

DCE™ Rack System

Installer/User Guide



TABLE OF CONTENTS

1 Important Safety Instructions	
2 What's Included	7
3 Installation	
3.1 Receiving, Unpacking, and Removing the DCE Rack from the Pallet	9
3.2 Loading Equipment	9
3.3 Operating Door Handle	9
3.4 Reversing the door handle	9
3.5 Door Removal and Attachment	1
3.6 Field-reversible Front and Rear Doors	12
3.7 Side Panel Removal	13
3.8 Top Panel Mounting	13
3.9 Top Panel Mounting for the E426112DR	14
3.10 Bottom Panel Mounting for the E426112DR	15
3.11 Casters and Leveling Feet	16
3.11.1 Leveling Feet Adjustment	20
3.12 Mounting Rail Adjustment	20
3.13 PDU/Cable-management Brackets	22
4 Optional Accessories	23
4.1 Vertical Cable Manager Kit: E846015	23
4.2 Horizontal Front-to-rear Cable Manager: E11015/E12015	25
4.3 Front-to-rear Cable Trough: E811015/E812015	25
4.4 Adjustable Ladder-rack Bracket: ELRB016	26
4.5 Overhead cable trough: E6016/7016/8016	28
4.6 Exhaust Chimney: E1832014/E3246014	29
4.7 Vertical-airflow Baffle with Brush Kit for 800-mm W Rack: E48801/E428014/E458014	29
4.8 Vertical Airflow Baffle with Brush Kit for 700-mm W Rack: E487014/E427014/E457014	3
4.9 Vertical-airflow Baffle with Brush Kit and Vertical Cable Manager	32
4.10 Switch Kit for Side-to-side Cisco Switch for 1000-mm W Rack: E7009014/E7018014	33
4.11 Switch Kit for Side-to-side Cisco Switch	
for 800-mm W Rack: E650304/E6506014/E9513014/E6513014	36
4.12 Baying Gasket Kit: E4013	38
4.13 Baying Kit: E9013	39



1 IMPORTANT SAFETY INSTRUCTIONS

Save These Instructions

This manual is provided to prevent service personnel from committing an act that results in the risk of fire, electric shock, or injury to persons. Only trained service personnel should receive, unpack, and assemble the DCE Racks. In addition, only trained service personnel should install equipment in racks.

Improper handling and use of the DCE Rack could result in equipment damage, serious injury, or possible death.

WARNING: Only trained service personnel should be used to remove the rack from the pallet. Also, be sure you have a sufficient number of service personnel. Do not attempt to move racks by yourself.

WARNING: All wiring and electrical circuits must be in compliance with National and Local electric codes. Only ITE (Information Technology Equipment) bearing the safety compliance mark of a NRTL should be installed inside the DCE Rack. NRTL compliance marks include UL®, C-UL®, CSA®, ETL®, TUV®, and CE.

WARNING: Be sure to read and follow all individual manufacturer equipment manuals for safety and installation instructions.

WARNING: Proper spacing is required when installing electrical equipment to avoid electrical shock. Maintain minimum spacing between the accessories and components and the computer rack assembly for safe operation of the equipment when installed in accordance with the National Electric Code ANSI/NFPA 70-1999.



This page intentionally left blank.



2 WHAT'S INCLUDED

- DCE unit (assembled)
- Keys as needed (depending on configuration)
- (50) M6 cage nuts (3/8" square) and M6 screws
- Baying hardware
- Edge grommet
- This Installer/User Guide

This manual applies to the following pre-configured and applicable configured DCE racks:

PART NO.	RU	W (MM)	D (MM)
E24611	24	600	1100
E42611	42	600	1100
E42612	42	600	1200
E426112DR	42	600	1100
E42711	42	700	1100
E42712	42	700	1200
E42811	42	800	1100
E42812	42	800	1200
E42112	42	1000	1200
E45611	45	600	1100
E45612	45	600	1200
E45711	45	700	1100
E45712	45	700	1200
E45811	45	800	1100
E45812	45	800	1200
E45112	45	1000	1200
E48611	48	600	1100
E48612	48	600	1200
E48711	48	700	1100
E48712	48	700	1200
E48811	48	800	1100
E48812	48	800	1200
E48112	48	1000	1200

DCE static weight capacity: 3000 lbs.

DCE dynamic weight capacity: 2500 lbs.



This page intentionally left blank.



3 INSTALLATION

3.1 Receiving, Unpacking, and Removing the DCE Rack from the Pallet

Inspect and report any damage before receiving. Unpack the rack by carefully removing the corrugated carton and corners. Avoid damaging the rack when removing packaging.

WARNING: Only trained service personnel should be used to remove the rack from the pallet. Also, be sure you have a sufficient number of service personnel. Do not attempt to move racks by yourself.

WARNING: Be careful when moving racks before installation. Sudden stops and starts, excessive force, obstructed routes, and uneven floor surfaces may cause the rack to topple over.

3.2 Loading Equipment

WARNING: Only install equipment after the DCE Rack has been properly secured. Do not move the rack assembly while loaded.

Once in place at the desired/intended location, deploy the leveling feet for maximum stability.

Rated or maximum-load capacity for the DCE Rack is 3000 pounds on the floor or on leveling glides.

To maintain a uniform distribution of the mechanical load in the DCE Rack, load the heaviest equipment first, at the bottom of the DCE Rack and load the lighter units at the top.

3.3 Operating Door Handle

The door swing handles have been installed at the manufacturer. No additional assembly is required. To operate the swing handle, lift up at the bottom of the handle then swing the handle to the right to open. The handle must be kept in this position to close the door. Return the handle to the initial position and use the key provided to lock the handle. The lock on the side panels will accept the same key.

The swing handles and doors are reversible. See "Reversing the door handle" below.

