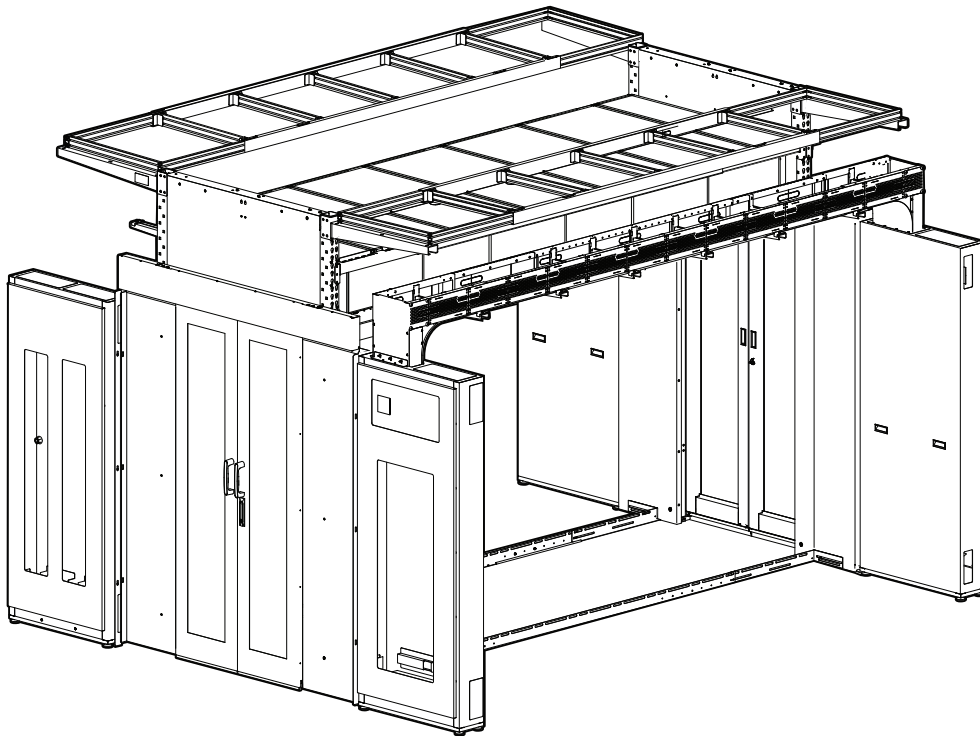


NetShelter™

Pod Containment System Installation Manual

990-5862E-001

Publication Date: 7/2021



APC™

by **Schneider** Electric

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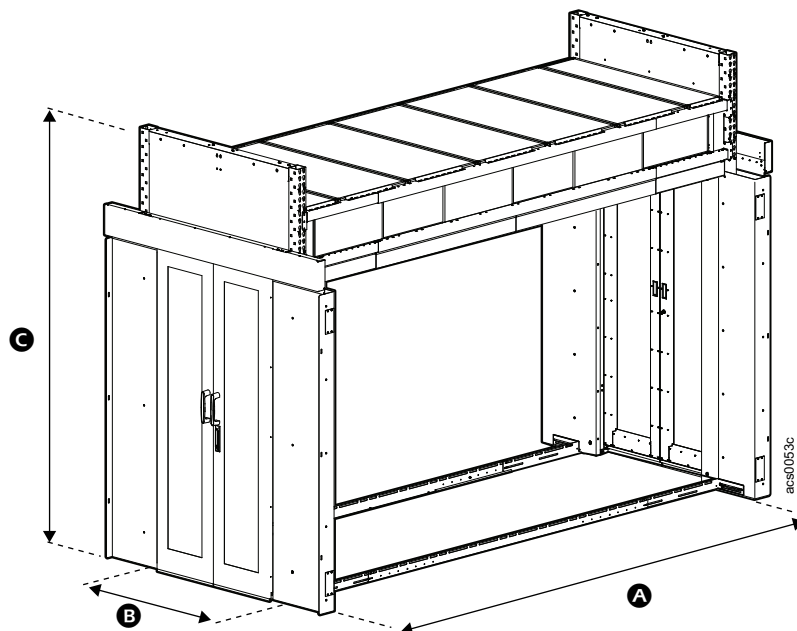
General Information

Features

The NetShelter Pod is a freestanding air containment system. Fully configured racks can be deployed or removed from the system as necessary. APC by Schneider Electric racks or other EIA-310-D racks can be used in a NetShelter Pod Containment system.

The NetShelter Pod Containment system includes the following features:

- Telescoping length beams can extend the NetShelter Pod length (A) from 2.4 m (2421 mm or about 8 ft) to 3.6 m (3621 mm or about 12 ft).
Additional length beams can be added to the vertical posts to extend the Pod up to another 3.6 m (12 ft).
- Aisle widths (B) are available in two ranges. The narrow range is 900–1240 mm (about 3–4 ft). The wide range is 1509–1849 mm (or about 5–6 ft).
- Two heights (C) are available for vertical posts: Tall = 3.2 m (3200 mm or about 10.5 ft) and Short = 2.8 m (2750 mm or about 9 ft).



Possible configurations:

Dimension	Narrow aisle, tall	Narrow aisle, short	Wide aisle, tall	Wide aisle, short
A	2421–3621 mm (8–12 ft)	2421–3621 mm (8–12 ft)	2421–3621 mm (8–12 ft)	2421–3621 mm (8–12 ft)
B	900–1240 mm (3–4 ft)	900–1240 mm (3–4 ft)	1509–1849 mm (5–6 ft)	1509–1849 mm (5–6 ft)
C	3200 mm (10.5 ft)	2750 mm (9 ft)	3200 mm (10.5 ft)	2750 mm (9 ft)

The basic NetShelter Pod can be customized with the following accessories:

- Power Raceways
- Rack space blanking panels
- Cantilever support arms
- Overhead support frame
- Bi-parting and single swing doors
- Height adapters accommodate multiple rack heights
- LED aisle lighting with motion sensor
- End-of-row power transition cabinets
- Drop roof
- Shrink panels activated by heat
- End-of-aisle crossover tray

The NetShelter Pod Containment system provides a barrier between the hot exhaust and cold intake air streams in the IT environment. The separation of the hot and cold air streams in the environment increases the efficiency and effectiveness of the cooling system that supports the critical IT equipment. The separation will also allow for an elevated supply-air temperature to be provided by the cooling system since the mixing of hot and cold air is eliminated. The NetShelter Pod Containment system can be built using new or existing APC by Schneider Electric equipment. This containment system is compatible with row, room, or external cooling solutions and available for cold or hot aisle containment.

This manual is a guide for the basic installation procedures for creating a NetShelter Pod Containment system.

Loading Capacities

- **End Frames** (each): 249 kg (550 lbs.)
- **Upper aisle length beams** (each): 113 kg (250 lbs.)
- **Large Cantilever** (one side, system quantity is 2): 680 kg (1500 lbs.)
For balance, the load should be applied to both sides of the NetShelter Pod. If Large Cantilevers are installed on only one side, the max loading rating is 441 kg (974 lbs.)
- **Mini Cantilever** (one side, system quantity is 6): 90 kg (200 lbs.)
- **Total System**: 1814 kg (4000 lbs.)

NetShelter Pod Containment SKU List

This manual includes inventory and installation information for the following assemblies:

FS-AC-1001-U	Air sealing kit	FS-FM-4005-B	1.2 m aisle end panel, short
FS-AC-1002-U	H-seal	FS-FM-4006-B	1.2 m aisle end panel, tall
FS-AC-1003-U	C-seal	FS-FM-5001-B	Stop rail
FS-AC-2001-U	Row length brush strip	FS-FM-6001-B	Raised-floor stand, 406 mm
FS-AC-3001-B	Large cantilever arms	FS-FM-6002-B	Raised-floor stand, 610 mm
FS-AC-3002-B	Overhead support frame	FS-FM-6003-B	Raised-floor stand, 762 mm
FS-AC-3003-B	Mini cantilever arms	FS-FM-6004-B	Raised-floor stand support, 914 mm
FS-AC-4001-B	Power raceway end module	FS-FM-1011-U	1.2 m aisle post alignment tool
FS-AC-4002-B	Power raceway main module	FS-FM-1012-U	1.9 m aisle post alignment tool
FS-AC-4003-B	Power raceway 300 mm side cover pack		
FS-AC-4004-B	Power raceway 50/150 mm side cover pack	FS-RF-1002-B	1.9 m aisle solid roof filler panel set
FS-AC-4005-B	Power raceway extension module	FS-RF-1003-B	1.2 m aisle solid roof filler panel set
FS-AC-4007-B	1.9 m aisle crossover tray	FS-RF-2004-U	1.9 m aisle simple roof panel, 300 mm
FS-AC-4008-B	1.2 m aisle crossover tray	FS-RF-2005-U	1.9 m aisle simple roof panel, 600 mm
FS-AC-5005-B	Blanking panel, 300 mm	FS-RF-2006-U	1.9 m aisle simple roof panel for sprinkler
FS-AC-5006-B	Blanking panel, 600 mm	FS-RF-2007-U	1.2 m aisle simple roof panel, 300 mm
FS-AC-5007-B	Blanking panel, 750 mm	FS-RF-2008-U	1.2 m aisle simple roof panel, 600 mm
FS-AC-5008-B	Blanking panel, 800 mm	FS-RF-2009-U	1.2 m aisle simple roof panel for sprinkler
FS-AC-6001-B	Lighting bracket kit	FS-RF-3002-U	Drop roof mounting rail, 300 mm
FS-AC-7001-B	Distribution cabinet, MH50	FS-RF-3004-U	Drop roof mounting rail, 600 mm
FS-AC-7002-B	Distribution cabinet, Split	FS-RF-3006-U	Drop roof mounting rail, 750 mm
FS-AC-7003-B	Distribution cabinet, Solid	FS-RF-3007-U	Drop roof panel, 300 mm
FS-AC-8001-U	Rack height adapter, 300 mm	FS-RF-3008-U	Drop roof panel, 600 mm
FS-AC-8002-U	Rack height adapter, 600 mm	FS-RF-3009-U	Drop roof panel, 750 mm
FS-AC-8003-U	Rack height adapter, 750 mm	FS-RF-6001-U	1.2 m aisle shrink roof panel, 610 mm
		FS-RF-6002-U	1.2 m aisle shrink roof panel, 310 mm
		FS-RF-6003-U	1.9 m aisle shrink roof panel, 610 mm
		FS-RF-6004-U	1.9 m aisle shrink roof panel, 310 mm
FS-DR-1001-B	1.2 m aisle dual sliding doors		
FS-DR-1002-U	Swing door	FS-WI-1001-U	Window panel, 305 mm
FS-DR-1003-B	1.9 m aisle dual sliding doors	FS-WI-1002-B	Window rail assembly
FS-DR-2002-B	1.9 m aisle door frame	FS-WI-1003-B	Window frame brush strips
FS-DR-2003-B	1.2 m aisle door frame	FS-WI-1004-U	Window Brush strip pass-through
FS-FM-1001-B	Vertical post, Short		
FS-FM-1002-B	Vertical post, Tall	ACDC2015	Ceiling panel lock system (without power supply)
FS-FM-2002-B	1.9 m aisle width beam	ACDC2016	Ceiling panel lock system 100-120 V
FS-FM-2003-B	1.2 m aisle width beam	ACDC2017	Ceiling panel lock system 200-240 V
FS-FM-3001-B	Length beam	ACDC2018	Lighting kit with power supply
FS-FM-4003-B	1.9 m aisle end cap panel, short	ACDC2019	Lighting kit without power supply
FS-FM-4004-B	1.9 m aisle end panel, tall		

Documentation Information

All documentation is also available online at <http://www.apc.com>.

Check for updates to this manual on www.apc.com. Select **Support > Resources & Tools > User Guides**. Then select **Airflow Management** in the **Product Name** drop-down list, or select the part number for any NetShelter Pod assembly in the **Part Number** drop-down list.

Unpacking and Inspecting

IMPORTANT: To avoid misplacing parts, do not leave boxes open following inspections. Reseal the boxes until those parts are ready to be installed. Follow the order of procedures in this manual to ensure proper installation.

If damage is noted to the shipping containers, inspect the contents for damage and notify the shipping carrier and APC by Schneider Electric.

After opening a box, check the components in the box against the list of items in “Component Identification” beginning on page 11. If any components are missing, contact <http://www.apc.com/support>.



The shipping materials are recyclable. Save them for later use or dispose of them appropriately.

Safety

Important Safety Information

Read the instructions carefully to become familiar with the equipment before trying to install, operate, service, or maintain it. The following special messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a Danger or Warning safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, **will result in death** or serious injury.

WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, **can result in death** or serious injury.

CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **can result in minor** or moderate injury.

NOTICE

NOTICE addresses practices not related to physical injury including certain environmental hazards, potential damage or loss of data.

Safety Recommendations for the NetShelter Pod Containment system

To reduce the possibility of injury or equipment damage, read and follow the safety recommendations.

Follow all local and agency safety requirements.

⚠ WARNING
TOOL USAGE HAZARD Follow safety standards for all hand tools and power tools used. Read and follow the tool manufacturer's instructions. Follow the tool manufacturer's recommendations and recognized safety requirements for use of Personal Protection Equipment (PPE). Failure to follow these instructions can result in death, serious injury, or equipment damage.

⚠ CAUTION
WORKING HEIGHT HAZARD The working height for the assembly process can exceed 2.3 m (7.5 ft). The use of stepladders or scaffolding will be required during assembly. Failure to follow these instructions can result in serious injury or equipment damage.

⚠ CAUTION
LIFTING HAZARD At least two (2) people are required to install this equipment. Some parts may be heavy and/or excessive in size. For items weighing more than 12 kg (25 lbs), use more than one person. Failure to follow these instructions can result in serious injury or equipment damage.

⚠ CAUTION
NO STEP HAZARD Ceiling panels are not designed to support weight. Never lean or walk on the ceiling panels. DO NOT use ceiling panels to support power or data cables. Failure to follow these instructions can result serious injury or equipment damage.

Planning the Installation

NOTE: The data center floor must be within 0.075° from level for an 8-rack configuration, or within 0.035° from level for a 16-rack configuration.

General Guidelines for Installation

Maintain a minimum clear space of 0.9 m (36 in.) required from the top of the frame to overhead obstructions.

Maintain a minimum working space around the frame perimeter. Be sure to factor in the depth of the racks you will install. Use your deepest rack when calculating the outside aisle space around the NetShelter Pod (finished size perimeter + 1.2 m [4 ft] around all sides).

Install this equipment directly on a concrete floor, or use floor stands to support a raised-floor system.

⚠ WARNING
HEAVY EQUIPMENT HAZARD Raised-floor stands are required if the combined weight of the NetShelter Pod Containment system and all installed equipment will exceed the structural capacity of your raised-floor system. Failure to follow these instructions can result in death, serious injury, or equipment damage.



See the documentation provided with each APC by Schneider Electric product for additional instructions on installation. All documentation is also available on www.apc.com.

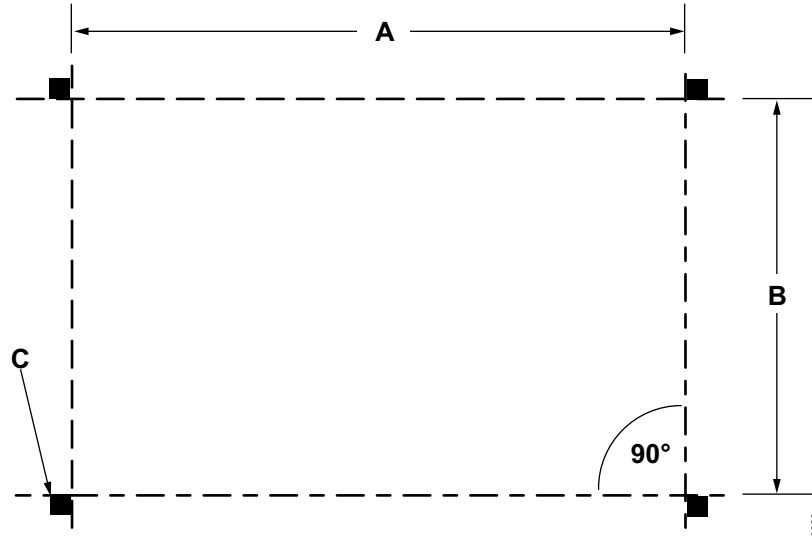
Enclosures and Power Equipment



Refer to the instructions that come with your enclosures and power distribution equipment for information on how to install them.

Layout and Positioning

Referencing the ISX Designer report, determine the position of the main components, the total length of the planned Aisle Containment System and the aisle width. Use a chalk line or similar tool to lay out the perimeter making sure all corners are square.

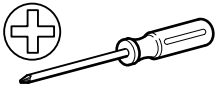


Dimension A will vary depending on the type and number of racks installed (2421–3621 mm or 8–12 ft). Dimension B is equal to 1268 mm for a 1.2 m (4 ft) aisle or 1877 mm for a 1.9 m (6 ft) aisle. Item C notes the locations of the post feet provided in SKUs FS-FM-1001-B and FS-FM-1002-B.

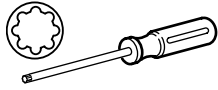
Observe a 1.2 m (4 ft) perimeter around the outside so that racks can be moved in and out of the pod

NOTE: A template is provided to assist proper drilling of holes into the floor to secure the vertical post feet.

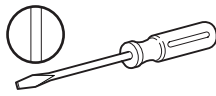
List of Recommended Tools



Screwdriver
P1 and
P2 Phillips



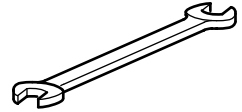
Screwdriver
T-30, T-20, T-15
TORX®



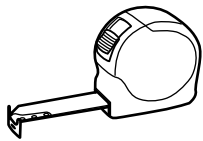
Standard screwdriver



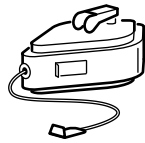
Hex wrench
3 mm, 4 mm, 6 mm



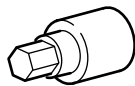
Wrench
6, 7, 8, 10, 11,12
13,14, 18, 19, and
20 mm



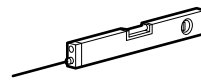
Tape measure



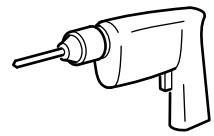
Chalk line



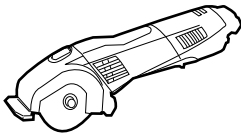
Hex socket
6.3 mm, 7 mm,
10 mm, 15 mm



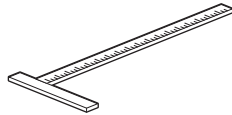
Level



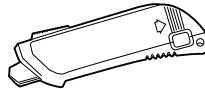
Drill with standard,
Phillips, TORX bits



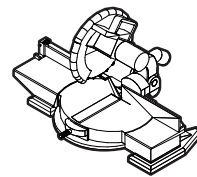
Rotary tool
(e.g. Dremel®)



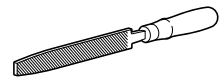
T-square
120 cm (48 in.)
minimum



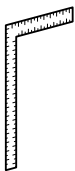
Self-retracting knife



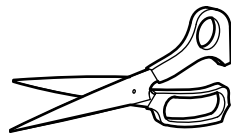
Miter saw



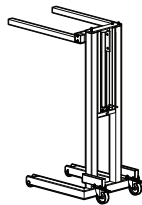
Metal files



T-square



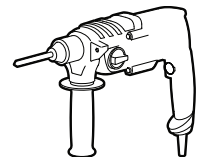
Scissors



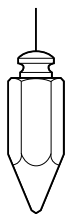
Lift



Ladder



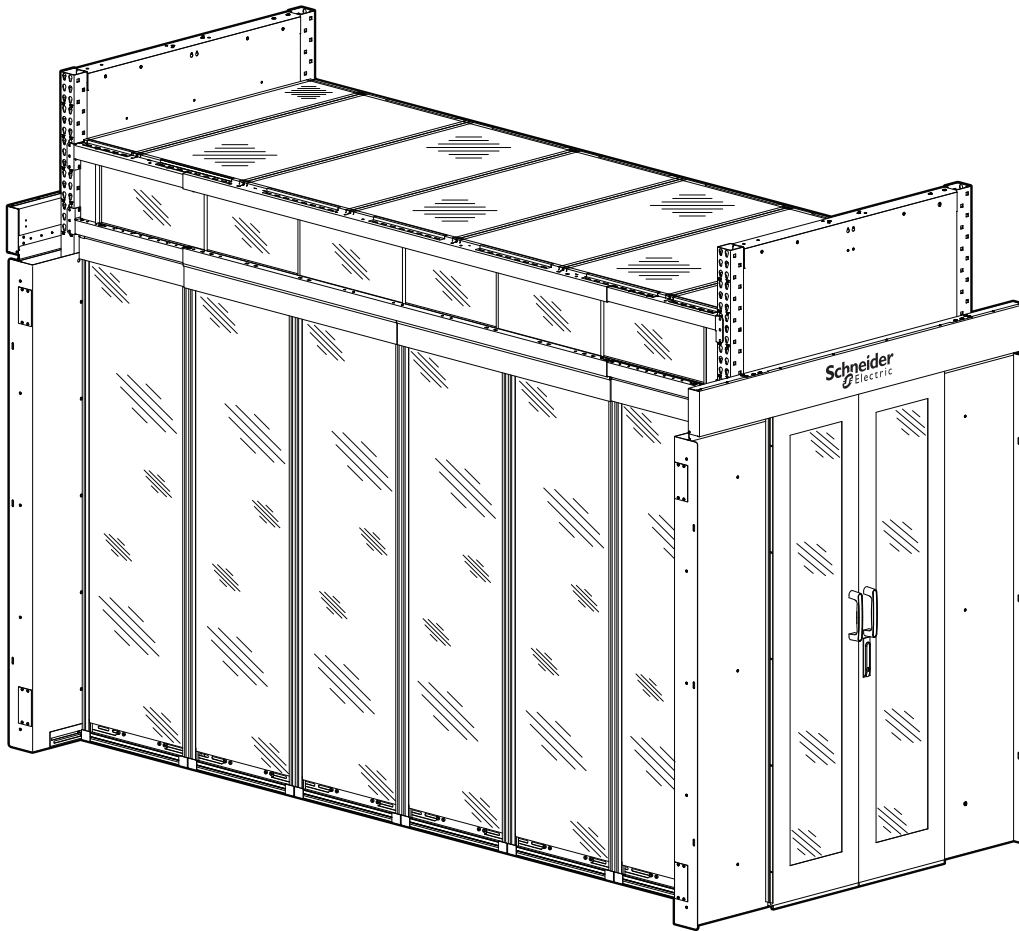
Drill and concrete
bits



Plumb bob

Systems Overview

Basic configuration



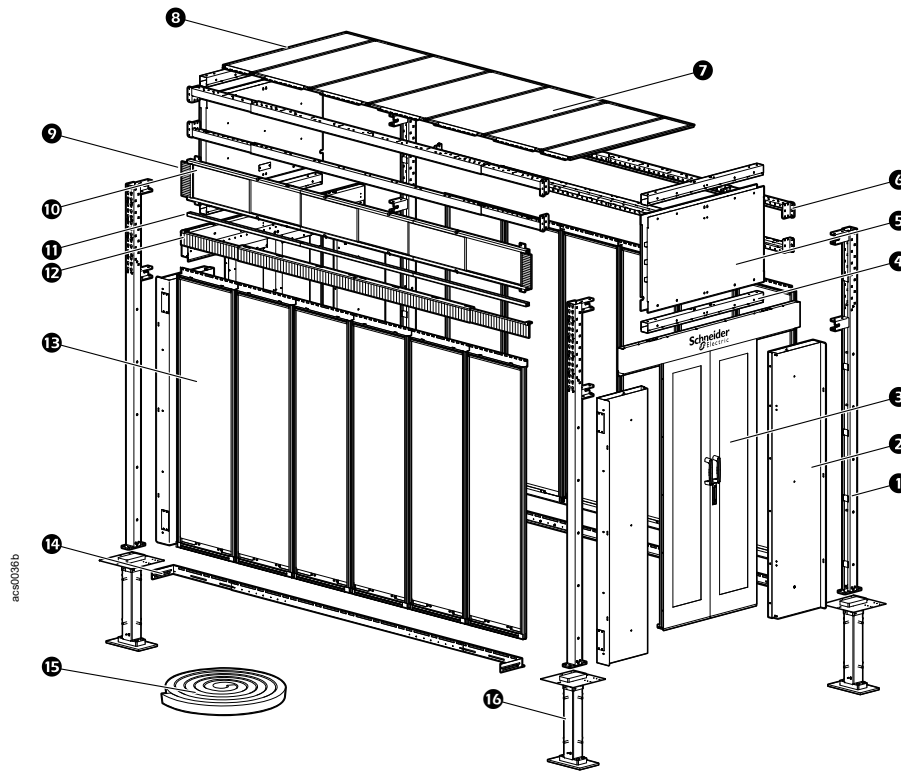
The NetShelter™ Pod is a freestanding air containment system.

This manual is a guide for the basic installation procedures for assembling a NetShelter Pod Containment system.

Multiple configurations are possible depending on your requirements. Please contact APC by Schneider Electric at www.apc.com or your Schneider Electric representative to explore your options.

Component Identification

NetShelter Pod Containment System Components



Short version shown

Item	Description	Quantity Required
①	Vertical post	4
②	Door frame assembly	4
③	Dual sliding doors	2
④	Width beam, 1.2 m (4 ft)	4
⑤	Aisle end cap assembly 1.2 m (4 ft)	2
⑥	Telescoping length beam assembly, 2.4–3.6 m (8–12 ft)	4
⑦	Simple roof panel, 600 mm (23.6 in.), 1.2 m (4 ft) aisle	5
⑧	Simple roof panel, 300 mm (12 in.), 1.2 m (4 ft) aisle	2
⑨	Window frame brush strips	4
⑩	Window panels, 2 ft (contents, 2 panels)	6
⑪	Window rail assembly	2
⑫	Row length brush strip assembly	2
⑬	Blanking panel	*
⑭	Stop rail assembly, 2.4–3.6 m (8–12 ft)	2
⑮	Air sealing kit	1
⑯	Raised-floor stands	4

*Quantity determined by number of spaces not inhabited by racks.

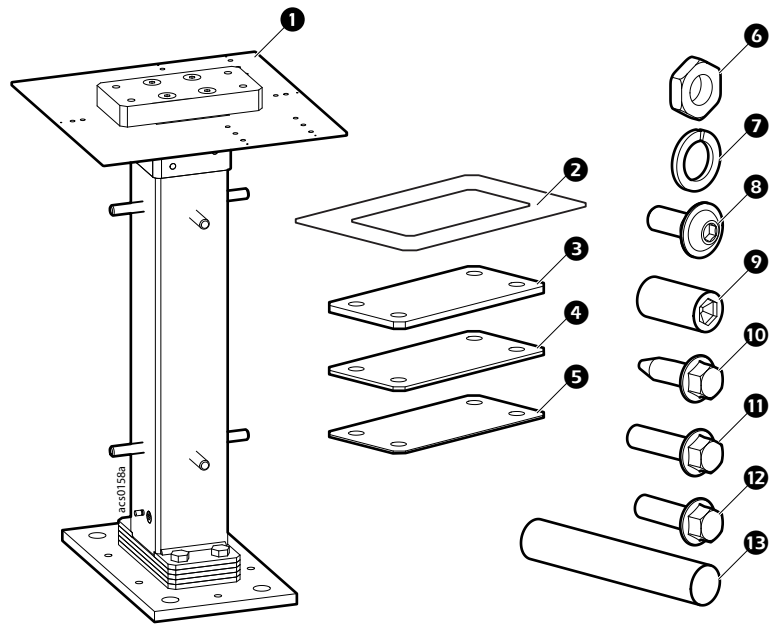
Raised-floor Stand

FS-FM-6001-B - Raised-floor Stand, 406 mm (16 in.)

FS-FM-6002-B - Raised-floor Stand, 610 mm (24 in.)

FS-FM-6003-B - Raised-floor Stand, 762 mm (30 in.)

FS-FM-6004-B - Raised-floor Stand, 914 mm (36 in.)

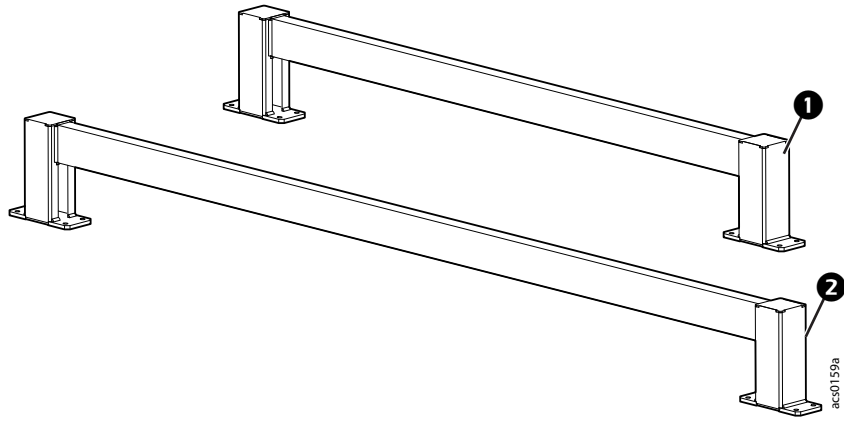


Item	Description	Quantity
1	Raised-floor stand 406 mm (16 in.), 610 mm (24 in.), 762 mm (30 in.), 914 mm (36 in.)	2
2	Adhesive floor cover	2
3	Shim, 6 mm	4
4	Shim, 3 mm	2
5	Shim, 1.5 mm	2
6	Nut, M12	8
7	Spring ring	8
8	Button head cap screw, 30 mm, M10 x 1.5	8
9	Set cap screw, 20 mm, M10 x 1.5	12
10	Self drilling, flanged hex head screw, 22 mm	8
11	Flanged hex head screw, 25 mm, M12 x 1.75	8
12	Flanged hex head screw, 20 mm, M12 x 1.75	8
13	Rod, 100 mm, M12	8

Post Alignment Tool

FS-FM-1011-U - 1.2 m (4 ft) Aisle Post Alignment Tool

FS-FM-1012-U - 1.9 m (6 ft) Aisle Post Alignment Tool

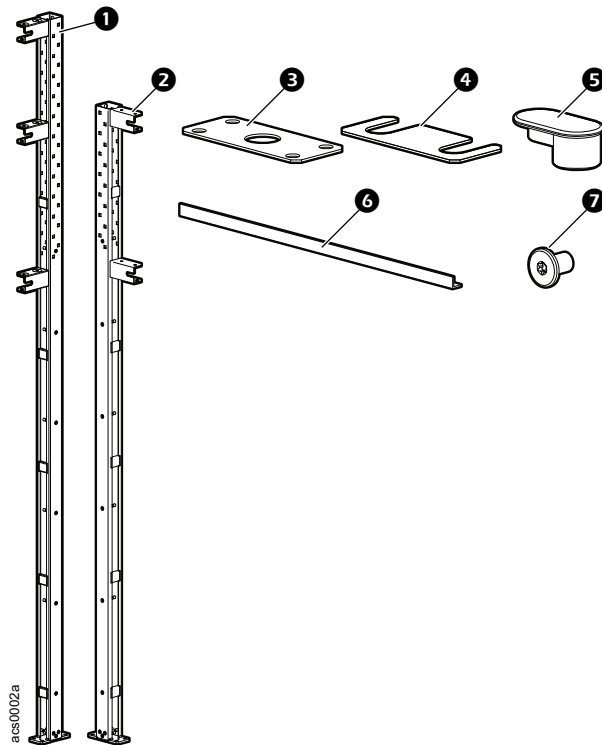


Item	Description	Quantity
❶	1.2 m (4 ft) Aisle Post Alignment Tool FS-FM-1011-U	1
❷	1.9 m (6 ft) Aisle Post Alignment Tool FS-FM-1012-U	1

Vertical Posts

FS-FM-1001-B - Vertical Post Assembly, 2.75 m (9 ft), Short

FS-FM-1002-B - Vertical Post Assembly, 3.2 m (10.5 ft), Tall



Item	Description	Quantity
1	Vertical Post FS-FM-1002-B (Tall)	2
2	Vertical Post FS-FM-1001-B (Short)	2
3	Template*	1
4	Shim, 0.5 mm	2
5	Hole plug	
	FS-FM-1001-B (Short)	48
	FS-FM-1002-B (Tall)	88
6	Temporary support	1
7	Screw, M8 x 12, T30	8

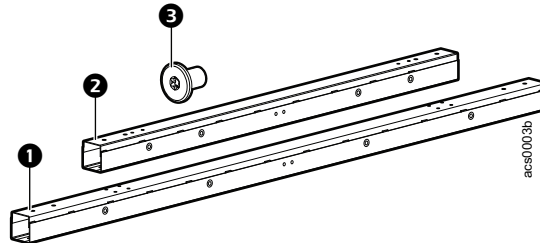
*Template for drilling holes into floor to secure vertical posts.

NOTE: Fasteners for securing the vertical posts to your floor are not included.

Width Beams

FS-FM-2002-B - 1.9 m (6 ft) Aisle Width Beam Assembly

FS-FM-2003-B - 1.2 m (4 ft) Aisle Width Beam Assembly

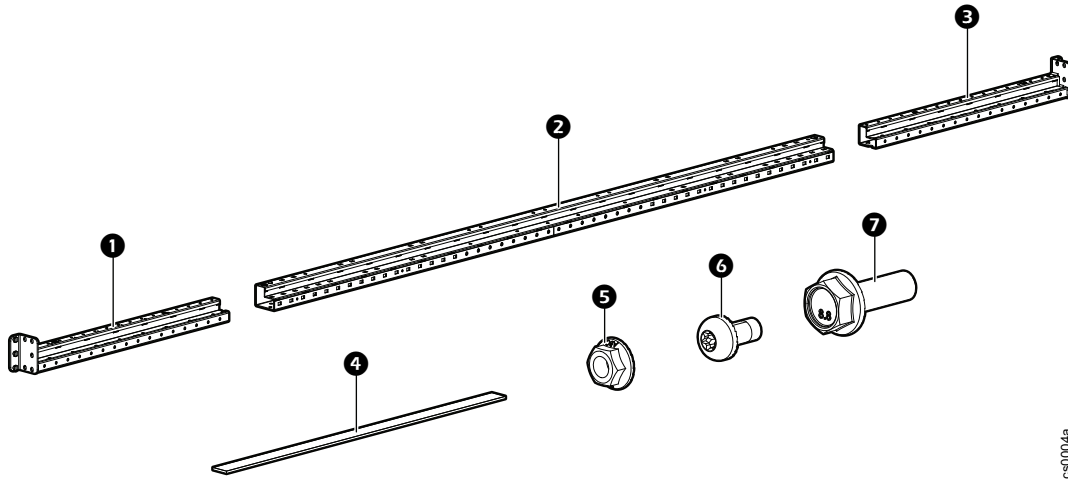


Item	Description	Quantity
1	Width Beam, 1.9 m (6 ft) aisle, FS-FM-2002-B	1
2	Width Beam, 1.2 m (4 ft) aisle, FS-FM-2003-B	1
3	Screw, M8 x 12 T30	8

Length Beam

FS-FM-3001-B - Length Beam Assembly

Aisle length beams are attached to Front/Rear frame assemblies to form the basic frame.



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Item	Description	Quantity
1	Length beam end section	2
2	Length beam center section	2
3	Length beam end section	2
4	Self-adhesive foam seal strip	4
5	M8 hex nut	4
6	Pan head T30 screw, M6 x 12	8
7	Hex head bolt, M8 x 25	4

NOTICE

Aisle length beams are marked to note the 2.4 m (8 ft) and 3.6 m (12 ft) lengths.

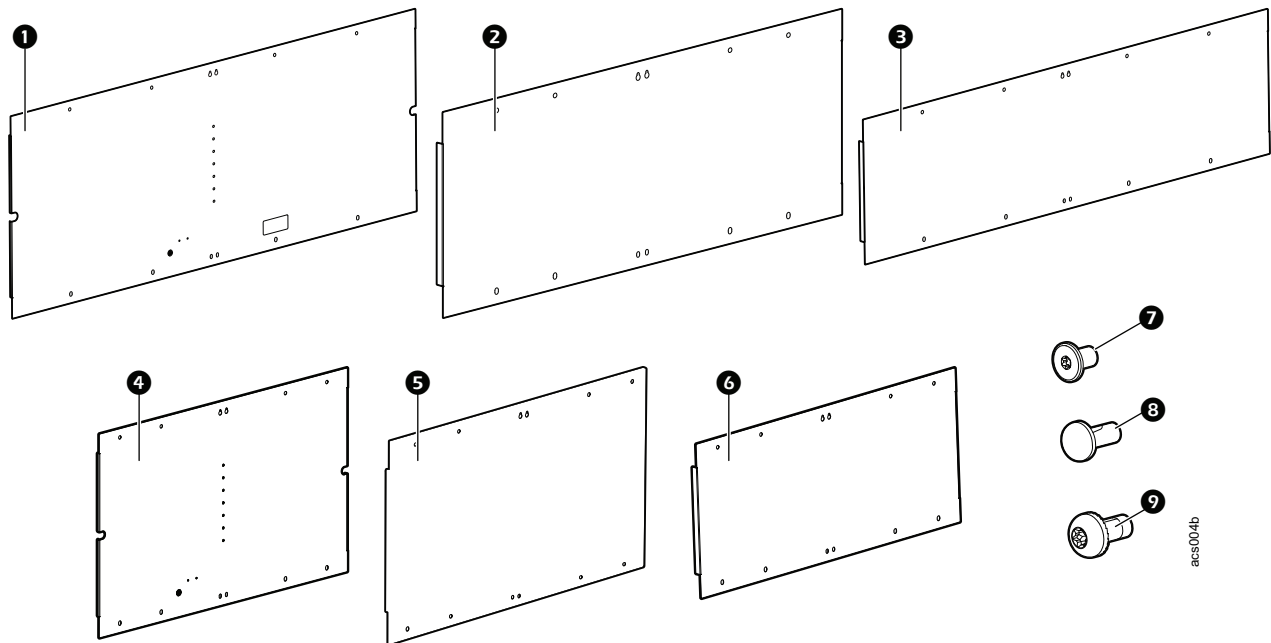
End Cap Panels

FS-FM-4003-B - 1.9 m (6 ft) Aisle End Cap Assembly, Short

FS-FM-4004-B - 1.9 m (6 ft) Aisle End Cap Assembly, Tall

FS-FM-4005-B - 1.2 m (4 ft) Aisle End Cap Assembly, Short

FS-FM-4006-B - 1.2 m (4 ft) Aisle End Cap Assembly, Tall



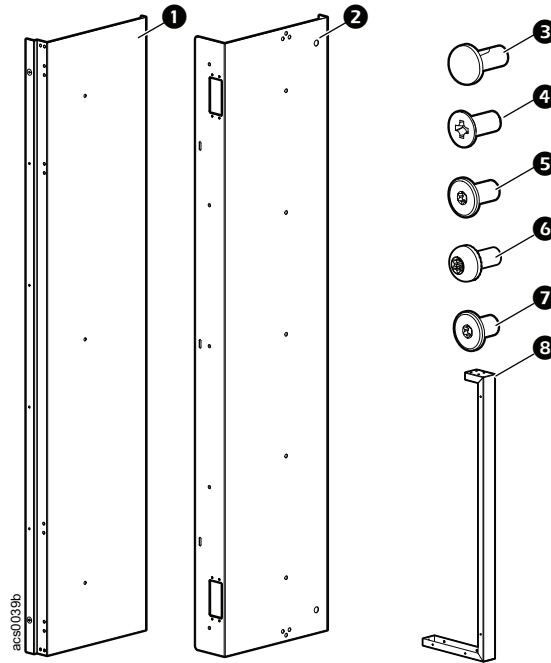
Item	Description	Quantity
Short: FS-FM-4003-B, FS-FM-4005-B		
1	Interior panel, 1.9 m (6 ft), FS-FM-4003-B	1
2	Exterior panel, 1.9 m, (6 ft), FS-FM-4003-B	1
4	Interior panel, 1.2 m (4 ft), FS-FM-4005-B	1
5	Exterior panel, 1.2 m (4 ft), FS-FM-4005-B	1
7	Low head Nylok® T30 screw, M8 x 12	16
8	Hole plug, 5 mm	1
9	Pan head T30 screw, M6 x 12	8
Tall: FS-FM-4004-B, FS-FM-4006-B		
3	End cap panel, 1.9 m (6 ft), FS-FM-4004-B	2
6	End cap panel, 1.2 m (4 ft), FS-FM-4006-B	2
7	Low head Nylok T30 screw, M8 x 12	16
9	Pan head T30 screw, M6 x 12	8

NOTE: For short vertical posts, two short end cap assemblies are required per NetShelter Pod. For tall vertical posts, two tall assemblies and two short assemblies are required per Pod. For example, for a tall NetShelter Pod with a 1.9 m (6 ft) aisle, you need two FS-FM-4003 assemblies, and two FS-FM-4004 assemblies.

