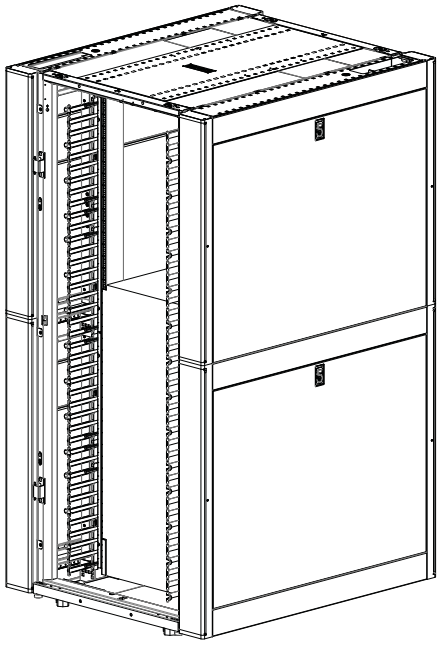
Installation and Customization Manual

NetShelter™ SX Side Airflow Solution Kit for Cisco® Nexus 7018

AR7742, AR7747

990-4377B-001

Publication Date: April 2016



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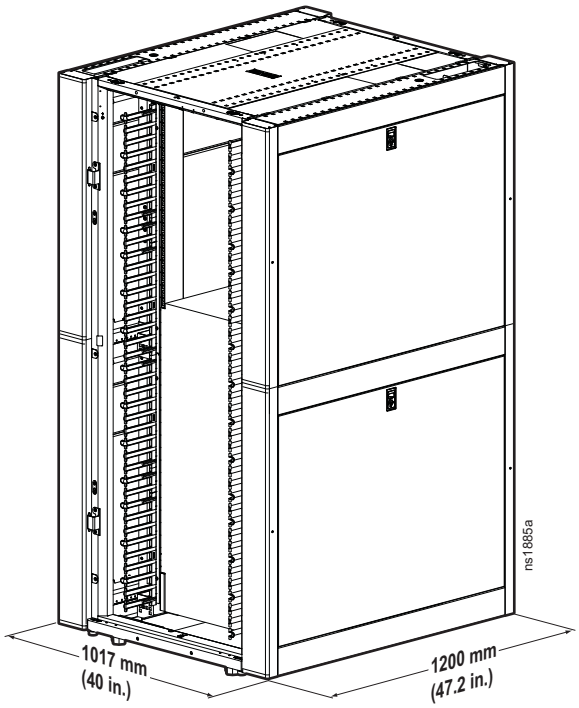
Overview

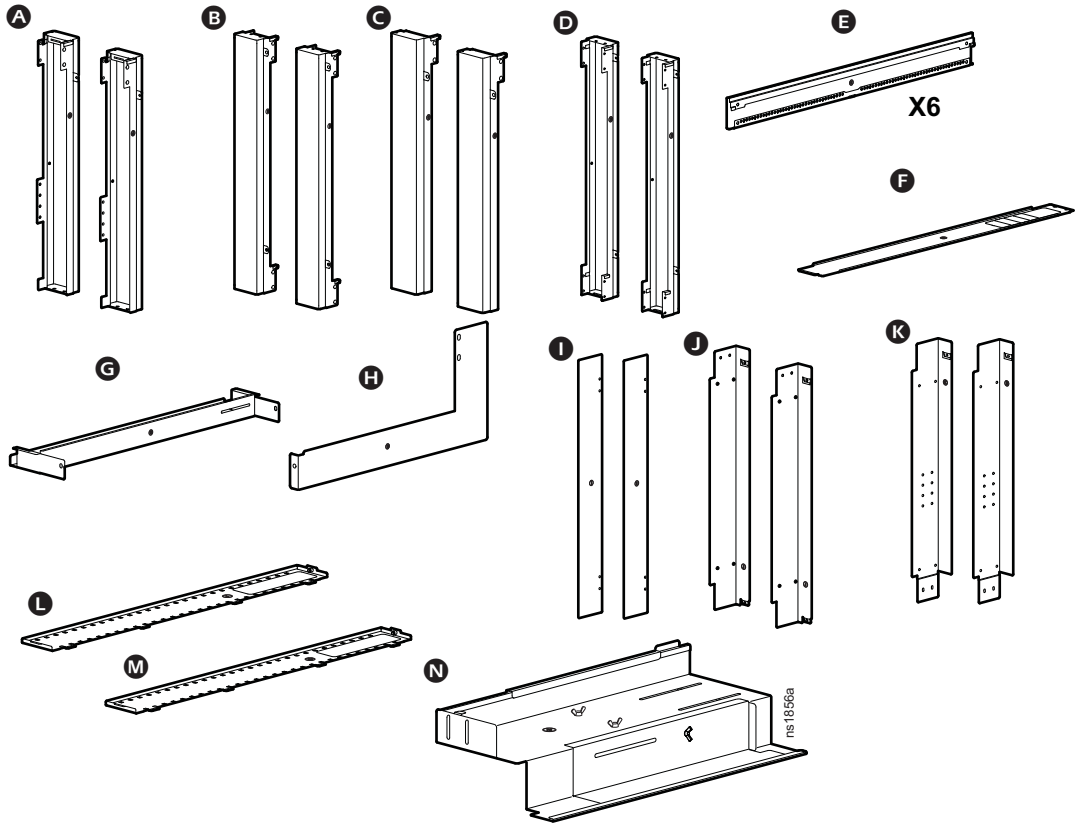
The NetShelter SX Side Airflow Solution Kit (AR7742 & AR7747) for the Cisco® Nexus 7018 Switch installs onto the NetShelter SX 1200 mm Networking Cabinet (AR3340 or AR3347).

This kit increases the width of the cabinet by 127 mm (5 in.) on each side, providing the side-to-side airflow required by the switch. The use of internal baffles isolates the hot and cold air inside the cabinet.

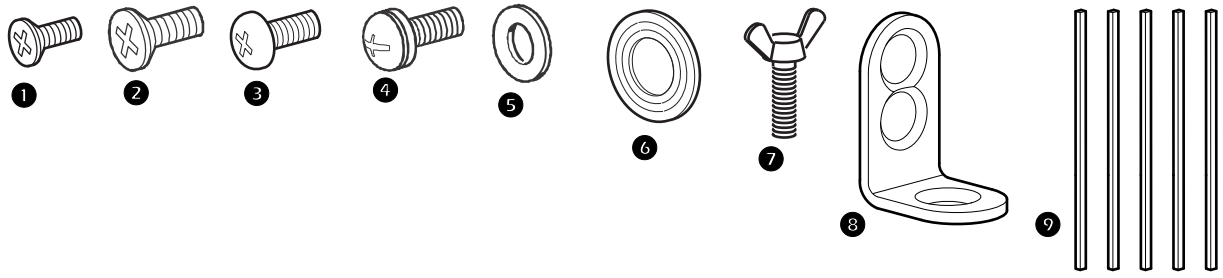
NOTE: Prior to the installing the Cisco Nexus 7018 switch, the NetShelter SX Networking Cabinet Airflow Solution Kit must be installed.