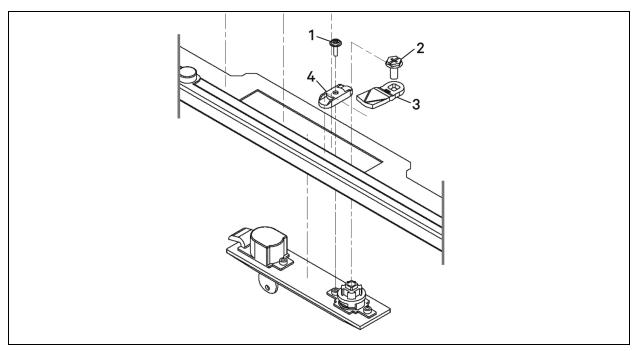
3.4 Reversing the door handle

- 1. Remove the Phillips-head bolt from the swing-handle retainer on the inside of the door.
- 2. Tilt the handle outward and lift up to remove it from the door.
- 3. Remove the Phillips-head cam retaining bolt, rotate the cam 180° and re-install cam retaining bolt.



- 4. After reversing the door, reinstall the swing handle by sliding downward into door and tilting inward.
- 5. Re-install swing-handle retainer and Phillips head bolt.

Figure 3.1 Door handle components



ITEM	DESCRIPTION
1	Phillips-head bolt
2	Phillips-head cam-retaining bolt
3	Cam
4	Retainer

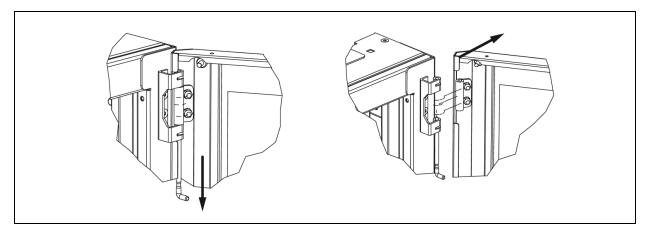


3.5 Door Removal and Attachment

NOTE: Before removing doors, grounding wires must be disconnected.

- 1. Open the door beyond 90° then pull on the hinge pins.
- 2. Carefully pull the door away from the rack to detach the door.
- 3. To attach the door, align the hinges and slide hinge pins back into the hinge assembly.

Figure 3.2 Removing and Attaching door





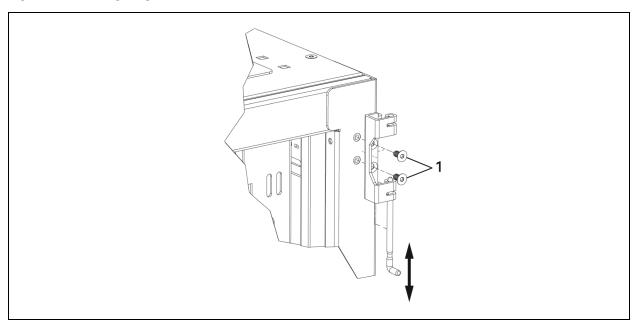
3.6 Field-reversible Front and Rear Doors

The front and rear doors are installed right-hand hinged from the factory. To change to left-hand hinge, follow door-removal instructions, "Door Removal and Attachment" on the previous page, then remove the Torx screws that attach the hinges to the frame.

To re-install the hinges on the left side of the frame:

- Use the former top-right hinge at the bottom left and the former bottom-right hinge at the top left with the open end of the hinge facing the outside of the rack.
- Using a T30 screwdriver, remove and re-install the catch plate on the opposing side with the bend toward the inside of the rack.
- Then rotate the door 180° and slide the hinge pins into the assembly.
- When the door is reversed the handle must also be rotated 180°; see "Reversing the door handle" on page 9.

Figure 3.3 Moving hinges to reverse doors



ITEM	DESCRIPTION	
1	M6 Torx screw	



3.7 Side Panel Removal

NOTE: Before removing doors, grounding wires must be disconnected.

The side panels are secured to the rack frame with a keyed lock.

To remove the side panel:

Unlock the panel, tilt the top of the side panel out slightly and lift the side panel up a couple of inches until it is free as shown in the figure.

To install the side panel:

Reverse the process and lock the panel. Make sure the slots on the side panel engage with the two tabs at the bottom of the frame.

3.8 Top Panel Mounting

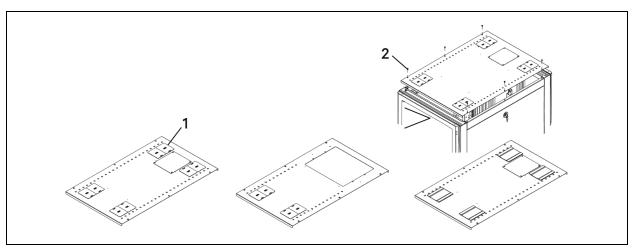
The top panel of the rack is installed at the manufacturer.

To remove the top panel:

- 1. Remove the 6, M4 torx screws with a T15 screwdriver.
- 2. Lift the top panel out or off.

There are 3 top panel options for DCE Racks.

Figure 3.4 Removing the top panel and top-panel options



ITEM	DESCRIPTION
1	Edge grommet on cut-outs
2	M4 Torx screw



3.9 Top Panel Mounting for the E426112DR

The top panel of the rack is installed at the manufacturer.

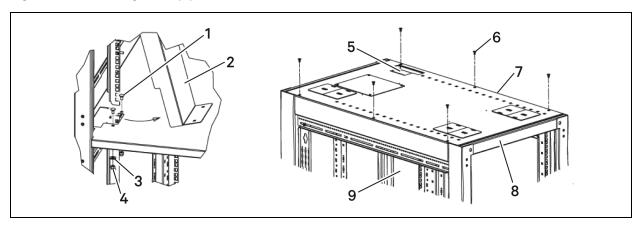
To remove the top panel:

- 1. Before removing the top panel, you must remove the trough in the top half of the cabinet:
 - Open or remove the back door of the cabinet to access the trough.
 - Remove the acorn nuts, washers, and carriage bolts from the bottom of the trough.
 - Pull the bottom of the trough toward the center of the cabinet to disengage the flange at the top of the trough from the top panel.
- 2. On the top panel, remove the 6, M6 flat-head Torx screws, and lift the top panel out or off.

To install the top panel:

- 1. Insert the top panel and fasten with 6, M6 FH Torx screws.
- 2. Reinstall the cable trough by inserting the flange in the top panel and securing the bottom with the carriage bolts, washers, and acorn nuts.