Door Frame Assembly

FS-DR-2002-B - 1.9 m (6 ft) Aisle Standard Door Frame

FS-DR-2003-B - 1.2 m (4 ft) Aisle Standard Door Frame

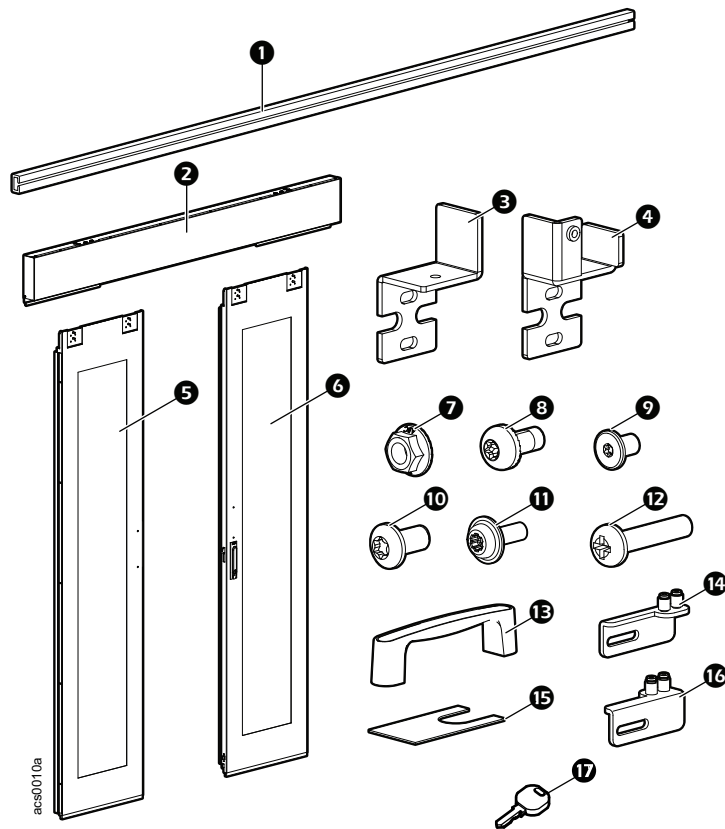


Item	Description	Quantity
1	Door frame front panel	4
2	Door frame rear panel cover	4
3	Hole plug, 5 mm diameter	
	FS-DR-2002-B	25
	FS-DR-2003-B	2
4	M5 x 12 Flat under cut (U cut) flat head Phillips screw	
	FS-DR-2002-B	55
	FS-DR-2003-B	8
5	Low head T30 screw, M8 x 12	33
6	Pan head T30 screw, M6 x 12	16
7	Low head screw, M5 x 10, FS-DR-2002-B	36
8	L Bracket, FS-DR-2002-B	4

Door and Rail Assembly

FS-DR-1001-B - 1.2 m (4 ft) Aisle Door and rail assembly

FS-DR-1003-B - 1.9 m (6 ft) Aisle Door and rail assembly



Item	Description	Quantity
1	Door side brush, 36 x 4 x 1920 mm	2
2	Door hanging rail assembly	1
3	Bracket, Left door to reel	1
4	Bracket, Right door to dumper	1
5	Left door panel	1
6	Right door panel	1
7	Flanged hex nut, M6	9
8	Pan head T30 screw, M6 x 12	5
9	Low head T30 screw, M8 x 12	5
10	Button head TORX screw, M4 x 8	10
11	Flanged TORX screw, M3 x 8	10
12	Pan head #2 Phillips screw, M5 x 25	5
13	Outside door handle	2
14	Left door bottom rail	1
15	Door leveling shim 42 x 30 x 0.6 mm	4
16	Right door bottom rail	1
17	Key	1

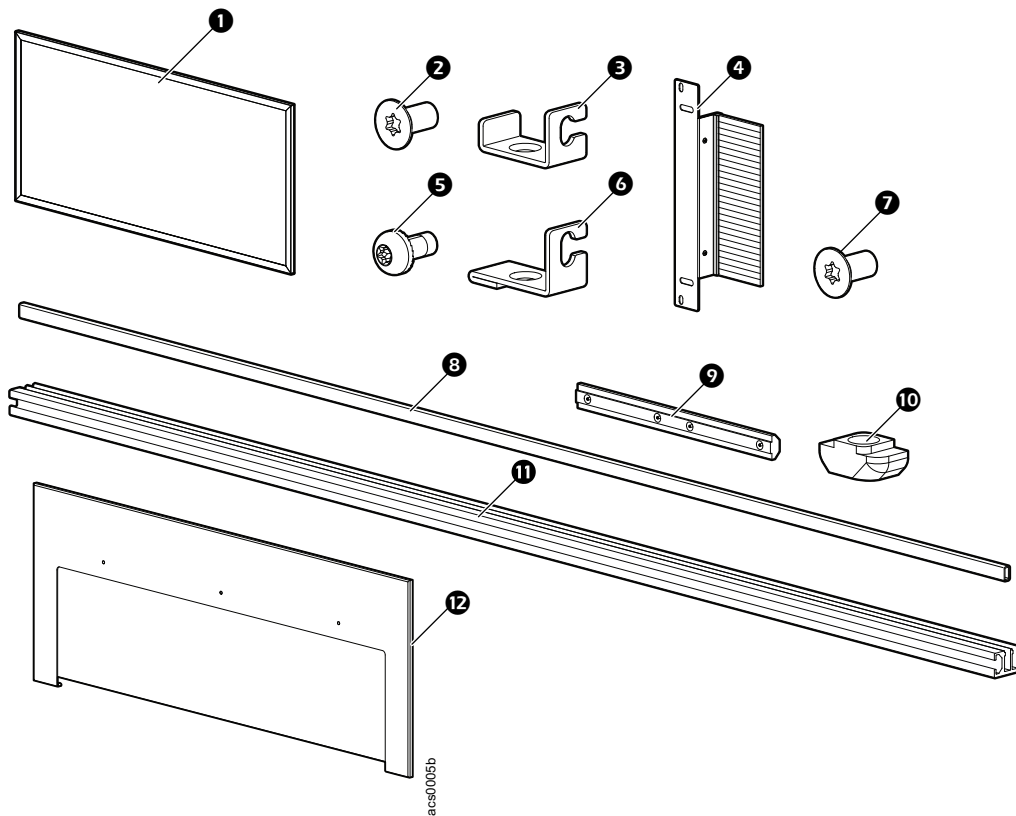
Windows, Rails, and Side Brushes

FS-WI-1001-U - Window Panel 305 mm (2 ft)

FS-WI-1002-B - Window Rail Assembly

FS-WI-1003-B - Window Frame Brush Strips

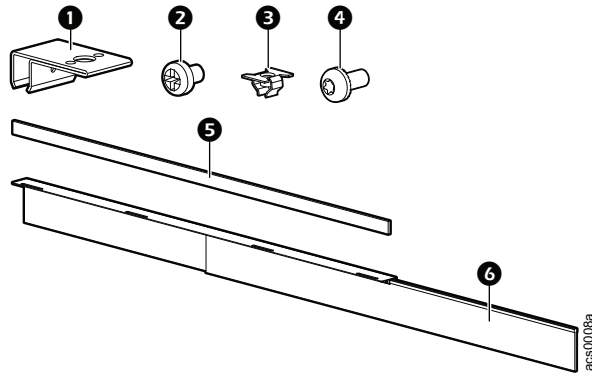
FS-WI-1004-U - Window Brush Strip Pass-through



Item	Description	Quantity
①	Ribbed 5 mm Lexan window, FS-WI-1001-U	2
②	Flat head T30 screw, M6 x 12, FS-WI-1002-B	18
③	Short rail bracket, FS-WI-1002-B	17
④	Side brush strip, FS-WI-1003-B	4
⑤	Pan head T30 screw, M6 x 10, FS-WI-1002-B	26
⑥	Long rail bracket, FS-WI-1002-B	9
⑦	Pan head T30 screw, M6 x 12, FS-WI-1003-B	8
⑧	Window rail block, FS-WI-1002-B	12
⑨	Connector with four M6 set screws, FS-WI-1002-B	8
⑩	Steel hammer head nut, M6, FS-WI-1002-B	26
⑪	Window rail, FS-WI-1002-B	12
⑫	Window Brush Strip Pass-through, FS-WI-1004-U	2

Row Length Brush Strip

FS-AC-2001-U



Item	Description	Quantity
①	Clip for brush	8
②	Pan head Phillips screw, M3 x 4	8
③	Insert nut, M6	5
④	Pan head T30 screw, M6 x 16	17
⑤	Self-adhesive foam seal strip	4
⑥	Brush strip	4

Roof Panel Assembly

FS-RF-2004-U - 1.9 m (6 ft) Aisle Simple Roof Panel, 300 mm (12 in.)

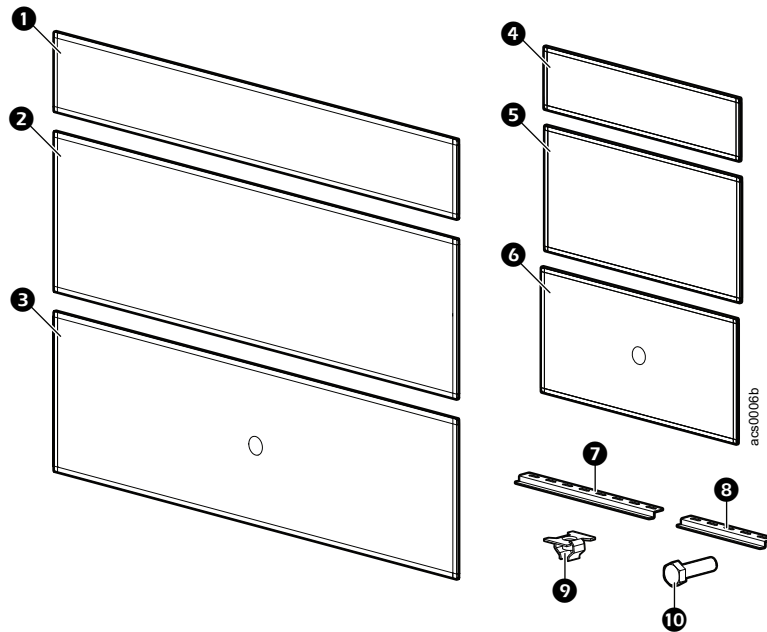
FS-RF-2005-U - 1.9 m (6 ft) Aisle Simple Roof Panel, 600 mm (23.6 in.)

FS-RF-2006-U - 1.9 m (6 ft) Aisle Simple Roof Panel for Sprinkler Option, 600 mm (23.6 in.)

FS-RF-2007-U - 1.2 m (4 ft) Aisle Simple Roof Panel, 300 mm (12 in.)

FS-RF-2008-U - 1.2 m (4 ft) Aisle Simple Roof Panel, 600 mm (23.6 in.)

FS-RF-2009-U - 1.2 m (4 ft) Aisle Simple Roof Panel for Sprinkler Option, 600 mm (23.6 in.)

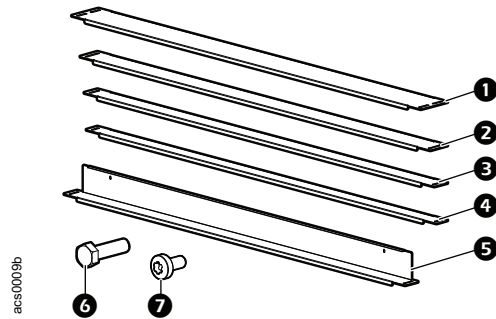


Item	Description	Quantity
1	Roof panel 300 mm (12 in.), FS-RF-2004-U	1
2	Roof panel 600 mm (23.6 in.), FS-RF-2005-U	1
3	Roof panel for sprinkler option, FS-RF-2006-U	1
4	Roof panel 300 mm (12 in.), FS-RF-2007-U	1
5	Roof panel 600 mm (23.6 in.), FS-RF-2008-U	1
6	Roof panel for sprinkler option, FS-RF-2009-U	1
7	Long roof panel bracket FS-RF-2005-U, FS-RF-2006-U, FS-RF-2008-U, FS-RF-2009-U	2
8	Short roof panel bracket, FS-RF-2004-U, FS-RF-2007-U	2
9	Insert nut, M6, all assemblies	4
10	Hex head screw, M6-1 x 16, all assemblies	4

Solid Roof Filler Panel Set

FS-RF-1002-B - 1.9 m (6 ft) Aisle

FS-RF-1003-B - 1.2 m (4 ft) Aisle

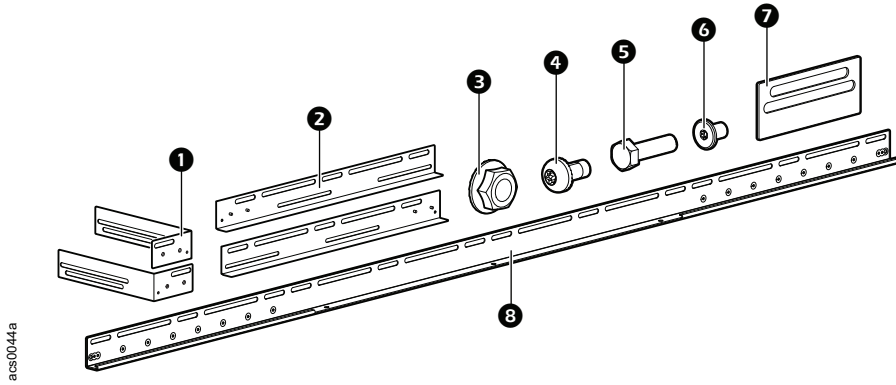


Item	Description	Quantity
1	Solid roof panel, 100 mm	1
2	Solid roof panel, 60 mm	1
3	Solid roof panel, 50 mm	2
4	Solid roof panel, 40 mm	1
5	Solid roof panel (drop) 50 mm, FS-RF-1003-B*	1
6	Hex head screw, M6-1 x 16 mm FS-RF-1002-B FS-RF-1003-B	10 12
7	Pan head TORX screw, M4 x 8, FS-RF-1003-B*	2

*Used for the drop roof option.

Stop Rail

FS-FM-5001-B - Stop Rail Assembly



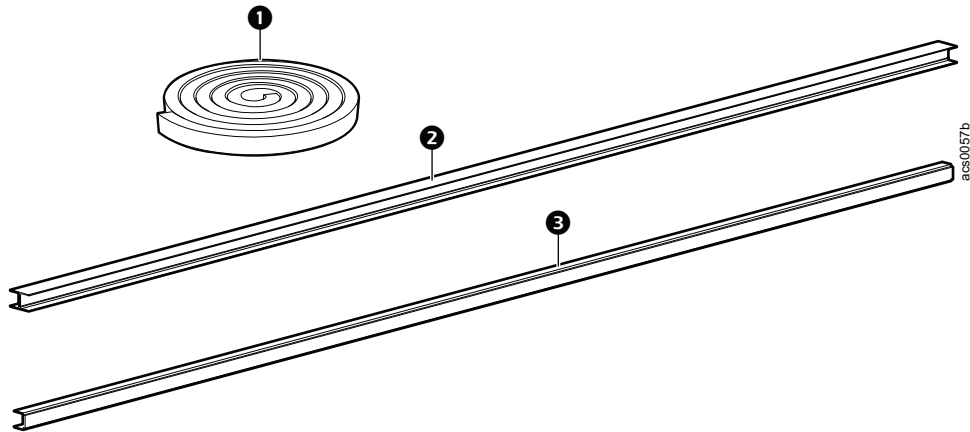
Item	Description	Quantity
①	End rails	4
②	Inner rail plates	4
③	Serrated nut, M8	8
④	Pan head T30 screw, M6 x 10	8
⑤	Hex head screw, M8 x 20	9
⑥	Low head T30 screw, M8 x 12	9
⑦	Mylar electrical isolation plate	4
⑧	Stop rail middle plate	2

Air Seals

FS-AC-1001-U - Air Sealing Kit

FS-AC-1002-U - H Seal for Blanking Panels

FS-AC-1003-U - C Seal for Blanking Panels and Vertical Posts



Item	Description	Quantity
①	Self adhesive foam seal, 10 mm x 10 mm	12 m
②	H seal, FS-AC-1002-U	1
③	C seal, FS-AC-1003-U	1

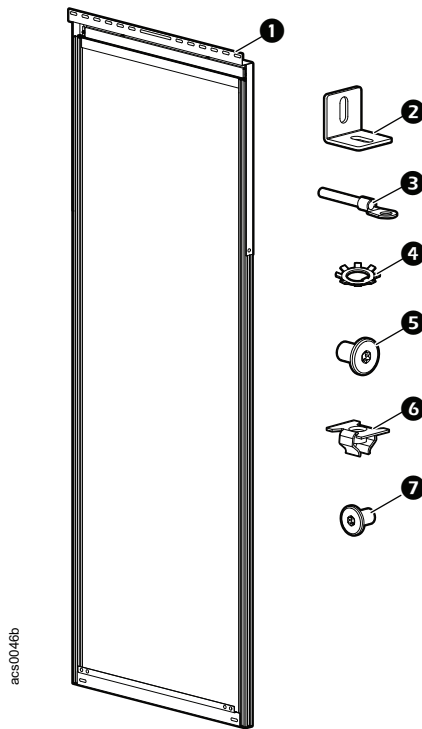
Blanking Panels

FS-AC-5005-B - 300 mm (12 in.)

FS-AC-5006-B - 600 mm (23.6 in.)

FS-AC-5007-B - 750 mm (29.5 in.)

FS-AC-5008-B - 800 mm (31.5 in.)



Item	Description	Quantity
1	Blanking panel, 42–52 U (300 mm, 600 mm, 750 mm, 800 mm)	1
2	Angle corner bracket	2
3	Ground wire, 4 in.	2
4	Serrated lock washer, M6	2
5	Pan head T30 screw, M6 x 16	3
6	Insert nut, M6	3
7	Low head Nylok T30 screw, M8 x 12	3

Installation Procedure Overview

Safety

Read and follow these safety instructions.

⚠ WARNING
TOOL USAGE HAZARD Follow safety standards for all hand tools and power tools used. Read and follow the tool manufacturer's instructions. Follow the tool manufacturer's recommendations and recognized safety requirements for use of Personal Protection Equipment (PPE). Failure to follow these instructions can result in death, serious injury, or equipment damage.

⚠ WARNING
HEAVY EQUIPMENT HAZARD Raised-floor stands are required if the combined weight of the NetShelter Pod Containment system and all installed equipment will exceed the structural capacity of your raised-floor system. Failure to follow these instructions can result in death, serious injury, or equipment damage.

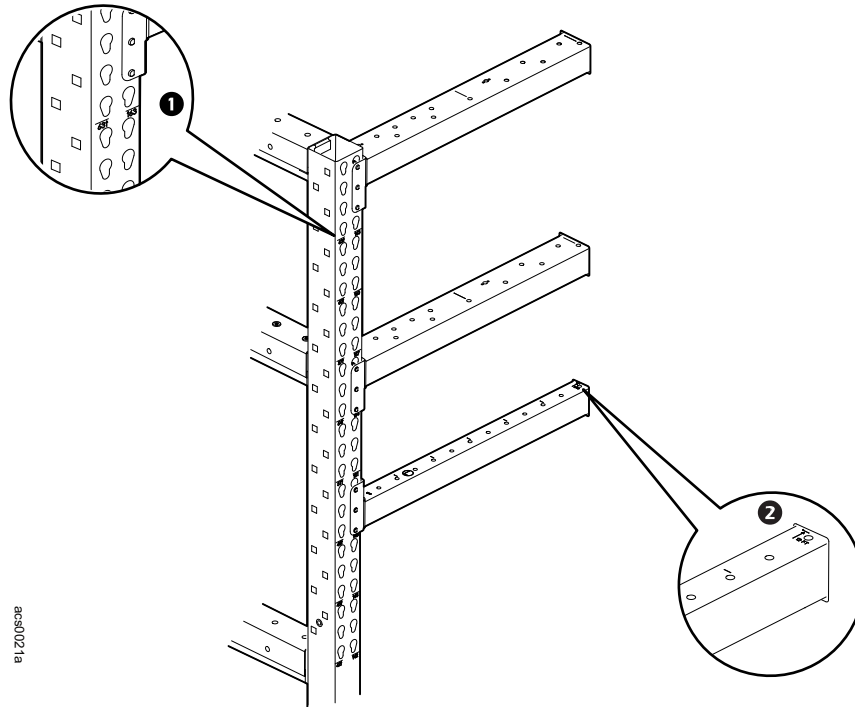
⚠ CAUTION
WORKING HEIGHT HAZARD The working height for the assembly process can exceed 2.3 m (7.5 ft). The use of stepladders or scaffolding will be required during assembly. Failure to follow these instructions can result in serious injury or equipment damage.

⚠ CAUTION
LIFTING HAZARD At least two (2) people are required to install this enclosure. Some parts may be heavy and/or excessive in size. For items weighing more than 12 kg (25 lbs), use more than one person. Failure to follow these instructions can result in serious injury or equipment damage.

⚠ CAUTION
NO STEP HAZARD Ceiling panels are not designed to support weight. Never lean or walk on the ceiling panels. DO NOT use ceiling panels to support power or data cables. Failure to follow these instructions can result serious injury or equipment damage.

Customizing the Installation

Installation locations for width beams and length beams



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NOTICE

- Vertical posts are marked with height notation (❶). (The tall vertical post is shown in the illustration above.)
- If 48 U or shorter racks are deployed in the tall NetShelter Pod, six (6) length beams are required. If racks are taller than 48 U, use 4 length beams.
- Tall NetShelter Pod frames support racks up to 52 U.
- Telescoping rails are marked to note 2.4 m (8 ft) and 3.6 m (12 ft) lengths (❷).

Select the height of the length beams based on the height of the racks to be installed or your roof and ducting needs. Determine these requirements prior to assembly of the frame. Once the location of the lower length beam has been established, the (next) upper beam must be placed at the correct height to allow for installation of the windows.

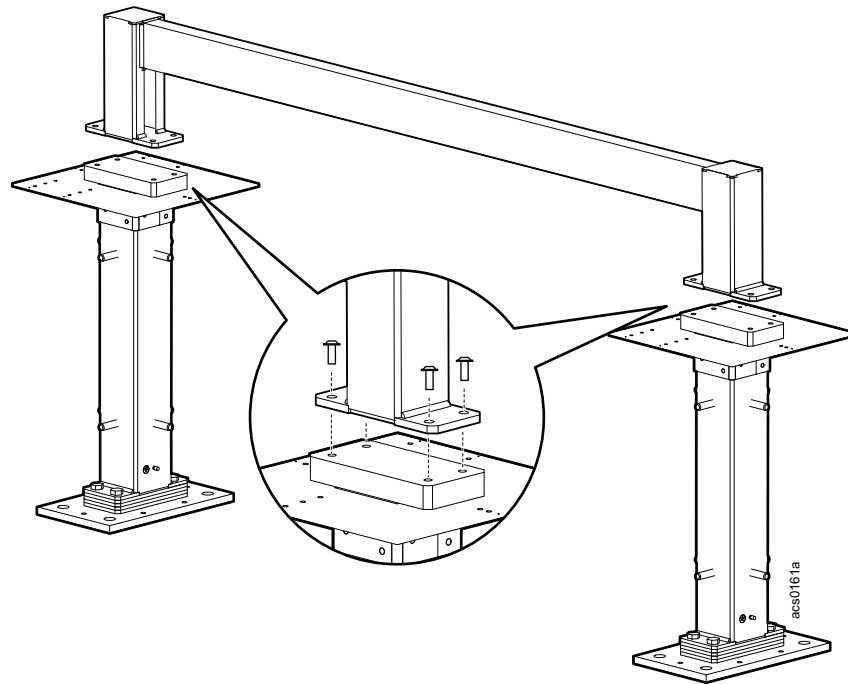
Basic Frame Assembly

Floor stands

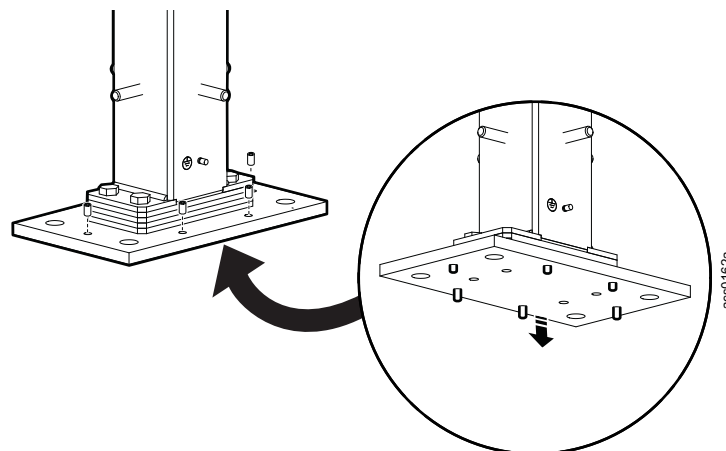
Use the floor stands for raised-floor configurations. For the regular floor option, see “Secure the frame to the floor” on page 38.

Configure the first two (2) floor stands.

1. Remove tiles (and pedestals, if necessary) from the raised floor in the proposed locations for two (2) floor stands. Leave any stringers intact. If you remove any pedestals, save the fasteners.
2. Attach two (2) floor stands to the alignment tool with the provided button head cap screws, and place the floor stands in the desired locations.



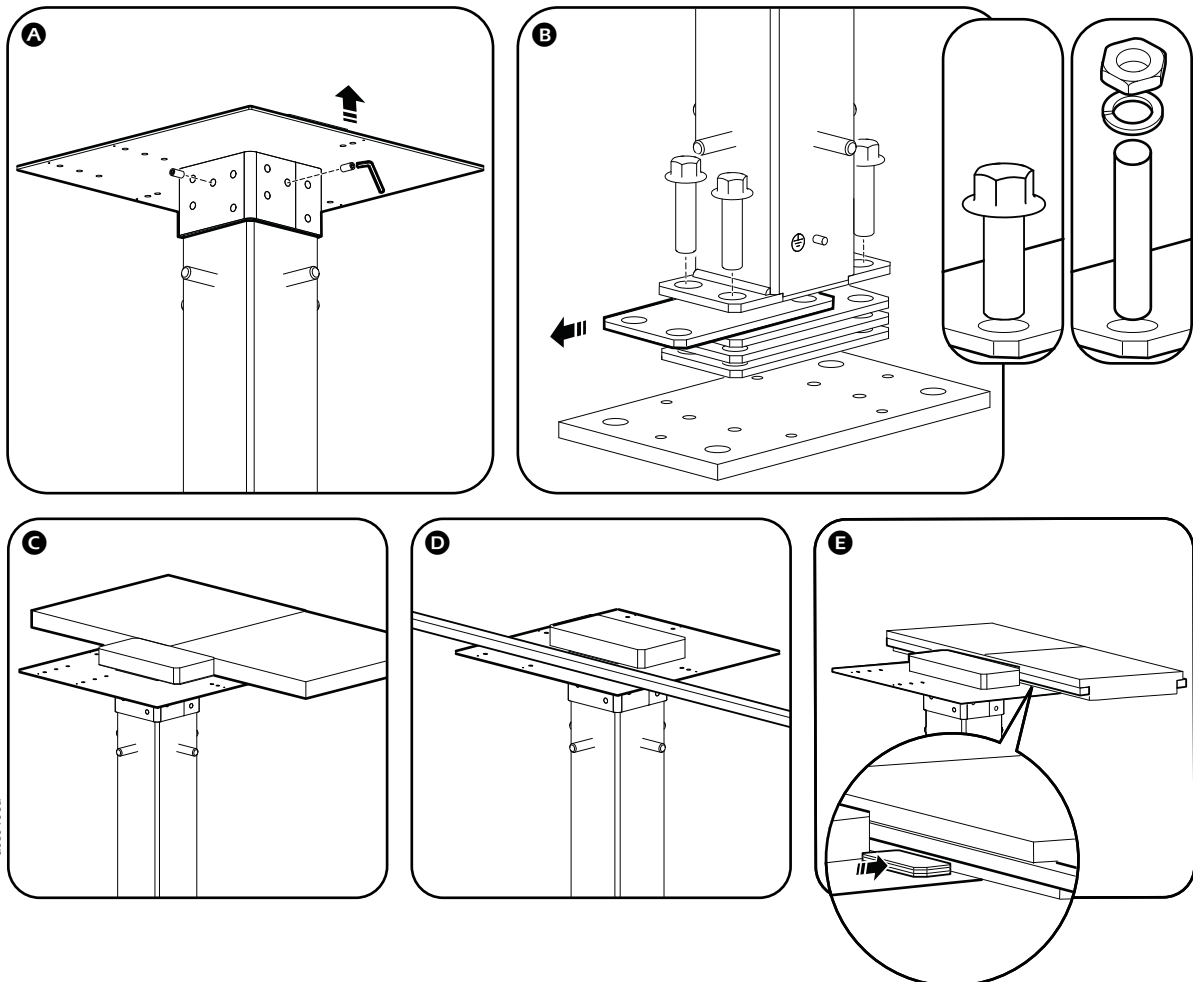
3. If the floor is not even or horizontally level, use the provided M10 x 1.5 set cap screws and a 4 mm hex wrench to ensure that the floor stand is horizontally level.



4. Secure the floor stands to the floor according to local and national standards. (The holes in the base of the floor stand will accommodate 20 mm fasteners). Remove the alignment tool.
5. Adjust the height of the control plates: use a 4 mm hex wrench to loosen and tighten the set screws (A).

NOTE: If the height of the floor stand is too tall for your raised-floor system, remove the bottom shims (B). If the combined depth of the shims and vertical post foot is 25 mm (1 in.) or less, use the 20 or 25 mm M12 x 1.75 25 flanged hex head screws to secure the shims. If the combined depth of the shims and vertical post foot is 40 mm (1.6 in.) or more, use the 100 mm M12 rods, nuts, and spring rings to secure the shims.

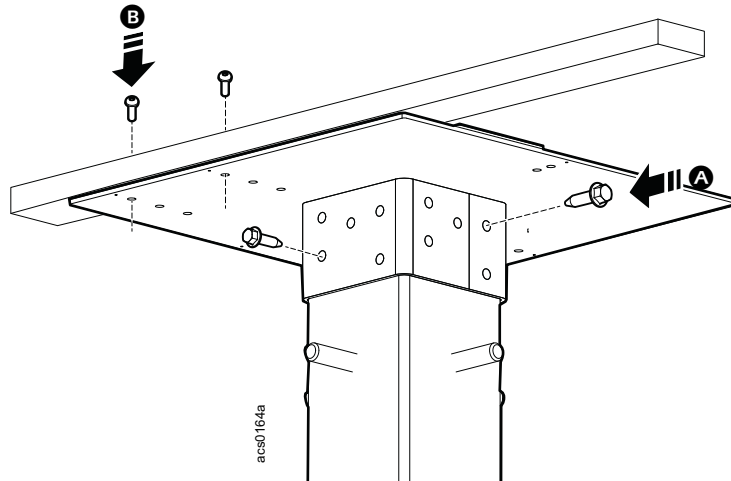
- If no stringers are present, adjust the height of the control plates so that they rest against the bottom of the raised-floor tiles (C).
- If stringers are present, adjust the height of the control plates so that they rest against the bottom of the stringers (D).
- If stringers are present, but the floor tiles are thicker than the stringers, adjust the height of the control plates so that they rest against the bottom of the tiles. Place shims (not provided) between the stringers and the control plate so that the control plate supports the stringers (E).



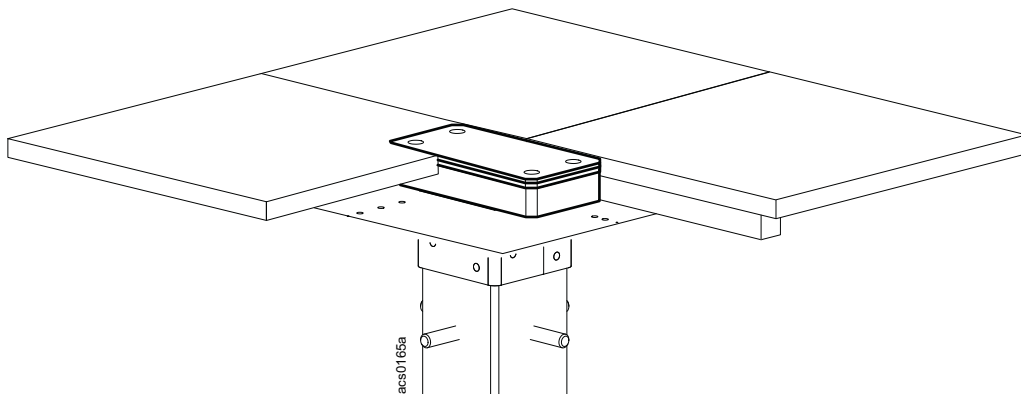
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6. Insert one 22-mm, self-drilling, flanged hex head screw on each side of the control plate collar (A).
7. Attach the control plate to each stringer with one or two (2) screws (B).

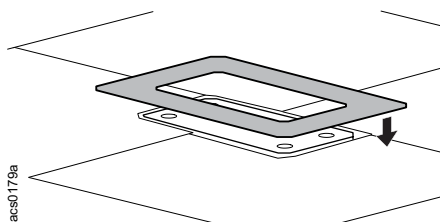
NOTE: Tighten the screws so that the heads are countersunk into the stringer, but the stringer is not deformed.



8. Measure and cut the appropriate floor tiles so that the riser block can pass through them. Replace the tile(s). If the riser block is lower than the tiles, place the provided shims on top of the riser block until the top shim is flush with the surface of the tiles.

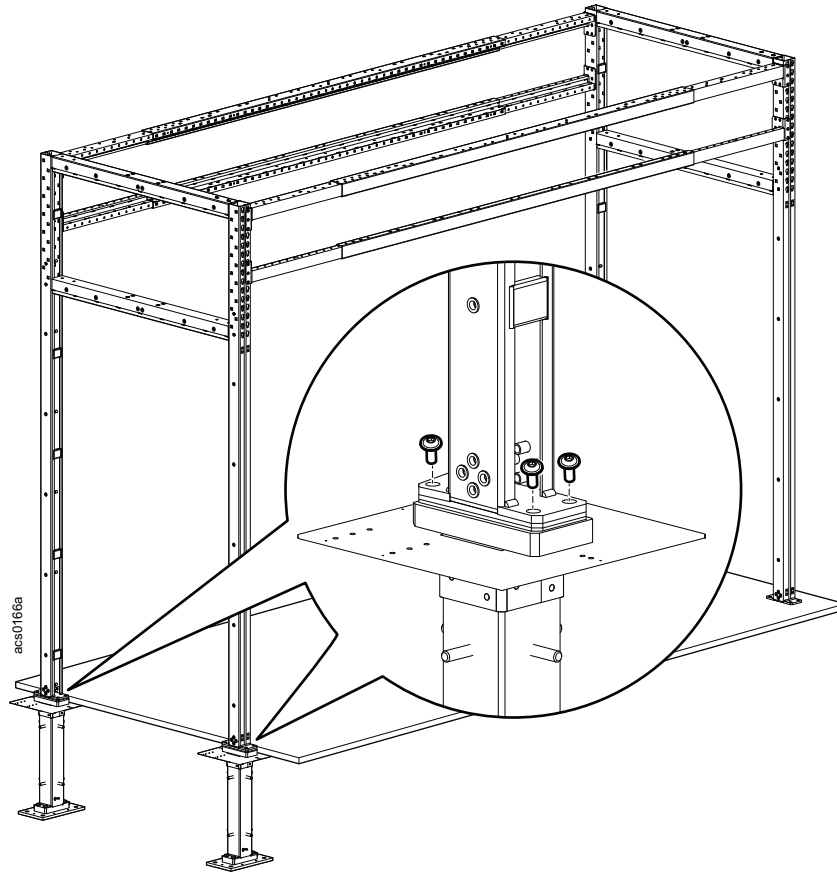


9. If needed, place adhesive floor covers over any gaps between the floor tiles and the floor stand.

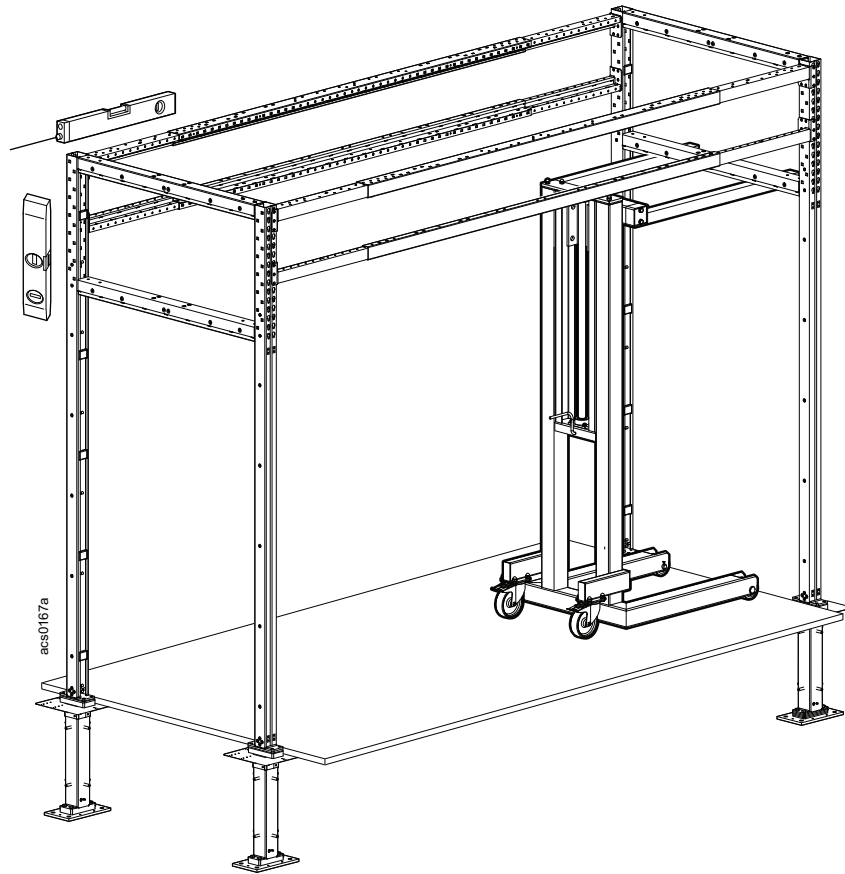


Configure subsequent floor stands.

1. Follow the instructions to configure the basic NetShelter Pod frame (see “Frame end configuration” on page 34 and “Length beam assembly” on page 35). Construct the frame as close to the first set of floor stands as possible.
2. Secure two (2) vertical posts to the installed floor stands with 30 mm, M10 x 1.5 button head-cap screws.



3. Use a lift, or a rolling scaffold and a jack stand, to support the frame end that is not secured to the floor stands.



4. Configure a second set of floor stands. Follow the procedure to “Configure the first two (2) floor stands” on page 29 with one exception: use the NetShelter Pod frame (instead of the alignment tool) to determine placement for the second set of floor stands.
5. Check the frame and floor stands for proper alignment. Then secure the floor stands to the floor according to local and national standards.
6. Secure the vertical posts to the floor stands with the 30 mm, M10 x 1.5 button head cap screws.

Alternate method for floor stand configuration.

1. Follow the instructions to configure the basic NetShelter Pod frame (see “Frame end configuration” on page 34 and “Length beam assembly” on page 35). Ensure the frame is level, plumb, and in the correct location. Use tape or a pencil to mark the floor tiles around the vertical post feet (these markings can be used to cut the tiles).
2. Use a lift, or a rolling scaffold and a jack stand, to support one frame end (see “Configure subsequent floor stands” , step 3 for an illustration).
3. Follow the procedure to “Configure the first two (2) floor stands” on page 29 with one exception: use the NetShelter Pod frame (instead of the alignment tool) to determine placement for the floor stands.
4. Repeat steps 2 and 3 at the other end of the NetShelter Pod frame.

Frame end configuration

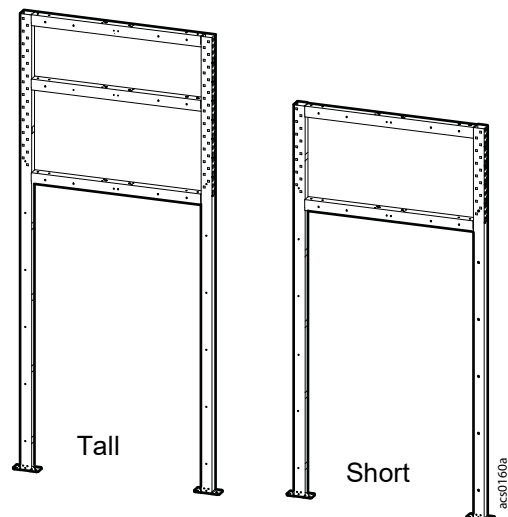
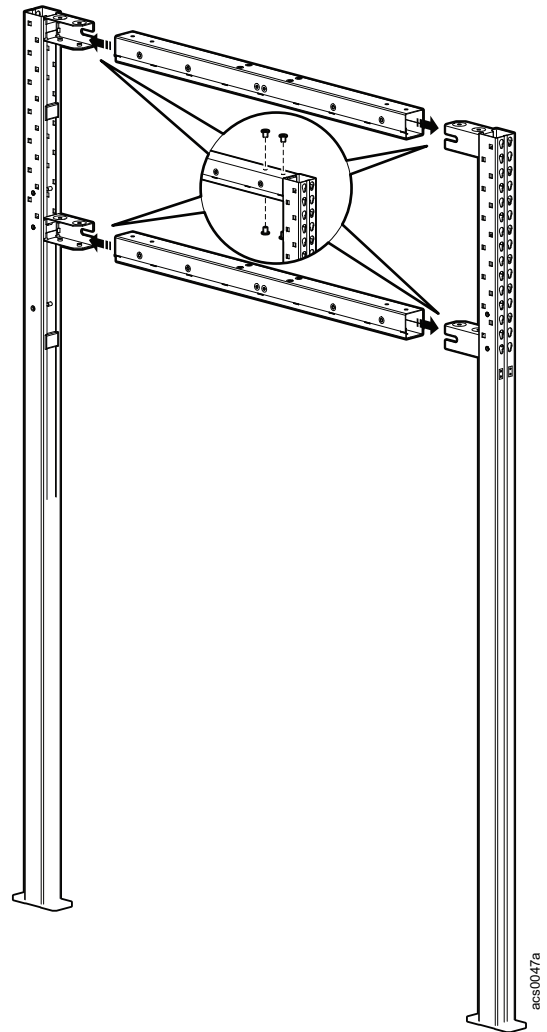
Assemble vertical posts to width beams (2 width beams for the Short NetShelter Pod, 3 width beams for the Tall NetShelter Pod) using the M8 x 12 T30 screws provided.

NOTICE

Hole plugs are included with this assembly. It is recommended to wait until the accessories are installed before installing the hole plugs.

Assemble a second set of vertical posts and width beams.

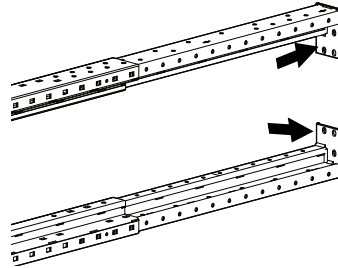
NOTE: If needed, the temporary frame support can be installed to the assembly at this time. See "Temporary frame support" on page 37 for more information.



