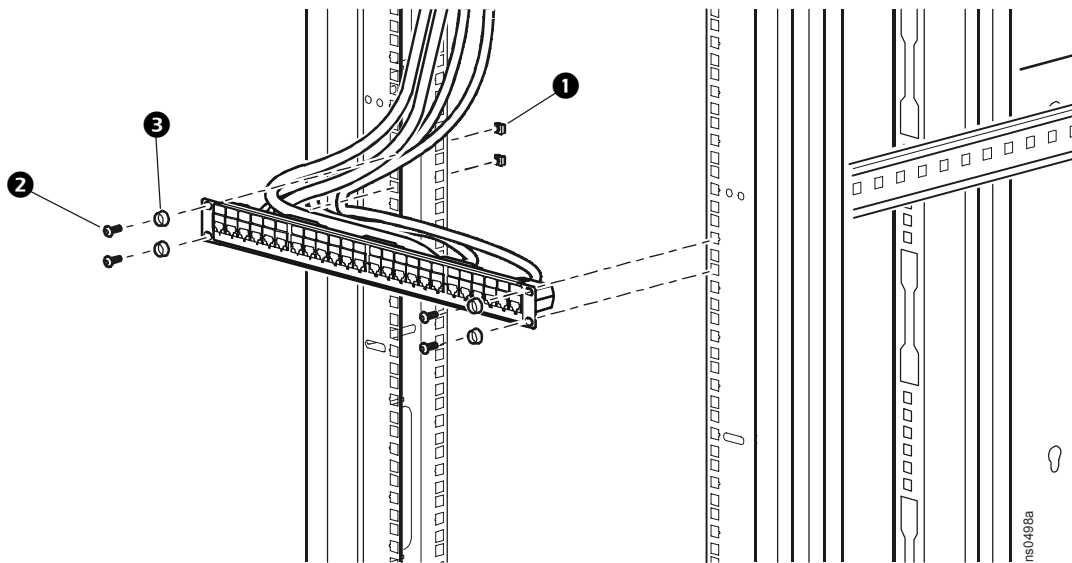
Secure the Data Distribution Panel in place using four M6 screws ❷ and four plastic cup washers ❸ (two per side).

Racks with threaded holes

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

How to Install or Remove 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.
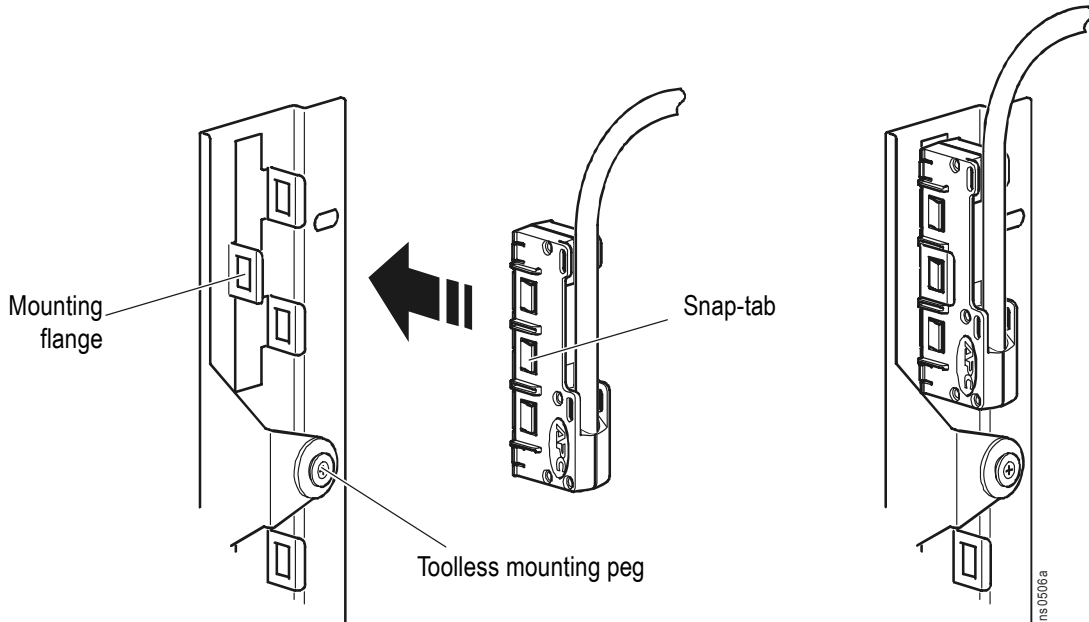
Note You can mount cable heads either in a vertical configuration (routing cables up or down) or in a horizontal configuration (routing cables left or right).