Figure 3.5 Removing the top panel of the E426112DR



ITEM	DESCRIPTION
1	Carriage bolt (2 per trough)
2	Trough
3	Washer (2 per trough
4	Acorn nut (2 per trough)
5	Trough flange
6	M6 Flat-head Torx screws (6 per top)
7	Top cover
8	Front of rack
9	Trough in top compartment (side panels not shown for clarity)



3.10 Bottom Panel Mounting for the E426112DR

The bottom panel of the rack is installed at the manufacturer.

To remove the bottom panel:

- 1. Before removing the bottom panel, you must remove the trough in the bottom half of the cabinet:
 - Open or remove the back door of the cabinet to access the trough.
 - Remove the acorn nuts, washers, and carriage bolts from the top of the trough.
 - Pull the top of the trough toward the center of the cabinet to disengage the flange at the bottom of the trough from the bottom panel.
- 2. On the bottom panel, remove the 3, Flat-head screws that join the two halves of the panel.
- 3. Remove the 4 plastic covers to access and remove the 4 M8 Hex-head bolts that secure the bottom panel.

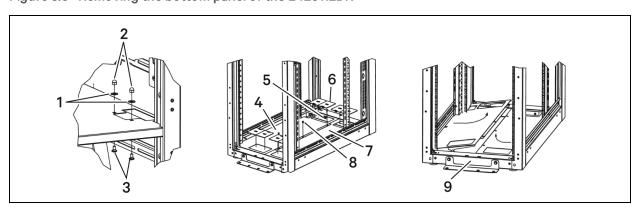
CAUTION: Risk of sharp edges. The edges of the cutouts are sharp. Be careful when removing the fasteners.

4. At the front of the rack, starting with the left panel, lift the center of the panel up and pull the panel out, then repeat for the right panel.

To install the bottom panel:

- 1. Insert right half, then the left half of the bottom panel, and secure with the 4 M8 Hex-head bolts.
- 2. Install the plastic covers on the 4 holes, and the 3, Flat-head screws to join the two halves of the panel
- 3. Reinstall the cable trough by inserting the flange in the bottom panel and securing the top with the carriage bolts, washers, and acorn nuts.

Figure 3.6 Removing the bottom panel of the E426112DR



ITEM	DESCRIPTION
1	Flat washer (2 per trough)
2	Acorn nut (2 per trough)
3	Carriage bolt (2 per trough)_
4	Left-side half of bottom cover
5	M8 Hex-head bolt (2 per half of bottom cover)



ITEM	DESCRIPTION
6	Cable pass-through cover
7	Right-side half of bottom cover
8	M6 Flat-head screw (3 per bottom)
9	Front of unit

3.11 Casters and Leveling Feet

CAUTION: When installing the casters and adjusting leveling feet, observe the following safety precautions:

- To install casters, several people are required to tip the rack onto its side. The rack can be very heavy. Practice safe lifting techniques.
- DO NOT lay the rack on its front or back, this may damage the door hinges.
- Before tipping, remove the side panels to prevent damage to the locks and latches.
- Removing doors and sides helps reduce the weight of the rack.

To field-install casters

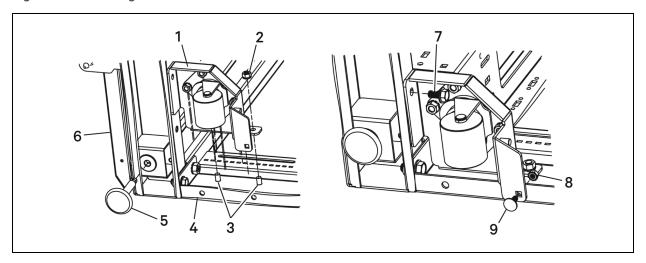
1. Tip the rack over and lay it on its side.

NOTE: Be sure to install swivel casters on the front and fixed casters on the rear of the rack.

- 2. Install the swivel casters on the front of the rack as shown in the following figure.
 - The longer side of the caster assembly features 2 holes.
 - Align the holes over the M8 pem studs located on the side of the frame.
 - Using a 13-mm socket, secure with M8 keps nut and tighten to 18 ft-lb.
- 3. The flange of the caster assembly aligns with a hole on the side of the frame. Secure with a M6 carriage bolt and nut and tighten to 7.5 ft-lb.
- 4. The shorter side of the caster assembly aligns with a hole on the front of the frame. Secure with a M8 Bolt and tighten to 18 ft-lb.



Figure 3.7 Installing swivel casters on front of rack

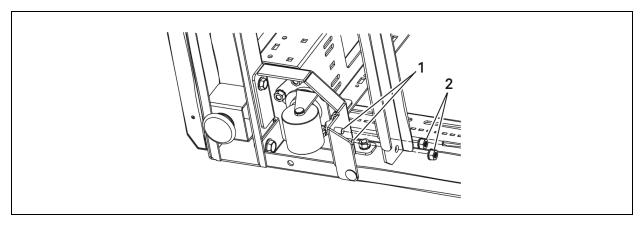


ITEM	DESCRIPTION
IILM	DESCRIPTION
1	Swivel caster assembly
2	M8 keps nut
3	M8 pem studs
4	Side of frame
5	Leveling foot
6	Front of rack
7	M8 bolt
8	M6 nut
9	M6 carriage bolt



- 5. After the caster assemblies are installed, attach the support bar that connects the two casters as shown in the following figure.
 - Align the holes on the end of the support beam with the M8 pem studs on the caster assembly.
 - Using a 13-mm socket, secure with M8 keps nut and tighten to 18 ft-lb.

Figure 3.8 Attaching support bar between casters



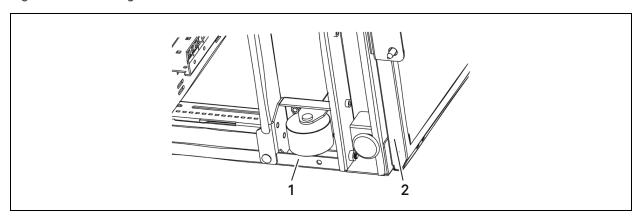
ITEM	DESCRIPTION
1	M8 pem studs
2	M8 keps nuts

- 6. Install the fixed casters on the rear of the rack as shown in the following figure.
 - Align the holes in the caster assembly over the M8 pem studs located on the side of the frame.
 - Secure with M8 keps nut and tighten to 18 ft-lb.
- 7. The flange of the caster assembly aligns with a hole on the side of the frame. Secure with a M6 carriage bolt and nut and tighten to 7.5 ft-lb.