Length beam assembly

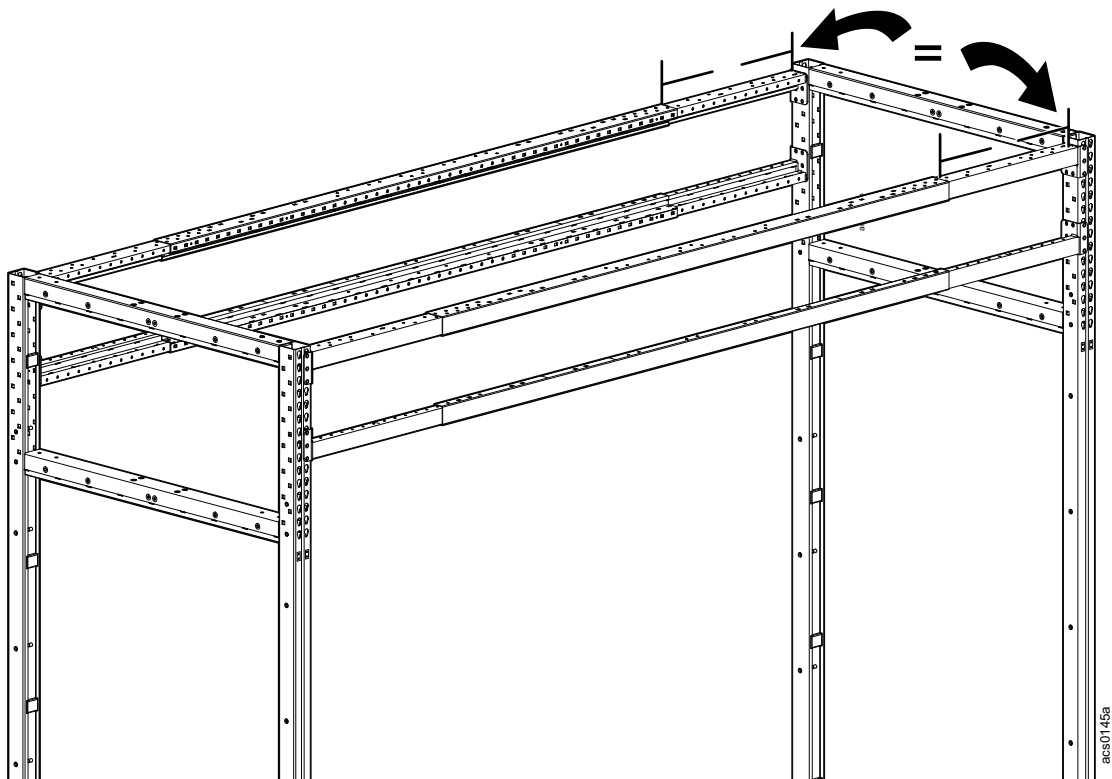
Install the telescoping horizontal beams to the vertical post assemblies.

1. Assemble the beam by sliding the end sections into the main beam. Make sure the bracket on the end is in the correct position for attaching to the vertical post.



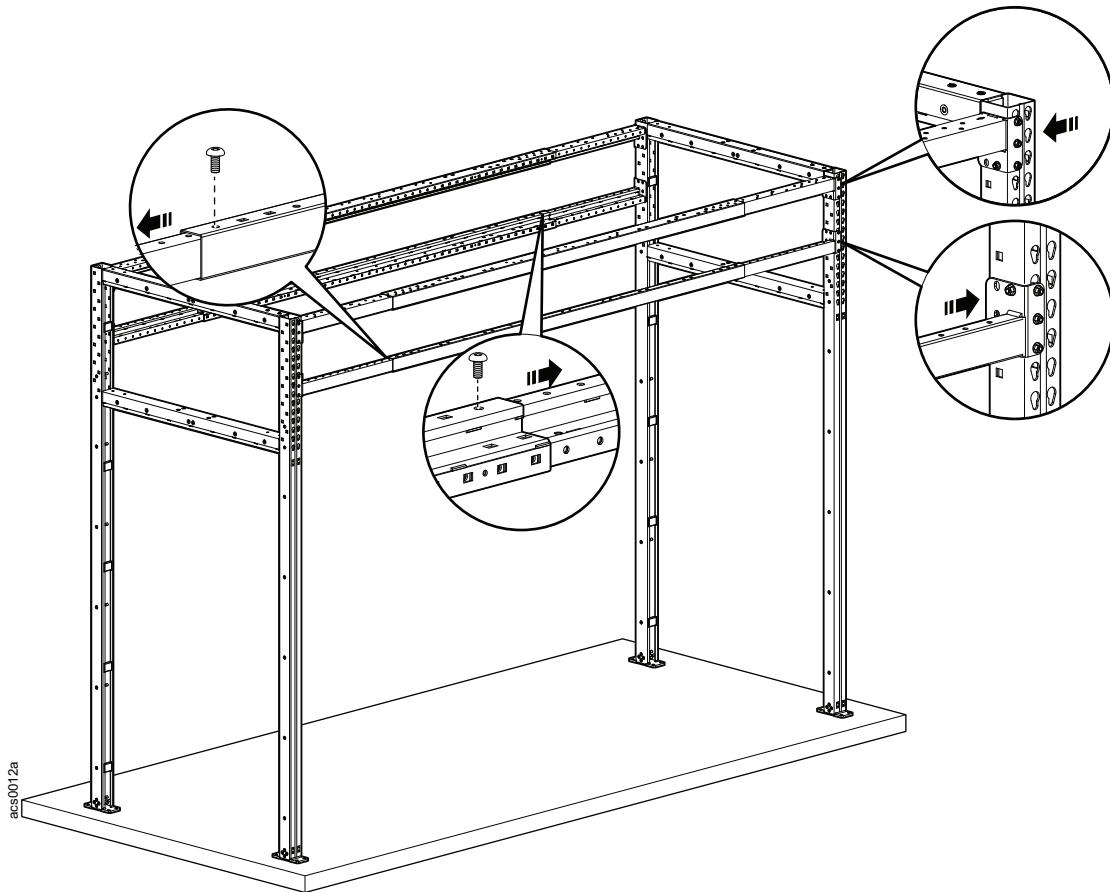
2. Slide the length beam to the desired length. The beam is marked at the 2.4 m (8 ft) and 3.6 m (12 ft) lengths. If the length of your NetShelter Pod will be more than 2.4 m (8 ft) but less than 3.6 m (12 ft), measure and mark the length beams so they can be secured at the appropriate length.

NOTE: The left and right end inserts of the length beam can each be extended to add 600 mm (2 ft). When both end inserts are fully extended, the total length of the length beam is 3.6 m (12 ft). When setting up the length beams to the calculated length of the aisle needed in your NetShelter Pod, make sure that the inserts on both ends of each length beam are extended the same length. For example, if the left end insert is extended by 50 mm (2 in.), then the right end insert should also be extended by 50 mm (2 in.).

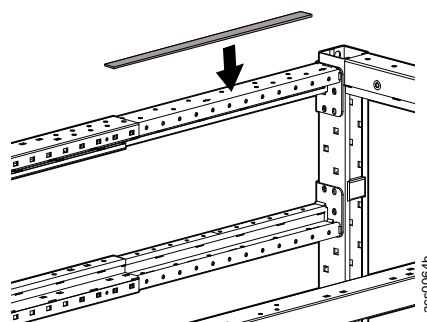


3. Secure the small beam ends in place with M6 x 12 pan head T30 screws.
4. Secure the length beams to the vertical posts with four (4) provided M8 x 25 hex head bolts and M8 nuts.

Place the lower length beam in a position that will allow you to install your tallest rack. Place the upper beams 3 U above the lower beam to provide space for the window assembly.

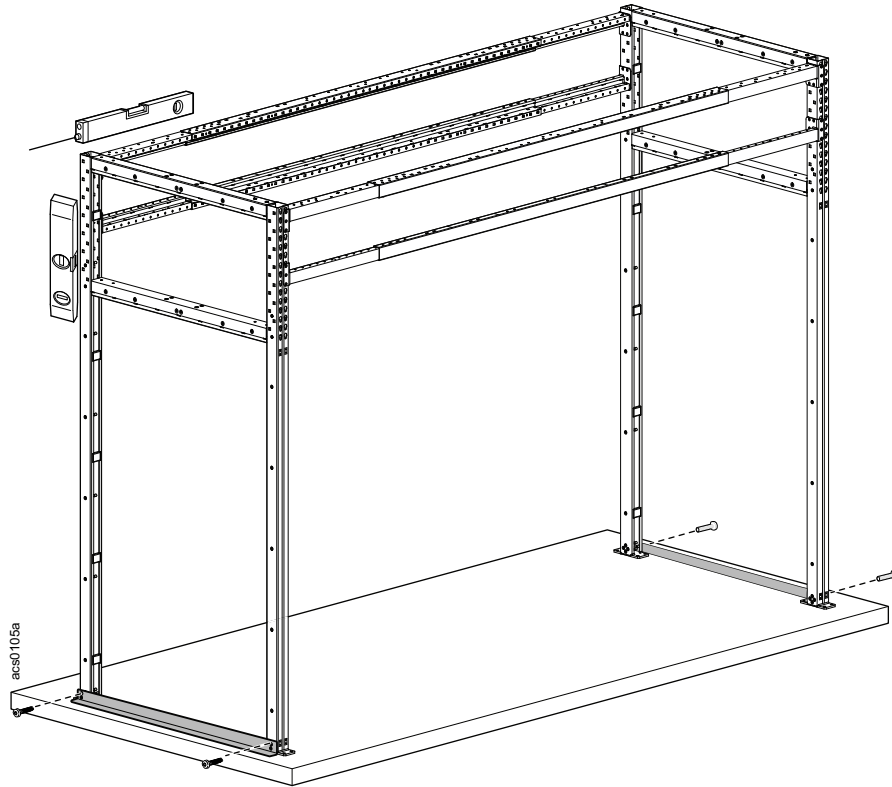


5. The end inserts of the length beam are smaller than the main portion of the beam. Apply the self-adhesive foam seal to the gap on the extensions of the length beam to fill the space.



Temporary frame support

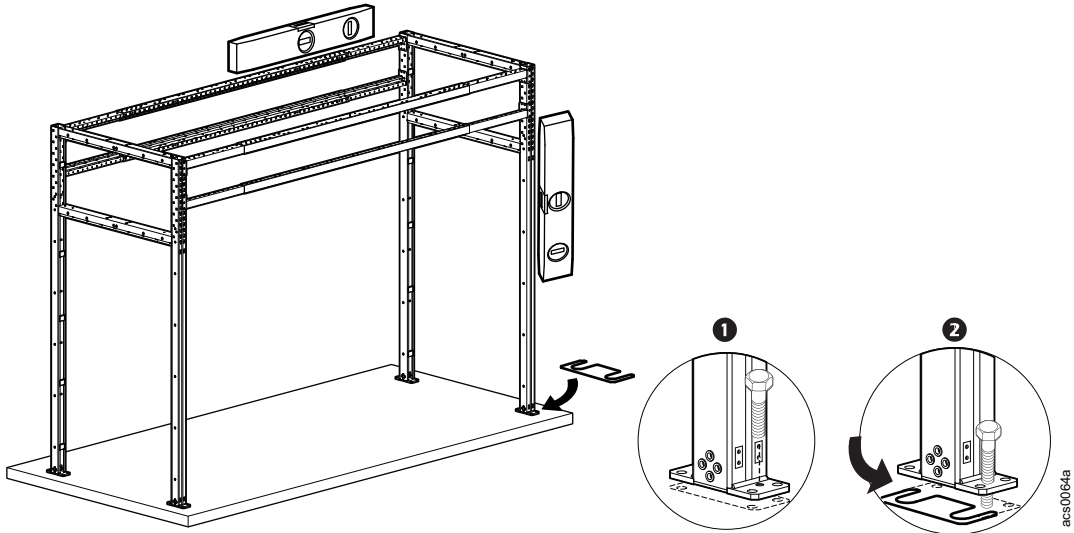
If you are not going to secure the frame to the floor at this time, attach the temporary support to the feet of the vertical posts with four M8 x 12 T30 screws per post to stabilize the frame while making sure the frame is level and plumb. The temporary frame support helps maintain the placement of the NetShelter Pod Containment System during assembly.



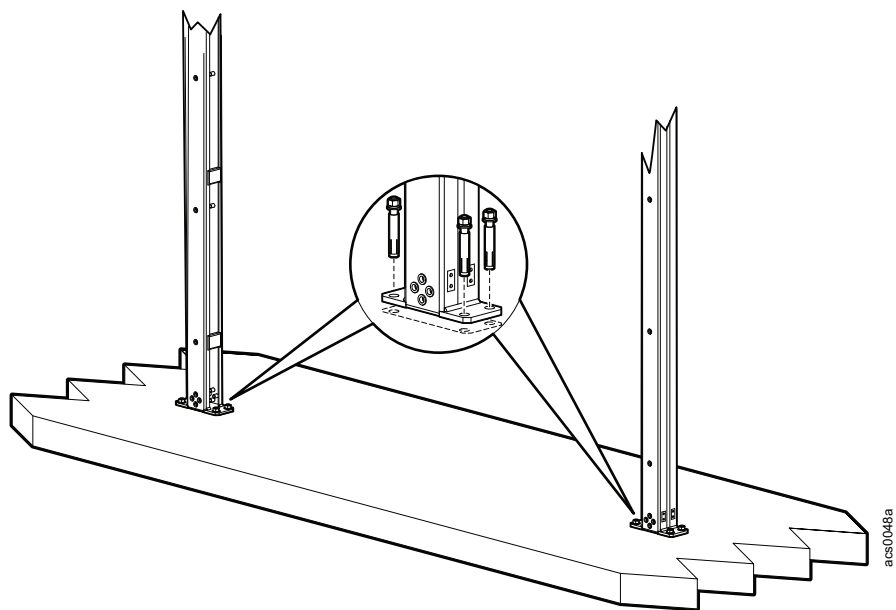
Secure the frame to the floor

This procedure is for the regular floor option. If you have a raised floor, see “Configure the first two (2) floor stands” on page 29.

1. To prepare to secure the frame to the floor, adjust the frame until level and plumb. Use the supplied shims as necessary. Use threaded screws (not provided) to raise the vertical post foot plate from the floor.



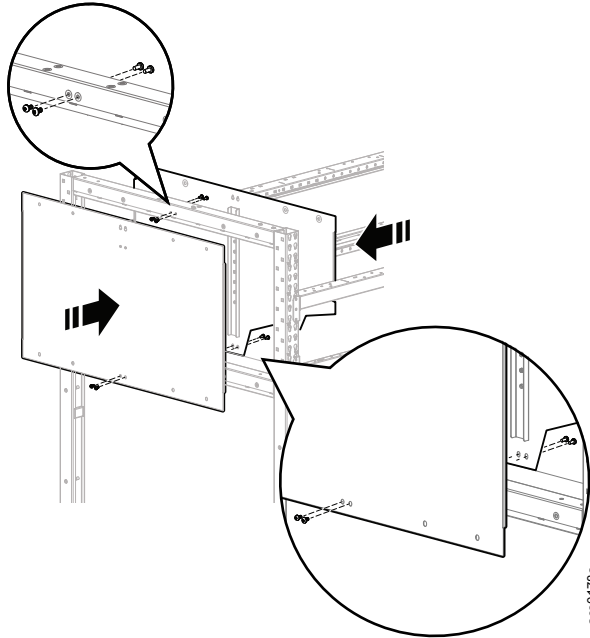
2. Attach the vertical posts at one end to the floor. Do not attach both ends of the frame to the floor until length is checked to accommodate the intended equipment and the frame is level and plumb.



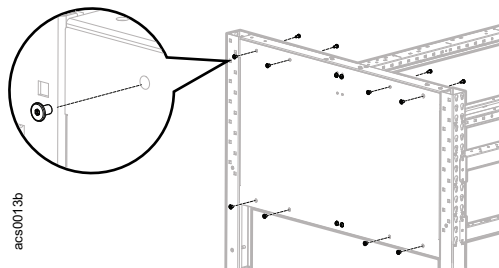
End caps

Install the end caps (exterior and interior panels) above the door area on the vertical posts.

Loosely mount four (4) M6 x 12 pan head T30 screws on both sides of the topmost width beam, then hang the interior and exterior end cap panels from the screws. Install four (4) more M6 x 12 pan head T30 screws at the bottom of the panels.



Use eight (8) M8 x 12 low head Nylok T30 screws to secure the inner and exterior panels. Then tighten the M6 x 12 pan head T30 screws.



NOTICE

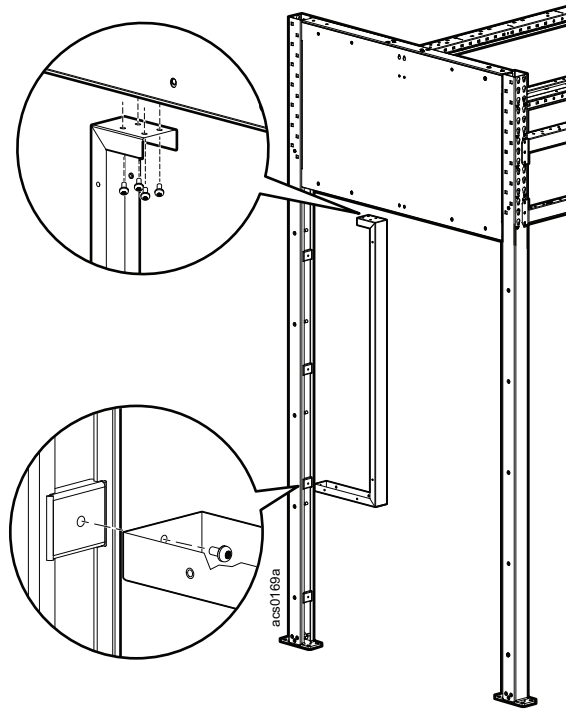
Hole plugs are included with this assembly. It is recommended to wait until the accessories are installed before installing the hole plugs.

Door frames

NOTICE

Vertical posts must be secured to the floor before installing the door frames. The door frames enclose the vertical posts, prohibiting access.

1. If you have a 1.9 m (6 ft) aisle, secure the L bracket to the frame with M6 x 12 pan head T30 screws.

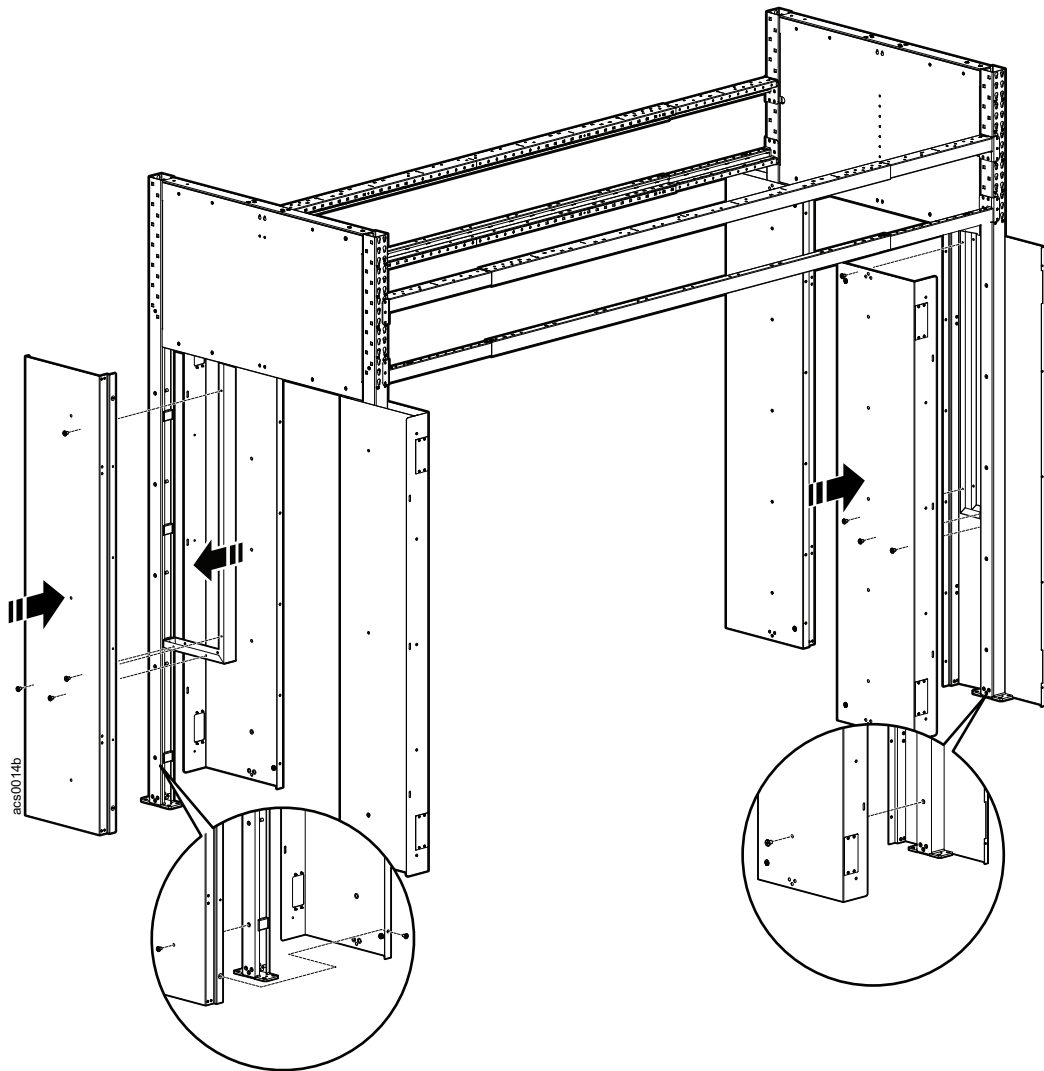


2. Place the front and back panels together around the vertical support post.
3. Secure the back panel to the vertical support post with the M8 x 12 T30 screws. For a 1.9 m (6 ft) aisle, also secure the back panel to the L bracket with four M5 x 10 low head screws.

- Secure the front panel to the back panel and vertical posts with the M8 x 12 T30 screws and M5 x 12 flat U cut flat head Phillips screws. For a 1.9 m (6 ft) aisle, also secure the front panel to the L bracket with four M5 x 10 low head screws.

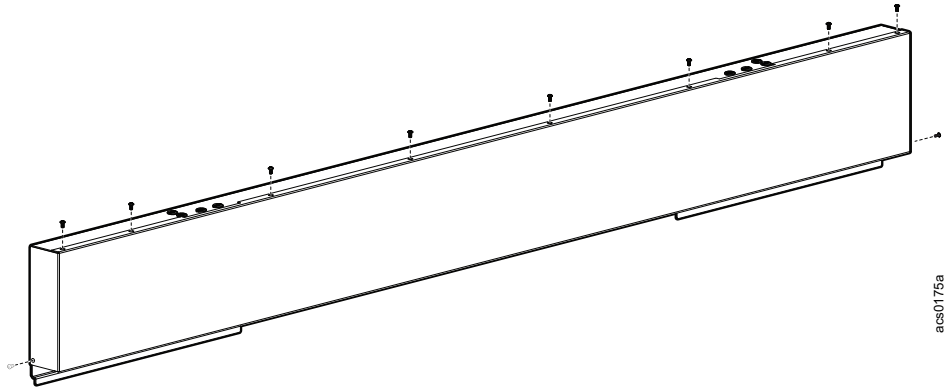
NOTICE

Hole plugs are included with this assembly. It is recommended that you install all accessories before installing the hole plugs.

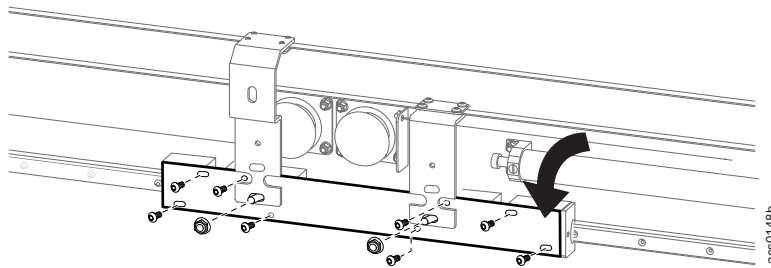


Doors

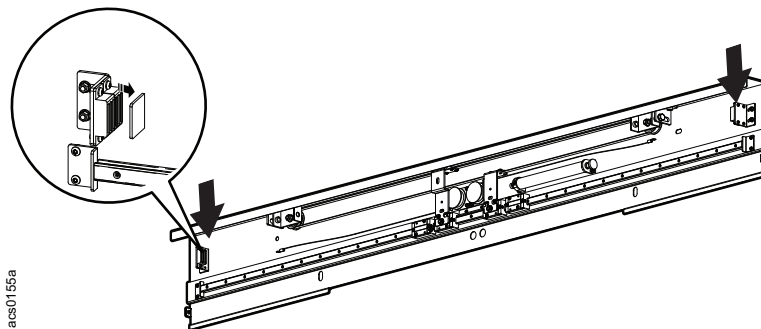
1. Remove the cover of the door hanging rail assembly. Save the cover and ten (10) M4 x 8 mm button head TORX screws.



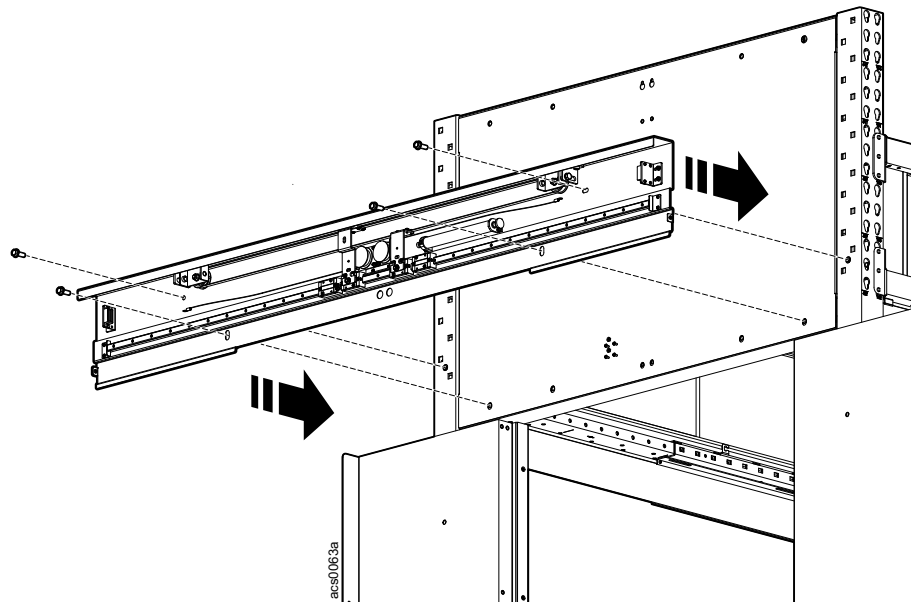
2. Remove the eight (8) M4 x 8 mm button head TORX screws and two (2) M6 hex nuts securing the shipping bracket. Discard the shipping bracket,



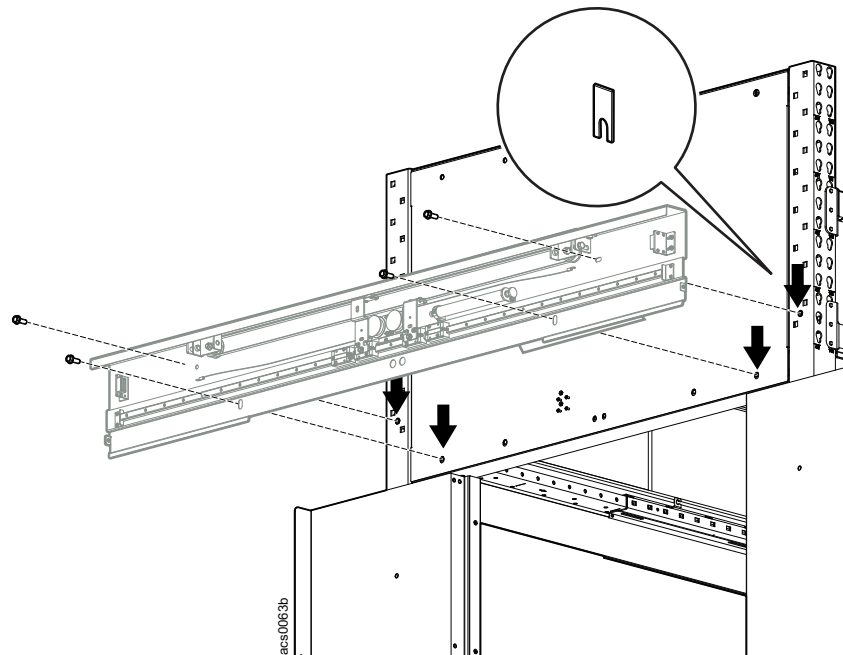
3. Remove the metal cover plate on the magnets.



4. Attach the door hanging case to the frame above the top of the door opening with four M8 x 12 low head T30 screws.



5. Use the shims included with the door hanging case to ensure the hanging case is level, plumb, and square to the door frame. The door hanging case must clear the door frame an equal distance on both ends to ensure the doors will move without obstruction.



6. Hang the doors.

⚠ CAUTION

HEAVY EQUIPMENT HAZARD

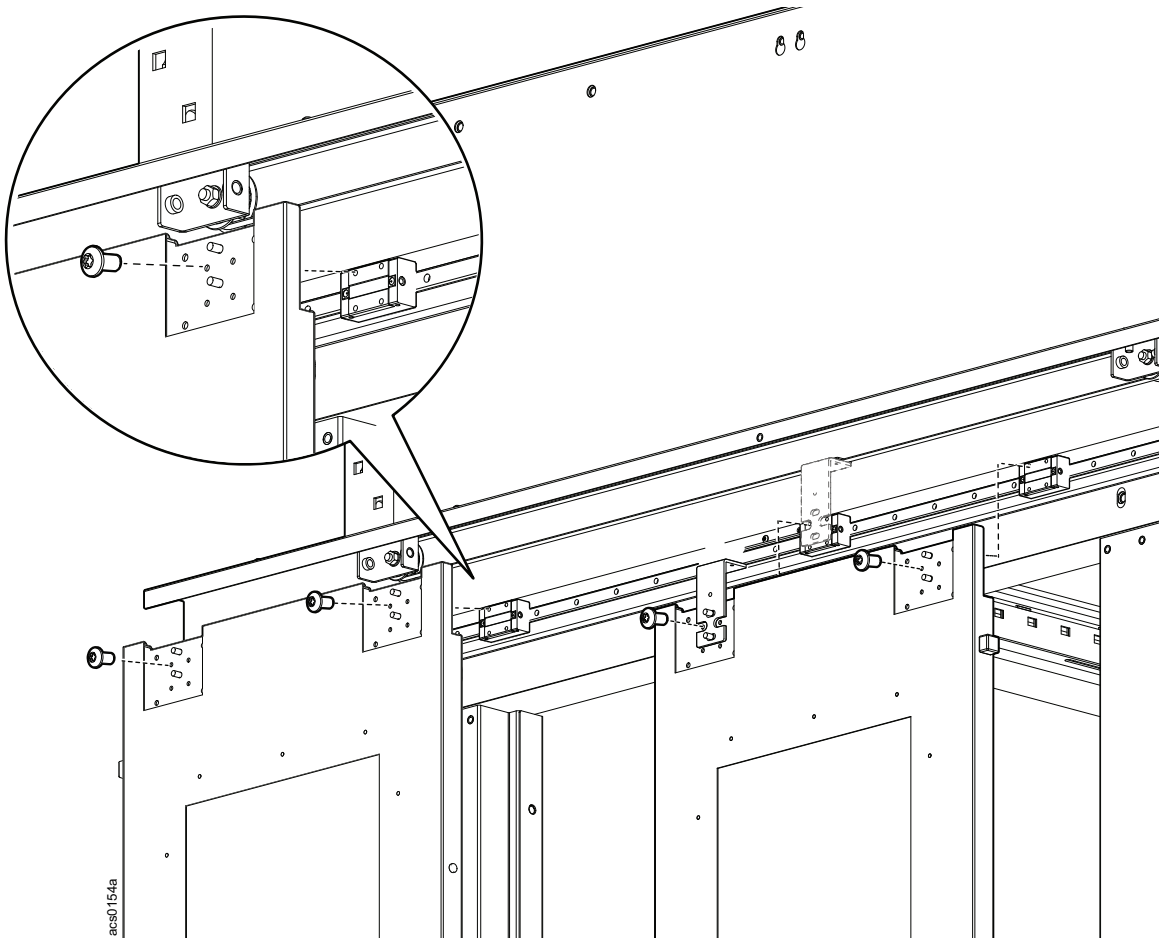
At least two (2) people are required to perform this task.

Failure to follow these instructions can result in serious injury or equipment damage.

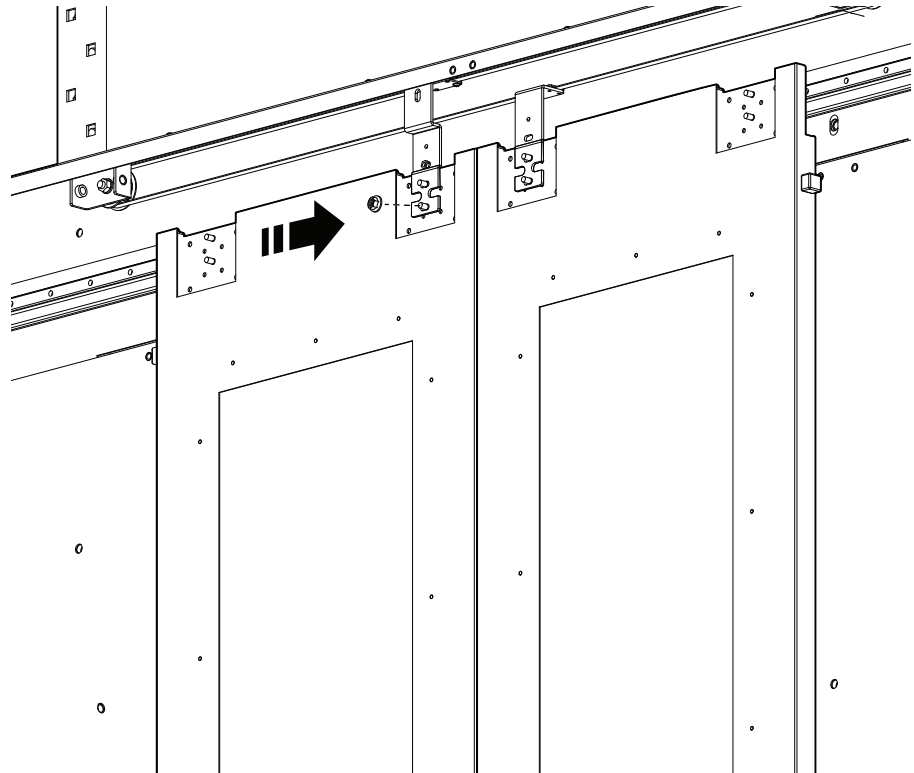
The two (2) locations on the doors for the brackets must be lined up with the sliding blocks.

The innermost brackets are already attached to the reel. The two (2) posts on the door fit through the slotted holes on the bracket.

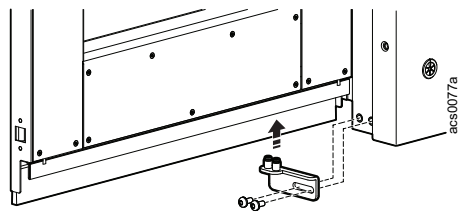
- a. At least one person must hold a door up to the sliding blocks while another person installs four M4 x 8 button head TORX screws to each of the two (2) blocks.



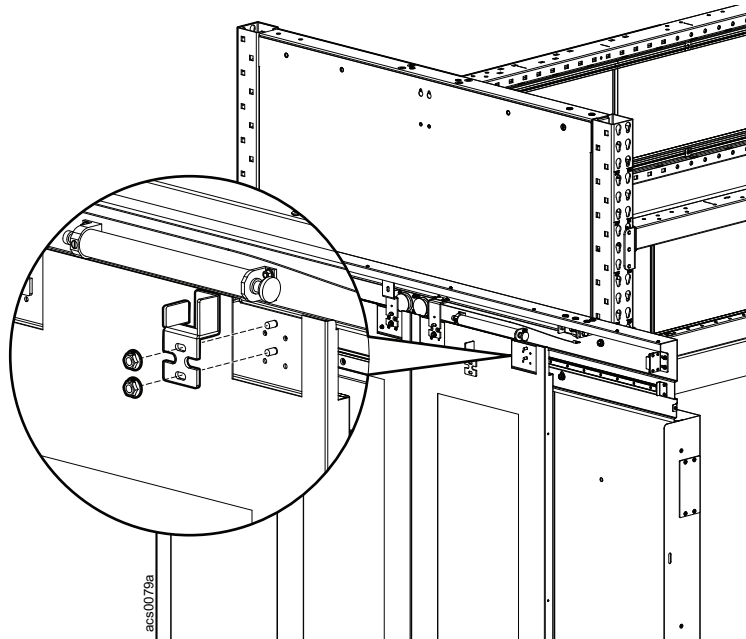
- b. Install an M6 hex nut to each threaded post on the two (2) innermost brackets, securing them to the doors.



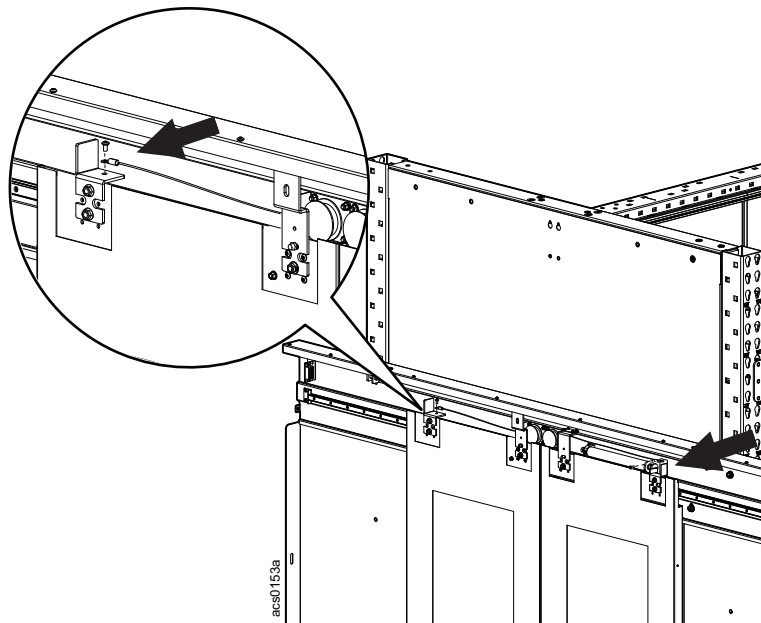
- c. Attach the bottom rails to the doors and secure them to the door frames with the provided M6 x 12 pan head T30 screws.



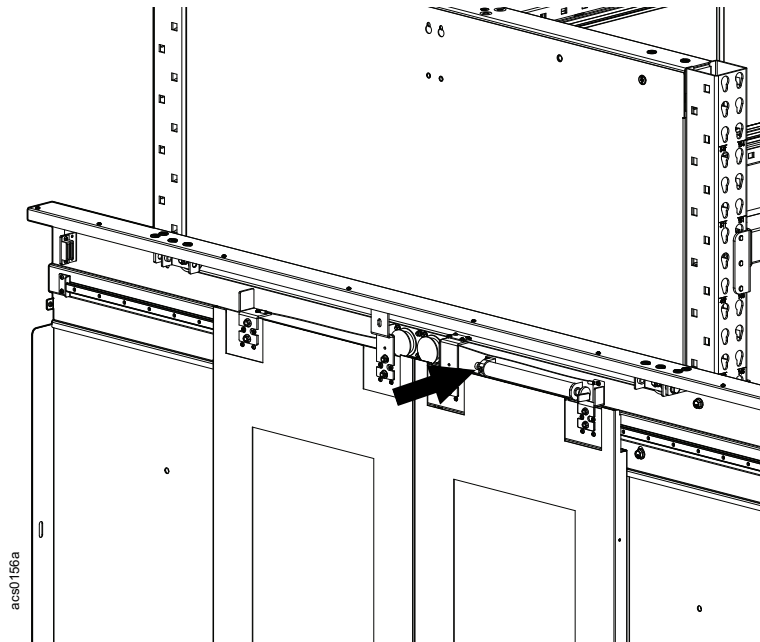
- d. Install the outermost left and right door hanging brackets to the threaded posts on the doors with the M6 flanged hex nuts.



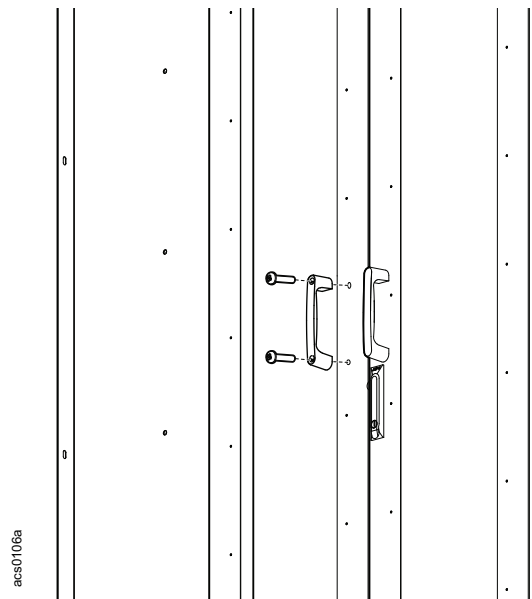
- e. Pull the end of the cable. Attach one end of the cable to each of the outermost brackets with one M4 x 8 button head TORX screw.



- f. Test how quickly the doors close. If the doors close quickly enough to slam into each other, turn the adjustment screw to the right to slow the doors as they close.

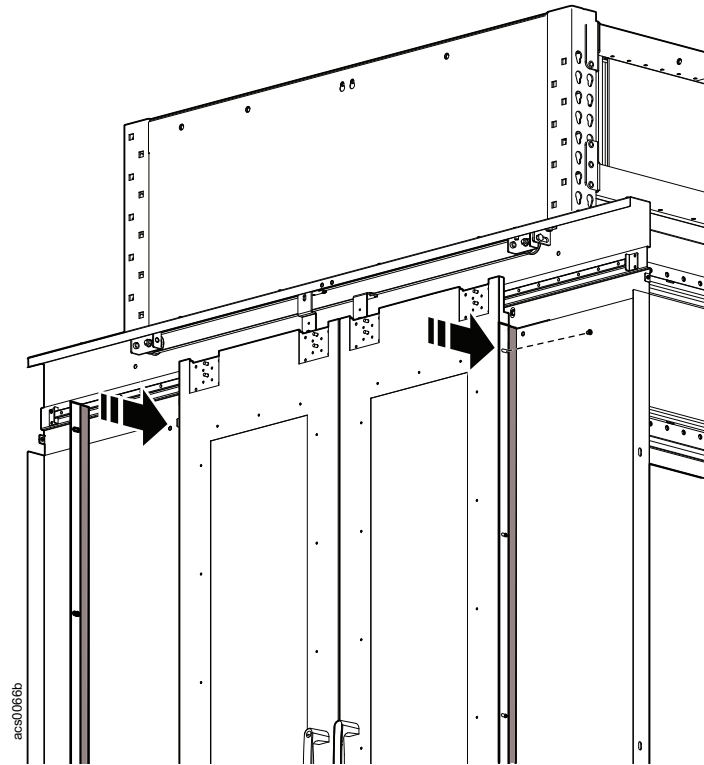


- g. Attach the door handles to the door with two (2) M5 x 25 pan head screws.