Inventory



- A Upper right perforated frame
- B Lower left perforated frame
- C Upper left perforated frame
- D Lower right perforated frame
- E Side brace
- F Bottom cover
- G Lower exhaust baffle
- H Lower rear baffle
- I Vertical mounting flange baffle
- J Lower vertical baffle
- K Upper vertical baffle
- L Left top cover
- M Right top cover
- N Horizontal baffle assembly



1	M5 x 12 Phillips flat-head screw	33
2	M6 X 12 Phillips flat-head screw	21
3	M8 x 16 Phillips pan head screw	2
4	M6 x 16 Phillips slot screw with washer	12
5	M6 flat washer	6
6	Edge protection grommet	3m (9.8 ft.)
7	M6 x 12 wing screw	11
8	Cabinet joining bracket	8
9	Foam gaskets	5

Preparation

Remove Components

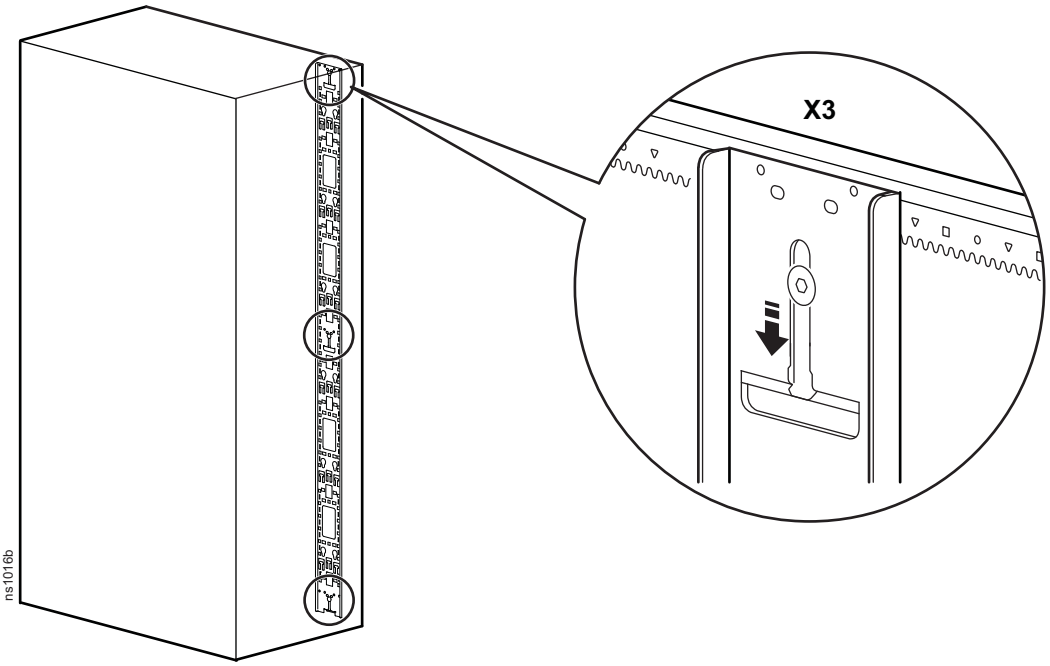
The side panels, doors, and one Vertical 0U Accessory Channel need to be removed before proceeding.

1. Remove and retain side panels and doors. (Refer to the manual shipped with your cabinet.)
2. Remove the right vertical 0U accessory channel.

   NOTE: This improves exhaust airflow.

   a. Viewing the cabinet from the rear, loosen the three Torx® screws securing the right vertical 0U accessory channel to the side braces.

   b. Lift and remove the vertical 0U accessory channel.



REAR VIEW

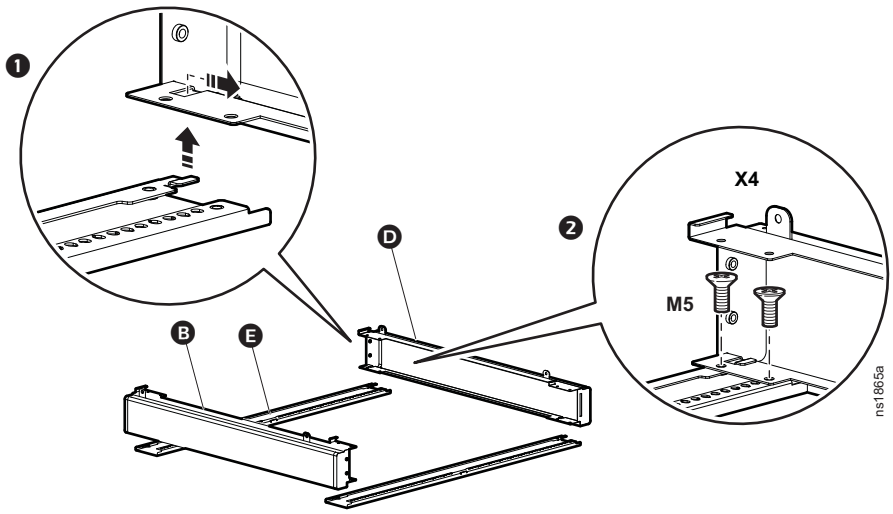
Installation

Install Side Assemblies

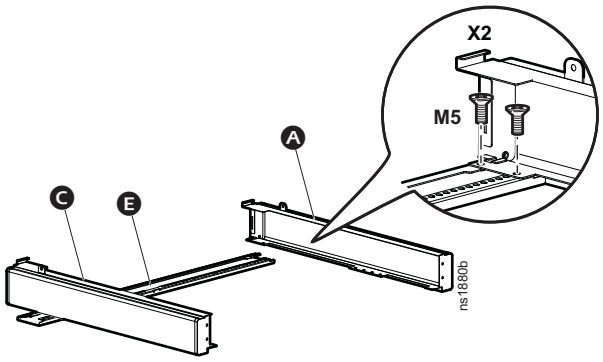
The following procedure is performed for both sides of the cabinet.

NOTE: Assemble perforated frame and side braces on a clean, smooth surface to protect the parts from scratches.

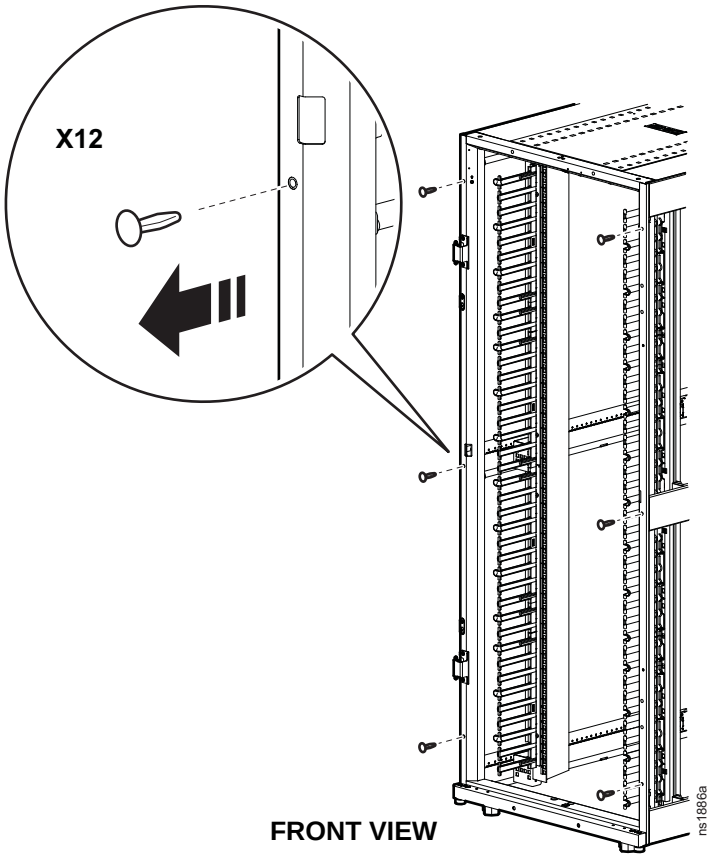
1. Using eight M5 screws, assemble the lower side assembly by connecting two side braces Ⓔ to the lower perforated frame Ⓑ and Ⓓ. Orient parts as shown.