- 8. Secure the caster assembly to the hole on the rear of the frame with a M8 Bolt and tighten to 18 ft-lb.
- 9. After the caster assemblies are installed, attach the support bar that connects the two casters.
 - Align the holes on the end of the support beam with the M8 pem studs on the caster assembly.
 - Using a 13-mm socket, secure with M8 keps nut and tighten to 18 ft-lb.

Figure 3.9 Installing fixed casters on rear of rack



ITEM	DESCRIPTION
1	Fixed caster assembly
2	Rear of rack

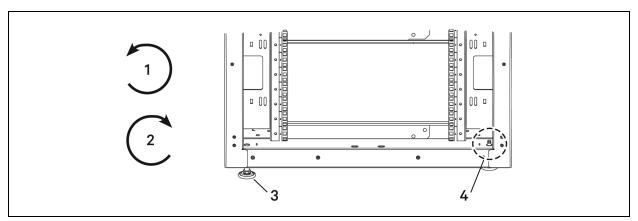


3.11.1 Leveling Feet Adjustment

Leveling feet are preinstalled at the factory. They are easily accessible in the front and rear of the rack frame.

- To adjust the leveling feet from inside the rack, a 5/16 socket and refer to the following figure.
- To adjust the leveling feet from beneath the rack use a 3/4 open-end wrench and refer to the figure.

Figure 3.10 Adjusting the leveling-feet



ITEM	DESCRIPTION
1	Counter-clockwise rotation to adjust feet up
2	Clockwise rotation to adjust feet down
3	Adjusting feet beneath rack
4	Adjusting feet from inside the rack

3.12 Mounting Rail Adjustment

Each rack has two pairs, 12 ga. steel, powder-coated vertical mounting rails installed with all standard frames at 19-in. EIA 310-E. Universal cage nut rails (M6) are standard. Rack Mount Units (RU) are marked on the front and rear of the rails for easy equipment mounting. Accessory Mounting Holes (AMH), rectangular cable pass-through holes, and vertical cable tie-down slots can be found on side of rails, shown in the following figure.

To adjust the rails:

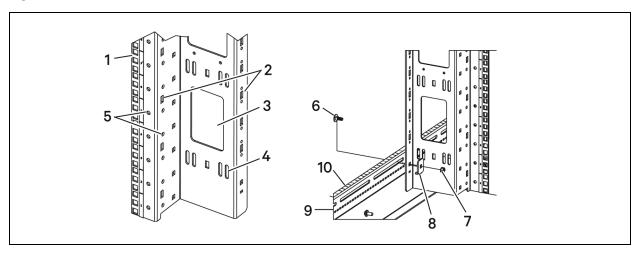
CAUTION: Do not attempt to adjust rails once equipment has been loaded.

- 1. Rails are attached using an M6 carriage bolt and M6 keps nut. Loosen the top, bottom and middle bolts using a 10-mm drive socket.
- 2. Adjust the rails from any location from front to back.



3. If required by the application, engage the lock-rail feature by turning the locking tab around and inserting into the rail and into the slot on the horizontal support.

Figure 3.11 Rail features and hardware



ITEM	DESCRIPTION
1	Vertical mounting rail
2	Lobster-claw holes
3	Cable pass-through cut-outs
4	Cable tie-down slots
5	Accessory mounting holes (AMH)
6	M6 carriage bolt
7	M6 keps nut
8	Locking tab
9	Front-to-rear rack horizontal
10	Horizontal depth marking



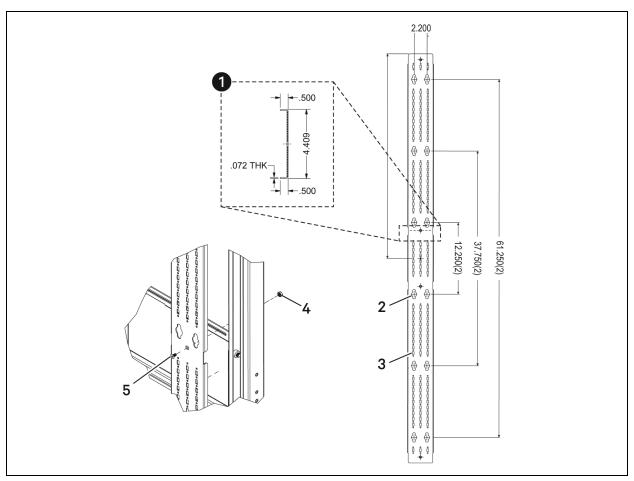
3.13 PDU/Cable-management Brackets

PDU/Cable Management Brackets may be installed in each rear corner of the rack. Keyhole cutouts along the bar accept button-mounting of PDUs. The rectangular hole pattern accepts "D" rings, lobster claws, and a variety of other cable management.

Secure the brackets to the rack at the top, center, and bottom rack horizontally using the M6 keps nuts and screws as shown in the figure.

WARNING: When using power distribution units (PDUs), each PDU should be connected to a dedicated branch circuit that is rated for the continuous load of all the equipment connected. When not using a PDU, each piece of equipment should be connected to a dedicated branch circuit.

Figure 3.12 Installing PDU/cable-management racks



ITEM	DESCRIPTION
1	Depth measurements
2	Key-hole cut-outs
3	Hole pattern for D rings, lobster claws, etc.
4	M6 keps nut
5	M6 screw



4 OPTIONAL ACCESSORIES

This section describes options that may be included with your DCE rack(s), and their installation.

4.1 Vertical Cable Manager Kit: E846015

Installation of Vertical Cable Manager kit requires the EIA rails to be recessed a total of 4.75 in. from the front of the rack.

When stalled in 700-mm and 800-mm wide racks, the vertical cable manger kit does not require AMH adapter brackets. When installed in in 600-mm wide racks, AMH adapter brackets are required.