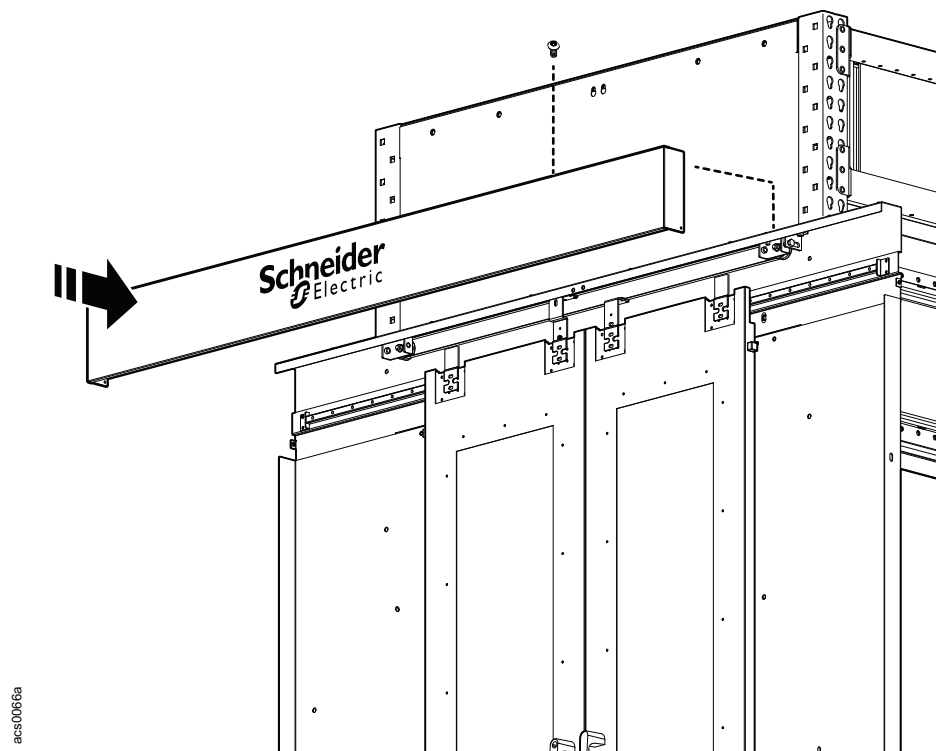


- h. Install a brush to the outside edges of each door with four M3 x 8 mm flanged TORX screws and adjust, using the slotted holes of the brush strip, to cover the gap between the frame and the door.

Test how quickly the doors close again, and adjust if necessary.

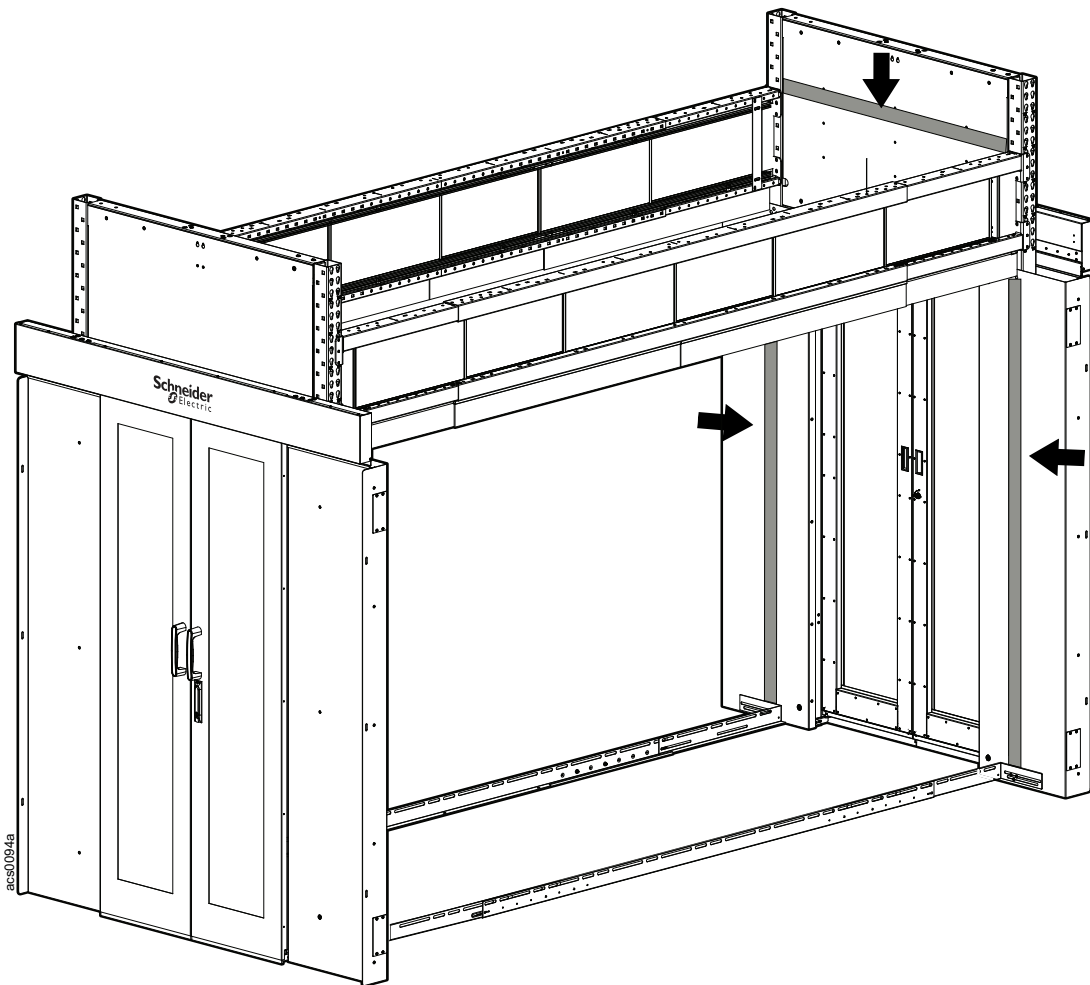


- i. Install the cover to the door rail assembly with ten (10) M4 x 8 button head TORX screws.



Frame seals

Attach the self-adhesive foam seal strips from the seal kit to the backs of the door frame where they will meet the rack or blanking panel and to the inside end caps where they will meet the roof panel.



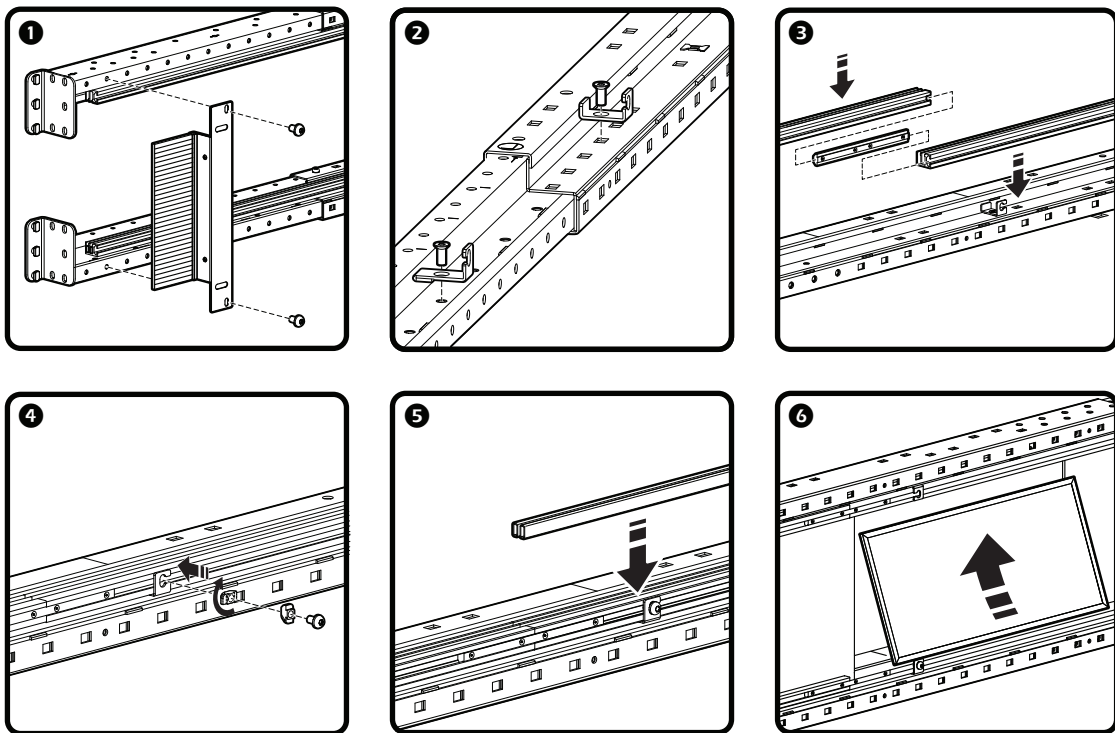
NOTICE

Consider waiting until a rack, blanking panel, or roof panel is installed in order to place the frame seals in the optimal locations.

Window assemblies

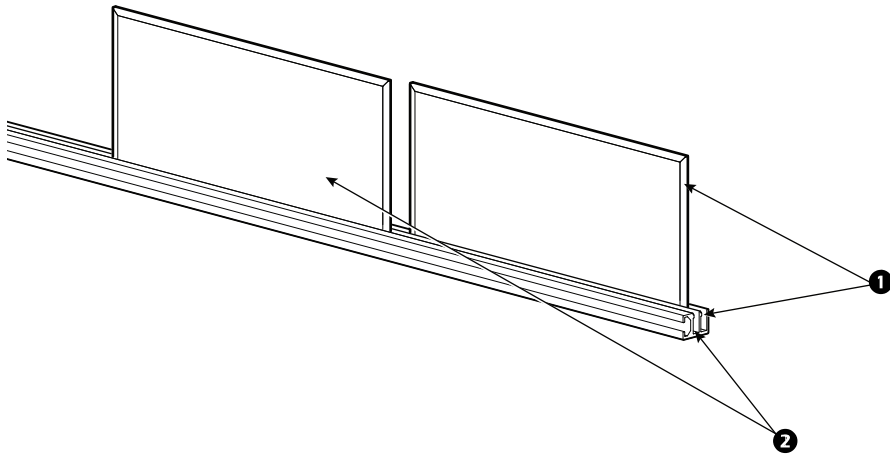
Window rails are installed to the underside of the top length beam and the top of the lower length beam.

1. Starting at one end of the frame, install the window side brush to the length beams with two (2) M6 x 12 screws to fill the area between the back of the door frame and the starting edge of the window assembly (1).
2. Install two (2) rail brackets to the length beam with M6 x 10 screws for each four foot section of rail (2). Use short rail brackets on the non-telescoping part of the length beams, and use long rail brackets on the telescoping part of the length beams.
3. Join two (2) 1.2 m (4 ft) window rails using the connector with its four M6 set screws (3).
4. To secure the window rail to the window rail brackets, slide a hammer head nut into the rail and behind the bracket. Once an M6 x 10 screw is inserted through the bracket to the nut, rotate the nut 90 degrees to secure the nut in the rail (4).
5. Insert the rail blocks into the bottom rails (5).
6. Install the window panels or pass-throughs to the window rails by sliding the parts up into the top rail and then allowing the bottom edge of the part to drop down into the bottom rail (6).



NOTE: NetShelter Pod frames that are 2.4 m (8 ft) long require two (2) 1.2 m (4 ft) rails along the length of the length beam. Window rails may require cutting to size if the aisle length is longer than 2.4 m (8 ft) and shorter than 3.6 m (12 ft).

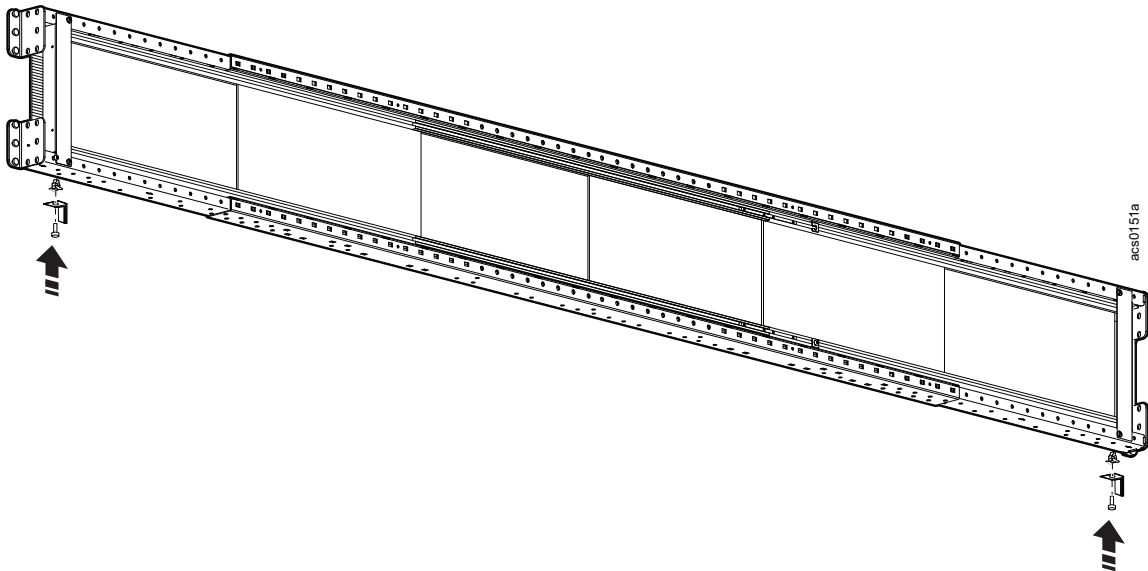
NOTE: There are two (2) tracks in the window rail. Alternate tracks when installing the windows.



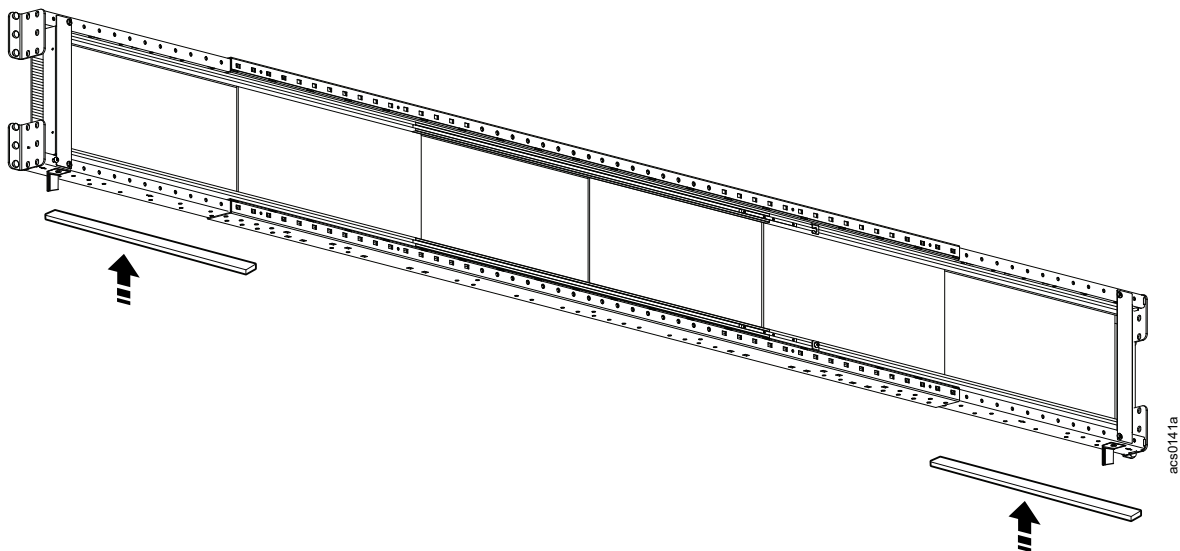
Row length brush

Each row length brush has a slide out extension brush on one end. Install the row length brush with the extension brush end toward the vertical post. The left and right brushes with extension brushes fully deployed measure 3.6 m (12 ft). With the end of each row length brush meeting at the center of the length beam, slide out each end of the brush strip until it meets the end of the frame.

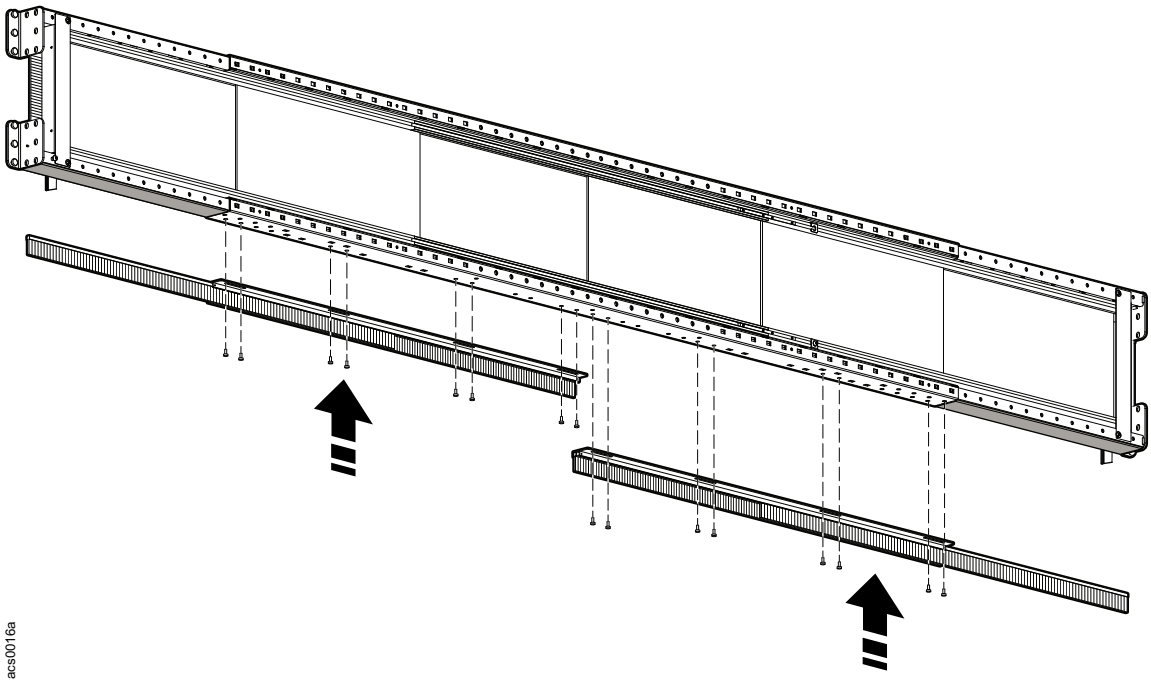
1. Install the brush extension clips at each end of the length beam with an M6 x 16 pan head T30 screw.



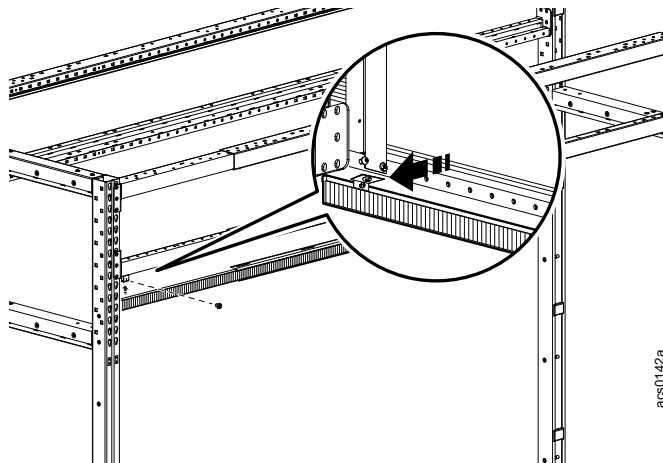
2. Apply the self-adhesive foam strip to the bottom of the slide out extension of the length beam.



3. Hold the row length brush up to the length beam and note the hole locations. Install the insert nuts to the bottom of the length beams at the appropriate locations. Install the brush strip to the bottom of the length beam with the provided M6 x 16 pan head T30 screws.

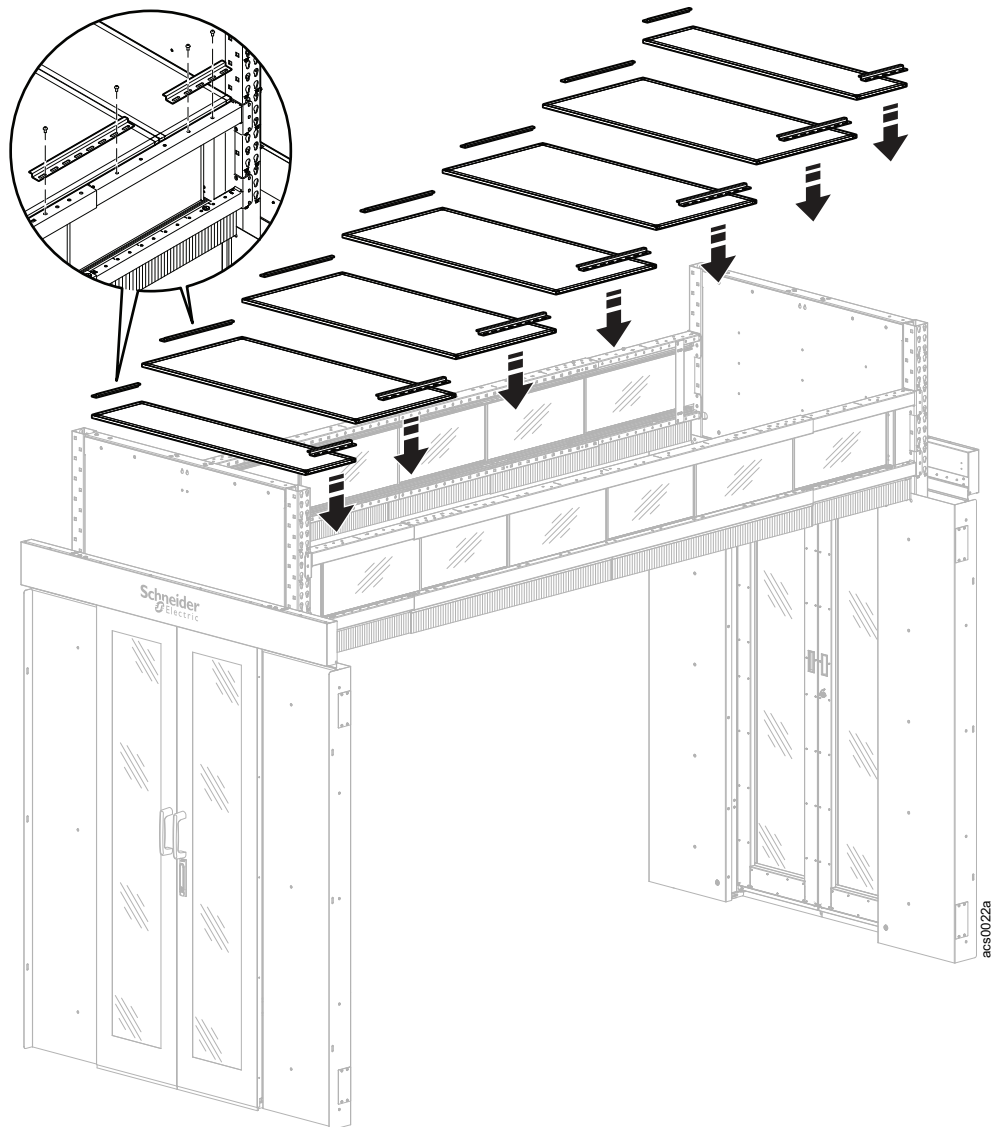


4. Insert the top edge of the brush extension into the clip. Secure the brush extension in the clip with an M3 x 4 pan head Phillips screw.



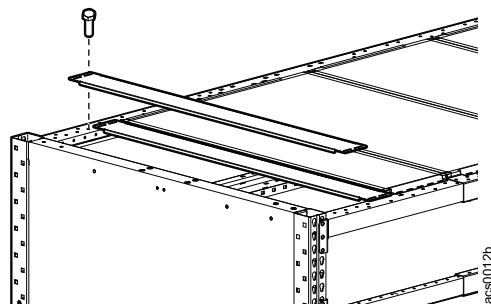
Roof panels

1. Install the roof panels to the top of the horizontal length beams using the insert nuts, brackets, and M6-1 x 16 hex head screws.



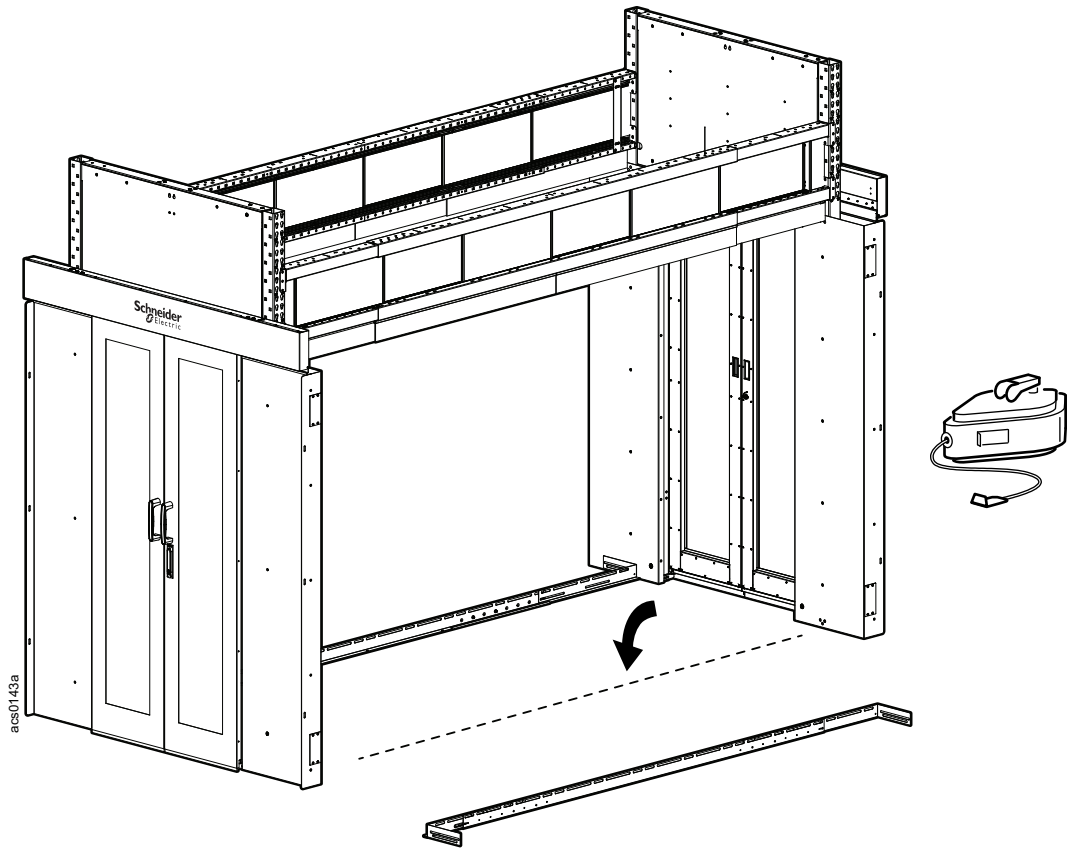
2. Use the roof filler panels and hex head screws to fill in the extra space at the end of the aisle, if any. The roof filler panels have slotted holes to allow for adjustment.

NOTE: Do not use the drop panel for this configuration.

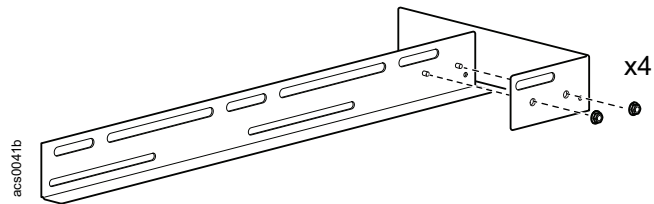


Stop rails

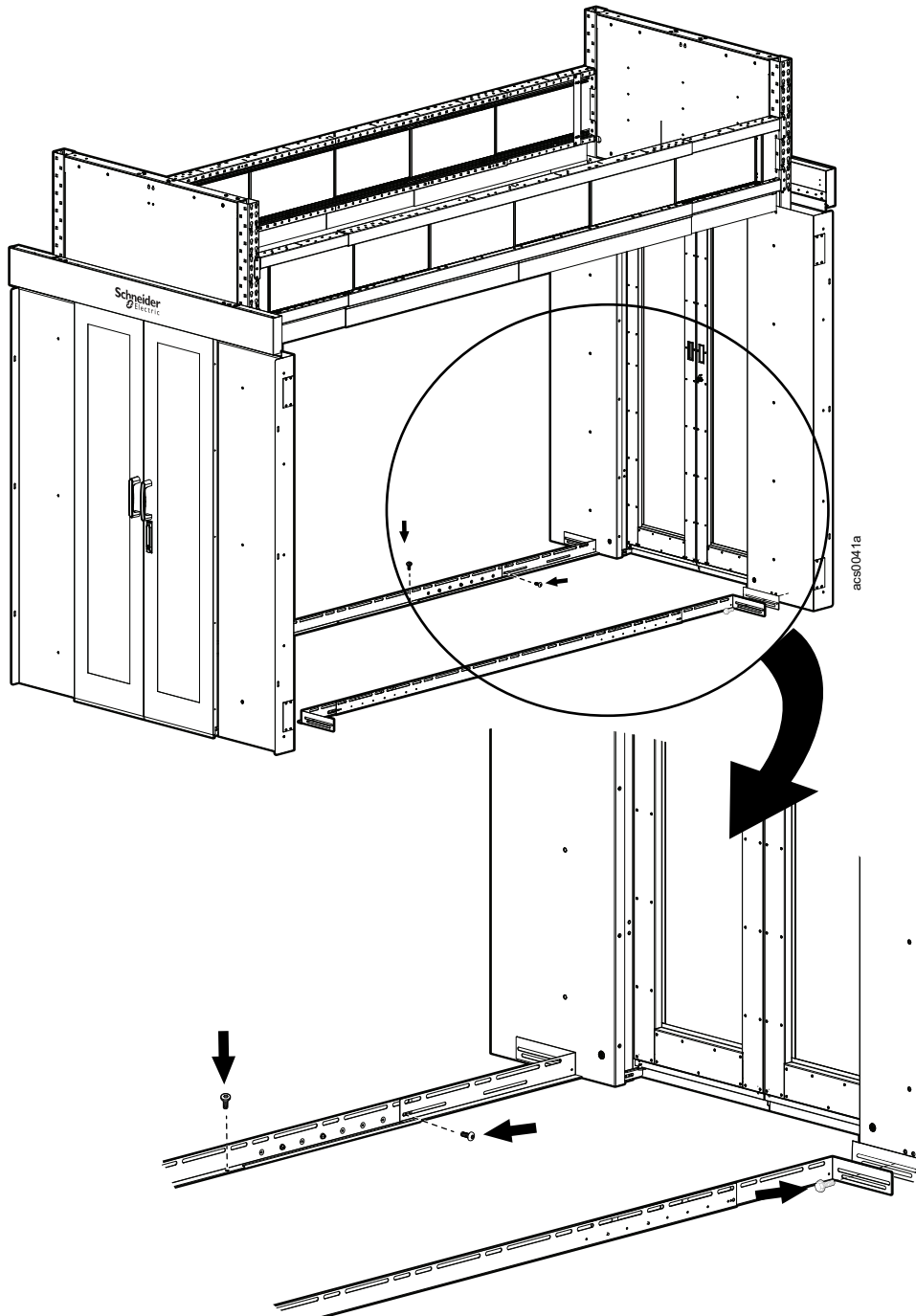
1. Measure from the front to the back of the aisle to make sure the stop rails are straight. Use a chalk line to help install the NetShelter Pod along a straight line.



2. Secure the end pieces to the inner rail plates with the M8 nuts.

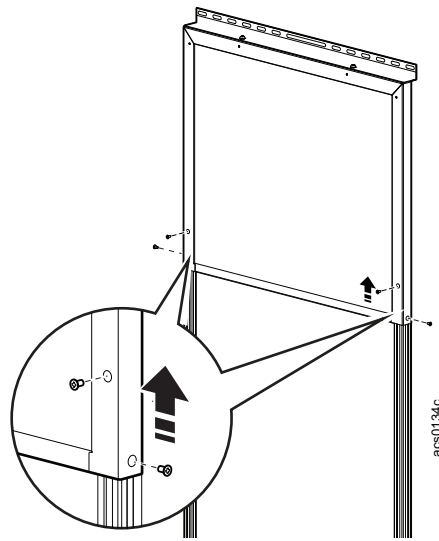


3. Install the stop rails to the bottom of the door frames with the Mylar electrical isolation plate between. Secure the stop rail to the door frame with two (2) M8 x 20 hex head screws at each end. Use the slots to adjust the rail in or out. When the stop rails are in the correct position, secure the extensions to the center rail with the M6 x 10 pan head T30 screws along the sides of the rails and use anchor bolts (not provided) to secure the rail assembly along the edge that sits flush to the floor.



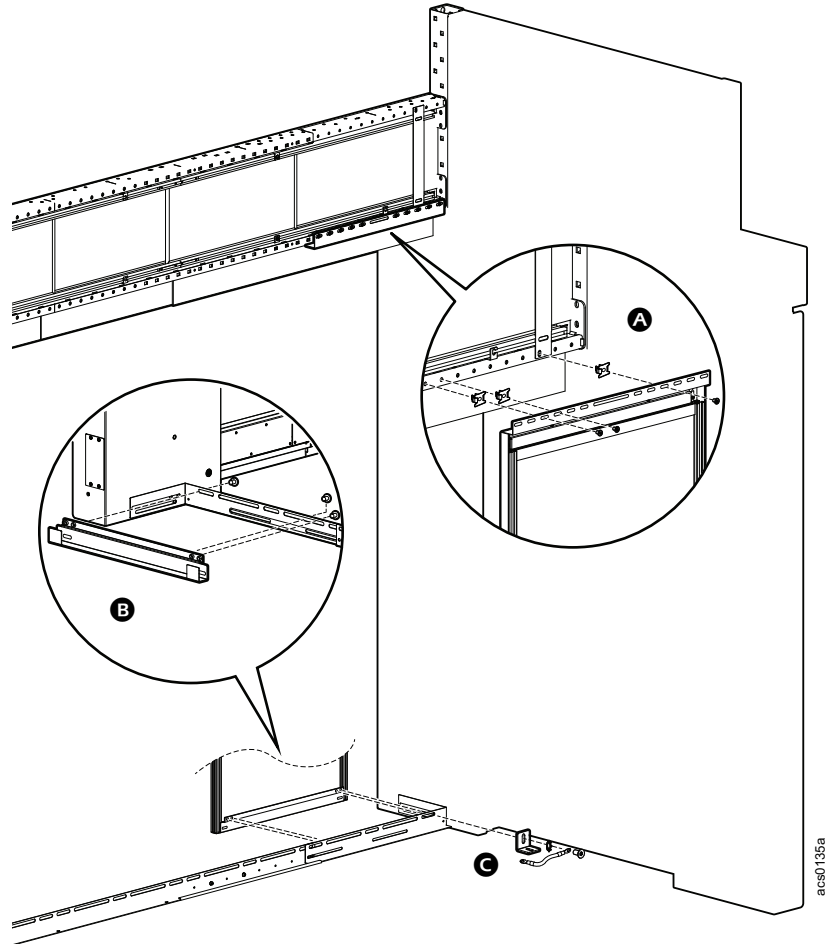
Blanking panels

1. If the rack space is taller than 42 U, adjust the panel to fill the available space. Loosen the screws as shown below and slide the 10 U panel to the necessary length.



2. Install insert nuts to the length beam. Attach the top blanking panel bracket to the horizontal length beam with two (2) M6 x 16 pan head screws (A).
3. Attach the bottom blanking panel bracket to the stop rail (B). Attach the ground wire and serrated washer (C).

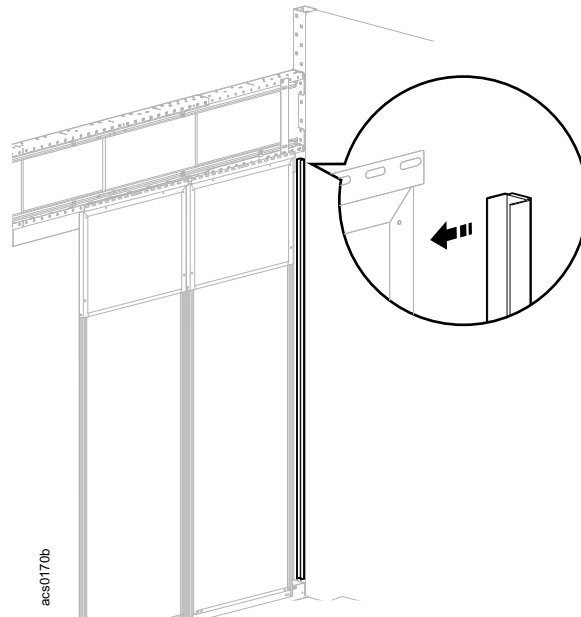
NOTE: The blanking panels may also be attached to the floor with the provided angle corner brackets.



C seals and H seals

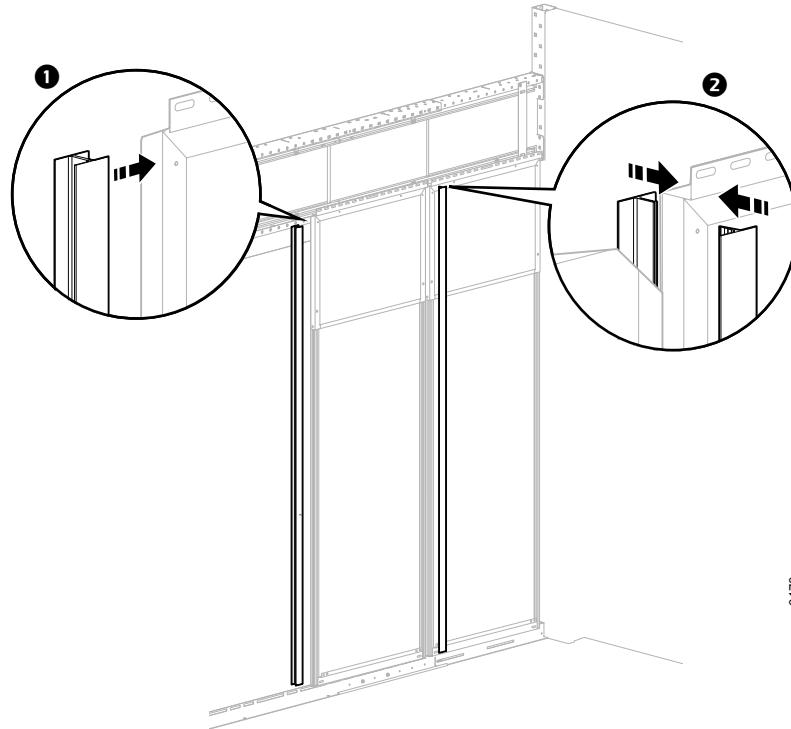
You can install C seals and H seals before or after you install the blanking panels. If you install the seals after the blanking panels, you may need to uninstall some blanking panels so that you have enough space to install the seals.

Install C Seals. If there is extra space between the blanking panels and the end of the aisle, install C seals on the blanking panels near the end of the aisle.



Install H seals. If there is extra space between the blanking panels, install H seals on the blanking panels. You can install the seals directly on the side of the blanking panel (❶). You can also pull the two (2) pieces of the H seal apart, and slide them back together between two (2) blanking panels (❷).

NOTE: The second procedure (❷) may require one person to stand on either side of the blanking panels to push the H seal together.



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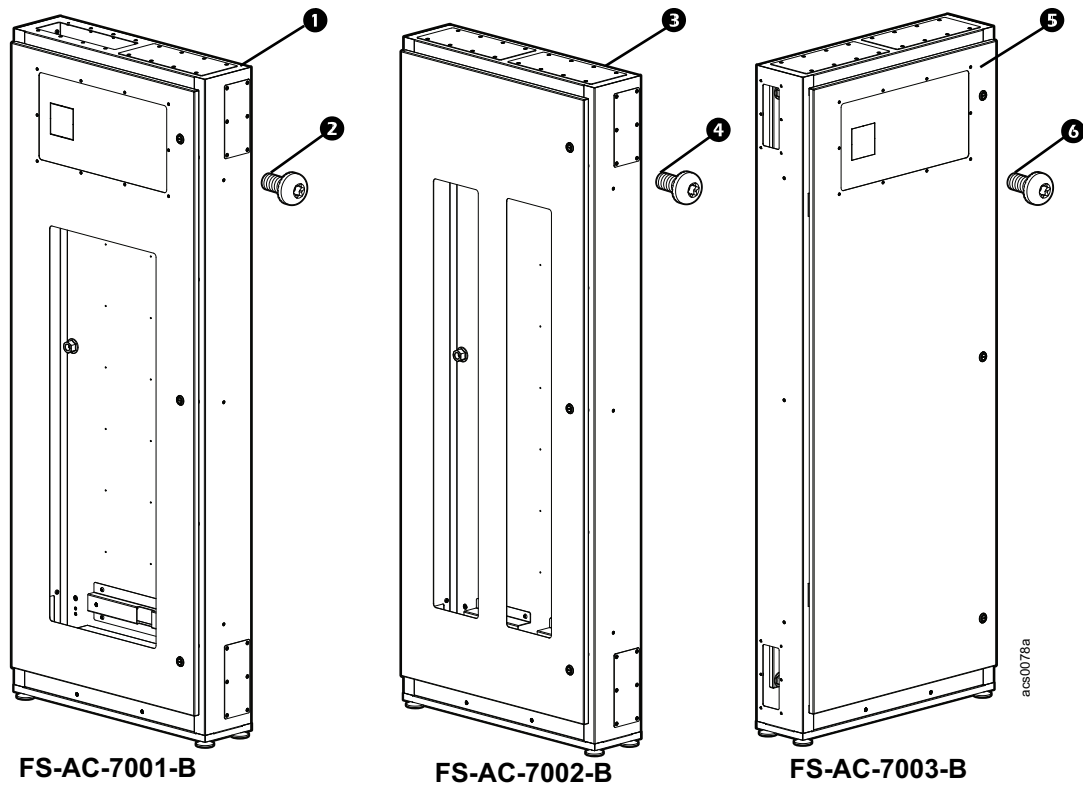
Accessory Kits

End Row Transition Cabinets

FS-AC-7001-B - Distribution Cabinet, MH50

FS-AC-7002-B - Distribution Cabinet, Split

FS-AC-7003-B - Distribution Cabinet, Solid



Item	Description	Quantity
❶	Transition cabinet FS-AC-7001-B	1
❷	Pan head T30 screw, M6 x 12	3
❸	Transition cabinet FS-AC-7002-B	1
❹	Pan head T30 screw, M6 x 12	3
❺	Transition cabinet FS-AC-7003-B	1
❻	Pan head T30 screw, M6 x 12	3

Drop Roof

FS-RF-3002-U - Drop Roof Mounting Rail, 300 mm (12 in.)