2. Using four M5 screws, assemble the upper side assembly by connecting one side brace Ⓔ to the upper perforated frame Ⓒ and Ⓐ.



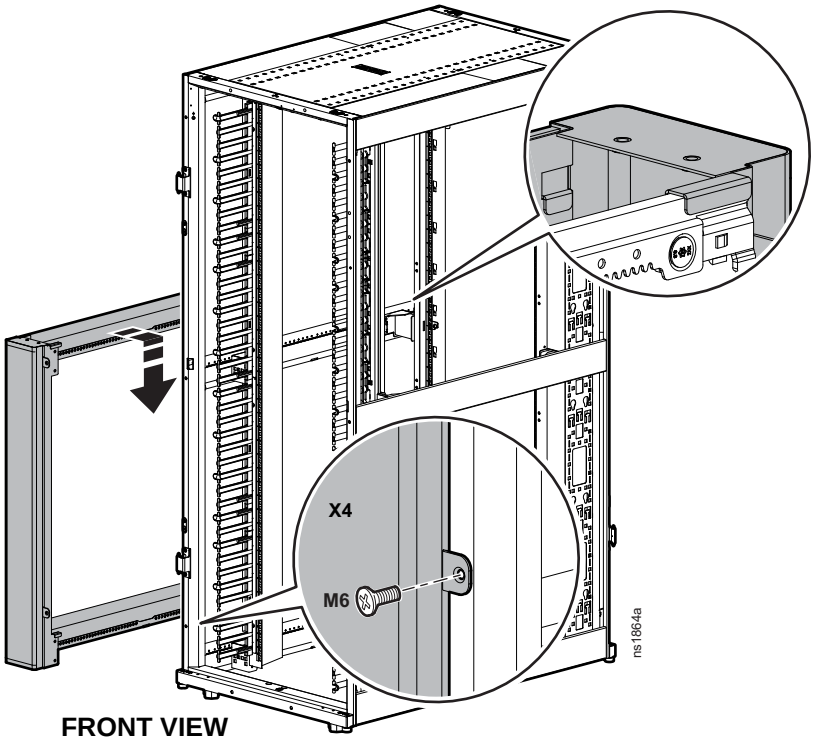
3. Remove the 12 hole plugs from the front and rear of the cabinet frame.



FRONT VIEW

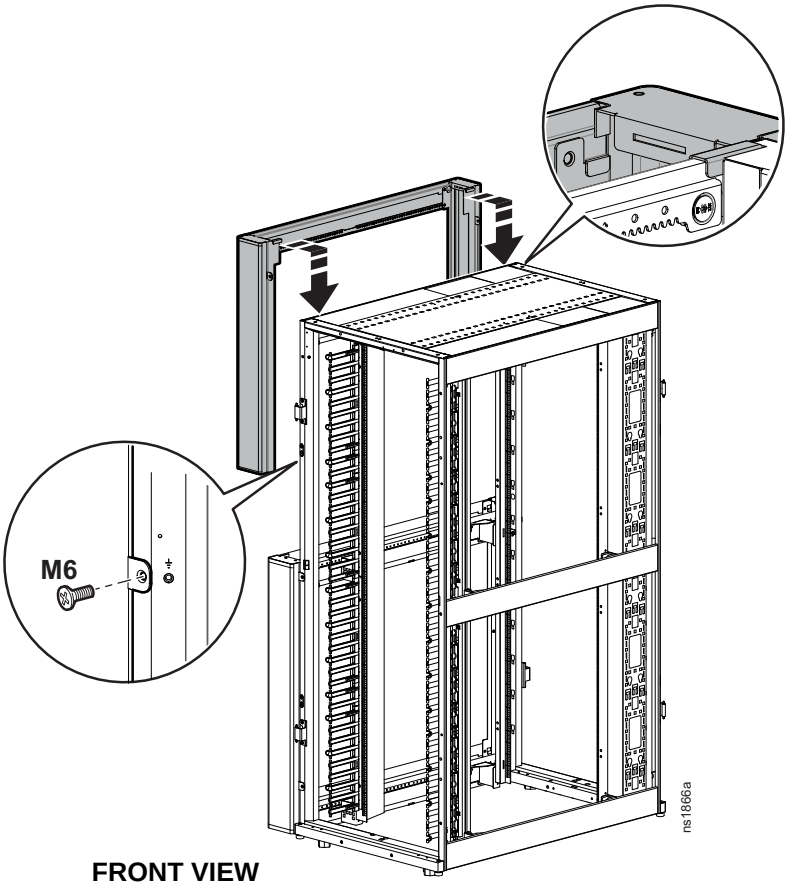
4. Using the four hanging tabs, hang the lower side assembly onto the middle and lower side braces of the cabinet. Secure with four M6 screws, two in the front and two in the rear.

   NOTE: To ensure proper installation of the side assemblies, first align the side assembly so that the tabs will be on the outside of the cabinet, then hang the assembly on the side braces.



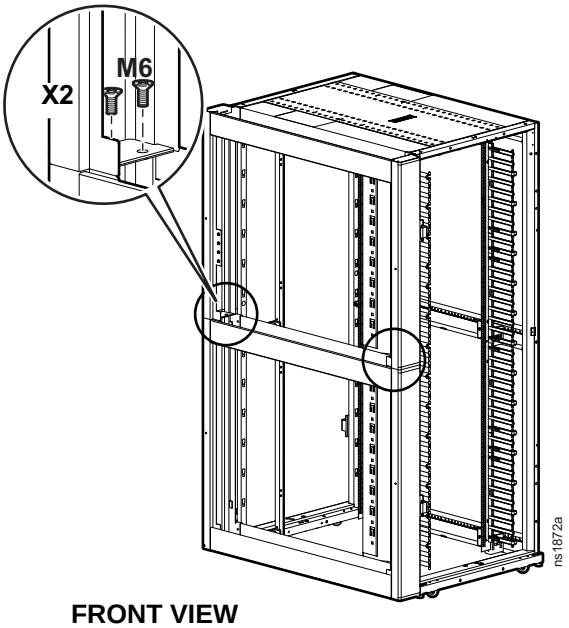
FRONT VIEW

5. Using the two hanging tabs, hang the upper side assembly onto the top side brace of the cabinet. Secure with two M6 screws, one in the front and one in the rear.



FRONT VIEW

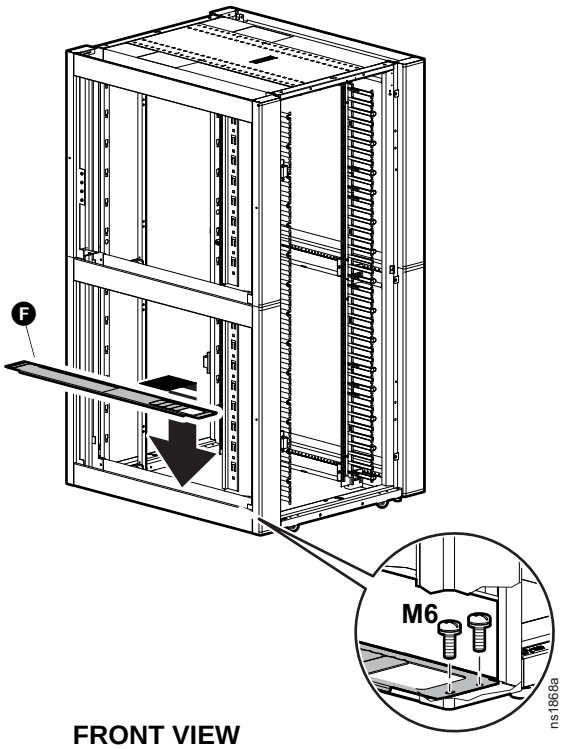
6. Using four M6 screws, secure the upper side assembly to the lower side assembly.