To install adapter brackets and cable manager on a 600-mm rack:

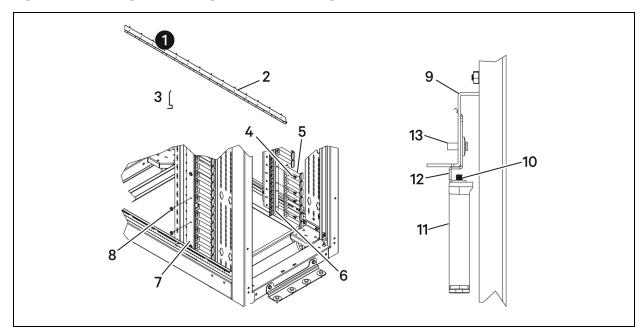
- 1. Align the bent tabs to the cut-out pattern on the outside surface of the EIA rail, and insert them.
- 2. Install each adapter bracket with (14) panel fasteners.



- 3. Install each of the vertical cable managers using (4) flat-head M6 screws on the face of the adapter brackets, facing outward.
- 4. Mount the vertical cable manager directly to the AMH of the EIA rail.

NOTE: Vertical Cable Manager Kit can be installed with a Vertical Airflow Baffle with Brush Kit. See page "Vertical-airflow Baffle with Brush Kit and Vertical Cable Manager" on page 32.

Figure 4.1 Installing cable-management kit, including detail of AMH bracket installation



ITEM	DESCRIPTION
1	AMH adapter bracket
2	Tabs for out-put pattern along EIA rail
3	Top-view of AMH adapter bracket
4	Vertical cable manager installation
5	7 RU vertical cable manager
6	AMH bracket
7	AMH bracket
8	Push fasteners for AMH bracket
9	EIA rail
10	M6 Torx screw
11	Vertical cable manager
12	Adapter bracket
13	Push fastener for AMH bracket



4.2 Horizontal Front-to-rear Cable Manager: E11015/E12015

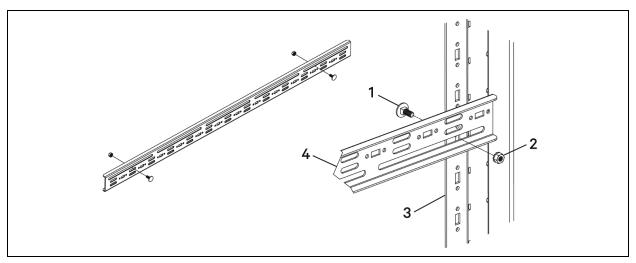
The front-to-rear horizontal cable manager for 800 W units allows cabling to be managed from front to back of the DCE rack. The horizontal manager accepts lobster claw managers (part # 002185050), Velcro Strap Managers (part # 002185060), and has slots to accept cable ties.

The managers come in two depths for 1100-mm and 1200-mm racks.

The cable manager can be installed into the frame in 4 places, 2 in the middle and 2 in the bottom.

Refer to the figure to fasten the frame in the chosen location.

Figure 4.2 Installing horizontal, front-to-rear cable manager



ITEM	DESCRIPTION
1	M6 Hex-head bolt
2	Hex nut
3	Mounting rail
4	Lacing bar

4.3 Front-to-rear Cable Trough: E811015/E812015

The 800-mm wide racks with depths of 1100 mm and 1200 mm have the option for front-to-rear cable troughs. The troughs are adjustable with the movement of the mounting rails.

- E811015: Adjustable from 20.188 in. to 33.464 in.
- E812015: Adjustable from 22.188 in. to 38.464 in.

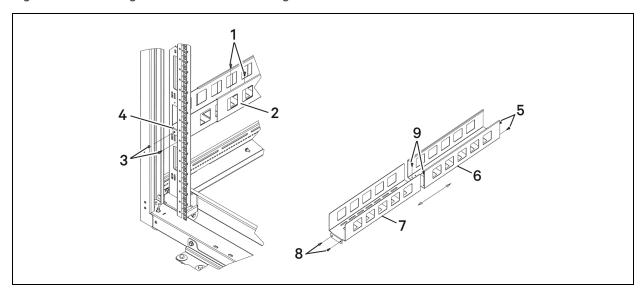
To install the cable trough:

- 1. Measure front-to-back distance between EIA rails from inside to inside mounting planes.
- 2. Loosen or remove (2) center screws to allow for adjustment and movement of inner and outer members.
- 3. Proceed to install trough into rack by finding the cut outs with (2) holes directly below cut-out.
- 4. From inside of rack and between rails, lift trough and engage tab through cut-out and drop into place



- 5. Repeat step 4 for the other end of the trough.
- 6. Proceed to install all screws, (2) front and (2) back through tab holes into EIA rail holes.
- 7. Install the (2) center screws to secure inner and outer trough members

Figure 4.3 Installing front-to-rear cable trough



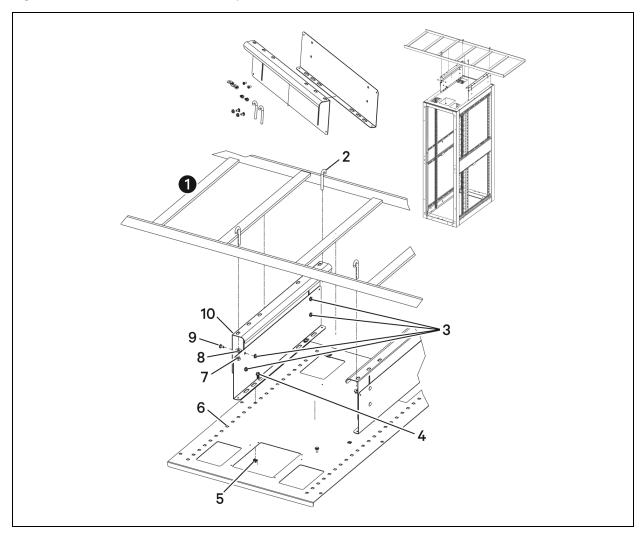
ITEM	DESCRIPTION
1	Center screws
2	Trough assembly
3	Screws for tab holes in EIA rail holes
4	Trough tab engaged in rail cutout
5	Screws for tab holes in EIA rail holes
6	Outer trough assembly
7	Inner trough assembly
8	Screws for tab holes in EIA rail holes
9	Center screws

4.4 Adjustable Ladder-rack Bracket: ELRB016

The adjustable ladder-rack and basket-tray support bracket allows most third-party ladder racks or trays to be installed on the top of DCE racks. The bracket accepts racks or trays of 12 in.,18 in. and 24 in. widths. Height can be adjusted to accommodate the difference in height between racks. There are many mounting holes in the top panel to accommodate the placement of the brackets. Two brackets are recommended per rack.