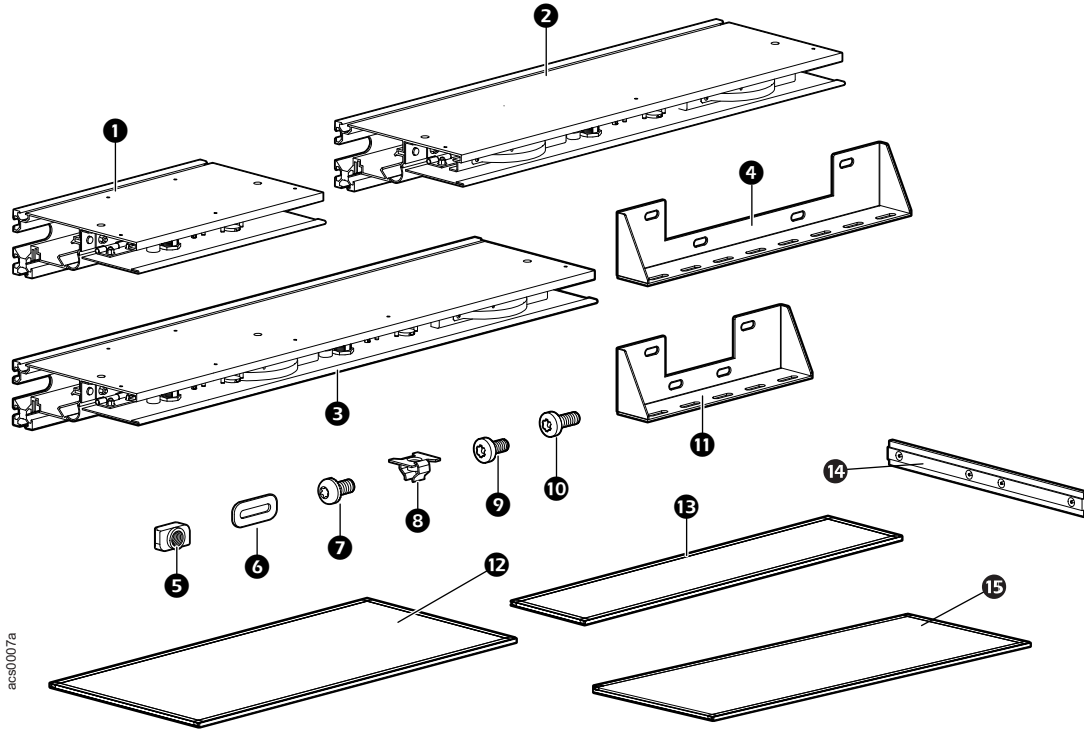
FS-RF-3004-U - Drop Roof Mounting Rail, 600 mm (23.6 in.)

FS-RF-3006-U - Drop Roof Mounting Rail, 750 mm (29.5 in.)

FS-RF-3007-U - Drop Roof panel, 300 mm (12 in.)

FS-RF-3008-U - Drop Roof panel, 600 mm (23.6 in.)

FS-RF-3009-U - Drop Roof panel, 750 mm (29.5 in.)



Item	Description	Quantity	Item	Description	Quantity
1	Ceiling support assembly 300 mm (12 in.)	1	9	Pan head T30 screw, M6 x 10	8
2	Ceiling support assembly 600 mm (23.6 in.)	1	10	Pan head T30 screw, M6 x 16	4
3	Ceiling support assembly 750 mm (29.5 in.)	1	11	Bracket for 300 mm (12 in.) panel	1
4	Bracket for 600 mm (23.6 in.) and 750 mm (29.5 in.) panel	1	12	Roof panel, 750 mm (29.5 in.)	1
5	Hammer head nut, M6	8	13	Roof panel, 300 mm (12 in.)	1
6	Baying hinge bracket	2	14	Connector	4
7	TORX pan head screw, M4 x 8	4	15	Roof panel, 600 mm (23.6 in.)	1
8	Insert nut, M6	4			

NOTE: The drop roof is only available for 1.2 m (4 ft) aisle configurations.

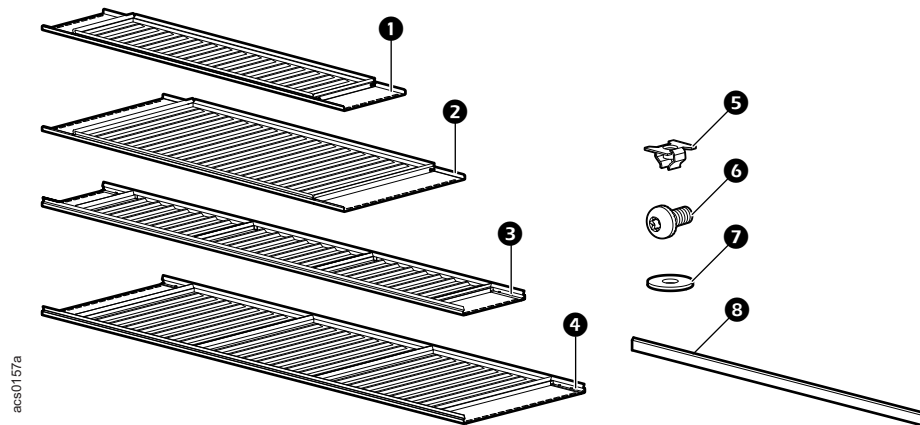
Shrink Roof

FS-RF-6001-U - 1.2 m (4 ft) Aisle Shrink Roof panel, 610 mm (24 in.)

FS-RF-6002-U - 1.2 m (4 ft) Aisle Shrink Roof panel, 310 mm (12.2 in.)

FS-RF-6003-U - 1.9 m (6 ft) Aisle Shrink Roof panel, 610 mm (24 in.)

FS-RF-6004-U - 1.9 m (6 ft) Aisle Shrink Roof panel, 310 mm (12.2 in.)

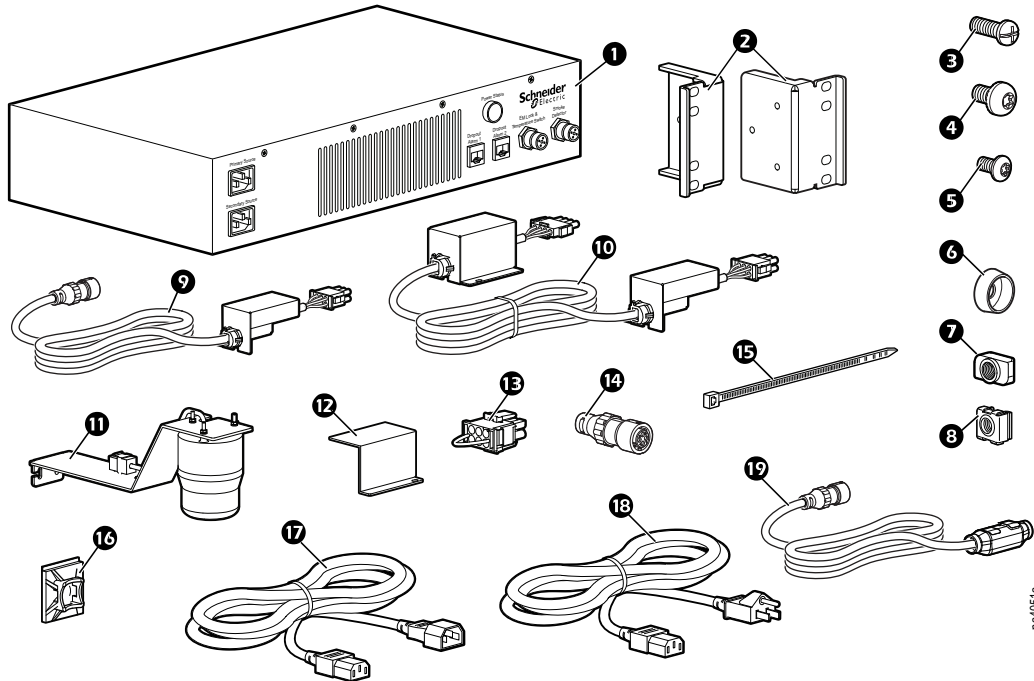


Item	Description	Quantity
1	1.2 m (4 ft) Aisle shrink roof panel, 310 mm (12.2 in.) (FS-RF-6002-U)	1
2	1.2 m (4 ft) Aisle shrink roof panel, 610 mm (24 in.) (FS-RF-6001-U)	1
3	1.9 m (6 ft) Aisle shrink roof panel, 310 mm (12.2 in.) (FS-RF-6004-U)	1
4	1.9 m (6 ft) Aisle shrink roof panel, 610 mm (24 in.) (FS-RF-6003-U)	1
5	Insert nut, M6	2
6	Pan head T30 screw, M6 x 12	6
7	Washer	2
8	EPDM foam	1

Ceiling Panel Lock Systems

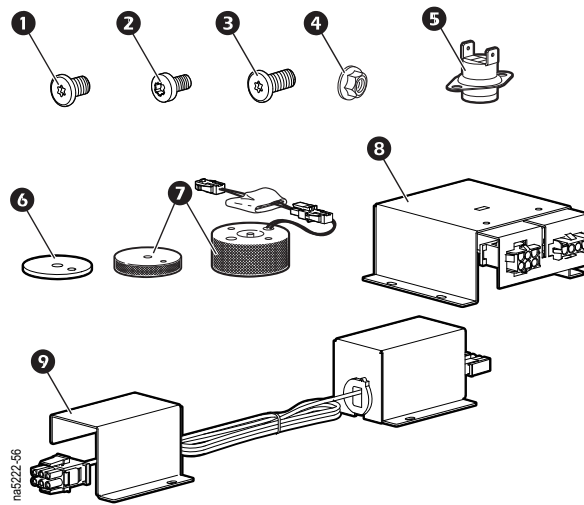
ACDC2016 - Ceiling Panel Lock System, 100–120 V (with power supply)

ACDC2017 - Ceiling Panel Lock System, 200–240 V (with power supply)



Item	Description	Quantity
1	Dropout power supply control box, 110 V (ACDC2016) Dropout power supply control box, 220 V (ACDC2017)	1 1
2	Bracket for power supply box	2
3	Pan head Phillips screw, M6 x 16	4
4	Pan head T30 screw, M6 x 12	4
5	Button head T15 screw, M4 x 8 mm	6
6	Plastic cup washer, M6	4
7	Channel nut, M6	4
8	Caged nut, M6	4
9	Wire harness—power supply to wiring box, 3.6 m (12 ft)	1
10	Across aisle wiring assembly, 4 m (13.1 ft)	2
11	Alarm beacon	2
12	Wiring box cover	1
13	Terminal jumper	1
14	4-pin jumper	1
15	Wire tie	55
16	Cable holder	55
17	Power cord—CEE22 jump 2M 10A ROHS (ACDC2017)	2
18	Power cord—C13/15 DELL ROHS compliant (ACDC2016), 1.8 m (6 ft)	2
19	Smoke detector cable	1

ACDC2015 - Ceiling Panel Lock System, (without power supply)



Item	Description	Quantity
1	Flat head TORX screw, M5 x 8	8
2	Pan head TORX screw, M4 x 8	24
3	Flat head TORX screw, M5 x 10	4
4	Serrated hex flange nut, M4	8
5	Temperature switch, 135 °F (57 °C), 24 VDC 3 A	4
6	Electromechanical lock spacer	4
7	Electromechanical lock assembly, 24 V 50 MA	4
8	Wiring box	4
9	Box-to-box wire assembly	4

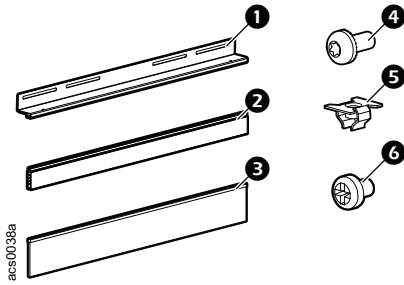
Rack Height Adapters

FS-AC-8001-U - Rack Height Adapter, 300 mm (12 in.)

FS-AC-8002-U - Rack Height Adapter, 600 mm (23.6 in.)

FS-AC-8003-U - Rack Height Adapter, 750 mm (29.5 in.)

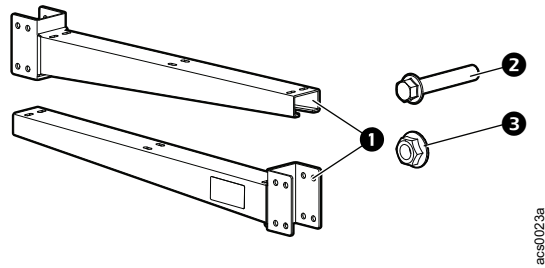
FS-AC-8004-U - Rack Height Adapter, 800 mm (31.5 in.)



Item	Description	Quantity
1	Bracket for brush/filler panel	1
2	Panel, 1 U, plastic, height filling, (length: 300, 600, 750, 800 mm)	6
3	Brush, short, height filling, (length: 300, 600, 750, 800 mm)	1
4	Pan head T30 screw, M6 x 16	4
5	Insert nut, M6	4
6	Pan head Phillips screw, 10-32 x 5/16	2

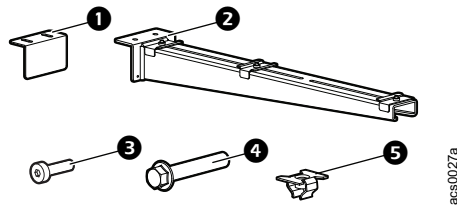
Cantilever Support Arms

FS-AC-3001-B - Large Cantilever Support Arms



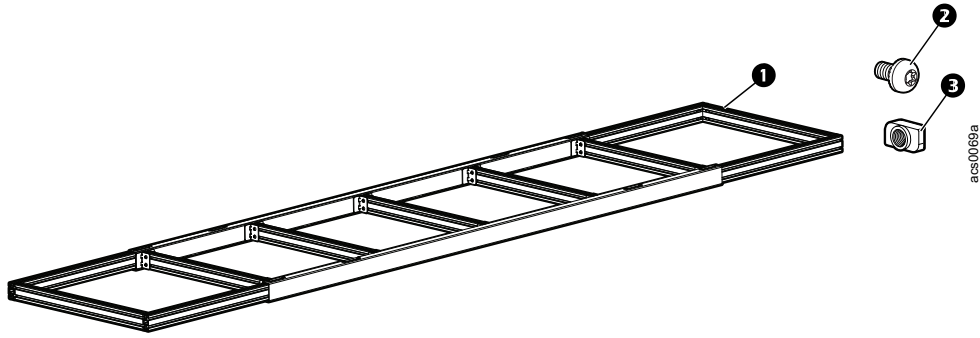
Item	Description	Quantity
1	Cantilever Arm	2
2	Hex head bolt, M12 x 100	4
3	Hex head nut, M12	4

FS-AC-3003-B - Mini Cantilever Arms



Item	Description	Quantity
1	Leveling pad	2
2	Mini Cantilever arm	2
3	Hex socket bolt, M4 x 10	4
4	Hex head bolt, M6 x 20	4
5	Insert nut, M6	4

FS-AC-3002-B - Overhead Support Frame, 2.4–3.6 m (8–12 ft)



Item	Description	Quantity
1	Aluminum frame	1
2	Pan head T30 screw, M6 x 12	17
3	Hammer head nut, M6	17

Power Raceway

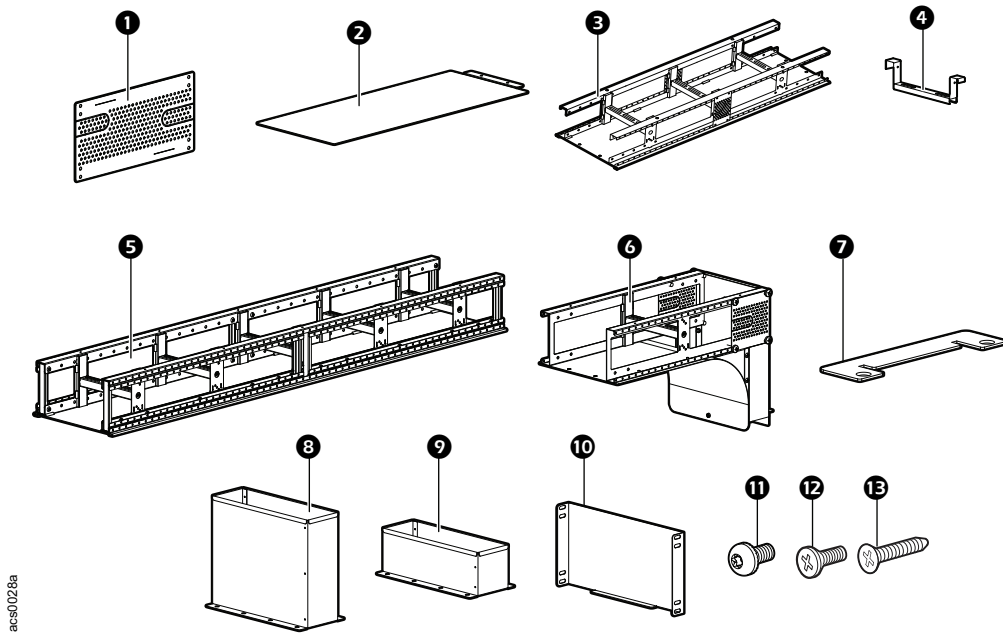
FS-AC-4001-B - Power Raceway End Module

FS-AC-4002-B - Power Raceway Main Module

FS-AC-4003-B - 300 mm (12 in.) Side Cover Pack

FS-AC-4004-B - 50/150 mm (2/6 in.) Side Cover Pack

FS-AC-4005-B - Power Raceway Extension Module



acs0028a

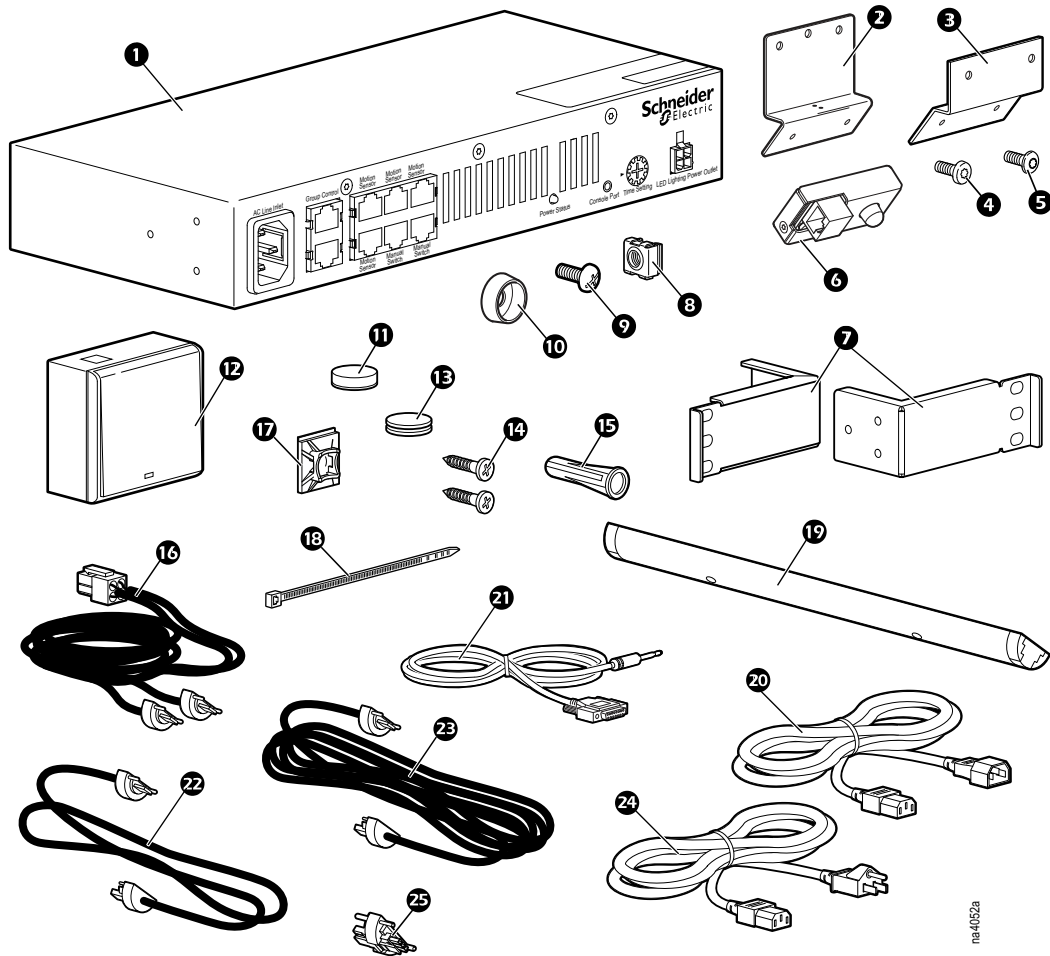
Item	Description	Quantity
1	Side cover 300 mm (12 in.) (FS-AC-4003-B)	4
	Side cover 150 mm (6 in.) (FS-AC-4004-B)	2
	Side cover pack 50 mm (2 in.) (FS-AC-4004-B)	2
2	Base tray (FS-AC-4002-B)	2
3	Extension module* (FS-AC-4005-B)	1
4	Rung of cable ladder (FS-AC-4002-B)	4
5	Main module (FS-AC-4002-B)	3
6	End module (FS-AC-4001-B)	1
7	Cover bracket	2
8	Chimney, 6 U (FS-AC-4001-B)	1
9	Chimney, 3 U (FS-AC-4001-B)	1
10	End cap (FS-AC-4001-B)	1
11	Pan head T30 screw, M6 x 12 (FS-AC-4005-B)	13
	(FS-AC-4002-B)	29
12	Flat head screw, M5 x 12	8
13	Phillips head self-tapping screws, 10-32 (FS-AC-4003-B, FS-AC-4004-B)	16

*The extension module is used with a double NetShelter Pod.

Lighting kits

ACDC2018 - Lighting Kit with Power Supply

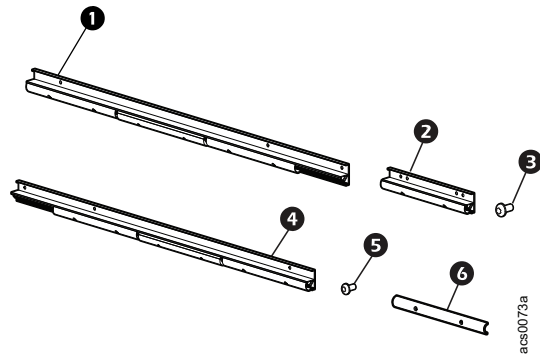
ACDC2019 - Lighting Kit without Power Supply



Item	Description	Quantity	Item	Description	Quantity
1	Lighting control unit	1	14	Wood screw - #6 x 3/4 - Phillips	4
2	Motion sensor mounting bracket	2	15	Wall anchor	4
3	Motion sensor mounting bracket, sliding door	2	16	Wire assembly, 24 V power	1
4	TORX screw, thread forming, M4 x 8 mm	6	17	Wire tie cable holder	45
5	TORX screw, M4 x 8 mm	8	18	Wire tie	45
6	Motion sensor	2	19	LED light assembly module, 6 W (ACDC2019)	6
7	Lighting control unit mounting brackets	2	20	Power cord, 15 A, 250 V, C13 to C14	1
8	Caged nut, M6	4	21	console port to DB9F cable, 2.5 mm	1
9	Phillips screw, M6 x 16	4	22	Light-to-light wire assembly (ACDC2019)	5
10	Cup washers	4	23	Light-to-light wire assembly, across aisle	1
11	Magnets, manual switch	8	24	Power Cord, 15A 125V, C13 to 5-15P	1
12	Manual switch	2	25	Light-to-light connector, end-to-end (ACDC2019)	5
13	Hook and loop fastener, manual switch	8			

NOTE: Items marked (ACDC2019) are included in both assemblies. All other items are only included in ACDC2018.

FS-AC-6001-B - Lighting Bracket Kit

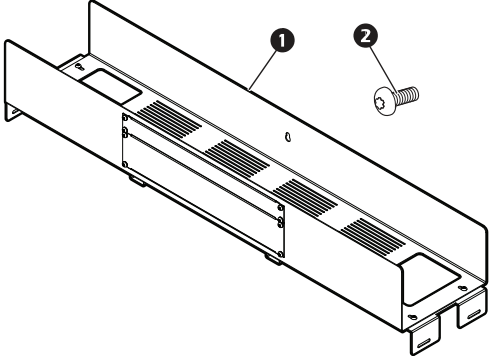


Item	Description	Quantity
1	Long bracket, left	2
2	Short bracket	8
3	Pan head T30 screw, M6 x 16	29
4	Long bracket, right	2
5	TORX pan head screw, M4 x 12	33
6	Wiring cover	16

Crossover Tray

FS-AC-4007-B - 1.9 m (6 ft) Aisle Crossover Tray

FS-AC-4008-B - 1.2 m (4 ft) Aisle Crossover Tray

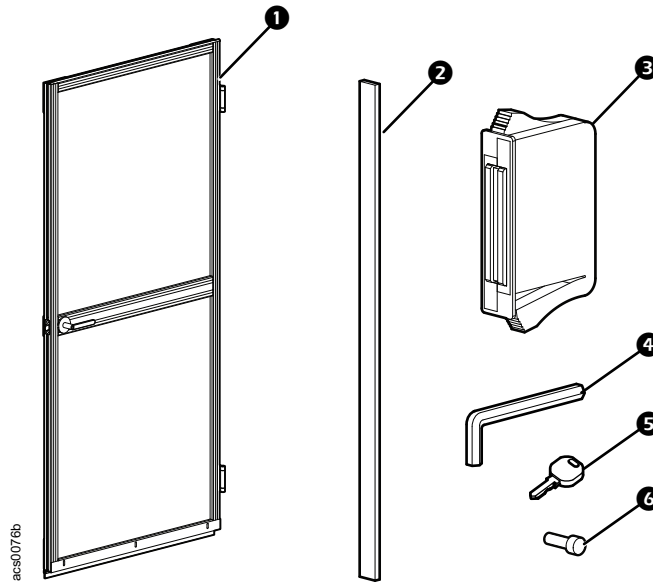


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Item	Description	Quantity
1	Crossover tray	1
2	Flat head T30 screw, M6 x 12	8

Single Swing Door Assembly

FS-DR-1002-U - Swing Door



Item	Description	Quantity
1	Door	1
2	EPDM foam	1
3	Door closer	3
4	Hex wrench	1
5	Key	1
6	Tension pin	4

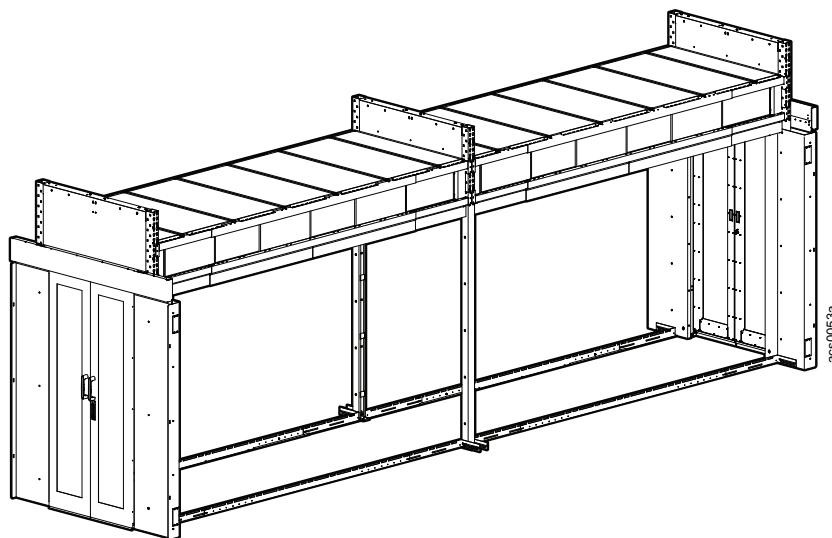
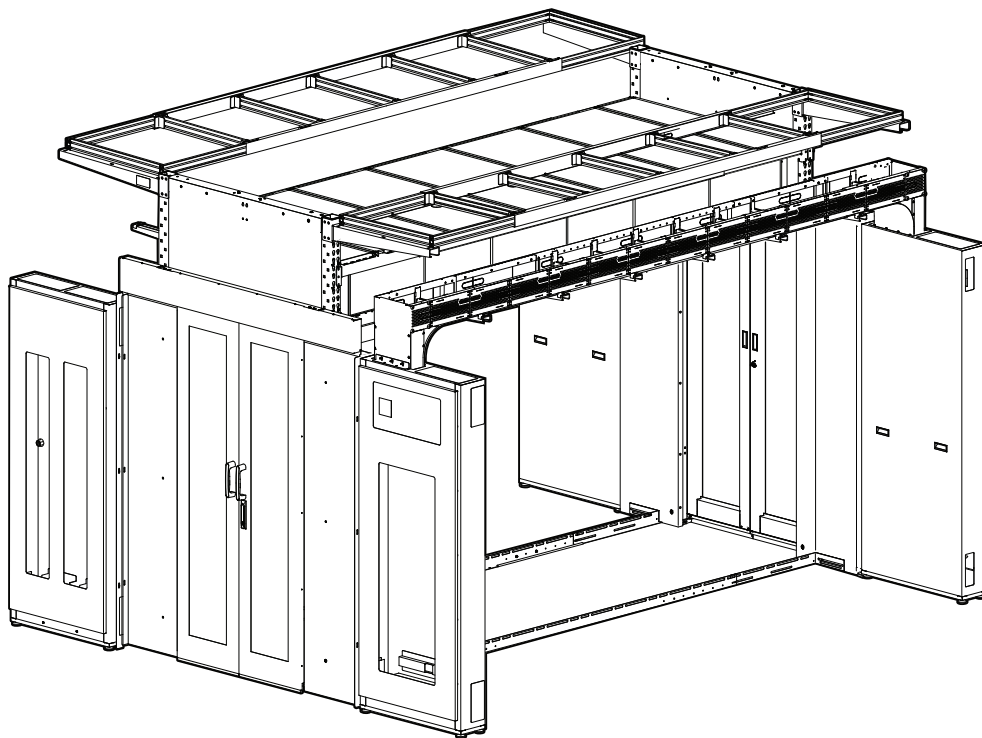
Installation of Optional Accessories

▲ CAUTION

WORKING HEIGHT HAZARD

The working height for the assembly process can exceed 2.3 m (7.5 ft). The use of stepladders or scaffolding will be required during assembly.

Failure to follow these instructions can result in serious injury or equipment damage.



Transition Cabinets

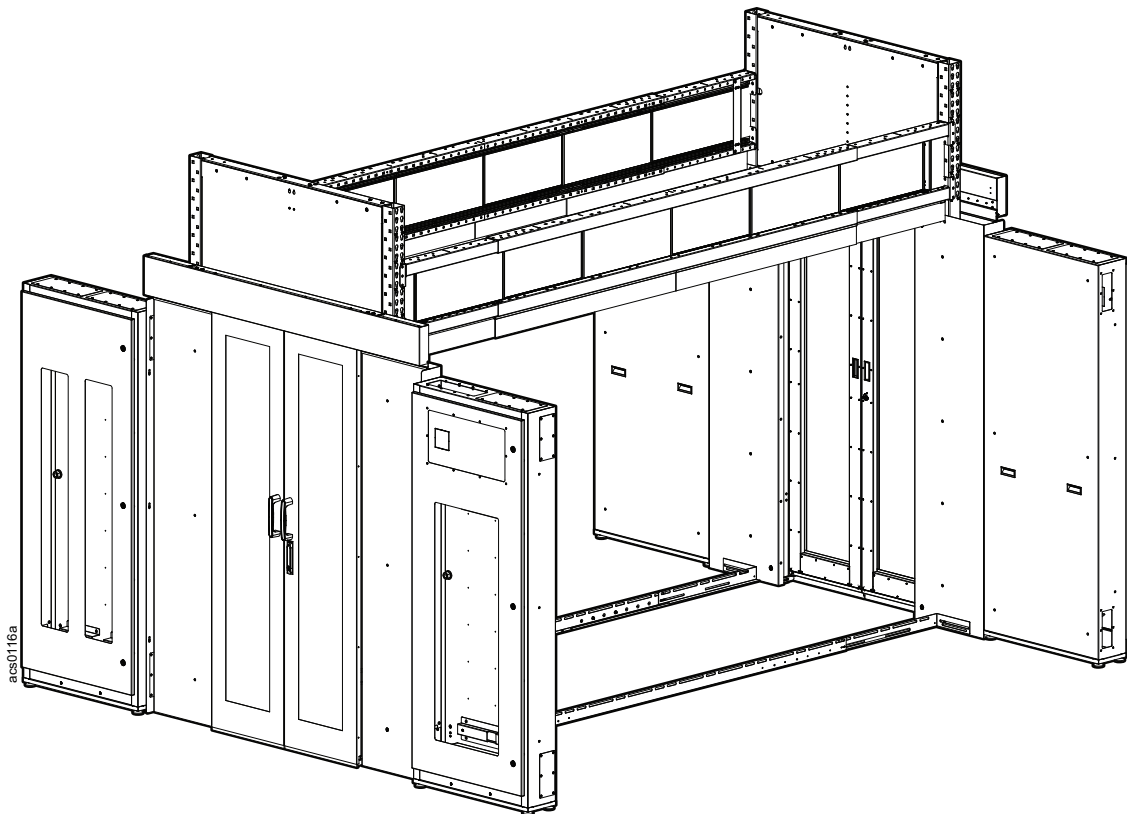
⚠ CAUTION

LIFTING HAZARD

At least two (2) people are required to install this enclosure. Use appropriate equipment to move cabinets into position.

Failure to follow these instructions can result in serious injury or equipment damage.

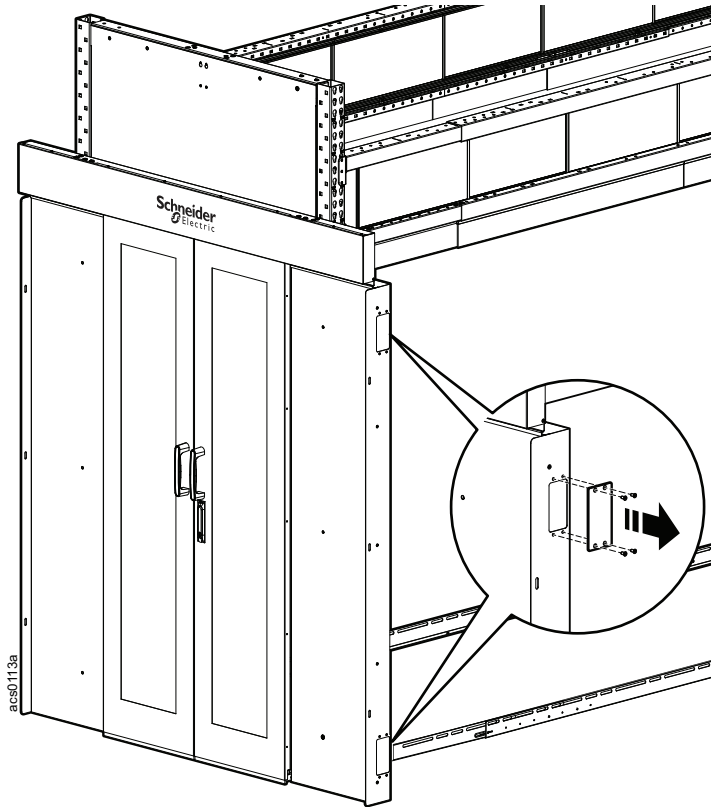
Two (2) transition cabinets can be installed at each end of the aisle. One transition cabinet is shown installed on either side of the door frame in the illustration below.



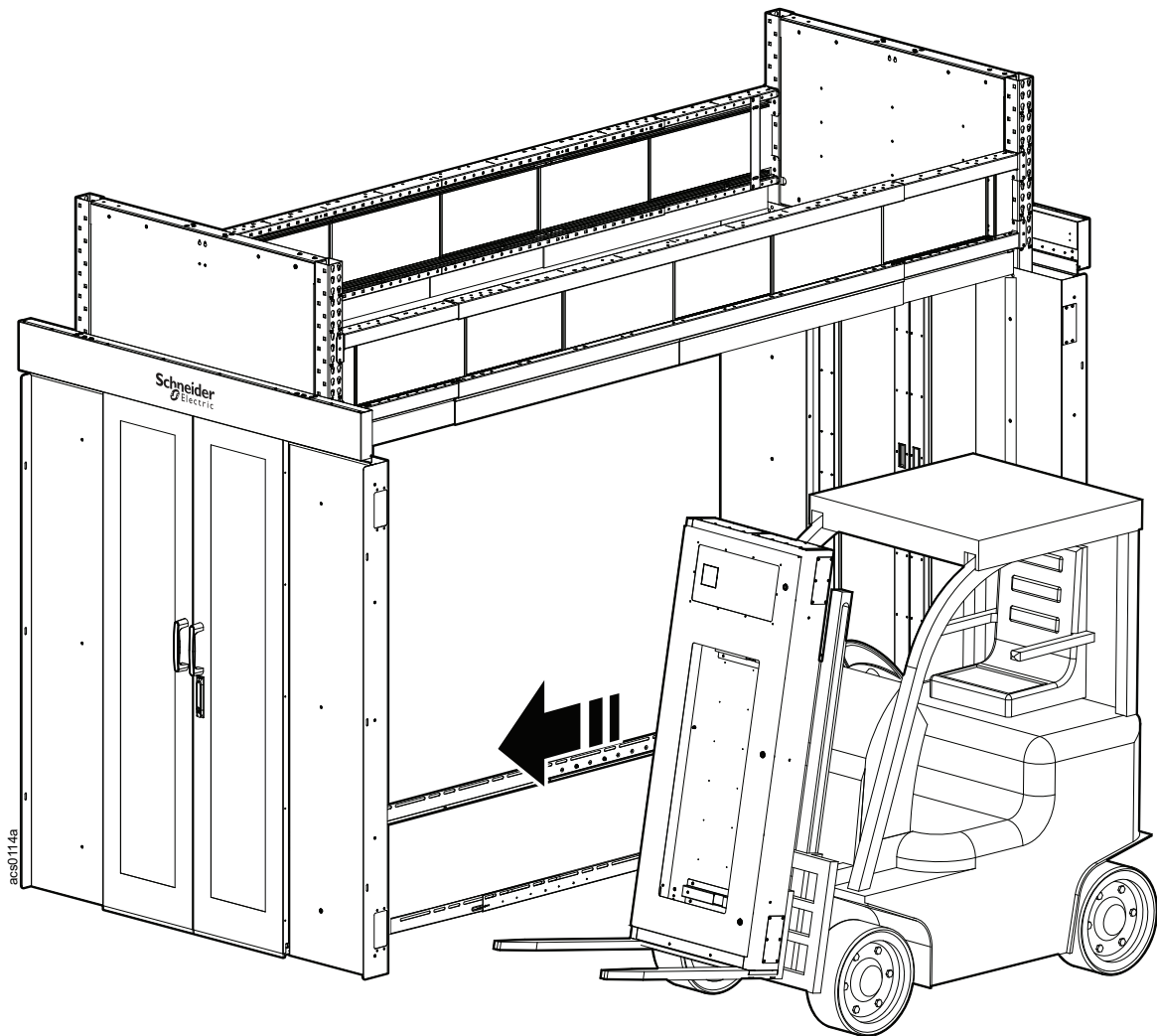
NOTICE

Empty transition cabinets can weigh 97.5–104.3 kg (215–230 lbs) and much more if equipment has been installed. Consider the weight of your cabinet to choose the appropriate method of moving the transition cabinets.

Access panels on the sides of the door frames should be removed prior to installing the transition cabinet.



Move the transition cabinet into position.



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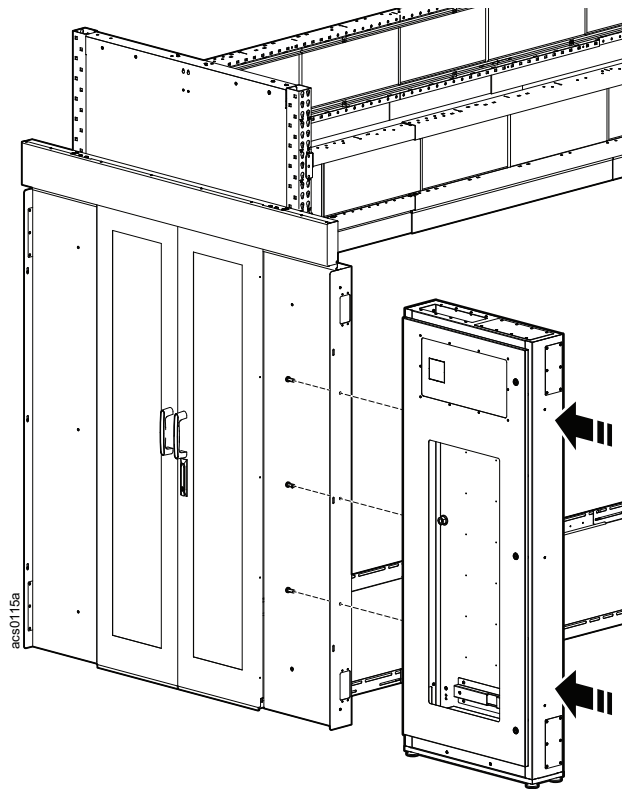
⚠ CAUTION

LIFTING HAZARD

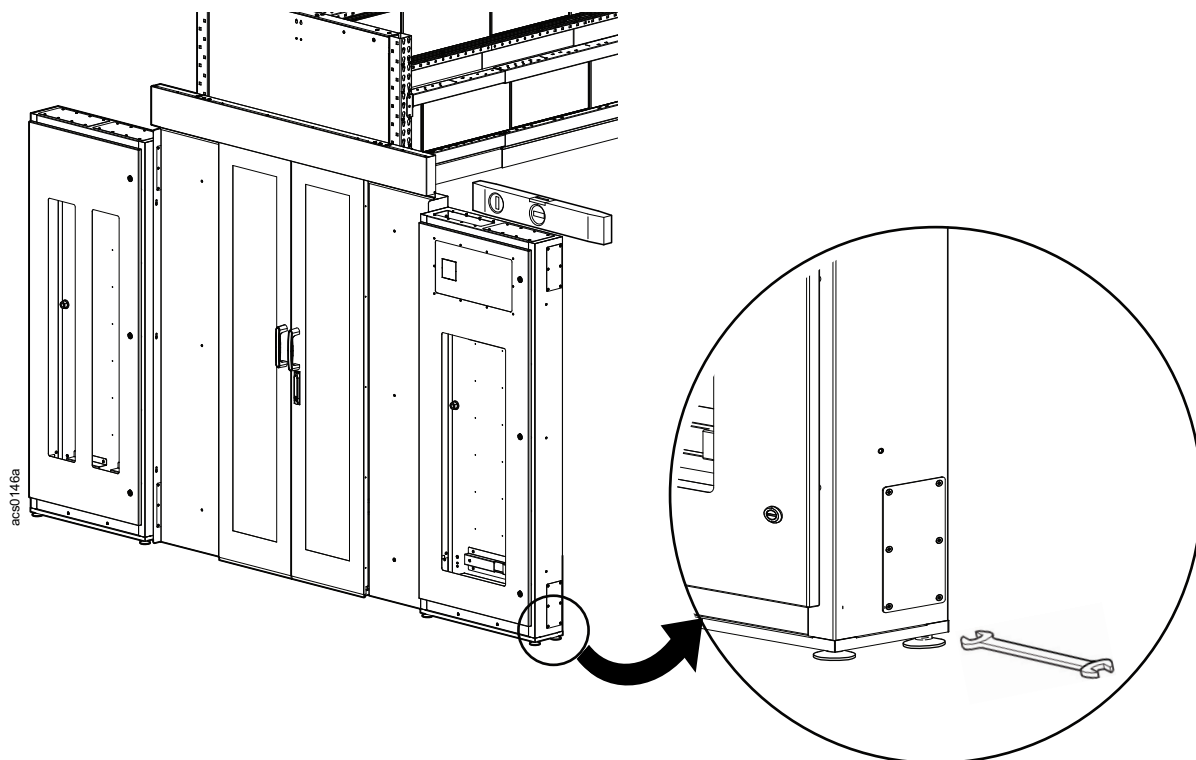
Transition cabinets weigh 97.5–104.3 kg (215–230 lbs). It is recommended that you use mechanical lifting machinery such as a forklift to move the cabinet.