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.
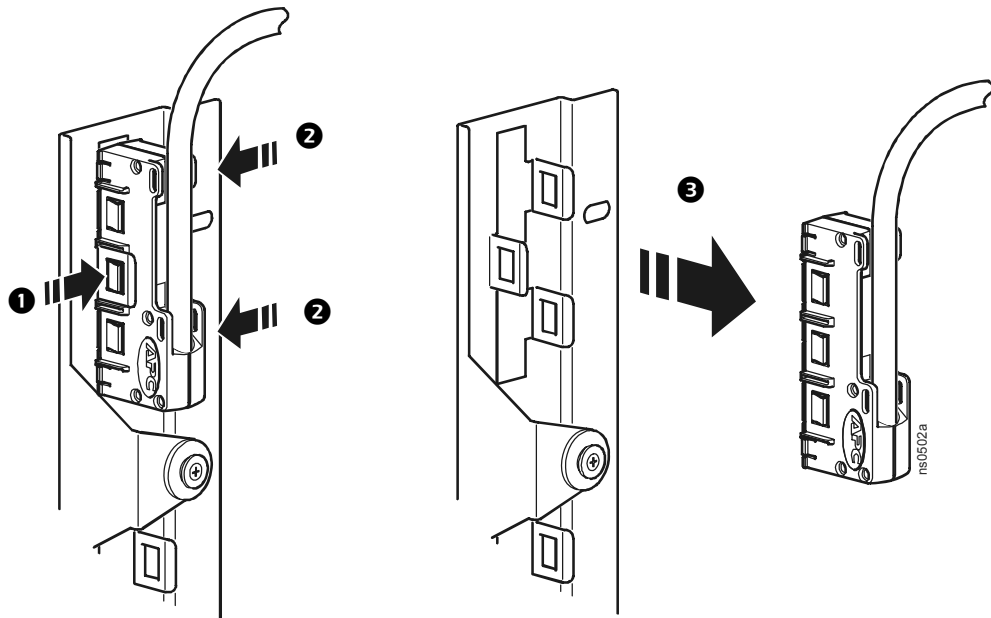
How to Install 0-U Data Distribution Panels

You can attach up to four 0-U Data Distribution Panels (96 ports) in each side channel at the rear of a NetShelter SX or VX rack. The 0-U Data Distribution Panels are compatible only with NetShelter SX and VX enclosures.
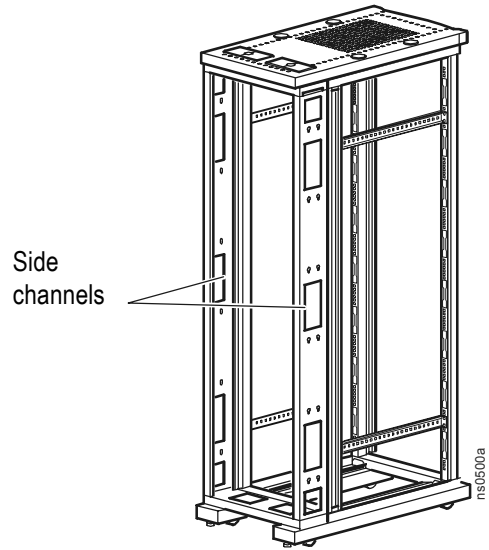
Note 0-U Data Distribution Panels with Category 6 cabling only support 72 ports on each side channel, or 24 ports on each side channel if a Rack Power Distribution Unit (PDU) is placed alongside the panel.