Figure 4.4 Ladder-rack bracket components



ITEM	DESCRIPTION
1	Ladder rack, shown for reference only
2	J bolt
3	1/4-20 Hex nut
4	M6 Hex-head bolt
5	M6 cage nut
6	Square holes for M6 cage nuts
7	5/16-18 Hex nut
8	5/16 flat washer
9	1/4-20 carriage bolt
10	Adjust top section to final height before tightening carriage bolts and hex nuts.



4.5 Overhead cable trough: E6016/7016/8016

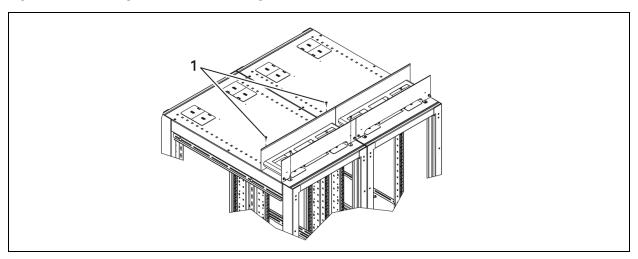
The overhead troughs ship assembled, but not installed. The top of the DCE rack has a variety of mounting holes. Select the trough model based on rack width:

- 600-mm racks use DCE6016
- 700-mm racks use DCE7016
- 800-mm racks use DCE8016

To install the overhead cable trough:

- 1. Place the trough where you require cable routing.
- 2. Insert a cage nut into the appropriate square hole on the top panel, and secure the trough on top with M6 screws.

Figure 4.5 Installing overhead cable trough



ITEM	DESCRIPTION				
------	-------------	--	--	--	--

1 M6 cage nuts and screws



4.6 Exhaust Chimney: E1832014/E3246014

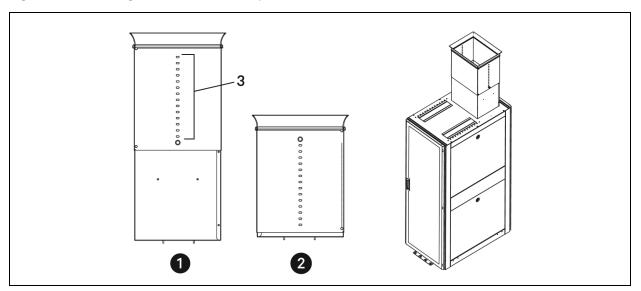
The chimney top panel includes and opening for an exhaust chimney. The chimney options are:

- E1832014: Adjustable 18 in. to 32 in. H; 18.75 in. W x 14.3 in. D
- E3246014: Adjustable 32 in. to 46 in. H; 18.75 in. W x 14.3 in. D

To install the exhaust chimney:

- 1. Place the chimney on top of the opening in the top panel and secure it from inside the rack with four $\#10-32 \times 1/2$ in. L screws.
- 2. Raise the outer section of the chimney so the rubber seal touches the ceiling. When the chimney is at the desired height, use a screwdriver to punch out the appropriate knockout along each side of the chimney.
- 3. Insert the chimney knob into the knockout to secure the chimney.

Figure 4.6 Installing the exhaust chimney



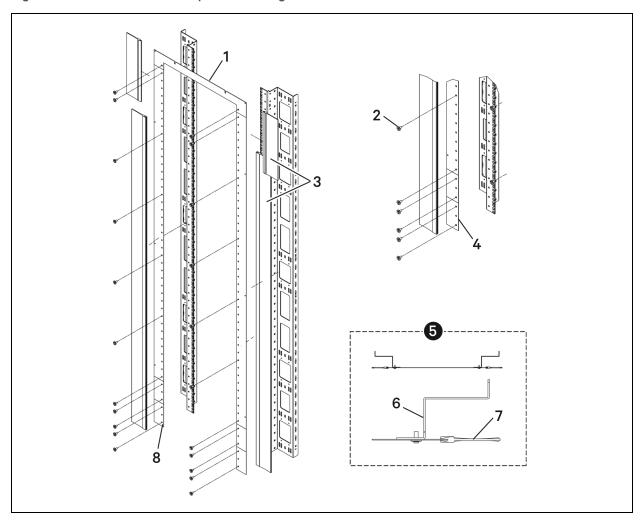
ITEM	DESCRIPTION
1	Fully-extended chimney
2	Fully-compressed chimney
3	Knockouts for chimney knob

4.7 Vertical-airflow Baffle with Brush Kit for 800-mm W Rack: E48801/E428014/E458014

The vertical airflow baffle with brush kit is used to prevent air recirculation within the rack. It can be installed in 42, 45, and 48 RU racks that are 800-mm wide. The kit installs using the accessory mounting holes (AMH) along the rail.



Figure 4.7 800-mm baffle components and grommet installation



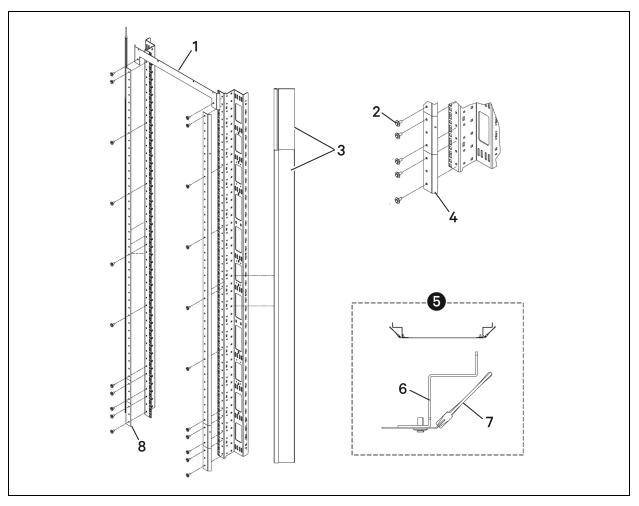
ITEM	DESCRIPTION
1	Top cross plate for first AMH on all racks
2	Tool-less rivets for 1/4-in. push holes
3	Brush grommet strips
4	RU break-off intervals on brush-strip mounting plate for 45 RU and 42 RU racks
5	Top view of brush grommet installed.
6	EIA rail
7	Brush grommet
8	Brush-strip mounting plate



4.8 Vertical Airflow Baffle with Brush Kit for 700-mm W Rack: E487014/E427014/E457014

The vertical airflow baffle with brush kit is used to prevent air recirculation within the rack. It can be installed in 42, 45, and 48 RU racks that are 700-mm wide. The kit installs using the accessory mounting holes (AMH) along the rail.