Failure to follow these instructions can result in serious injury or equipment damage.

The transition cabinet is attached to the door frame with three (3) M6 x 12 pan head T30 screws.



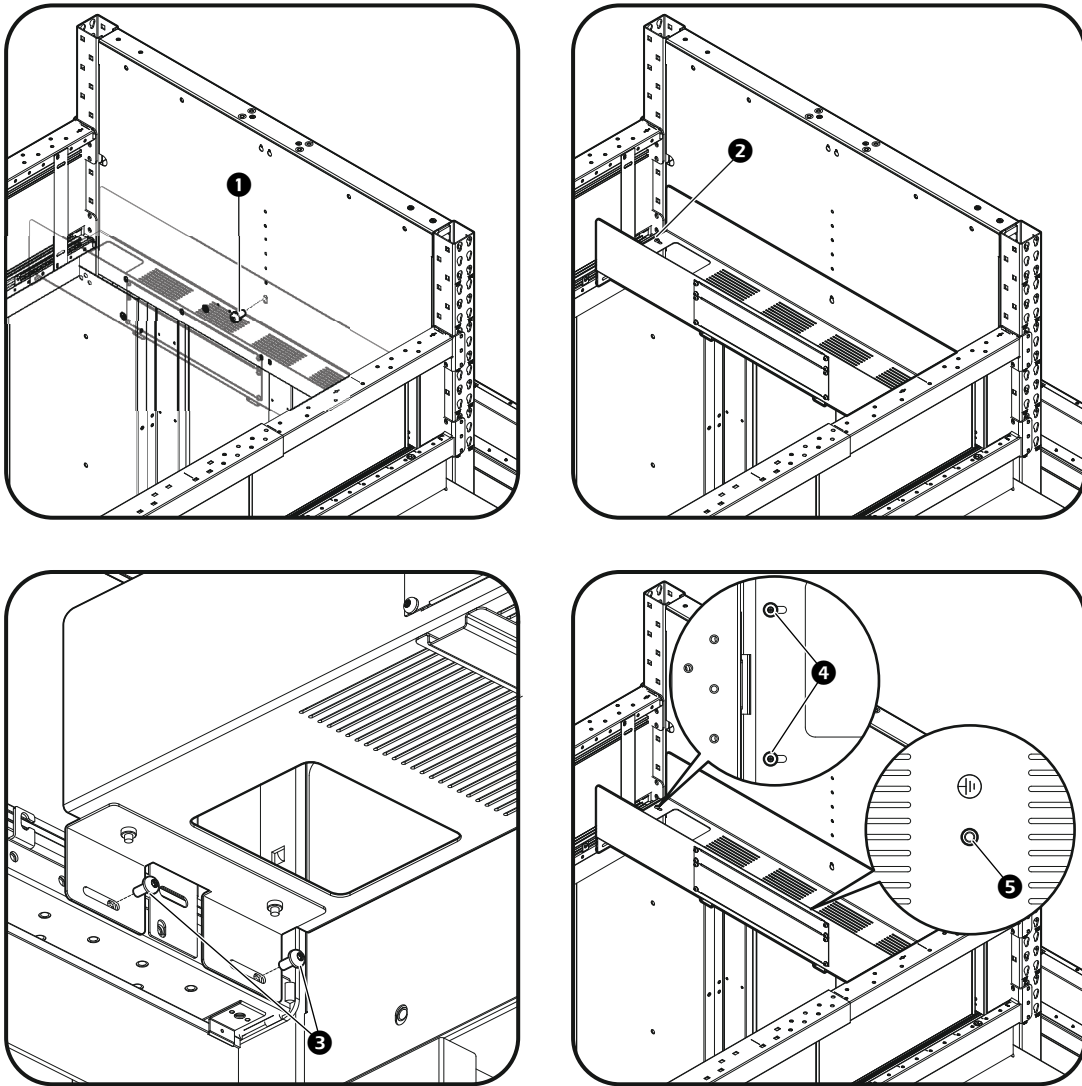
Adjust the leveling feet until the transition cabinet is level and plumb.



Crossover Tray

NOTICE

The location of the length beams will be a determining factor when installing the crossover tray. The location of the holes at the center of the interior end cap panel start at 42 U and continue vertically up to 48 U. In the illustrations for this example, the screw is located at the 42 U position

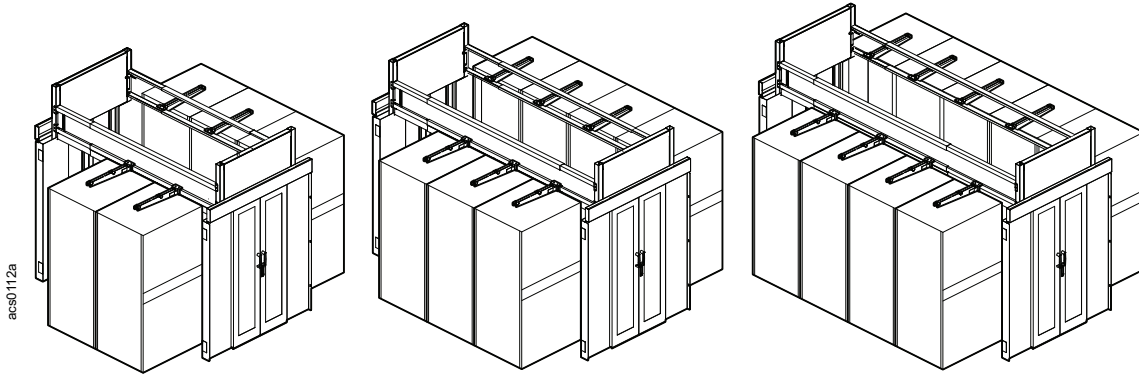


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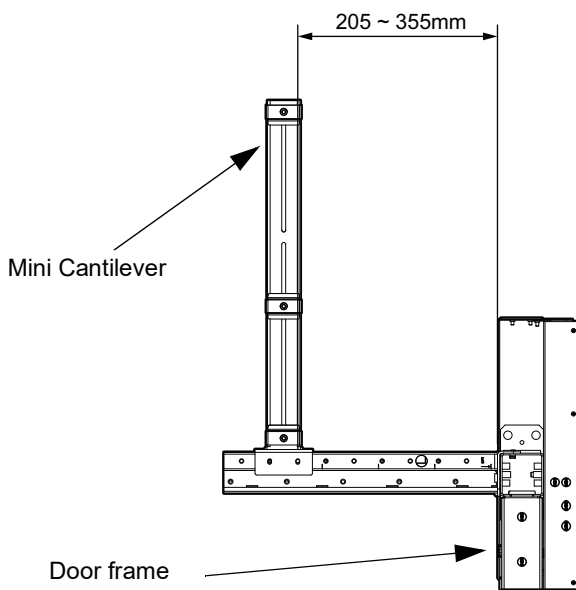
1. Install an M6 T30 screw (1) to the hole on the inside panel of the end cap. Do not fasten the screw tightly.
2. Hang the crossover tray on the screw. Loosen the four (4) screws (2) inside the crossover tray but do not remove them.
3. Slide out the brackets on the bottom of the crossover tray and secure each side to the length beams with four (4) screws (3) in each bracket.
4. Fasten the screws (4) loosened in step 2.
5. Connect the grounding wire to the grounding nut (5) before using the crossover tray.

Mini Cantilever Arms

The number of cantilever arms needed to support the power raceway will depend on the aisle length.



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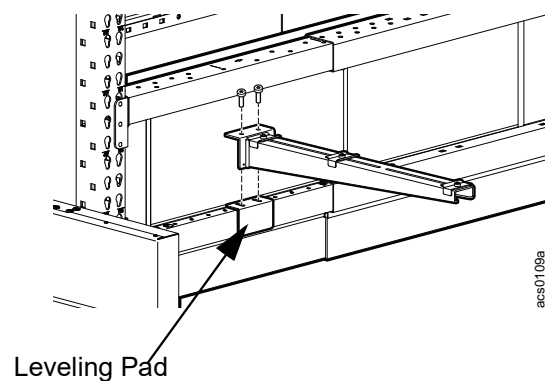


The mini cantilevers are installed equally spaced along the length beams leaving 205–355 mm (8–14 in.) between the end of the first and last mini cantilever and the door frame.

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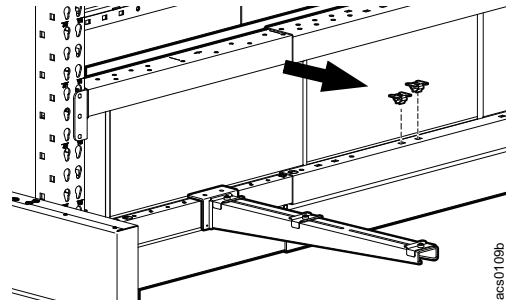
1. The leveling pads position the mini cantilever arms on the small ends of the length beam level with the mini cantilever arms installed on the larger middle portion of the length beam.

Secure the mini cantilever arm and leveling pad with two (2) M6 x 20 hex socket bolts.

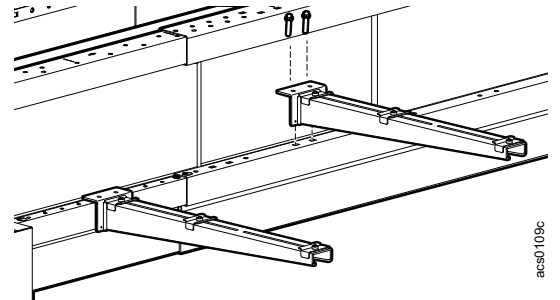


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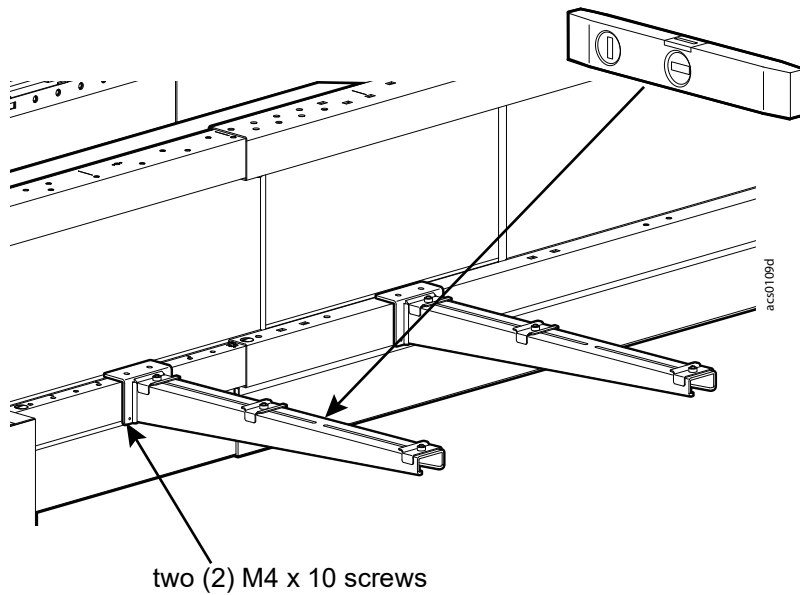
2. Install the insert nuts to the holes in the middle portion of the length beam where you have determined to locate the mini cantilever arms.



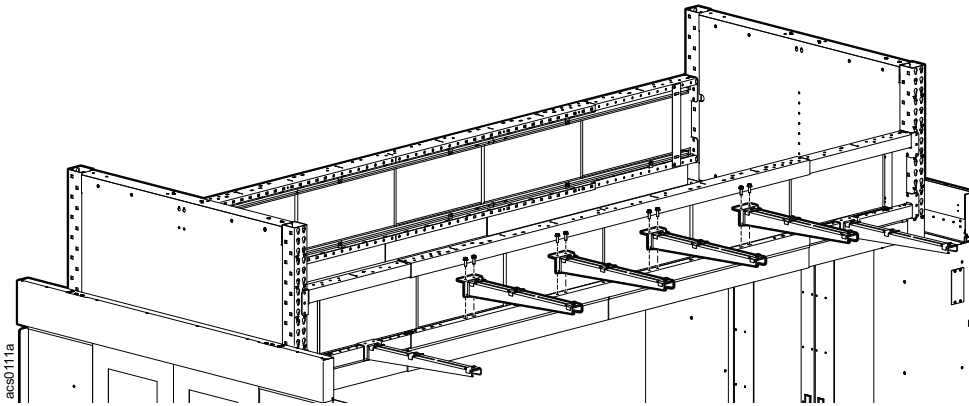
3. Install the mini cantilever arms over the insert nuts on the middle portion of the length beam and secure with two (2) M6 x 20 hex head bolts.



4. Use two (2) M4 x 10 screws to adjust the leveling of the cantilever arm.

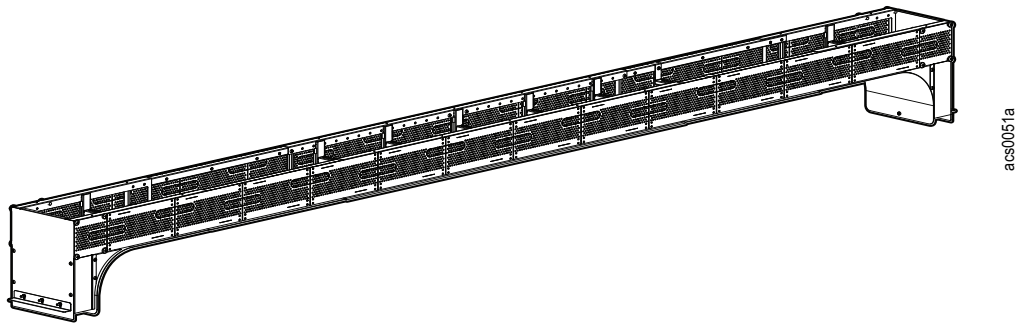


5. Install the mini cantilevers equally along the length beam.

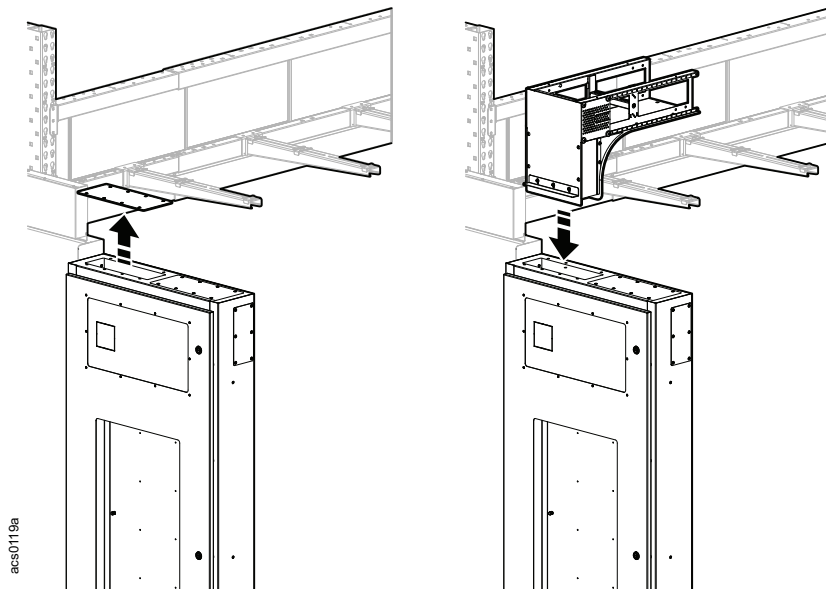


Power Raceway

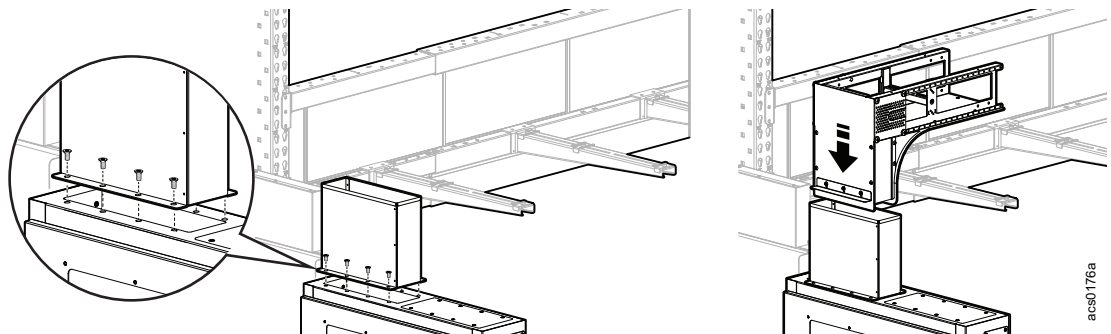
The mini cantilevers and at least one transition cabinet must be installed before the power raceway is installed.



1. Remove the top cover of the transition cabinet and insert the end module into the hole.



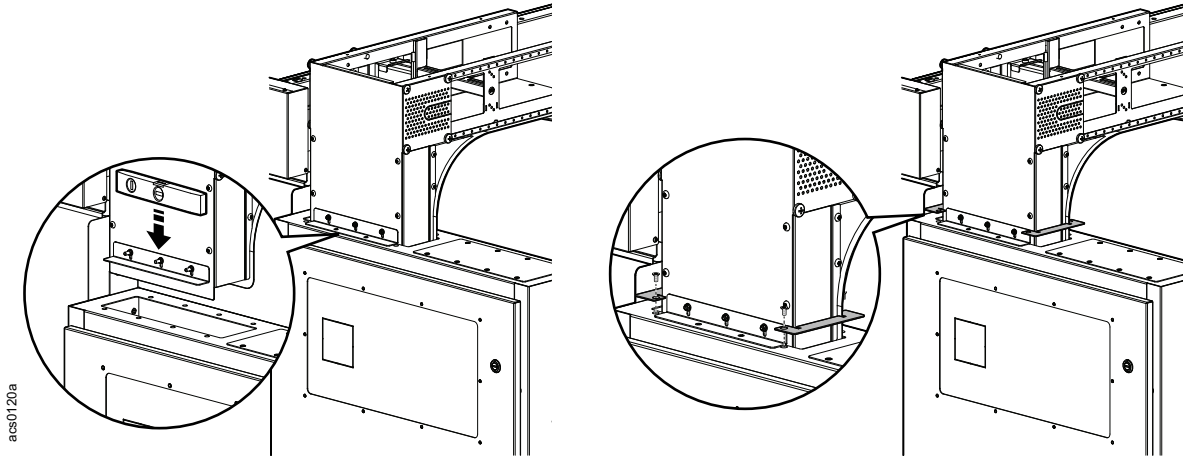
If there is a gap between the end module and the transition cabinet, use the 3 U or 6 U chimney to close the gap. Use the M5 x 12 flat head screws to fasten the chimney to the transition cabinet, then slide the end module into the chimney.



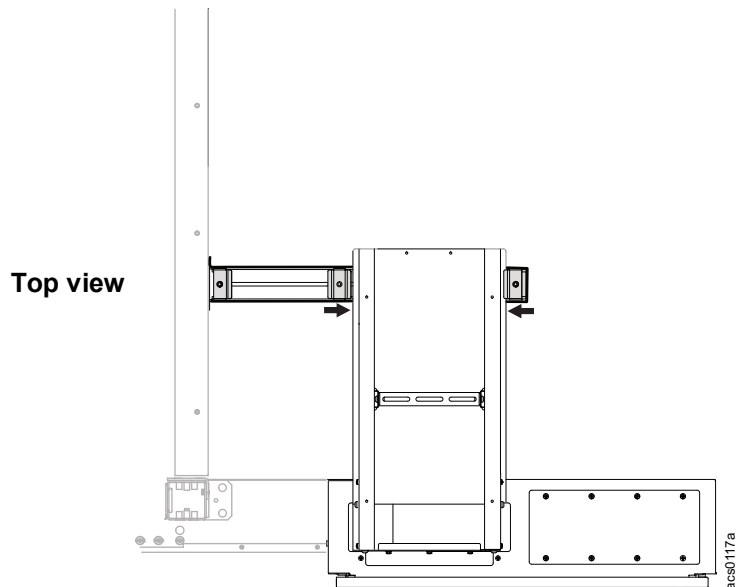
NOTE: There is a nut on the inside of the end module for grounding purposes. You may need to angle the end module to get the nut into the transition cabinet or the chimney.

2. Secure the support bracket on the end module to the top of the transition cabinet, or let it rest on top of the chimney. The support bracket has slotted holes on the side attached to the end module. The end module can be leveled by loosening the M5 nuts and adjusting the support bracket up or down.

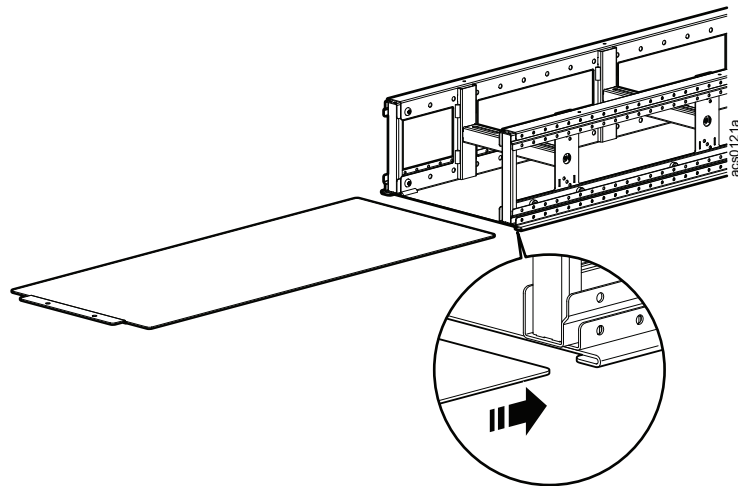
If you do not use a chimney, secure the cover brackets on either side of the end module with M5 x 12 flat head screws. If you use a chimney, the cover brackets are not needed.



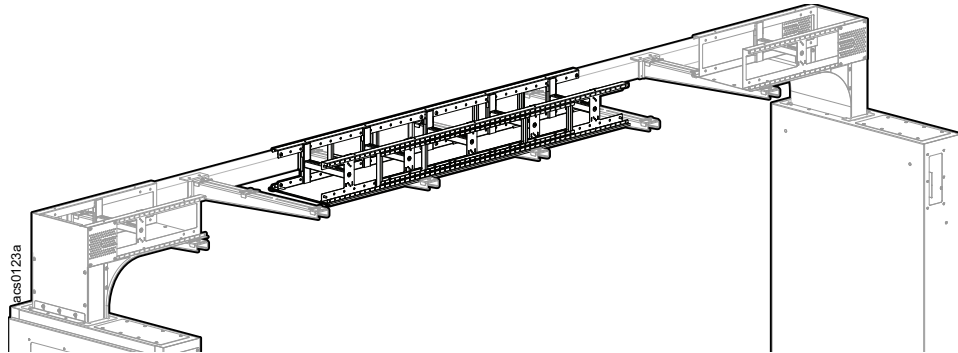
3. To secure the end module to the cantilever arm, loosen the fasteners holding the clips in place, then slide the clips toward the end module. The lip of the clip is slightly raised and will slide over the edge of the end module. Tighten the clip fasteners once they are in position.



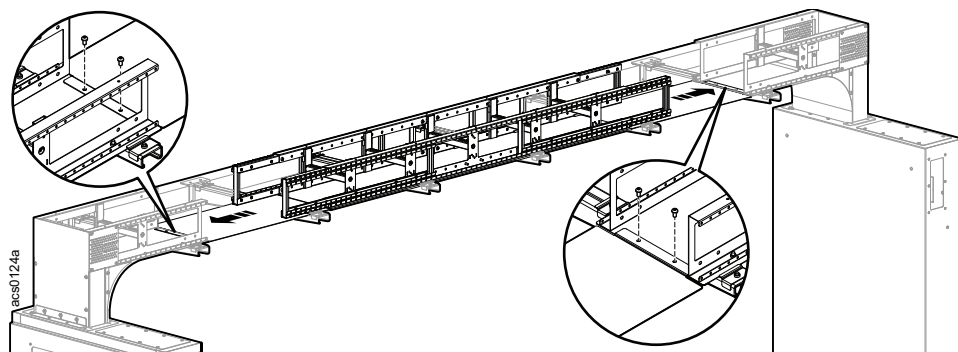
4. Insert the sliding base into the body module. Slide the base out far enough to reach the end module.



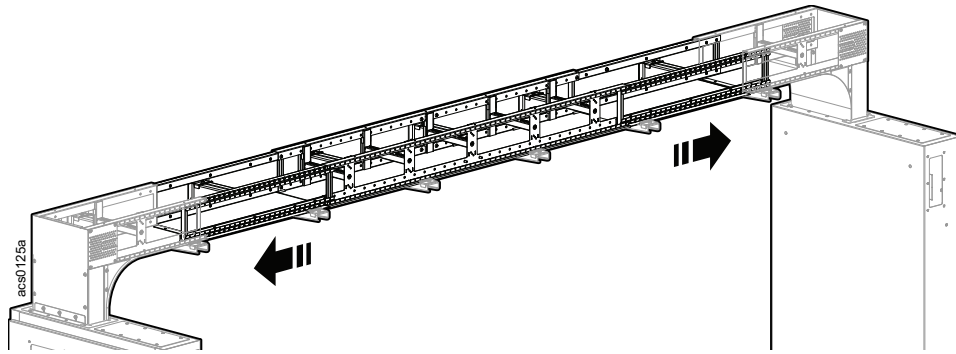
5. Place the body module on the mini cantilevers at the center of the pod aisle.



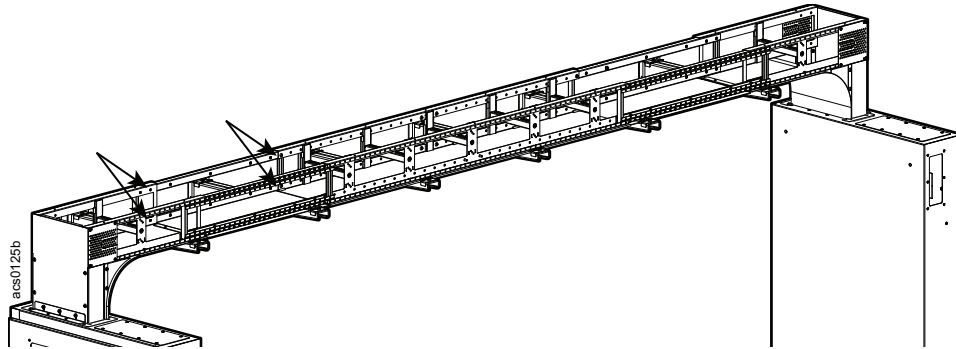
6. Attach the base to the end module with two (2) M6 T30 screws.



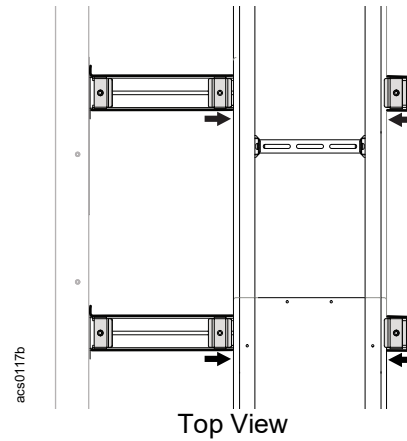
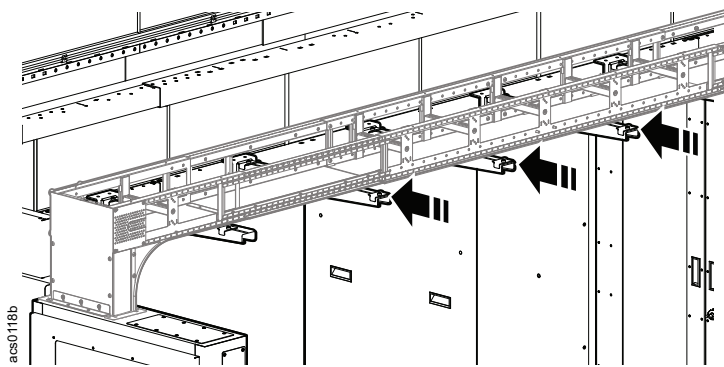
7. Remove the four (4) M6 T30 screws from the end of the body module and slide out the extension to reach the end module.



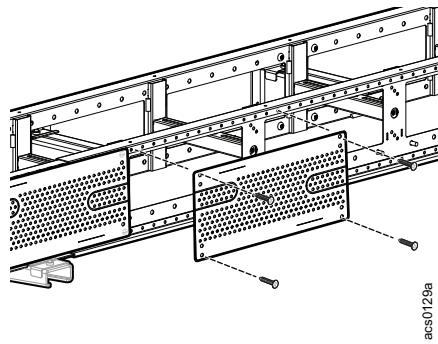
8. Replace and tighten the screws to secure the extension in its position.



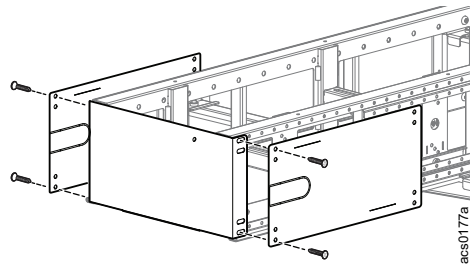
9. Loosen the clips on the mini cantilevers and slide them toward the power raceway. Secure the clips by tightening the clip fasteners.



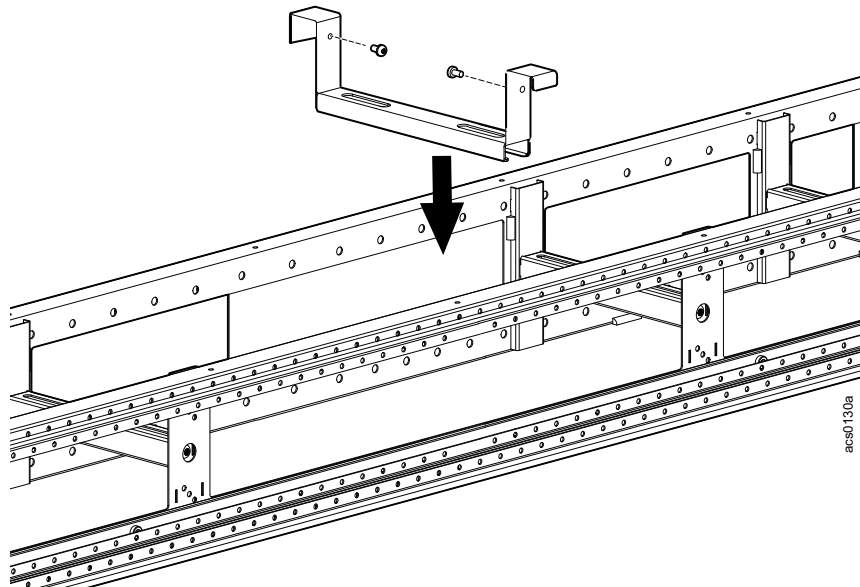
10. Attach each side cover with four (4) Phillips head 10-32 self-tapping screws. Torque 2-2.5 N-m.



If there is no transition cabinet or end module at either end of the body module, you can attach the cap end to the end of the body module with the same 10-32 self-tapping screws used to attach the side covers.



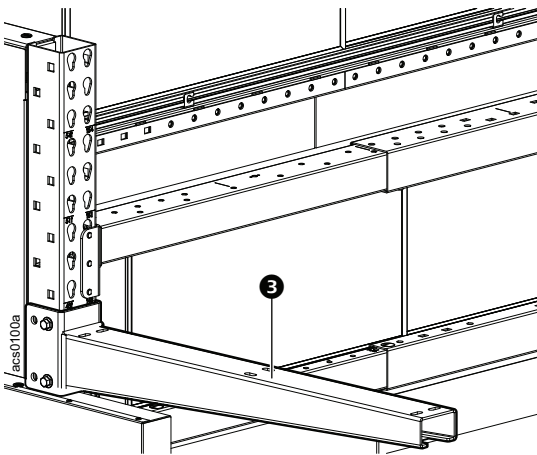
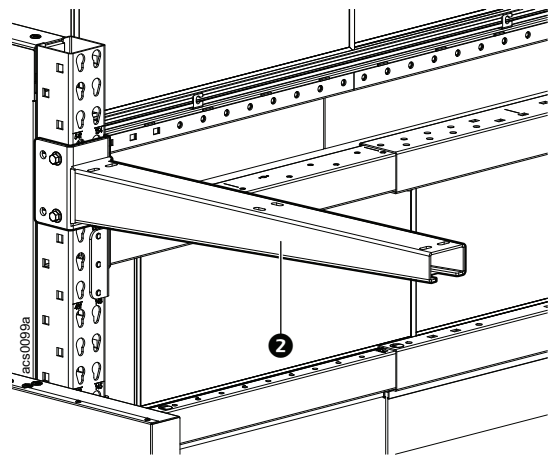
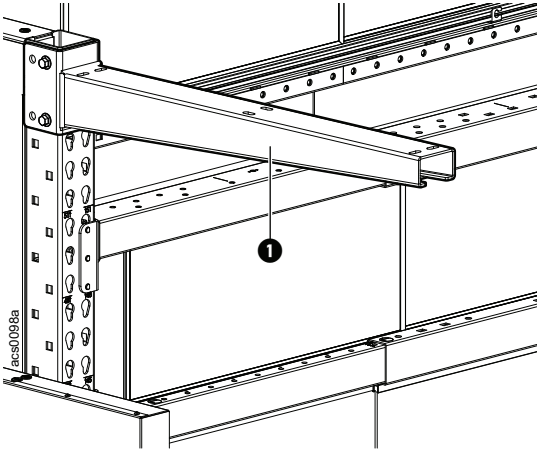
11. If more stability is required, install the additional cable rung on the sliding frame with two (2) T30 M6 screws.



Post Cantilevers and Suspension System

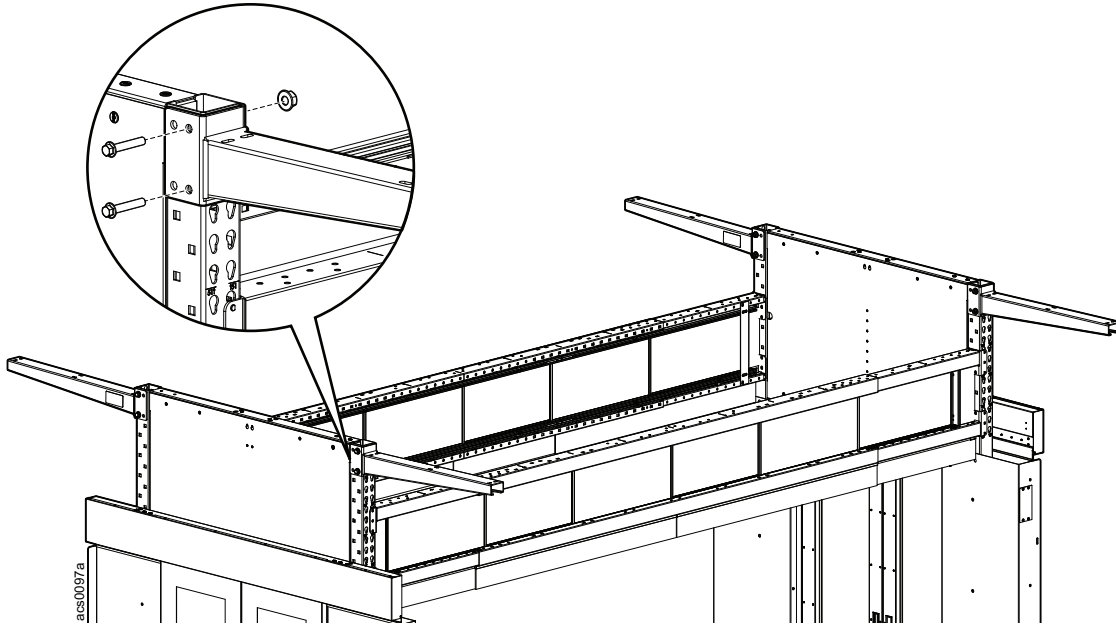
Possible configurations for Post Cantilevers:

The square holes on the vertical posts are used for cantilever installation. The cantilevers can be installed at the top of the vertical post (❶), just above the top length beam (❷), or between the length beams (❸).



Standard configuration installation

1. Install one cantilever to each of the corner vertical posts as shown using two (2) M12 x 100 hex head bolts and M12 nuts.



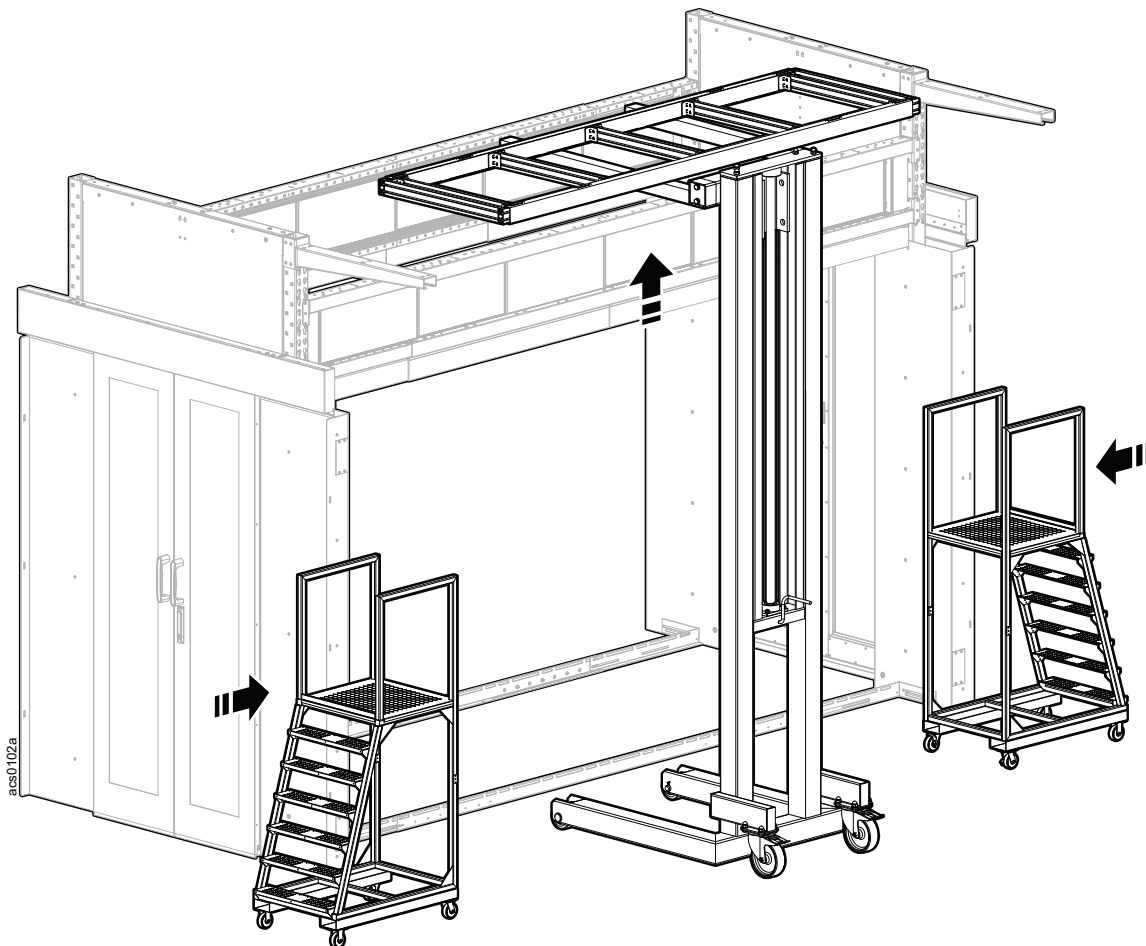
- Using appropriate lifting equipment and ladders, install the overhead support frame.

▲ CAUTION

LIFTING HAZARD

At least two (2) people are required to install this enclosure. Some parts may be heavy and/or excessive in size. For items weighing more than 12 kg (25 lbs), use more than one person.

Failure to follow these instructions can result in serious injury or equipment damage.



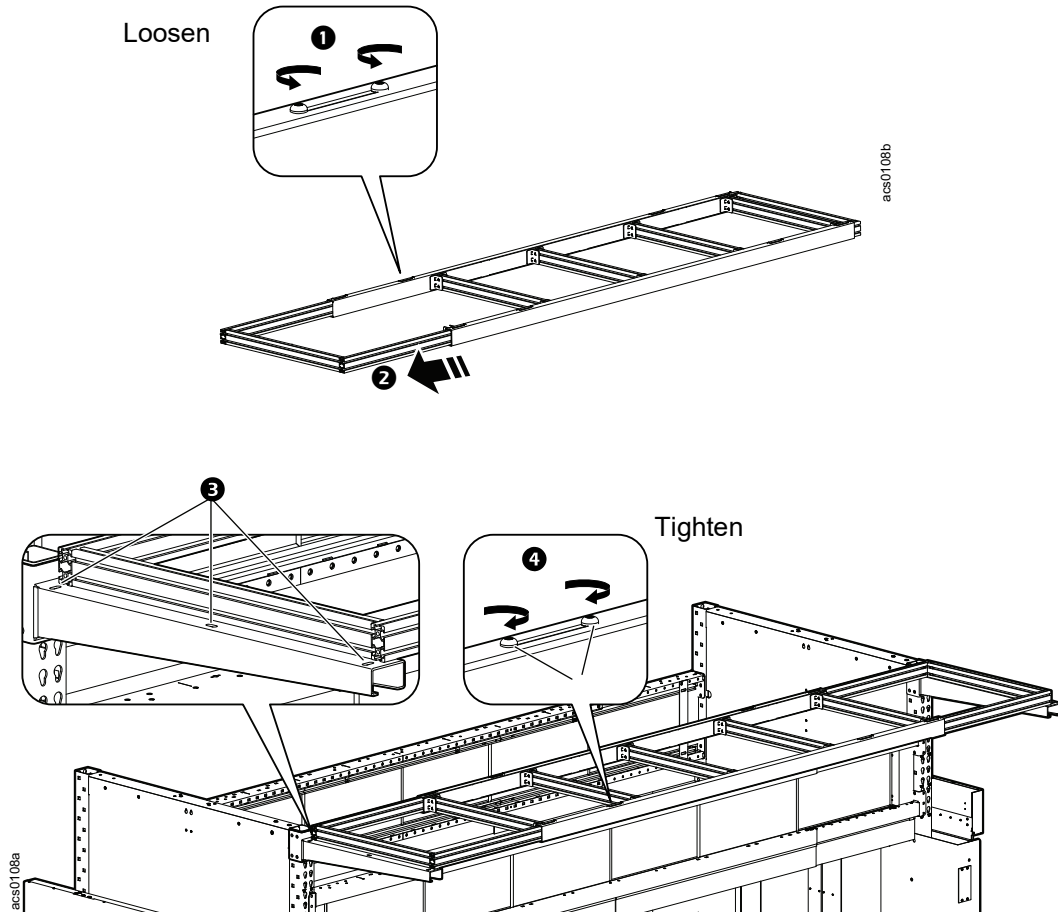
▲ CAUTION

WORKING HEIGHT HAZARD

The working height for the assembly process can exceed 2.3 m (7.5 ft). The use of stepladders or scaffolding will be required during assembly.