Side channels
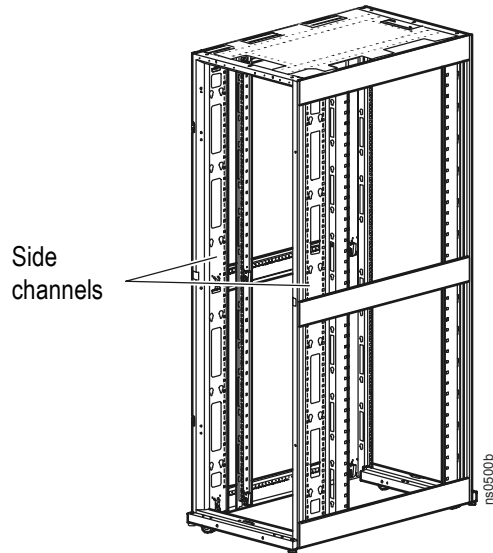
NetShelter SX

Side channels

NetShelter VX

## Installing AR8457 in a NetShelter SX enclosure

Note

You can install panels in the left or right channel on either side of the rack. The following procedure shows left-channel, left-side installation for clarity. You can route cables from the top or bottom of the rack. The procedure below shows top routing.

1. Install cage nuts ❶ in the two square holes of the channel that align with the mounting holes of the 0-U Data Distribution Panels.

2. After attaching the cable heads ("How to Install or Remove Cable Heads" on page 5), mount a 0-U 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 0-U Data Distribution Panel to the channel with two M6 screws ❷ and two cup washers ❸ (for each panel).

5-inch radius minimum

ns1076a
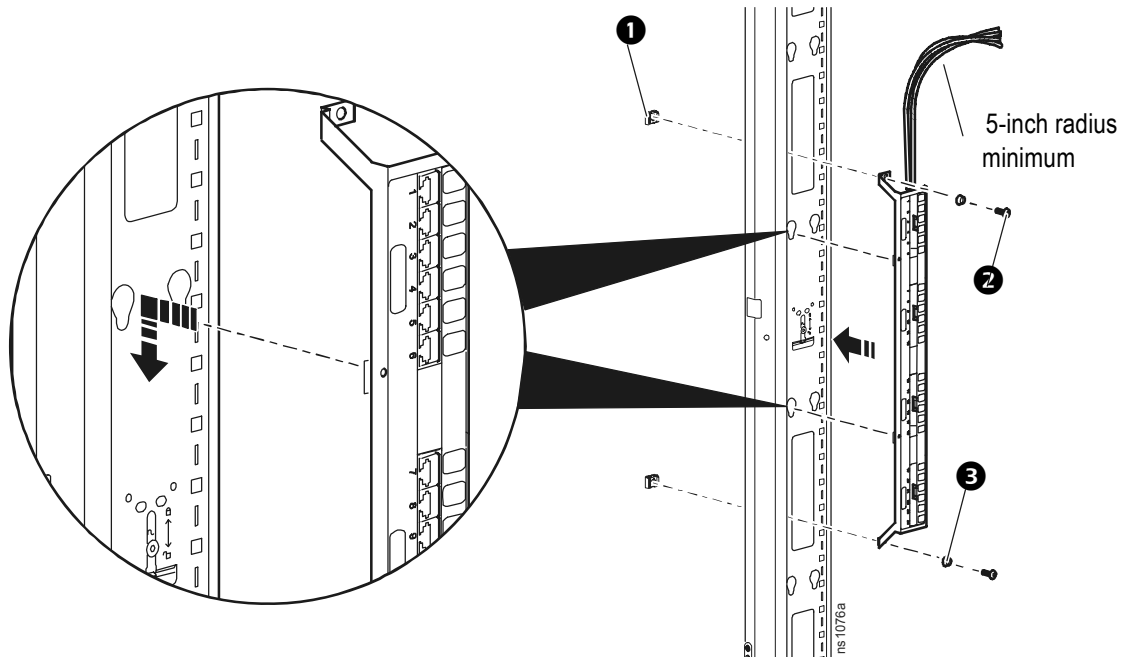
Installing AR8453 in a NetShelter VX enclosure