Figure 4.8 700-mm baffle components and grommet installation



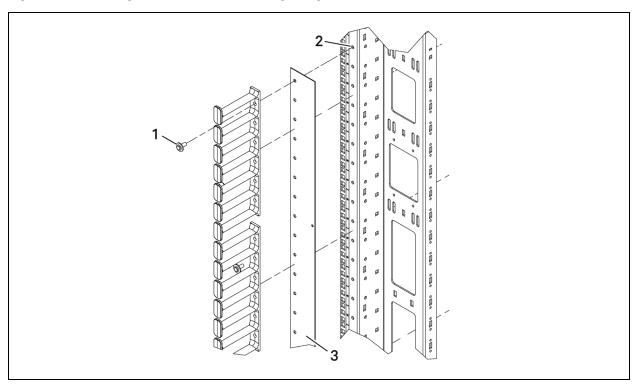
ITEM	DESCRIPTION
1	Top cross plate for first AMH on all racks
2	Tool-less rivets for 1/4-in. push holes
3	Brush grommet strips
4	RU break-off intervals on brush-strip mounting plate for 45 RU and 42 RU racks
5	Top view of brush grommet installed.
6	EIA rail
7	Brush grommet
8	Brush-strip mounting plate



4.9 Vertical-airflow Baffle with Brush Kit and Vertical Cable Manager

The brush grommet rail kit and vertical cable manager can be installed together. To install the cable manager, the EIA rails must be recessed a total of 4.75 in. from the front of the rack. When installing both options, place a vertical cable manager on top of the mounting plate of the vertical airflow baffle; align with the AMH. Insert a tool-less rivet through both the vertical cable manager and mounting plate.

Figure 4.9 Installing a baffle and cable manager together



ITEM	DESCRIPTION
1	Tool-less rivets for 1/4-in. push holes
2	AMH along EIA rail
3	Vertical brush-mounting plate



4.10 Switch Kit for Side-to-side Cisco Switch for 1000-mm W Rack: E7009014/E7018014

The kit provides proper air flow for a side-to-side switch. The kit options are:

- E7009014: Kit for 14 RMU Cisco switch
- E7018014: Kit for 25 RMU Cisco switch

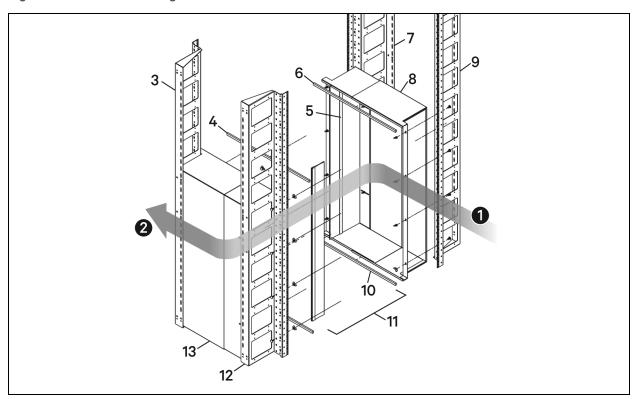
Each kit includes:

- 2-piece side air baffle
- Top cross-plate/baffle
- 24 cover panels for EIA rails, with fasteners
- Cable-management rail kit, with 12 finger managers and fasteners

The switch kit controls air flow for proper switch performance. The following figure shows how air should flow past the switch when the kit is installed.

NOTE: For clarity, the main rack is not shown in the figure.

Figure 4.10 Air-flow through the Switch Kit



ITEM	DESCRIPTION
1	Cool-air intake
2	Hot-air exhaust
3	Left-rear EIA rail
4	Foam gasket

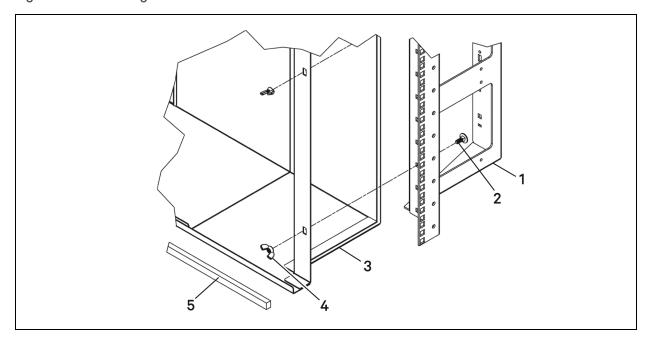


ITEM	DESCRIPTION
5	Depth-adjustable interior bracket
6	Foam gasket
7	Right-rear EIA rail
8	Air-intake baffle
9	Right-front EIA rail
10	Foam gasket
11	Front of enclosure
12	Left-front EIA rail
13	Air-exhaust baffle

To install the baffle, finger cable managers, and cover plates:

- 1. Insert one side of the baffle through the front or rear of the rack, and set it on top of the bottom-gusset of the EIA rail.
- 2. Mate the side of the baffle to the side of the EIA rail, align the cutouts, and secure to the front and rear rails with the fasteners as shown in the following figure.
- 3. Repeat steps 1 and 2 for the second side of the baffle.
- 4. Install the brush strip onto flange of the depth-adjustable interior bracket.
- 5. Peel the backing from the foam gasket, and stick it in place on the top and bottom flanges of the baffle. You may need to cut the gasket to size.