FRONT VIEW

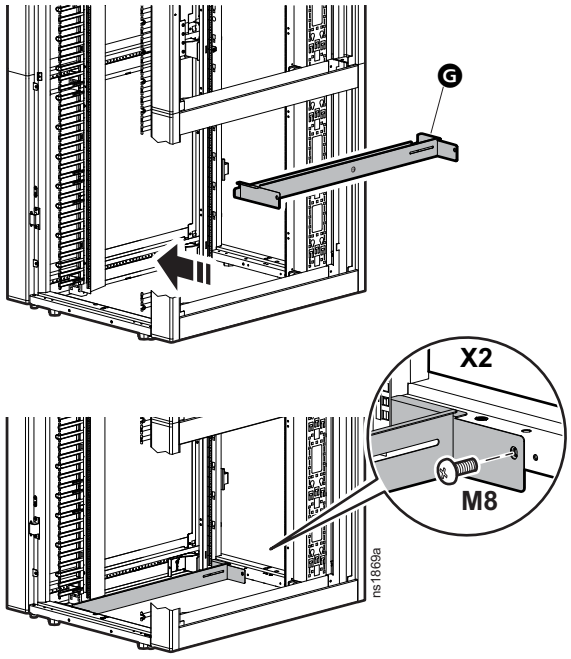
Install Baffles and Covers

1. Using two M6 Phillips slot screws with washer, install the bottom cover Ⓕ.



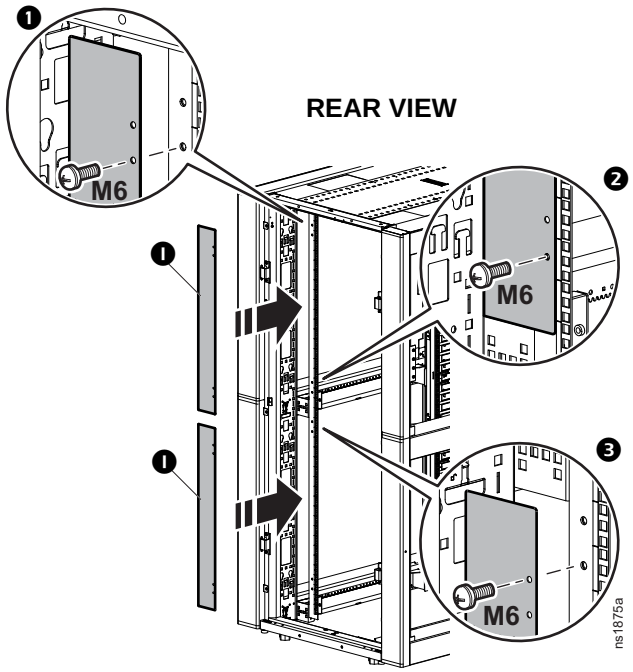
FRONT VIEW

2. Using the two M8 screws, install the lower exhaust baffle Ⓖ .

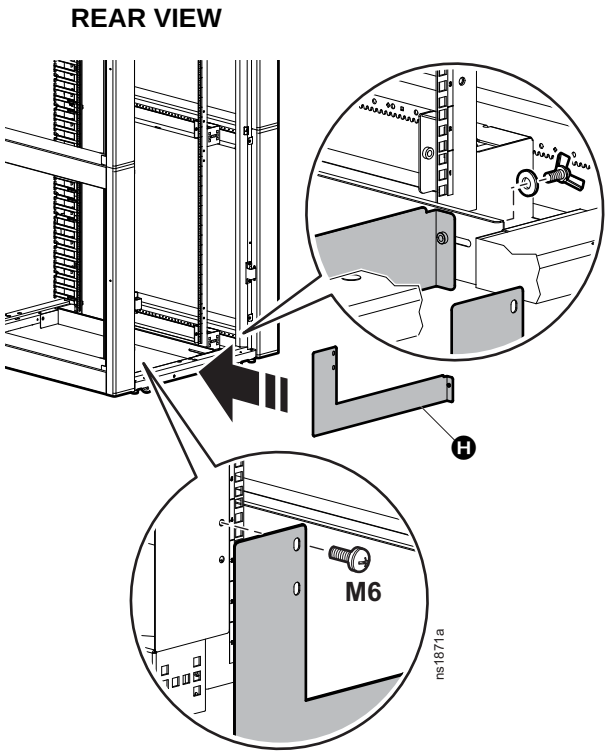


FRONT VIEW

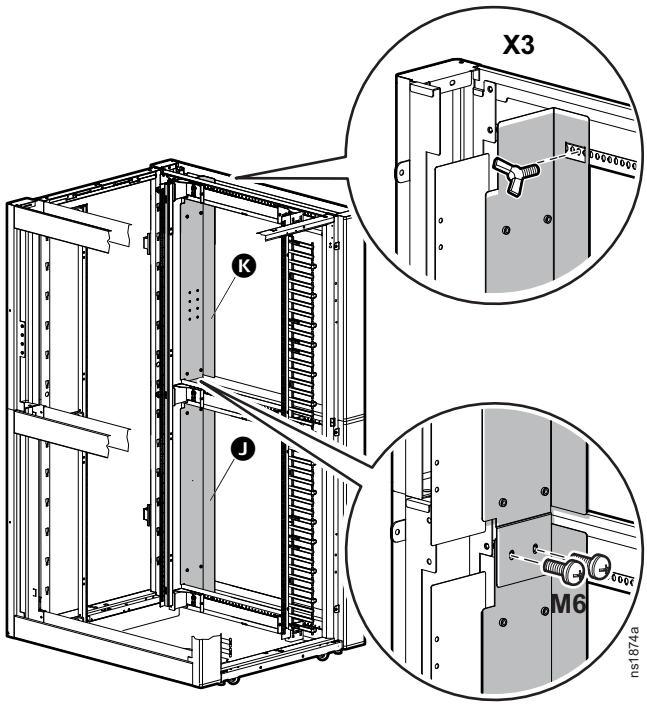
3. Using three M6 Phillips slot screws with washer, install the upper and lower vertical mounting flange baffles ❶.



4. Using one M6 Phillips slot screw with washer, one M6 wing screw, and one M6 washer, install the lower rear baffle ❽ to the lower vertical mounting flange baffle (installed in step 3) and the lower exhaust baffle.