1. After attaching the cable heads ("How to Install or Remove Cable Heads" on page 5), mount a 0-U 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
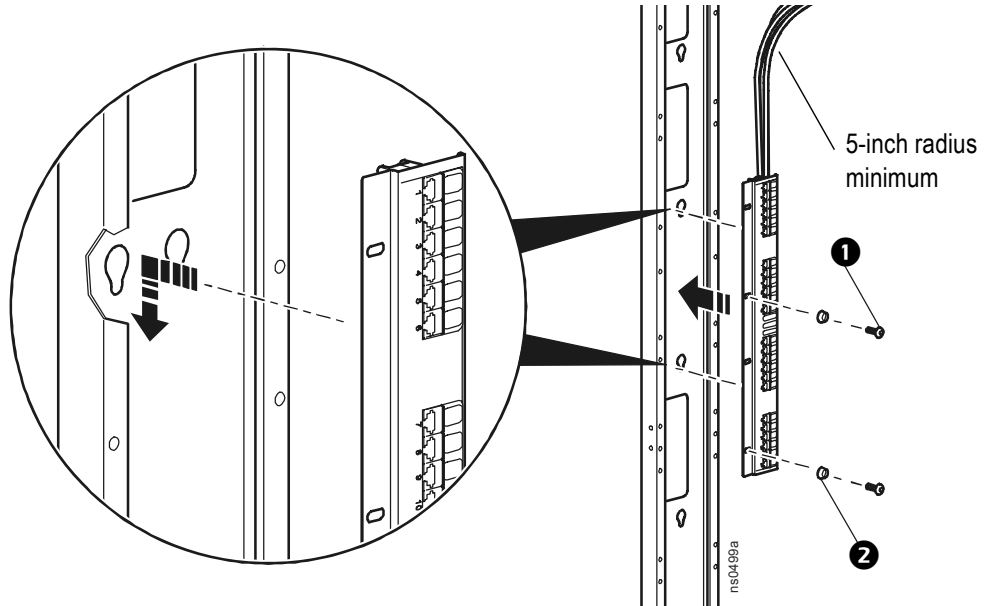
2. Secure the 0-U Data Distribution Panel mounting flange to the channel with two M6 screws ❶ and two cup washers ❷ (for each panel) using any two holes in the panel that line up with the channel.

Installing panels with category 6 cabling

Note

Route the Category 6 cables to each side of the 0-U Data Distribution Panel to allow space for routing cables from multiple panels and to ensure proper operation of the Category 6 cabling.
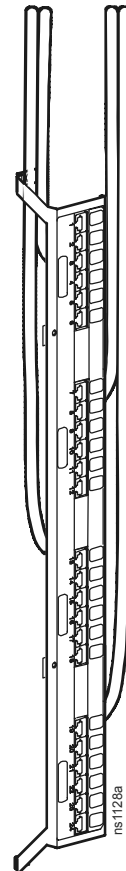
This manual is available in English on the APC Web site (www.apc.com).

Dieses Handbuch ist in Deutsch auf der APC Webseite (www.apc.com) verfügbar.

Este manual está disponible en español en la página web de APC (www.apc.com).

Ce manuel est disponible en français sur le site internet d'APC (www.apc.com).

Questo manuale è disponibile in italiano sul sito web di APC (www.apc.com).

本マニュアル＜各国の言語に対応する＞は APC ウェブサイト (www.apc.com) からダ
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Instrukcja obslugi w jezyku polskim jest dostepna na stronie internetowej APC
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Este manual está disponível em português no site da APC (www.apc.com).

Данное руководство на русском языке доступно на сайте APC (www.apc.com)

Bu kullanim klavuzunun Türkçesi APC web sayfasinda (www.apc.com) mevcuttur.

在 APC 公司的网站上（www.apc.com）有本手册的中文版。

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