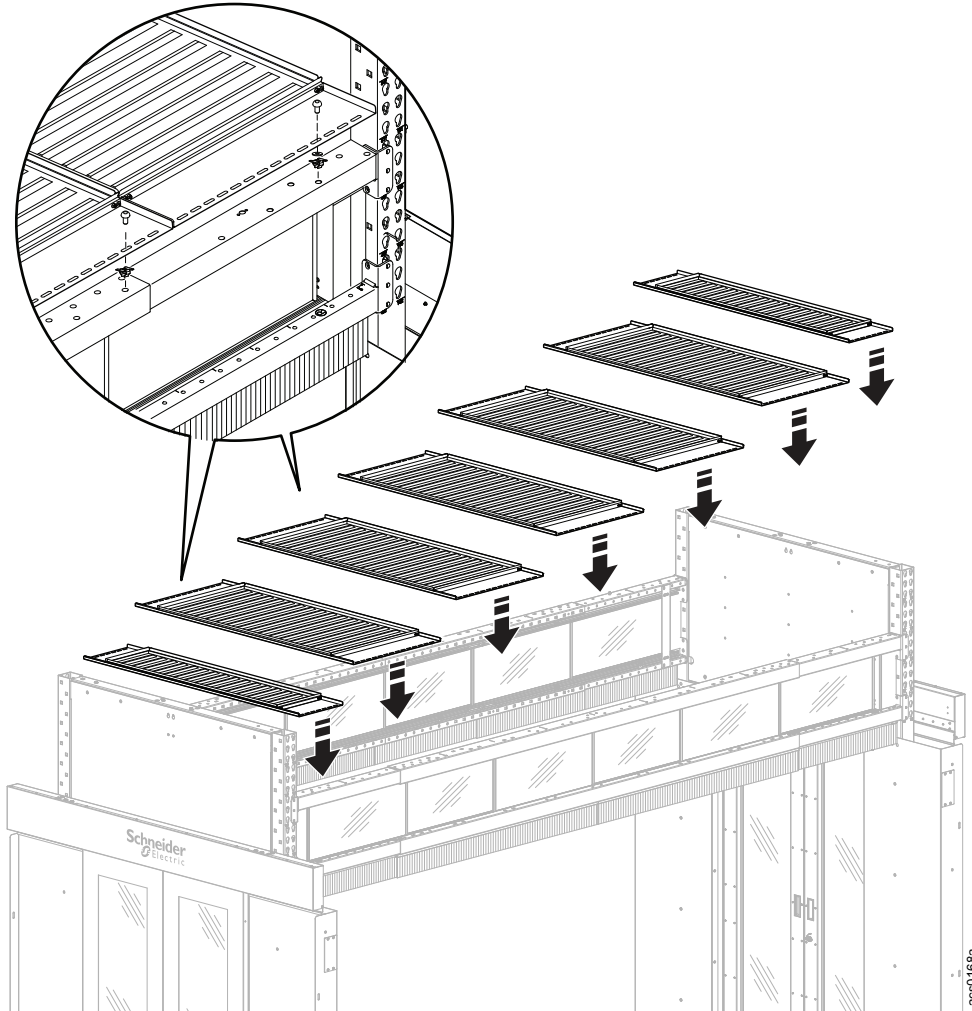
Failure to follow these instructions can result in serious injury or equipment damage.

3. Loosen the two (2) screws (1) on the support frame and slide the ends (2) out to reach the desired length.
4. Secure the support frame to the cantilevers with M6 x 12 pan head T30 screws and M6 nuts (3).
5. Tighten the screws (4) to secure the support frame ends.



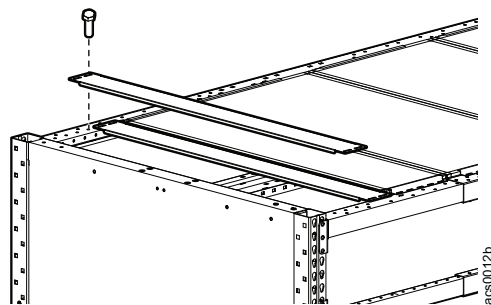
Shrink Roof

Install the roof panels to the top of the horizontal length beams using the M6 x 12 pan head T30 screws, insert nuts, and brackets. Use the washers for shrink roof panels secured to the small, end sections of the length beams. The washers raise the panels on the small sections so that all of the shrink roof panels are level with each other.



NOTE: If there are gaps between the shrink roof panels, you can paste the EPDM foam to the sides of the panels to fill in the gaps.

Use the roof filler panels and hex head screws to fill in the extra space at the end of the aisle, if any. The roof filler panels have slotted holes to allow for adjustment.



Drop Roof

Install the mounting rails

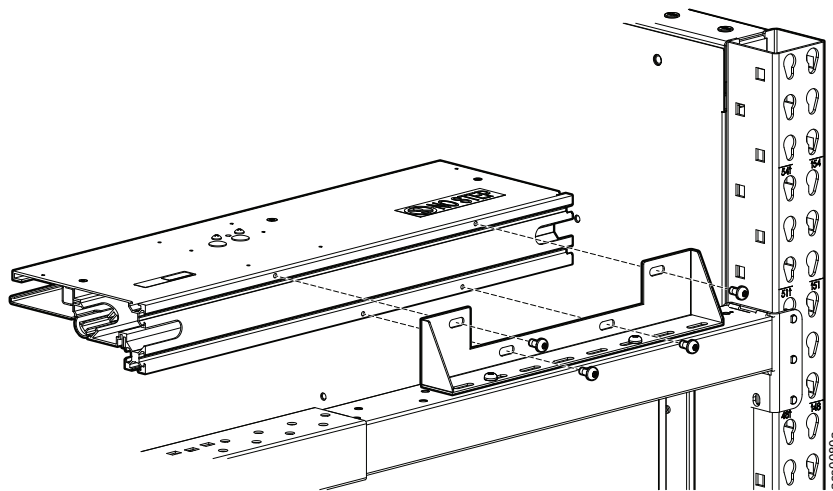
NOTICE

If a rack door is open when the dropout ceiling system activates, ceiling panels may be blocked by the rack door and not drop completely.

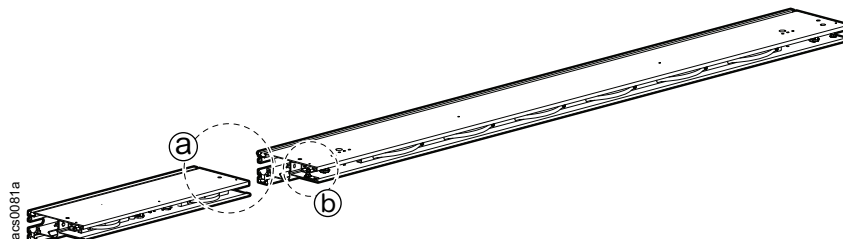
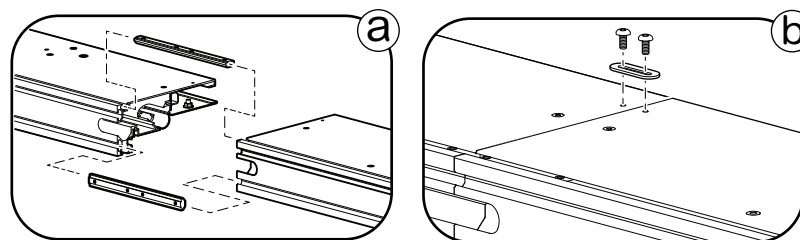
- Make sure the hinge flaps are in the locked position
- Attach the rail sections together on the ground first, then lift into place.

NOTE: To prevent damage or warping, do not exceed a length of 3.6 m (12 ft) for any pre-assembled section.

The bracket for the support assembly is attached to the top of the length beam with insert nuts and M6 x 16 pan head screws. Attach the ceiling support assembly to the bracket with four (4) M6 x 10 pan head screws.

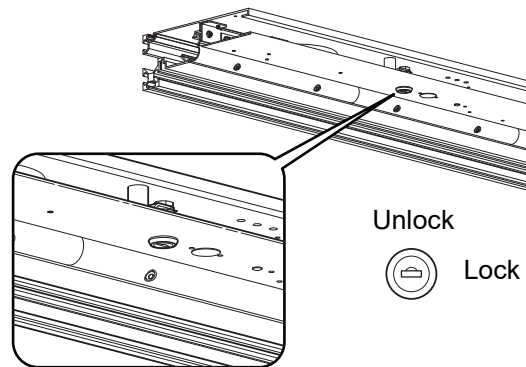


- a. Install connectors to two (2) sections of ceiling support assembly to connect them together.
- b. Secure with the joining bracket and two (2) M4 x 8 pan head screws.



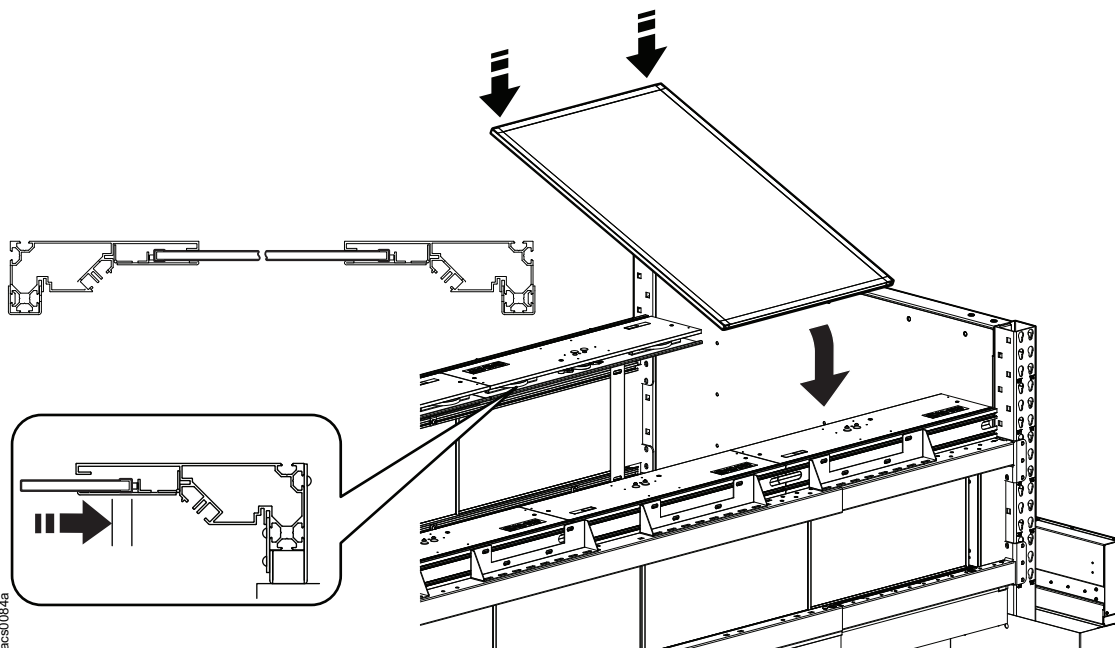
Install the ceiling panels

IMPORTANT: Ensure the hinge flaps are locked in place before you install the ceiling panels.



Install the ceiling panels:

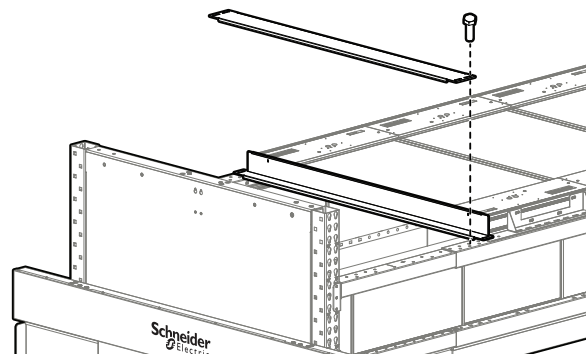
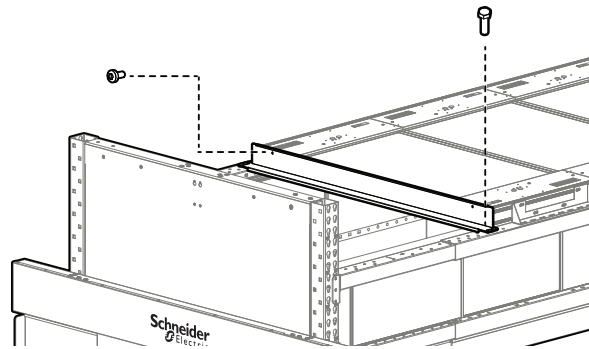
1. Remove the protective plastic.
2. Slide one edge into one of the mounting rails.
3. Push the panel in and compress the springs allowing room to insert the opposite end of the panel in the mounting rail on the opposite row.
4. Release the panel. The spring retainers will automatically center the panels within the aisle.



Solid Roof Filler Panel for Drop Roof

Solid roof panels are used to fill in any space between the drop roof panels and the end of the frame. Use the 50 mm (2 in.) solid roof panel for the drop roof first. Attach this panel to the drop roof panel with the pan head screws. Attach the panel to the length beam with the hex head screws.

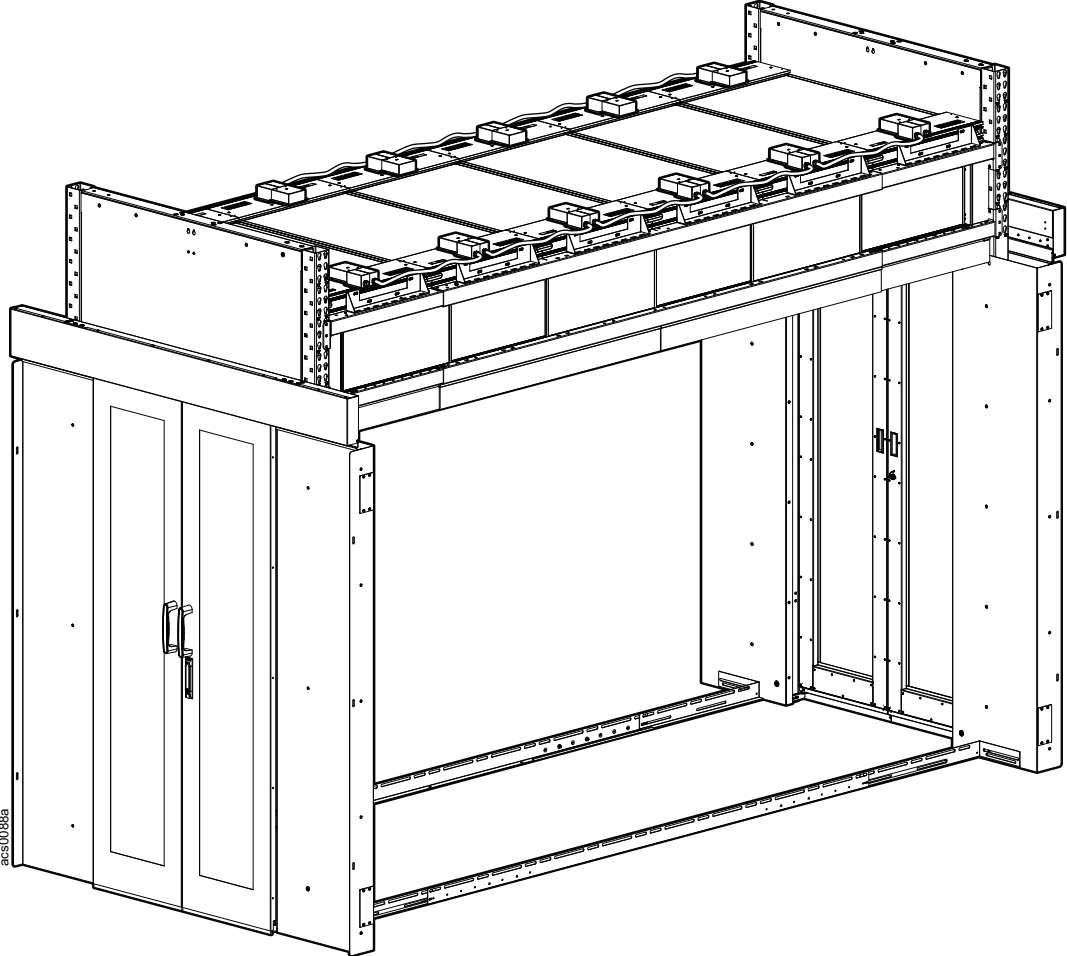
Continue to add solid roof panels until all the space between the last drop roof panel and the end of the aisle is covered.



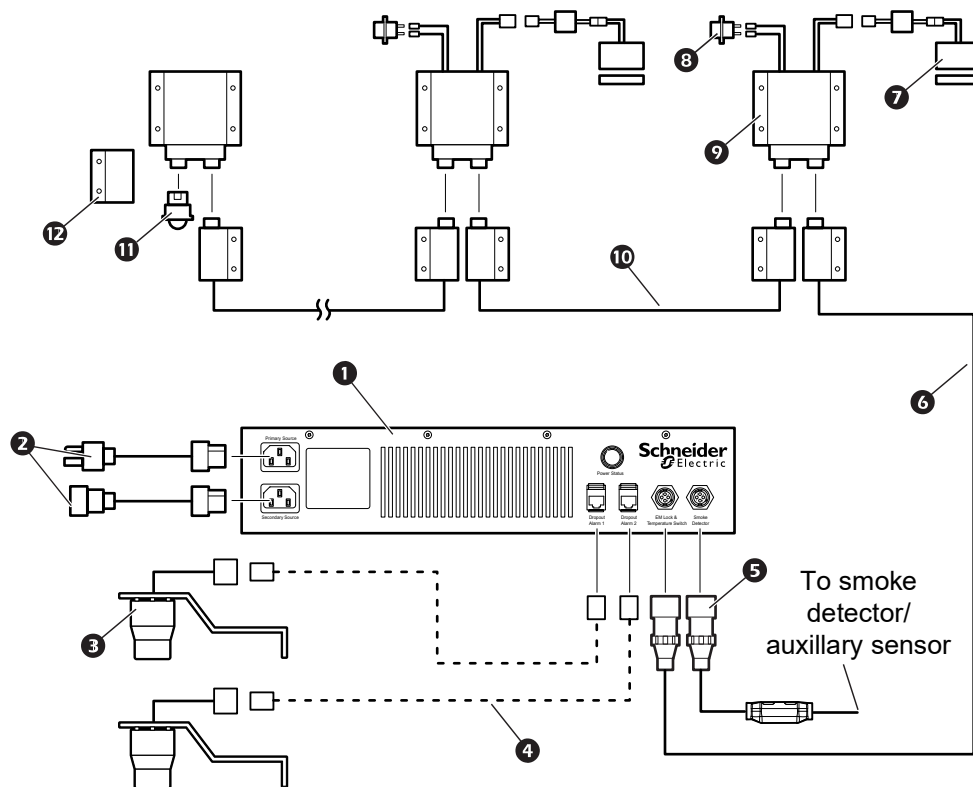
acs0138a

Ceiling Panel Lock System

IMPORTANT: This system is designed to work with standard response sprinklers only.

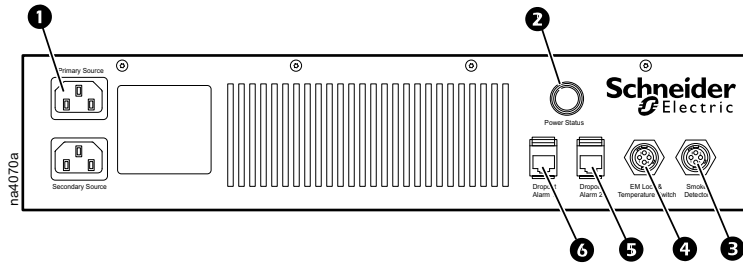


System diagram



Item	Description
1	Dropout power supply control box
2	Power cord
3	Alarm beacon
4	Field supplied CAT-5 cable
5	4-pin jumper (if no smoke detector is in use) Smoke detector cable (if smoke detector is in use)
6	Wire assembly - power supply to wiring box
7	Electromagnetic lock (up to 30 per control box)
8	Temperature switch
9	Wiring box
10	Box-to-box wire harness Box-to-box wire harness, across aisle
11	Terminal jumper
12	Wiring box cover

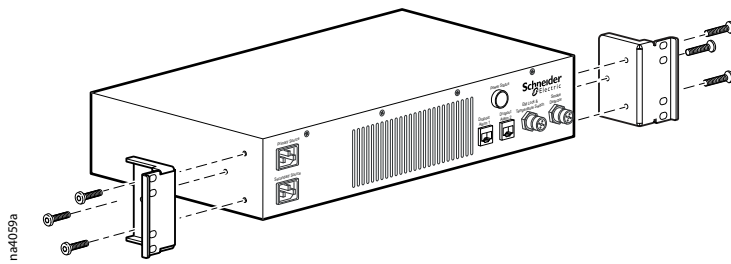
Power supply component identification



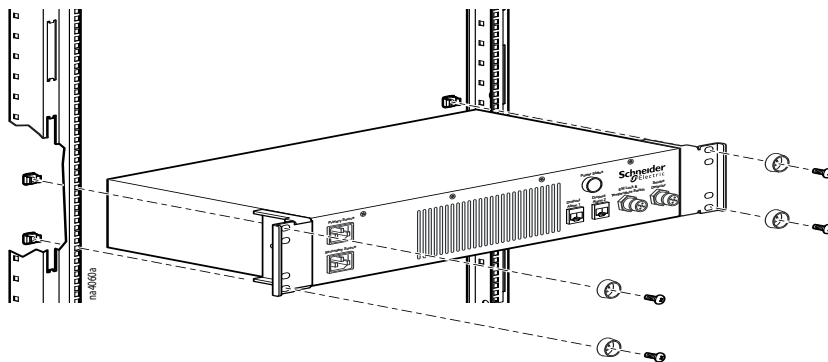
Item	Description
1	AC line, primary/secondary
2	Power status indicator light
3	Smoke detector connection
4	Electromagnetic lock temp. switch connection
5	Dropout alarm 2
6	Dropout alarm 1

Install the power supply

1. Attach the mounting brackets to the sides of the power supply.



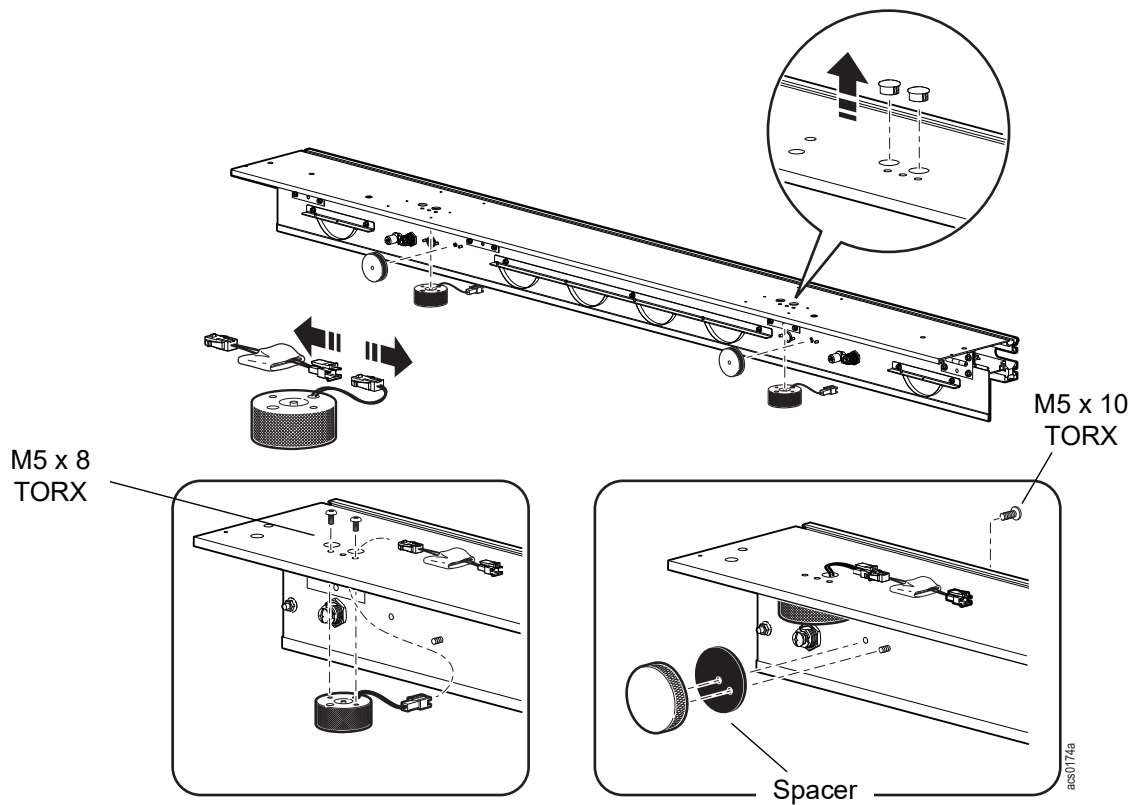
2. Install the power supply onto the mounting rails of the enclosure using four (4) caged nuts, cup washers, and M6 x 16 screws.



Install electromagnetic locks

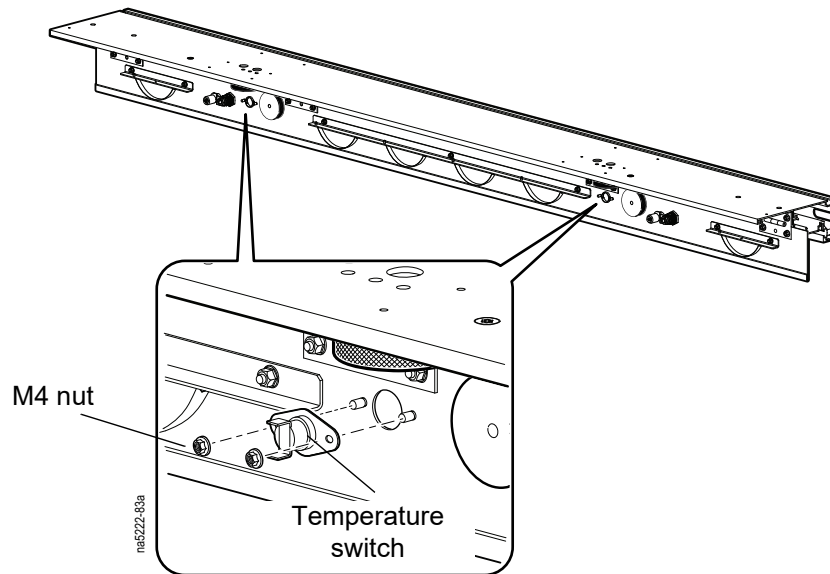
Attach the electromechanical lock to the ceiling panel support rails.

1. Remove the two (2) large hole plugs from the top of the ceiling panel supports.
2. Disconnect the electromechanical lock from the printed circuit board assembly.
3. Guide the wire connector from electromechanical lock through the hole in the top of the ceiling panel support.
4. Install the top half of the electromechanical lock to the top of the ceiling panel support rail with two (2) M5 x 8 screws each. Place the printed circuit board assembly on top of the ceiling panel support rail and reconnect to the electromechanical lock.
5. Install the lower half of the electromechanical lock and spacer to the ceiling panel support rail hinged flap using one M5 x 10 screw each.



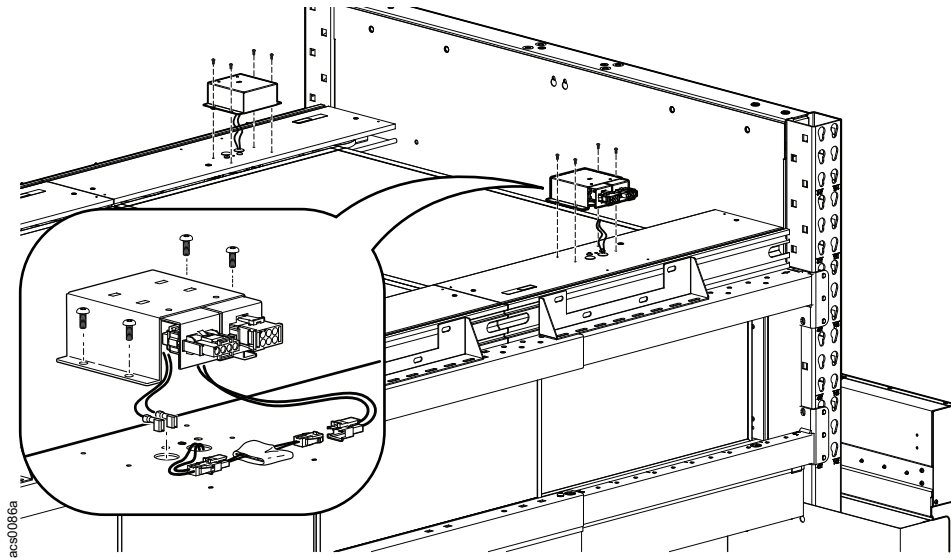
Install the temperature switches

Using two (2) M4 nuts each, install the temperature switches to the ceiling panel support rail hinged flap.

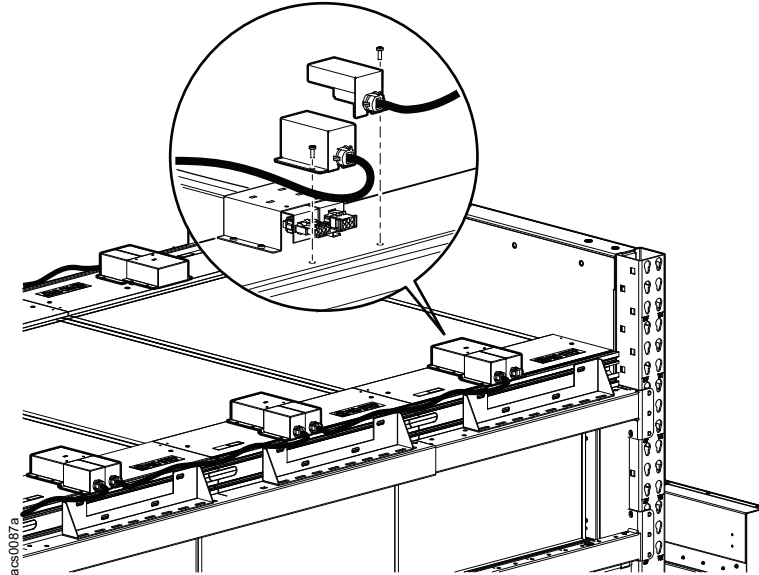


Install electrical boxes and route cables

1. Make the connection to the electromagnetic locks and temperature switches.
IMPORTANT: Position wires so they do not interfere with the closing of the hinge flap.
2. Install the wire boxes to the top of the ceiling panel mounting rails using four (4) M4 x 8 screws each.

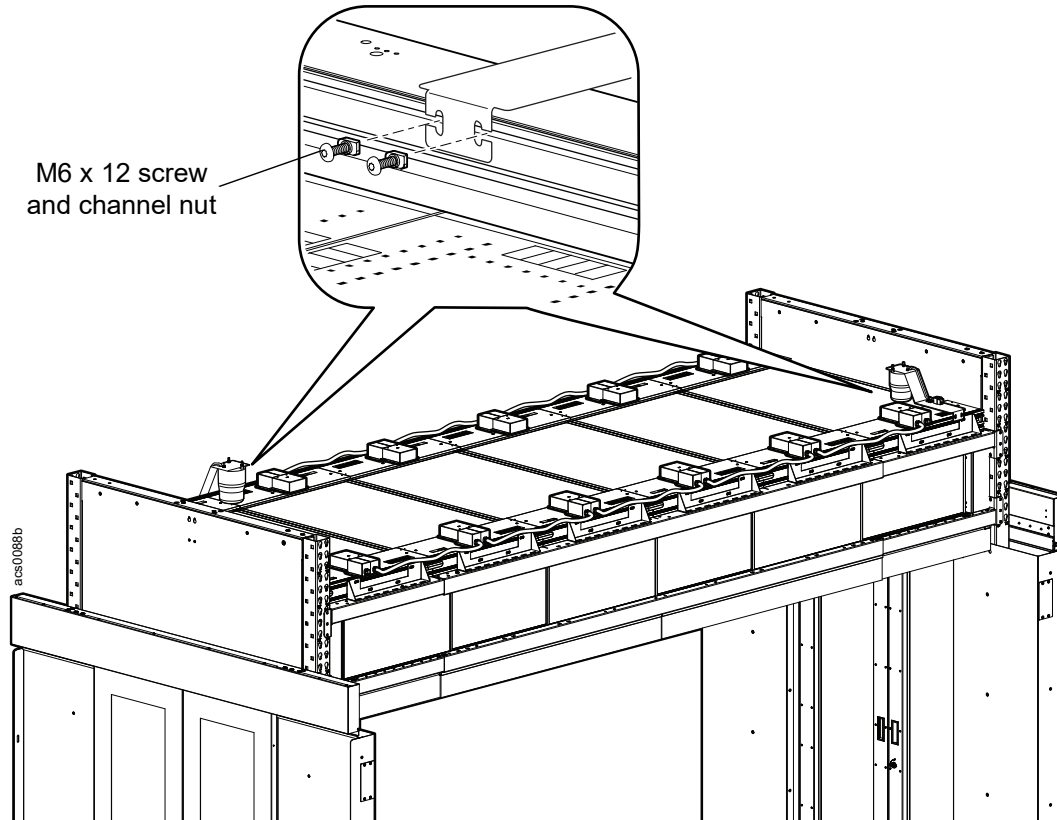


3. Connect the wiring boxes together with box-to-box wire assemblies and the cross-aisle wiring assembly.

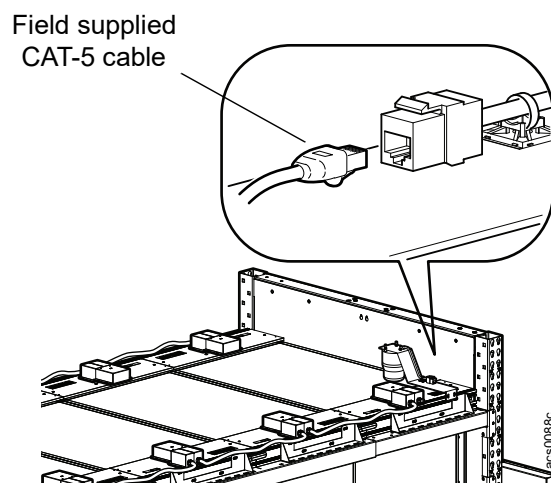


Install the alarm beacon

1. Using two (2) M6 x 12 and channel nuts each, install two (2) alarm beacons per power supply control box positioning them at opposite corners of the aisle.
NOTE: For clarity, electrical boxes and wires are not shown.

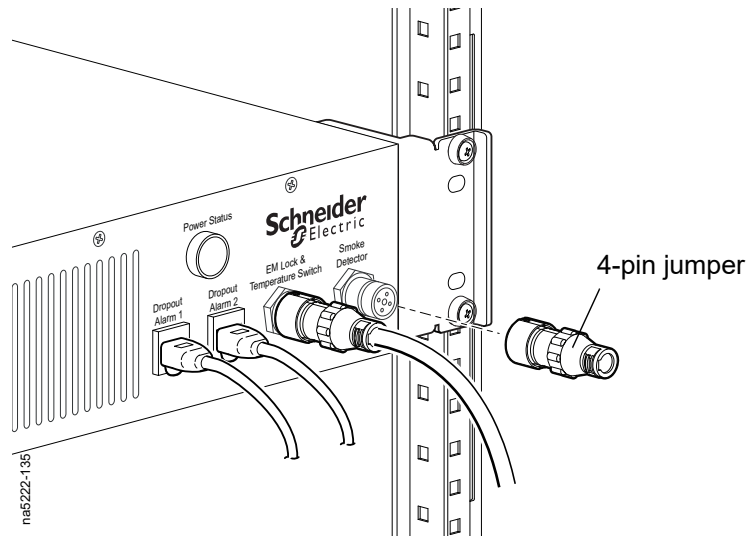


2. Connect the alarm beacons to the power supply control box using field supplied CAT-5 cables.



Install the smoke detector

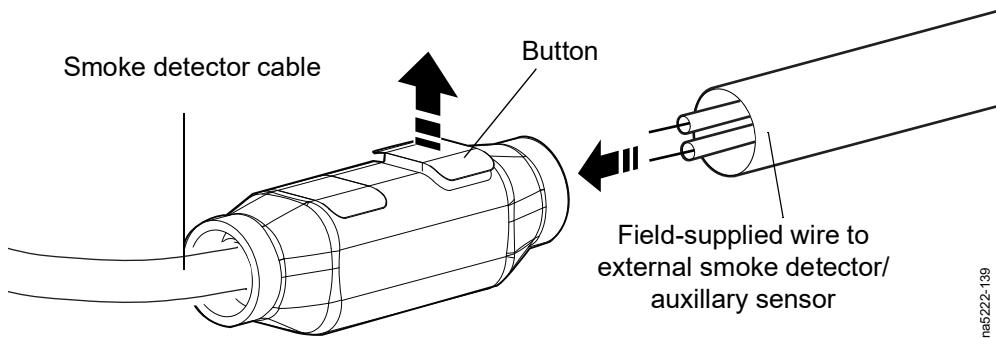
Connect the 4-pin jumper to the Smoke Sensor connector if an external smoke detector is not being used.



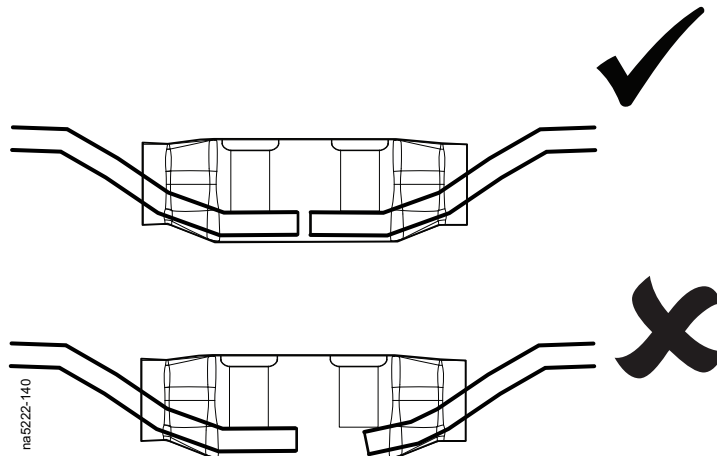
If an external smoke detector is being used:

1. Strip the field-supplied wire to be used to connect to the building smoke detector. Leave a minimum of 15 mm (0.6 in.) of exposed wire.
2. Insert the wire into the open end of the smoke detector cable. Make sure the button on the connection end is in the open position.

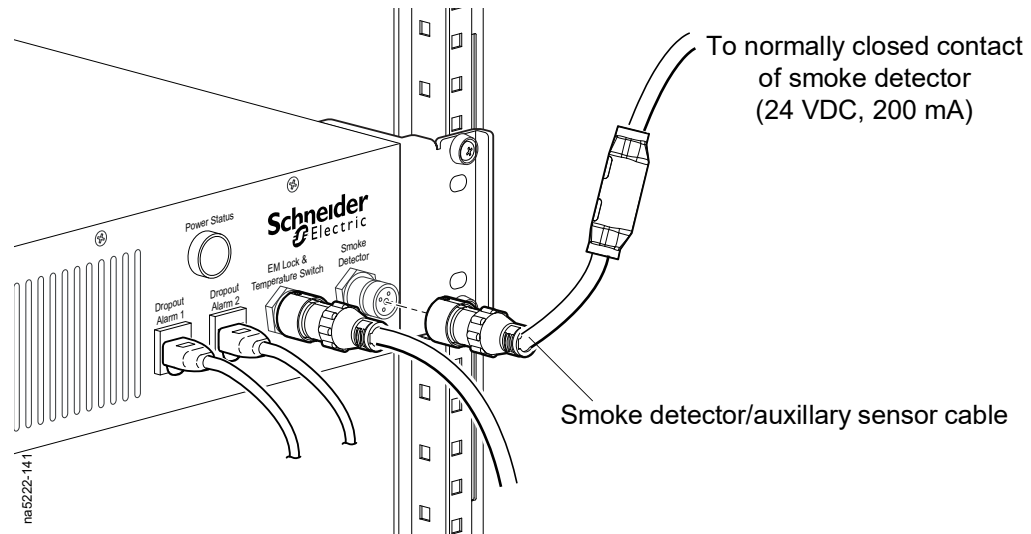
NOTE: The field-supplied wire needs to be a shielded 20 AWG or network cable that is grounded at the customer end connection point. The maximum routing distance for the wire is 76 m (250 ft). For best performance, avoid interference from high-voltage cables and devices such as a UPS or PDU.