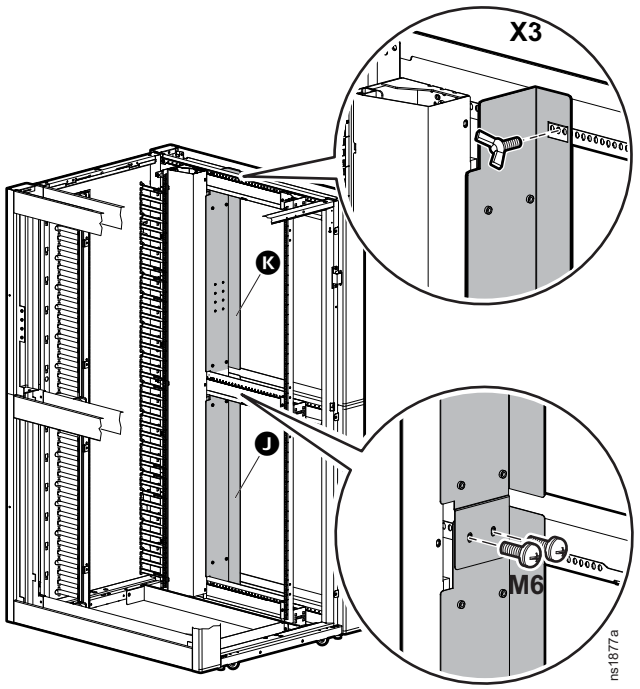


5. When facing the front of the cabinet, install the lower and upper vertical baffles on the right Airflow Solution Kit side braces as follows:
    a. Hook the lower vertical baffle ❶ on the middle and bottom Airflow Solution Kit side braces.
    b. Hook the upper vertical baffle ❿ on the top Airflow Solution Kit side brace, and position both vertical baffles flush against the vertical mounting flange baffles.
    c. Using two M6 Phillips slot screws with a washer and three M6 wing screws, secure the baffles in place.



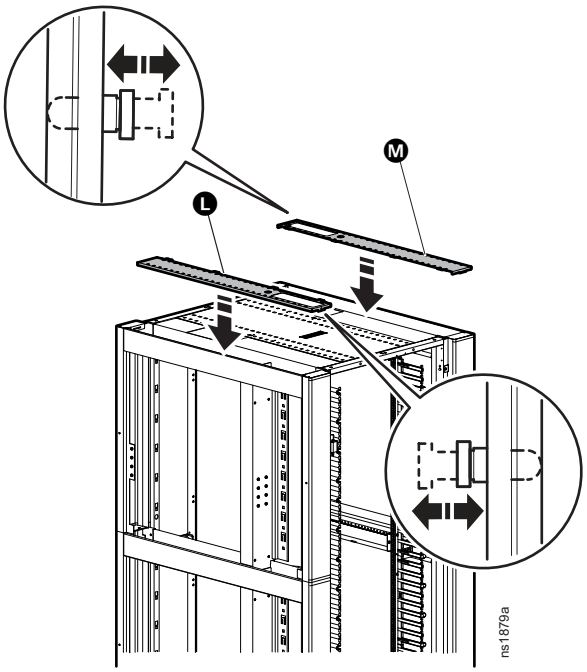
FRONT VIEW

6. When facing the rear of the cabinet, install the lower and upper vertical baffles on the right Airflow Solution Kit side braces as follows:
    a. Hook the lower vertical baffle ❶ on the middle and bottom Airflow Solution Kit side braces.
    b. Hook the upper vertical baffle ❿ on the top Airflow Solution Kit side brace, and position both vertical baffles flush against the vertical mounting flange baffles.
    c. Using two M6 Phillips slot screws with washer and three M6 wing screws, secure the baffles in place.



REAR VIEW

7. Install the left Ⓛ and right Ⓜ top covers.



FRONT VIEW

Install the Nexus Switch

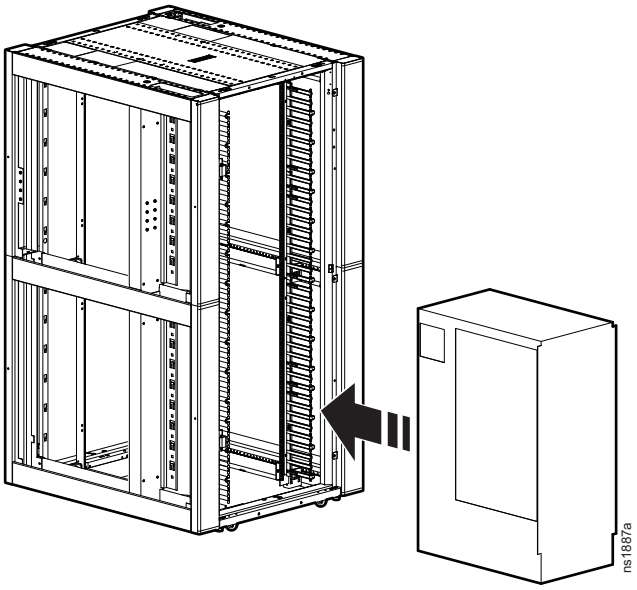
CAUTION
EQUIPMENT DAMAGE HAZARD Review manufacturer's instructions for the Nexus switch installation. **Failure to follow these instructions can result in injury or equipment damage.**

1. Install the Nexus switch in the bottom U space of the cabinet. Use the included mounting rails.

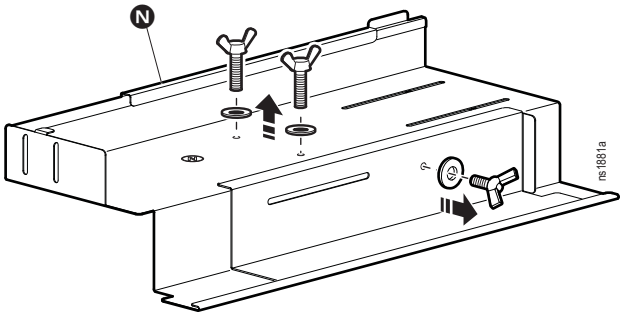
   NOTES:

   – Ensure the ports face the cold air supply and the front of the cabinet.

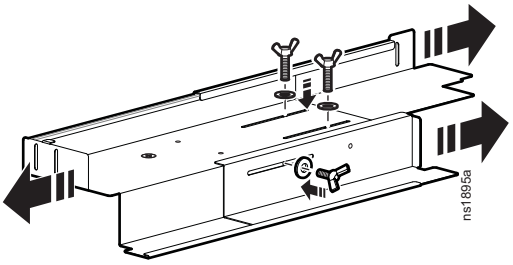
   – The switch can be installed in U space locations 1 through 4.



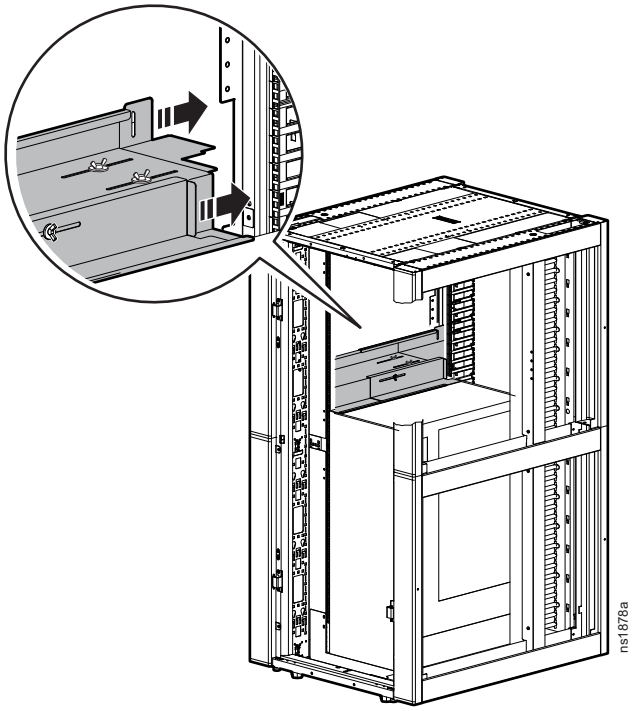
2. Remove and retain the three wing screws and washers in the horizontal baffle assembly Ⓝ.



3. Expand the horizontal baffle assembly. Reinstall, but do not tighten, the wing screws and washers.

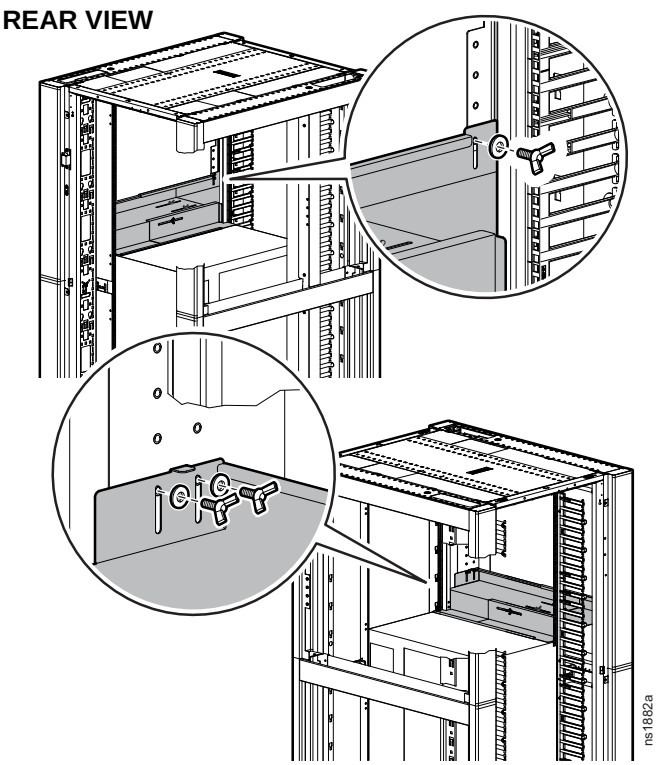


4. Position the horizontal baffle assembly on top of the Nexus switch and extend the assembly toward the attachment points on the front upper perforated frame and upper vertical baffle.

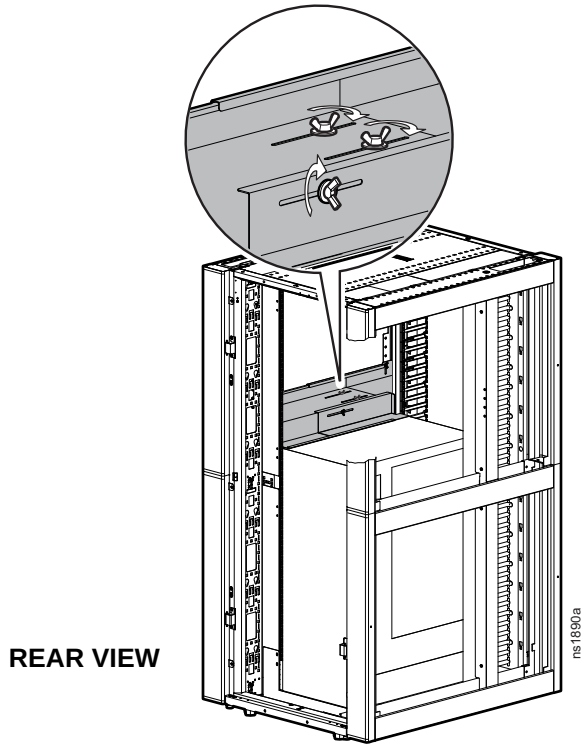


REAR VIEW

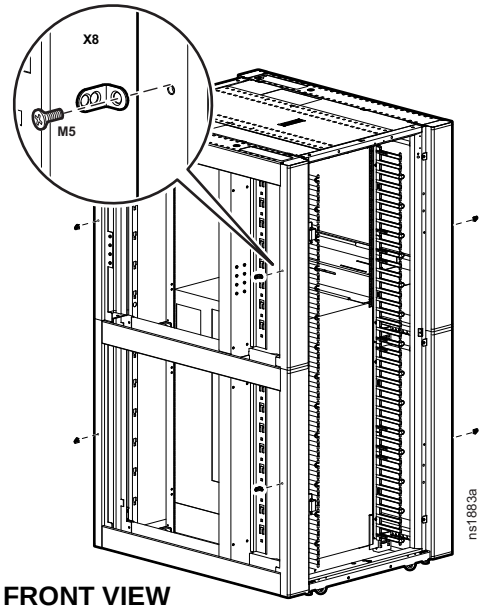
5. Using three M6 wing screws and three M6 washers, secure the horizontal baffle assembly to the front upper perforated frame and vertical baffle of the Airflow Solution Kit.



6. Tighten the three wing screws in the middle of the assembly.

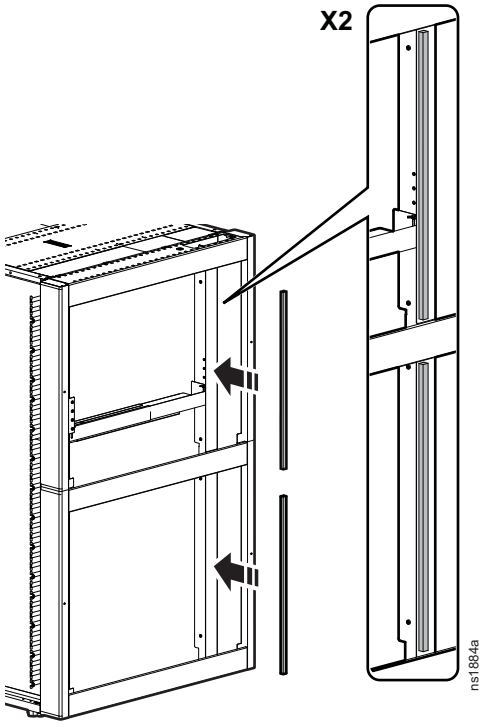


7. Using eight M5 screws, install eight cabinet joining brackets, four on the left and four on the right side of the cabinet.