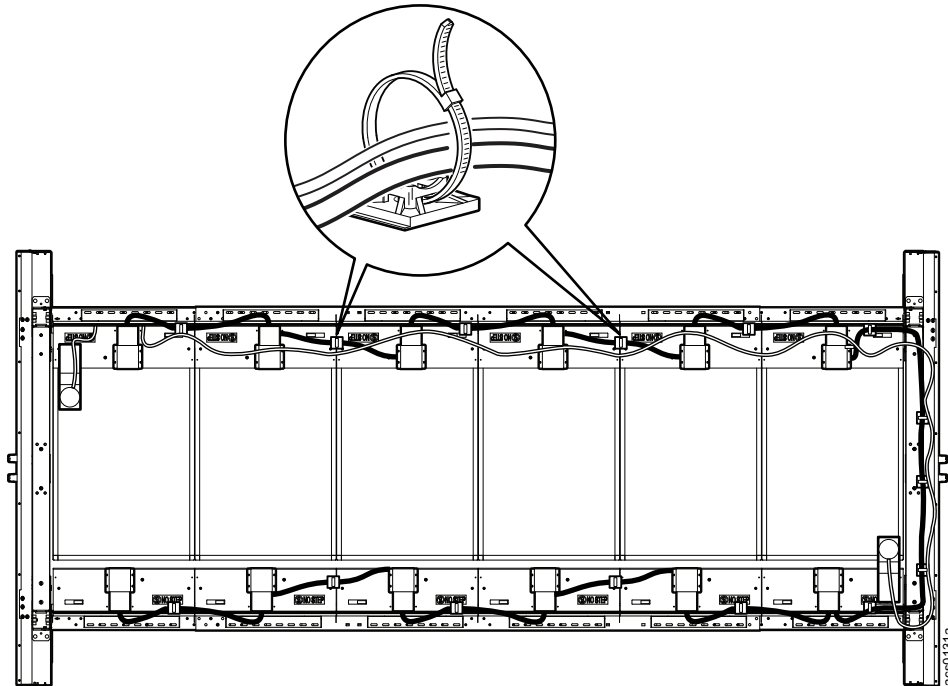
3. Use pliers to close the button and terminate the wires.



4. Connect the smoke detector cable to the Smoke Sensor connector.



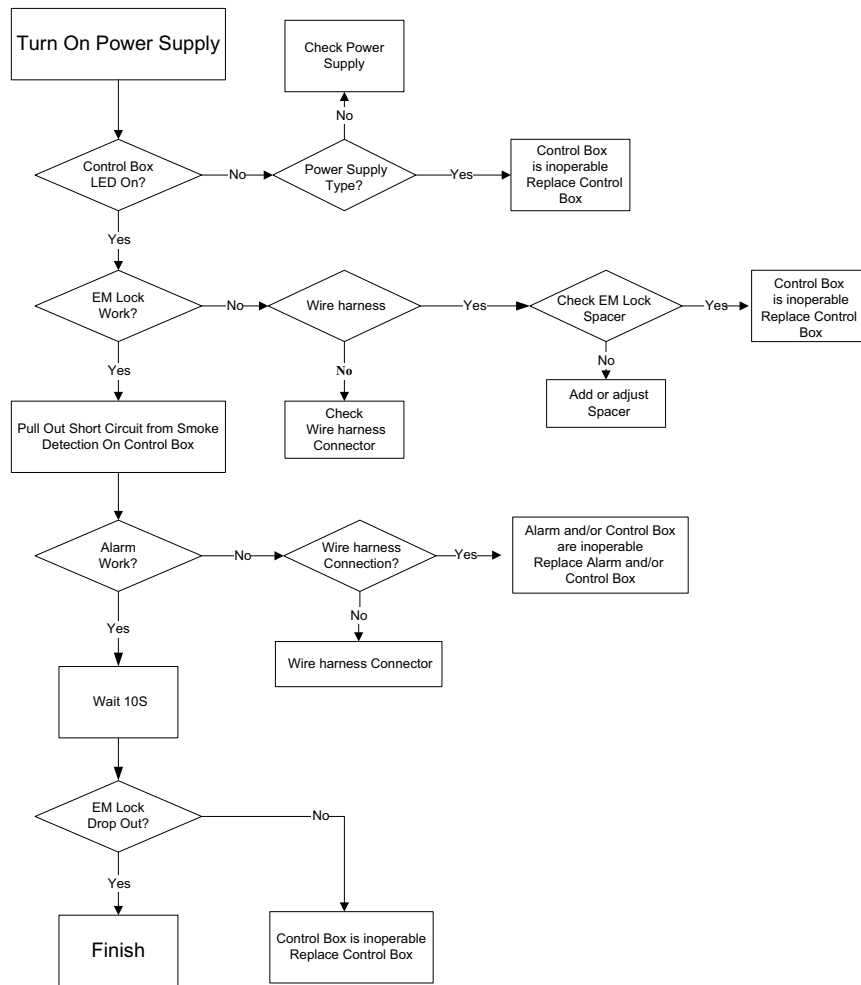
5. Neatly bundle all cabling using tie wraps and cable holders.



Maintenance steps for dropout ceiling system:

1. Lock the hinge flaps using mechanical locks.
2. Turn OFF or remove power to the electromechanical locks.
3. Perform necessary maintenance.
4. Turn ON or provide power to the electromechanical locks.
5. Push each hinge flap upwards so that the lower half of the electromagnetic lock engages with the upper half. A clicking sound will be heard when the electromagnetic lock is fully engaged.
6. Unlock the mechanical lock on hinge flaps.

Troubleshooting diagram



Lighting Kit

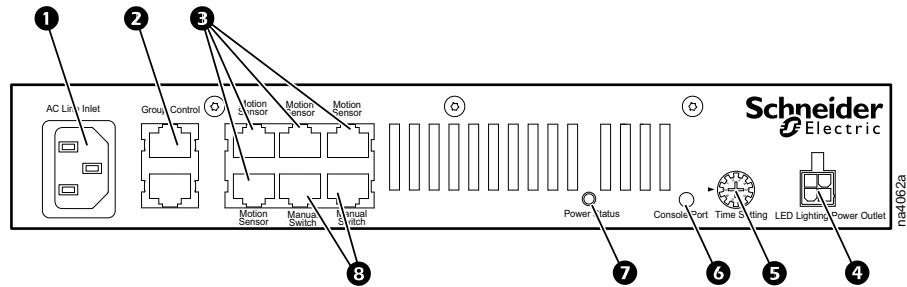
⚠ ⚠ DANGER

ELECTRIC SHOCK HAZARD

Do not use an extension cord with this product.

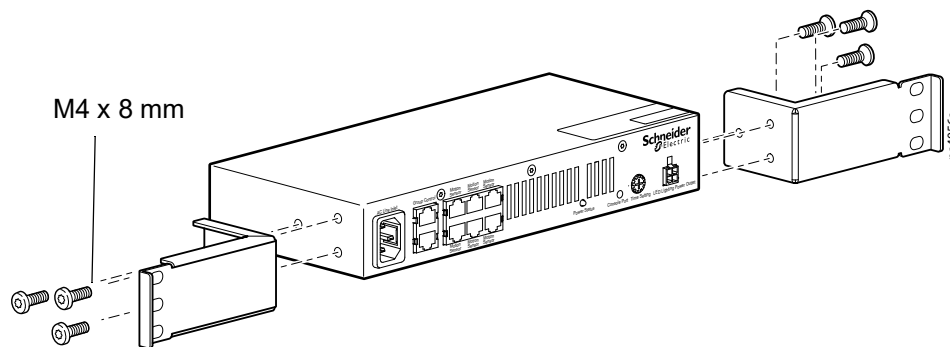
Failure to follow these instructions will result in death or serious injury.

Lighting control unit component identification



Item	Description	Item	Description
1	AC line inlet	5	Time setting
2	Control group	6	Console port
3	Motion sensor input (4)	7	Power status
4	LED light power outlet	8	Manual switch input (2)

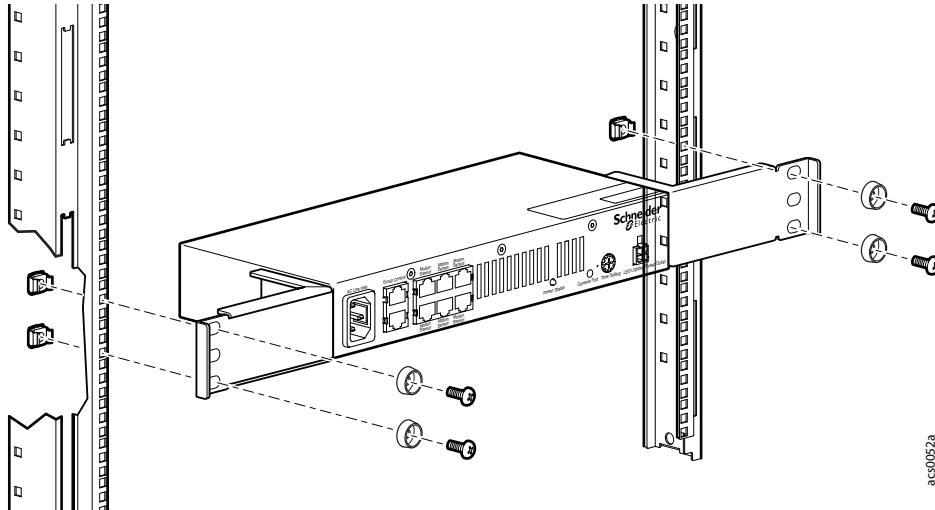
Install the mounting brackets onto the lighting control unit.



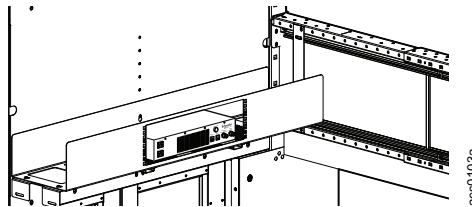
Lighting control unit installation options

The lighting control unit can be installed in a rack or in the crossover tray accessory if you have that option.

To install the lighting control to the mounting rails of the enclosure, use four (4) caged nuts, cup washers, and M6 x 16 screws.



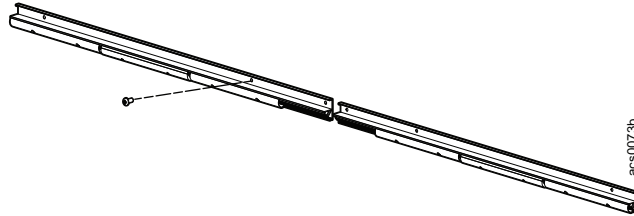
To install the lighting control inside the crossover tray, remove the cover plate on the crossover tray and attach the lighting control mounting brackets with four (4) M6 x 16 screws.



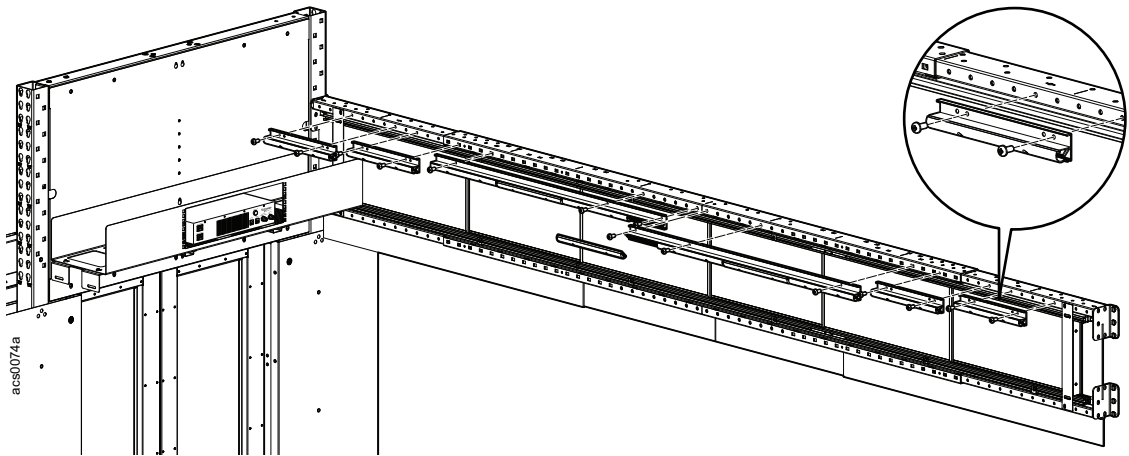
Lighting brackets

1. The lighting brackets consist of long and short pieces and mounting hardware. One of the long brackets is for the left and the other long bracket is for the right. Use M6 x 16 screws to connect the brackets to the length beams.

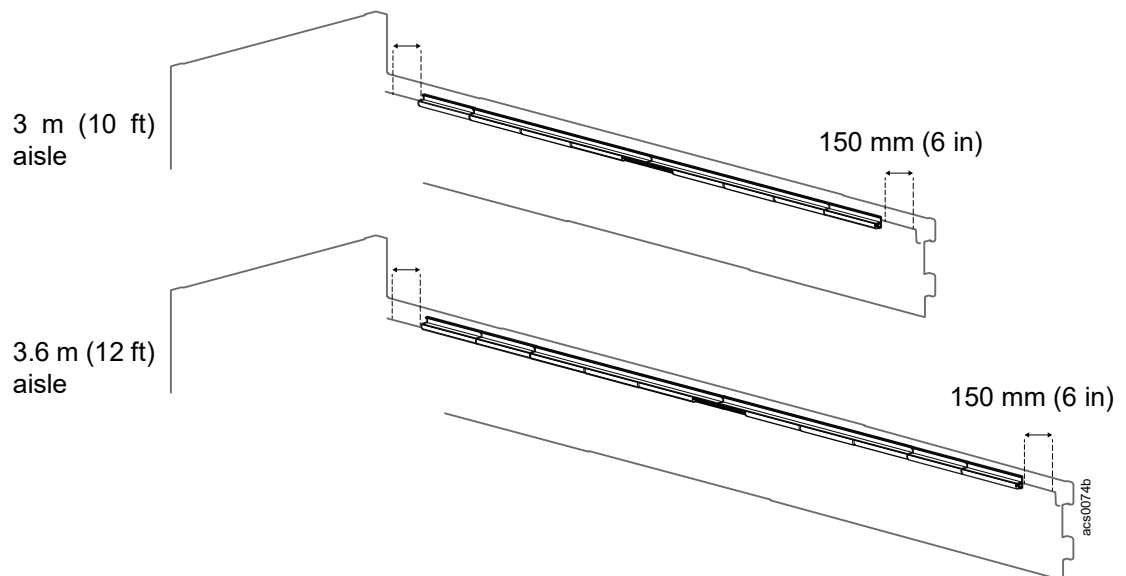
If your aisle is 2.4 m (8 ft) long, use two (2) long brackets (one left and one right) for each side of an aisle.



If your aisle is longer than 2.4 m (8 ft), connect two (2) long brackets in the middle of the aisle, then add short brackets on either end of the long brackets.



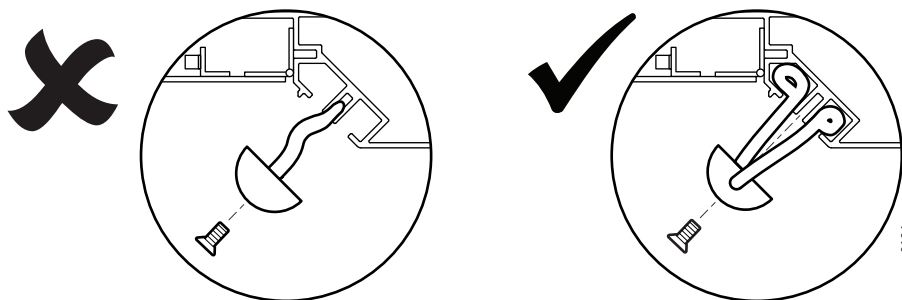
NOTE: For a 3 m (10 ft) aisle, add one extra bracket on each side of the long brackets. For a 3.6 m (12 ft) aisle, add two (2) extra brackets on each side of the long brackets. There should be about 150 mm (6 in) at the ends of each length beam in both configurations. For extended aisles, you may need to drill holes for the mounting hardware.



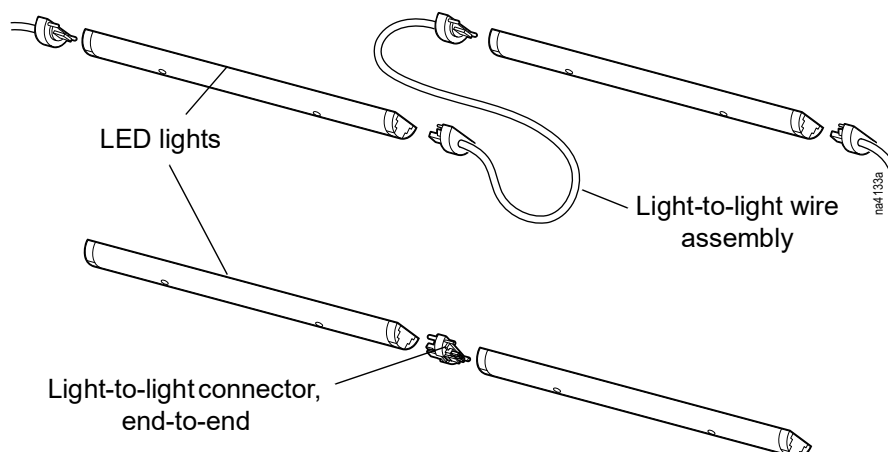
2. Remove the wiring covers from the brackets. Arrange the LED lights evenly in the brackets on each side of the aisle. Place any wires used in the upper and lower channels in the extrusion of the mounting brackets. Use M4 x 12 screws to secure the lights to the brackets. Re-install wiring covers to fill in space between each light.

- NOTE:**
- a. The provided cable supports a maximum length of two (2) wiring covers.
 - b. A maximum of twelve lights can be installed per lighting control unit.
 - c. It is not recommended to use 0 mm spacing (end-to-end connectors) between every LED light. It is simpler to adapt 300 mm (12 in.) or 600 mm (23.6 in.) spacing to the variable lengths of the NetShelter Pod aisle.
 - d. If your aisle has a crossover tray, you can use the crossover tray to route any lighting cables to the other side of the aisle.

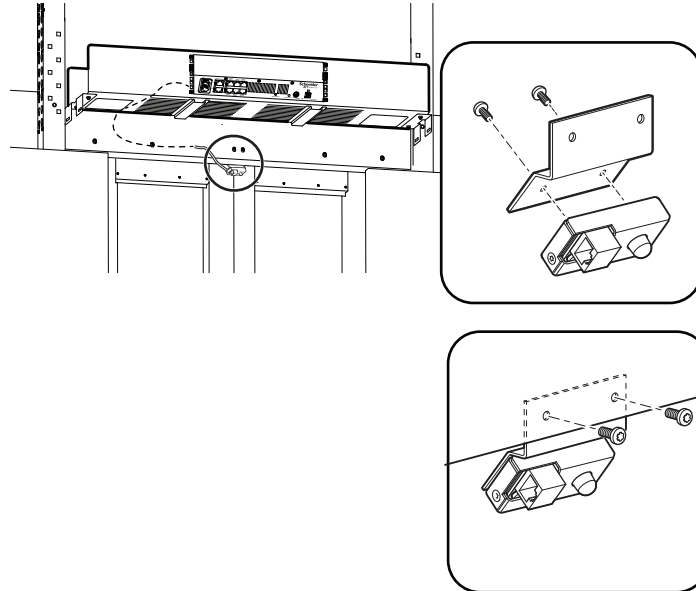
⚠ CAUTION
WIRE PINCH HAZARD
Do not use the center channel to route wire. This is reserved for the lighting and wire cover fasteners.
Failure to follow these instructions can result in injury or equipment damage.



LED lights can be connected together as shown.



3. Install the motion sensor to the inside end cap panel, at the center of the doorway.
 The bracket is attached to the motion sensor with two (2) M4 x 8 TORX screws.
 The bracket with motion sensor is installed to the end cap with two (2) M4 x 8 TORX pan head, thread forming screws.



Lighting System Setup and Operation

Motion detection. One lighting control unit can support four (4) motion sensors. If any of the sensors detect movement, the lighting control unit will turn on its LED lighting bank.

NOTE: The motion sensor's range, or sensitivity, cannot be adjusted

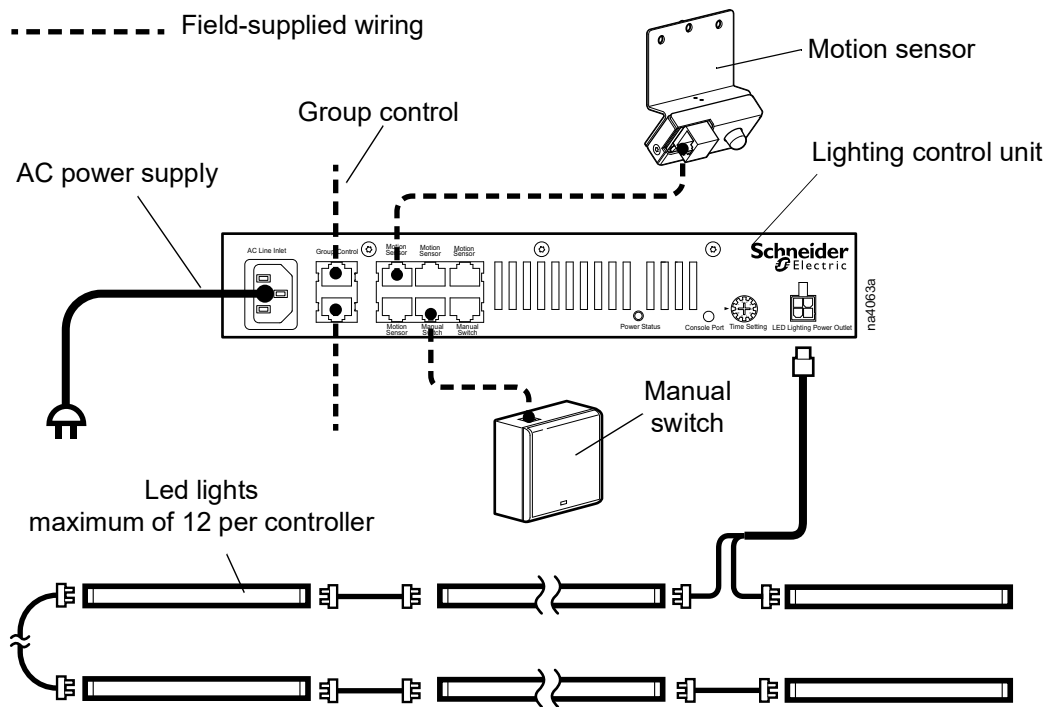
Time setting. The time setting control is used to control the length of time the LED lighting bank will be ON. If the motion sensor is triggered during the ON cycle, the timer will be restarted. The LED lights can be turned OFF using the manual switch.

	Time Setting	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
	LED ON delay (minutes)	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75

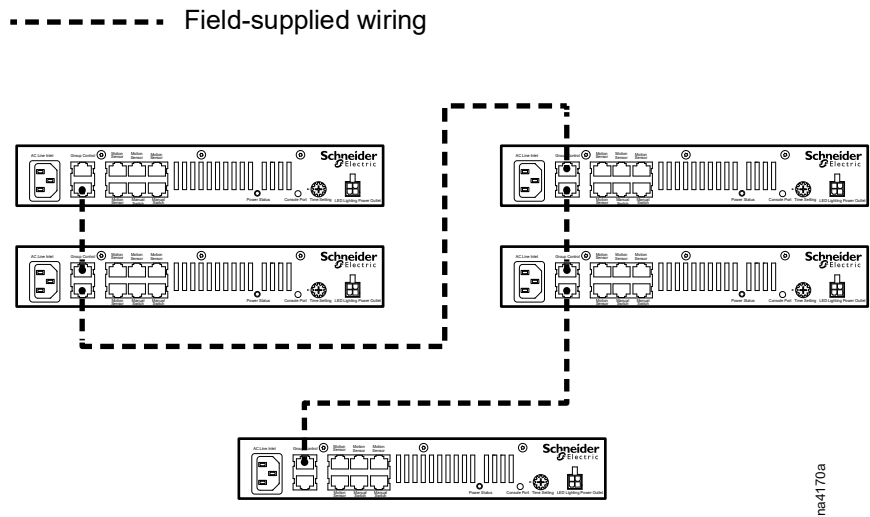
Manual switch. Pressing a manual switch will turn off the lights in its group, and the motion sensor function becomes inactive for 10 seconds. After 10 seconds, the motion sensor function will once again become active and take over the control.

Power status indicator. The power status indicator illuminates when power is supplied to the unit and it is functioning normally.

Lighting Kit Schematic overview.

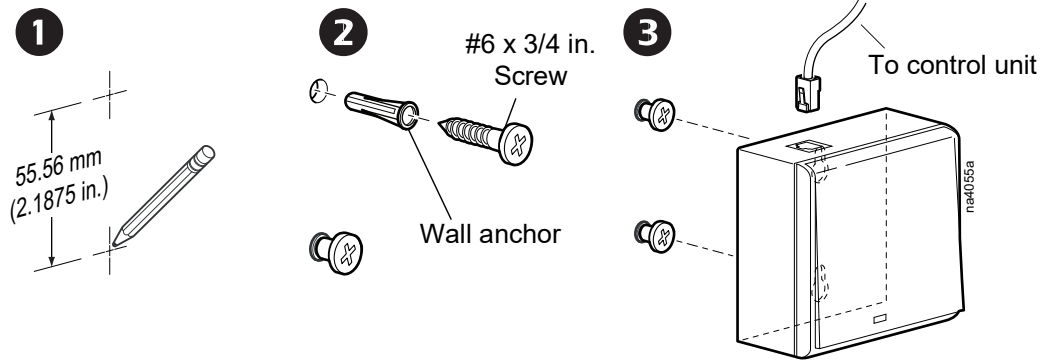


A maximum of five (5) controllers can be connected together via the Group Control connection ports.

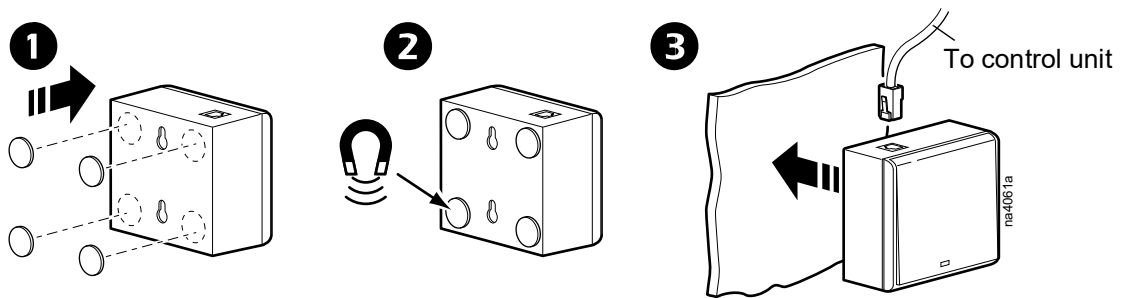


The manual switch can be located inside or outside of the containment area and should be attached to a surface using one of the three (3) methods shown below.

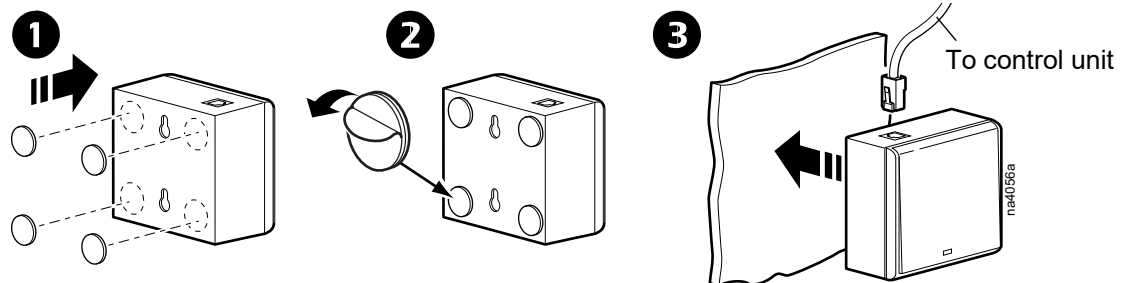
Fastener method:



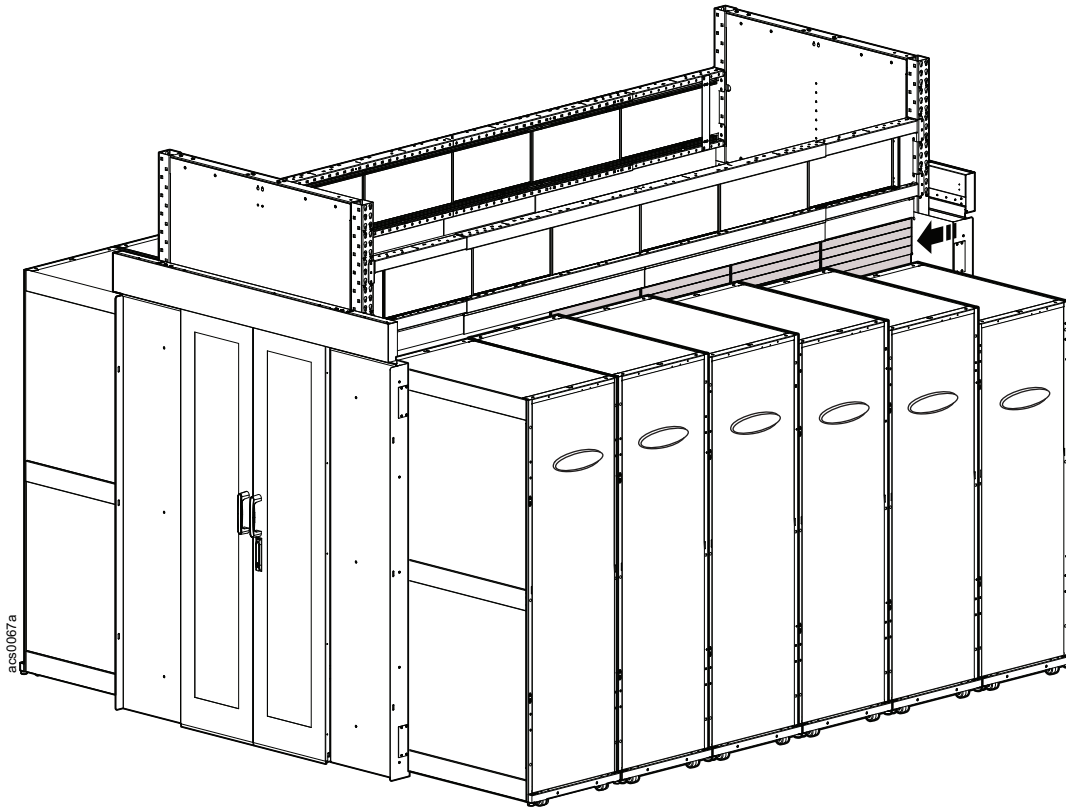
Magnet method:



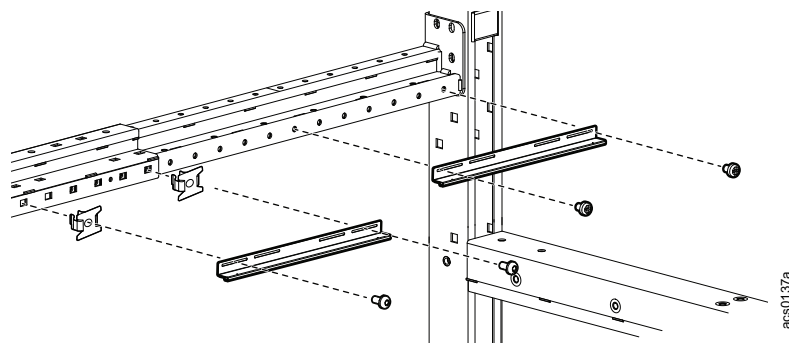
Hook-and-loop method:



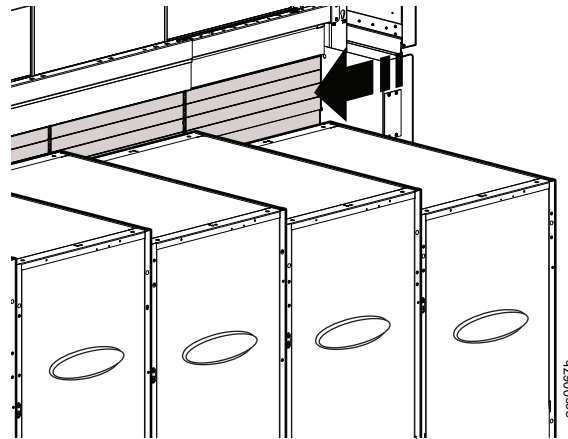
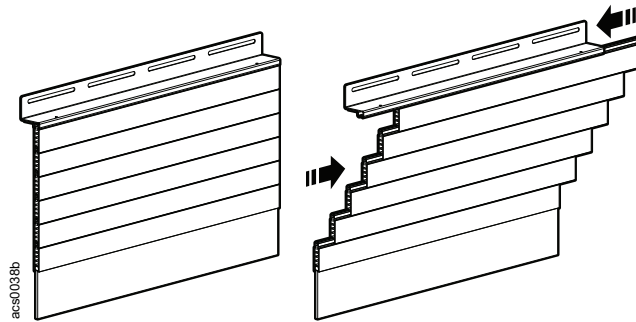
Rack Height Adapter



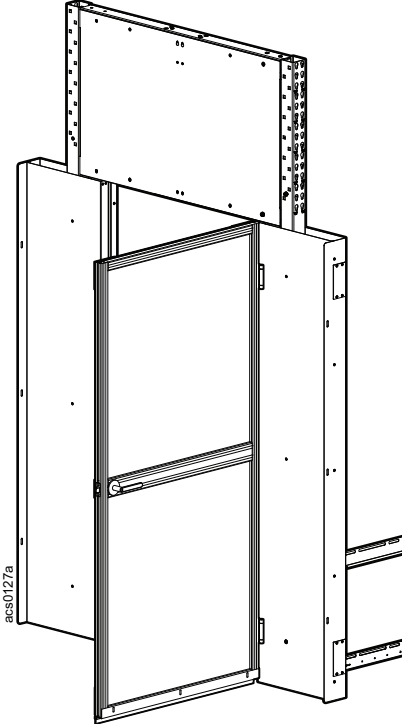
Add rack height adapter brush panels to the bottom of the length beam. Attach the height adapter bracket to the small ends of the length beam with the 10-32 x 5/16 pan head Phillips screws. To attach the height adapter bracket to the middle portion of the length beam, put the M6 insert nuts into the square holes, then use the provided M6 x 16 pan head T30 screws to install the bracket.



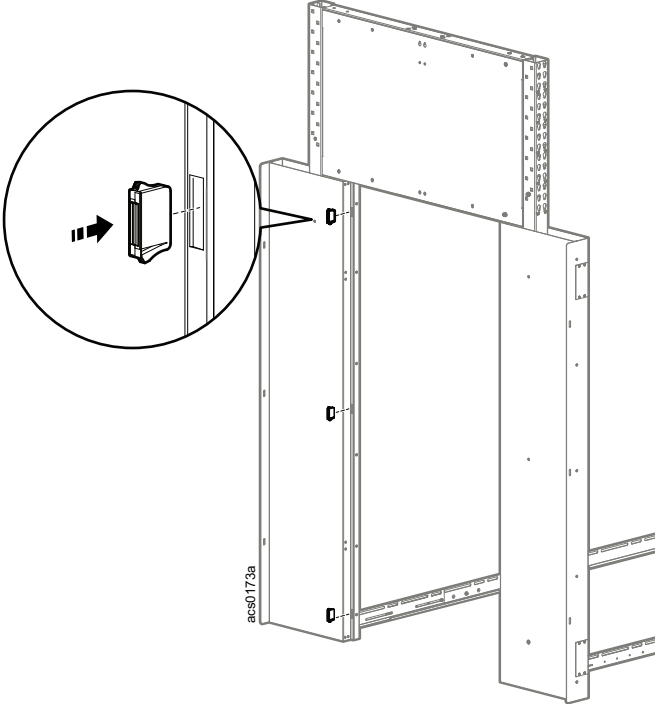
Add additional height adapter brushes by sliding the top edge of the height adapter you are adding to the bottom of the previous height adapter until the area between the top of the rack and the length beam is completely enclosed.



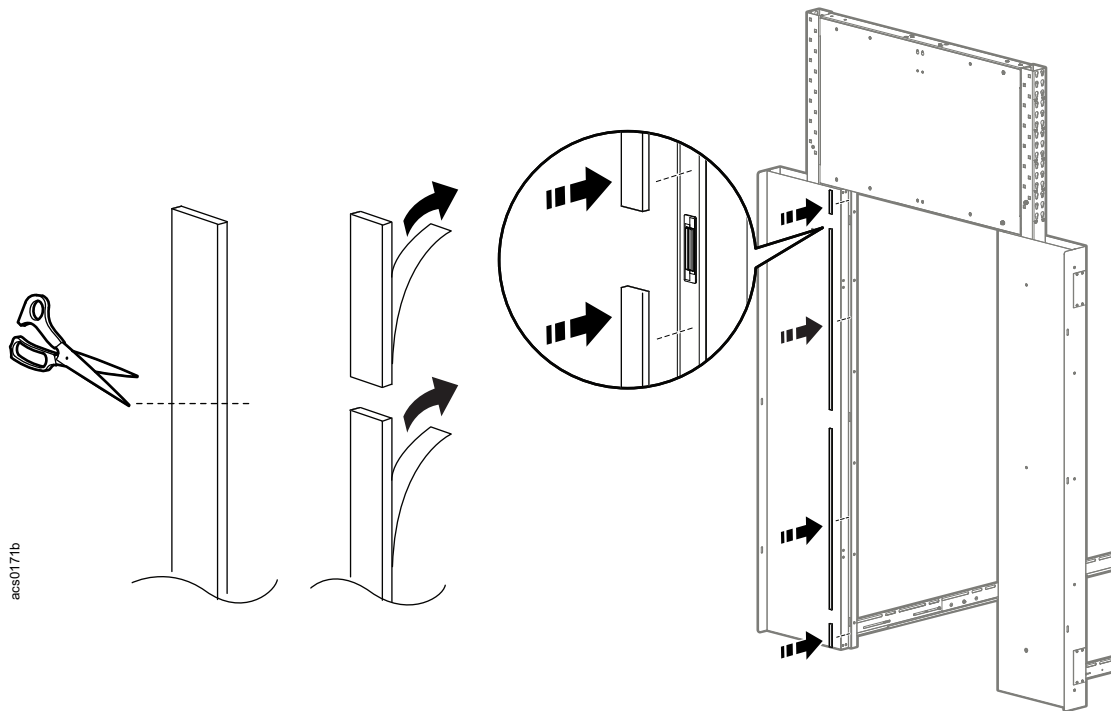
Single Swing Door



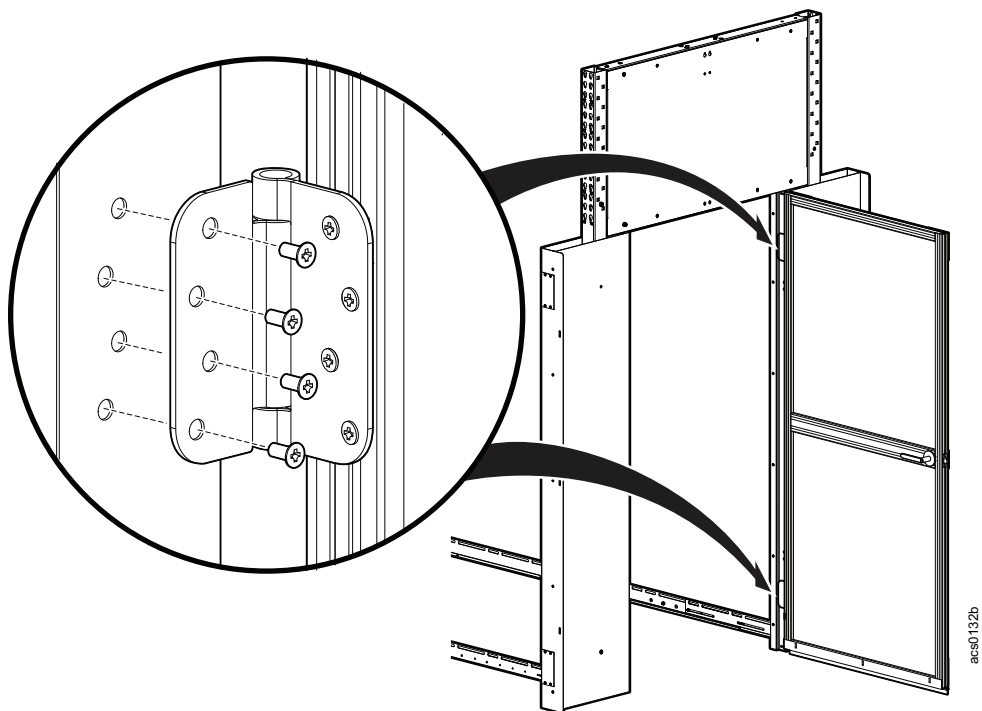
- 1. Install the 3 door closers in the door frame cover.



2. Cut the EPDM foam into four (4) pieces that will fit around the door closers. Peel the covering away from the EPDM foam, and stick the EPDM foam to the door frame between the door closers.

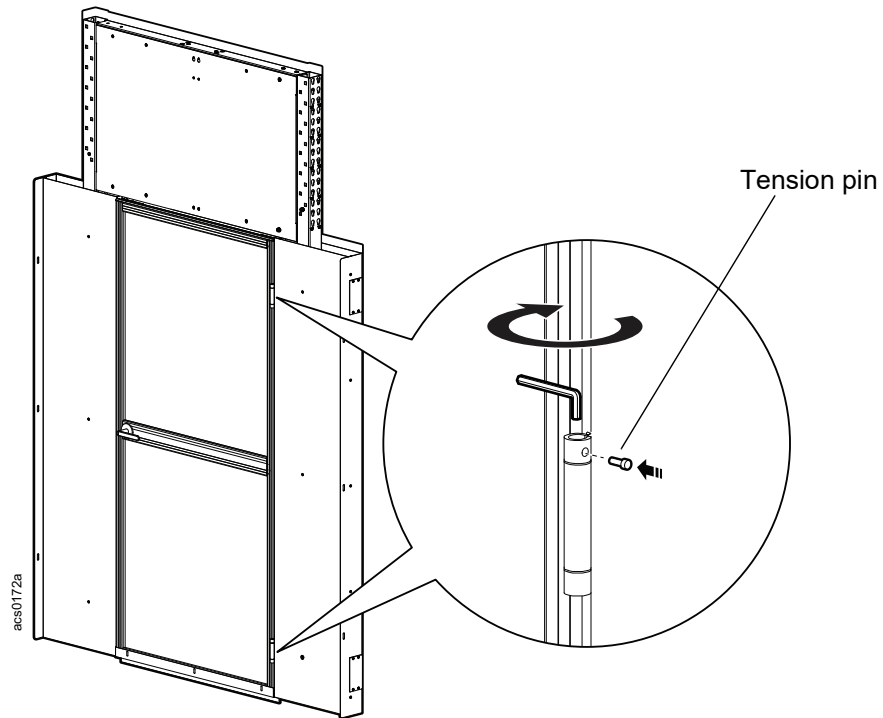


3. Attach the door hinges to the corresponding holes in the door frame cover with M6 x 12 screws (not provided). Then close the door.



4. Adjust the tension in each hinge to control how quickly the door closes:
 - a. Use the provided hex wrench to turn the adjustment capstan to the right.
 - b. Insert a tension pin into the tension hole.

NOTE: The door must be closed while you adjust the tension.



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