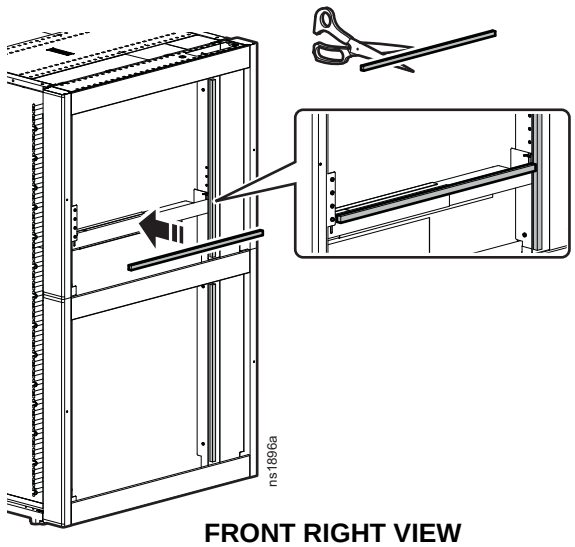
FRONT VIEW

8. On the left and right sides of the cabinet, install foam gaskets on the four vertical baffles.



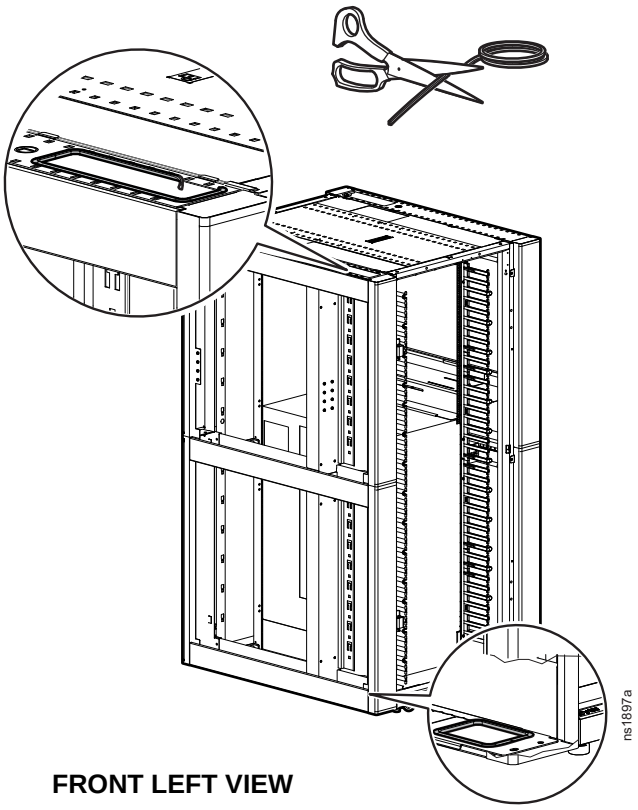
FRONT RIGHT SIDE VIEW

9. Cut the one remaining foam gasket and install it on the horizontal baffle assembly.



FRONT RIGHT VIEW

10. Cut and install edge protection grommet in cable-routing areas as needed; for example, in the openings of the top covers and the bottom cover.
11. Reinstall the side panels and doors.



FRONT LEFT VIEW

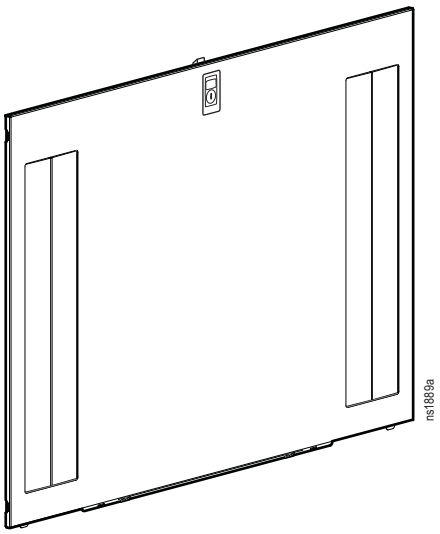
Accessories

Split Feed-Through Side Panels (AR7313 and AR7314)

Allows cable pass-through to adjacent enclosures. Openings contain brushes to restrict airflow. The following side panels are available (each includes two side panels):

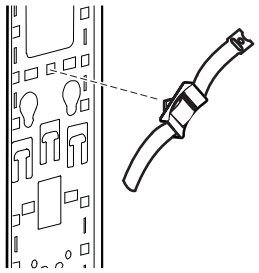
42U 1200mm Deep Split Feed-Through Side Panels (AR7313)

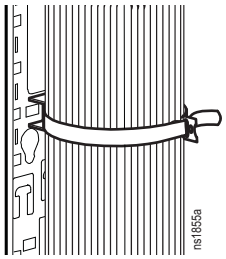
48U 1200mm Deep Split Feed-Through Side Panels (AR7314)



Toolless Hook-and-Loop Cable Manager (AR8621)

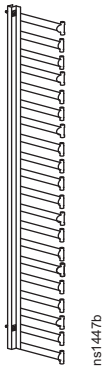
Includes ten 45mm (18 in.) cable managers and hook-and-loop black cable straps that install in the square mounting holes of vertical 0U accessory channels or vertical mounting flanges.



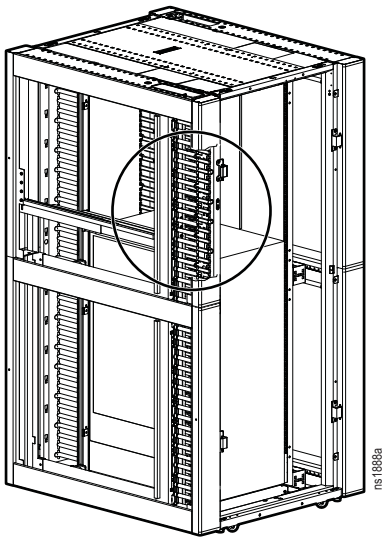


Vertical Cable Manager (AR7717)

Includes four pieces. Installs on the front and rear vertical mounting flanges and in the vertical 0U accessory channels. The vertical cable manager has smooth plastic cable guides at 1U increments that allow patch cords to enter and exit in an organized manner. (The NetShelter Networking Enclosures include four factory-installed vertical cable managers on the front vertical mounting flanges.)

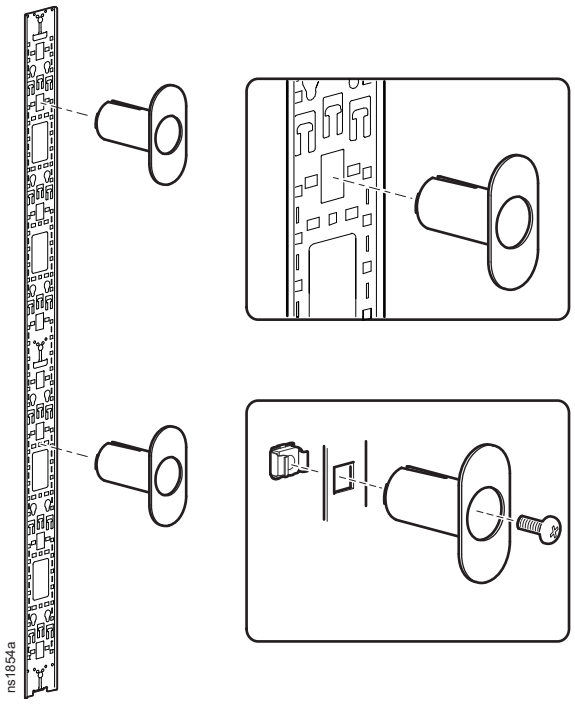


In addition to the above, with the NetShelter SX Side Airflow Solution you can install up to two vertical cable managers on each vertical baffle as shown.



Fiber Organizer Spools (AR8444)

Includes four pieces. Can be mounted toollessly to a vertical 0U accessory channel or to any 9.5 x 9.5 mm (0.375 x 0.375 in.) square hole using a cage nut and a screw.

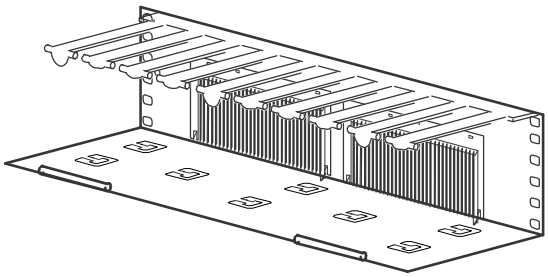


Vertical Cable Organizer (AR8442) 0U, 8 Cable Rings

Includes two pieces. Eliminates cable stress by organizing cable layout within the rear channels of the enclosure. Uses 0U space within the enclosure. Consists of two pieces of equal size. You can install both vertical cable organizers side by side in a vertical 0U accessory channel or stack each piece to span the entire height of the enclosure.

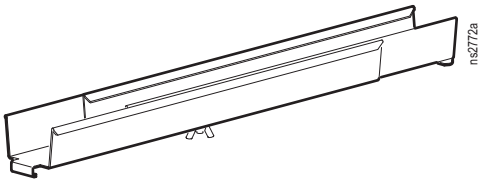
Single-side Horizontal Cable Organizer with Cover (AR8603) 2U, 6 in. deep

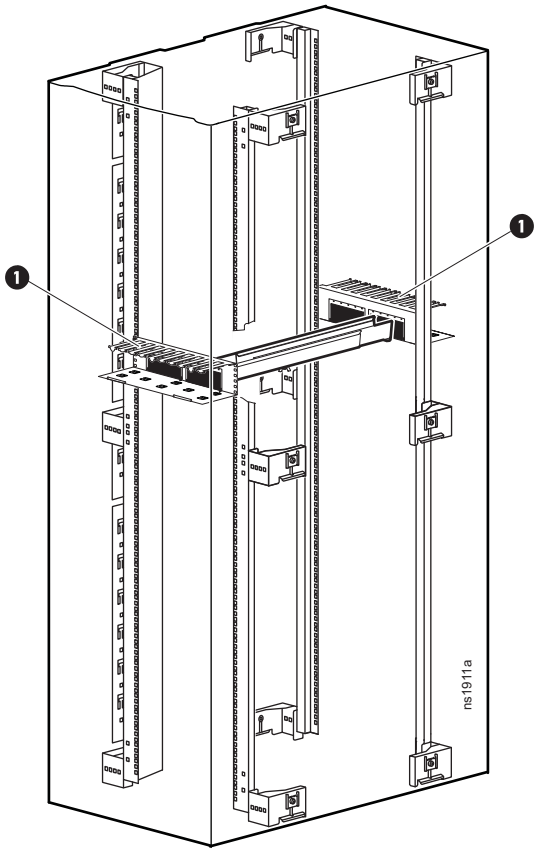
Route patch cables horizontally at the front of rear of a 19 in. EIA enclosure. The cable manager has 152mm (6 in.) smooth plastic fingers and two pass-through openings to allow patch cords to enter and exit in an organized manner.



Single-side Horizontal Cable Organizer with Cover (AR8603) 2U, 6 in. deep

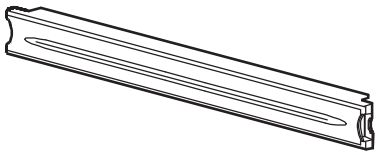
Route patch cables horizontally at the front of rear of a 19 in. EIA enclosure. The cable manager has 152mm (6 in.) smooth plastic fingers and two pass-through openings to allow patch cords to enter and exit in an organized manner.





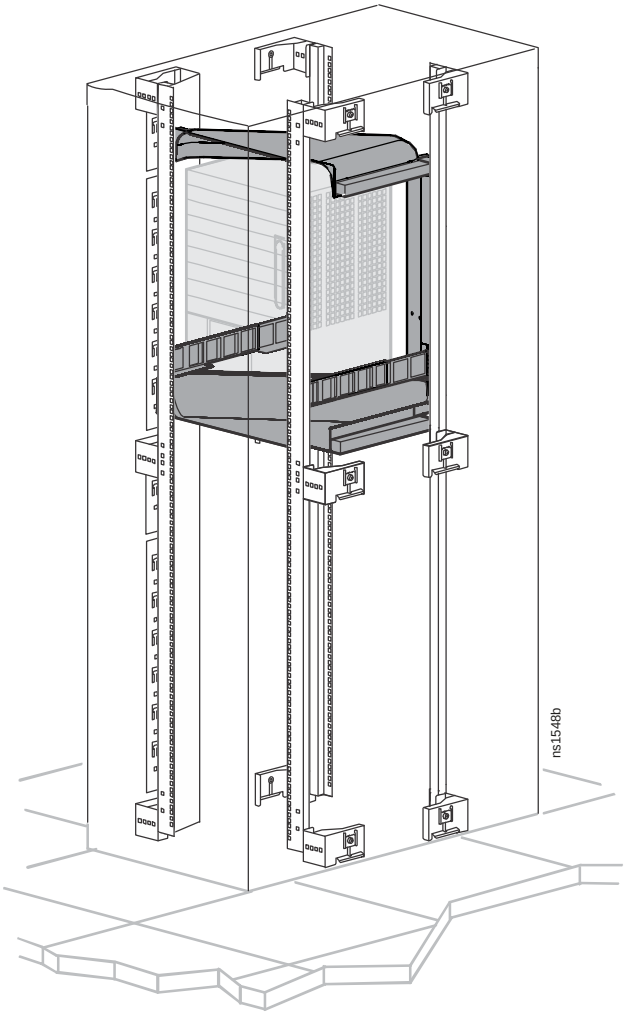
Airflow Management Blanking Panel (AR8136BLK and AR8136BLK200)

Covers empty vertical enclosure space to maintain proper airflow. AR8136BLK includes ten pieces and AR8136BLK200 includes 200 pieces.



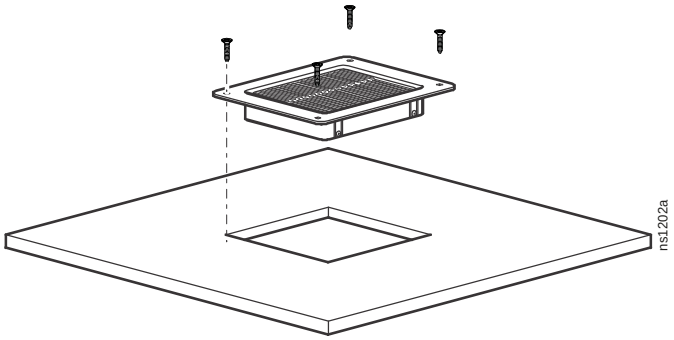
Side Airflow Duct Kit (AR7715) for Catalyst and MDS series switches

The NetShelter Side Airflow Duct Kit is intended for use with Cisco Catalyst 6509, 6509-E, and 6513 Switches and Cisco MDS 9509 and 9513 Multilayer Switches. For networking switch applications, the Side Airflow Duct Kit allows for improved cable management solutions while maintaining adequate airflow and separation of hot and cold aisles to cool switches. The Side Airflow Duct Kit maintains separation of hot and cold aisles via ducts and baffle panels.



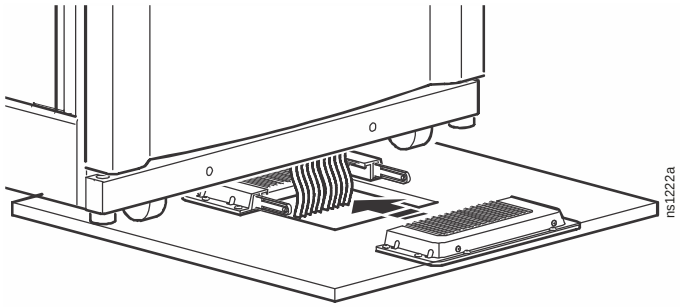
KoldLok® Integral Raised Floor Grommet (AR7720)

Includes ten pieces. Improves cooling efficiency by preventing air recirculation and reducing bypass airflow.



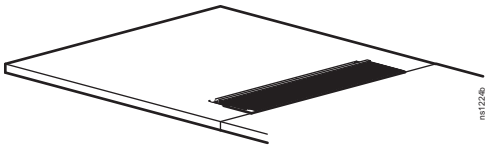
KoldLok® Surface Mount Raised Floor Grommet (AR7730)

Includes ten pieces. Improves cooling efficiency by preventing air recirculation and reducing bypass airflow.



KoldLok® Extended Raised Floor Grommet (AR7740)

Includes ten pieces. Improves cooling efficiency by preventing air recirculation and reducing bypass airflow.



Worldwide Customer Support

Customer support for this product is available at **www.schneider-electric.com**.

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990-4377B-001 **4/2016**