Figure 4.11 Fastening the baffle to the rail



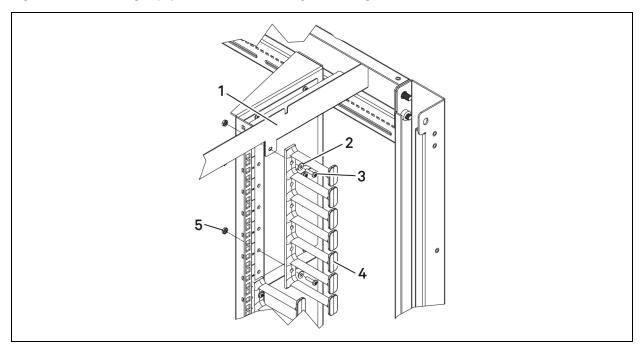
ITEM	DESCRIPTION
1	EIA rail gusset
2	M6 carriage bolt



ITEM	DESCRIPTION
3	Baffle section
4	Wing nut
5	Foam gasket

6. Refer to the following figure to install the top-plate/baffle and cable-management fingers (6 per rail) on the front of the rails

Figure 4.12 Installing top-plate and cable-management finger sections

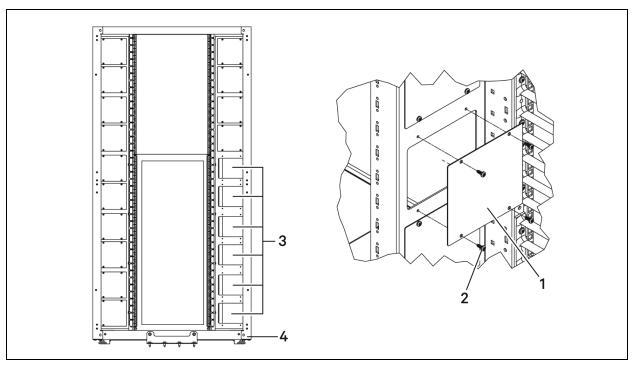


ITEM	DESCRIPTION
1	Top plate/baffle
2	#10 flat washer
3	10-32 PH pan-head screw
4	Finger cable-management section
5	10-32 Keps nut

- 7. Install the cover plates as shown in the following figure (example of front shown), leaving the only the following openings uncovered for proper air intake and exhaust depending on baffle size:
 - 6 openings on the right front and left rear of a 25 RU baffle
 - 3 openings on the right front and left rear of a 14 RU baffle



Figure 4.13 Cover-panel installation and location of openings



ITEM	DESCRIPTION
1	Cover plate
2	#10-32 Torx screw, 4 per panel
3	Sections in EIA rail to leave open
4	Right-front EIA rail

4.11 Switch Kit for Side-to-side Cisco Switch for 800-mm W Rack: E650304/E6506014/E9513014/E6513014

The kit provides proper air flow for a side-to-side switch. The kit options are:

- E6503014: Kit for 4 RU Cisco switch
- E6506014: Kit for 11 RU Cisco switch
- E9513014: Kit for 14 RU Cisco switch
- E6513014: Kit for 19 RU Cisco switch

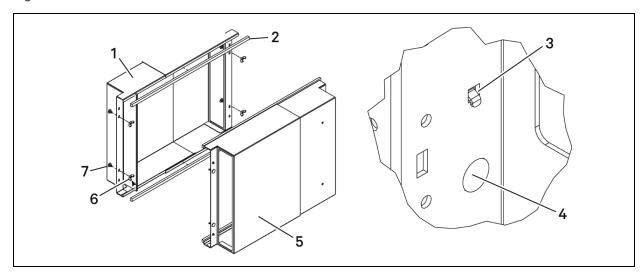
To install the baffles:

- 1. Make sure to orient the baffles for proper air flow as follows:
 - Place the left-side, exhaust baffle vertically in the rail with the closed face toward the front, and the open face toward the back.
 - Place the right-side, intake baffle with the open face toward the front and the closed face toward the back.
- 2. Assemble and adjust the baffles before mounting on the rail.
- 3. Peel the backing from the gasket, and stick it on the top and bottom flanges that make contact with the side of the equipment.



- 4. Install the baffle on the rails by inserting the "tabs" on each end of the baffle in to the 0.281-in. square hole pattern on the rail, as shown in the figure.
- 5. Use the carriage bolts and wing nuts in the square holes above and below each tab to secure the baffle to the rails.

Figure 4.14 Switch baffle installation for 800-mm rack



ITEM	DESCRIPTION
1	Exhaust baffle
2	Gasket
3	Tab in square-hole pattern on rail
4	Carriage bolt in square-hole pattern on rail
5	Intake baffle
6	M6 wing nut
7	M6 carriage bolt



4.12 Baying Gasket Kit: E4013

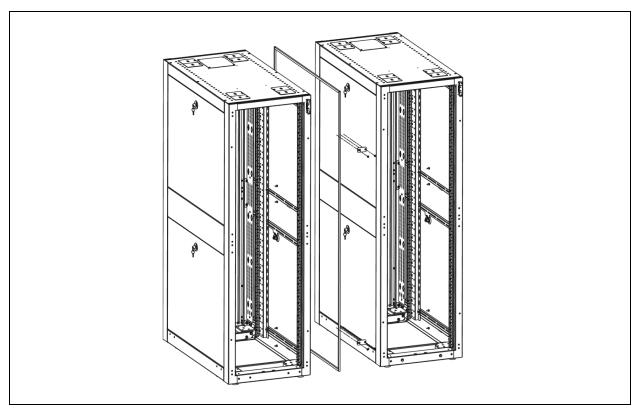
NOTE: The kit is for 24-in. wide spacing only.

When baying racks together on 24-in. centers, use a Baying Gasket Kit to seal the gap between the racks to maintain proper hot-aisle/cold-aisle best practices. The gasket must be installed before baying racks.

To install the gasket:

- 1. Measure and cut gasket to length.
- 2. peel adhesive backing from the gasket, and place the gasket around side perimeter of one of the racks.
- 3. Position the racks next to each other with the gasket between them. The racks are ready for baying.

Figure 4.15 Baying gasket location



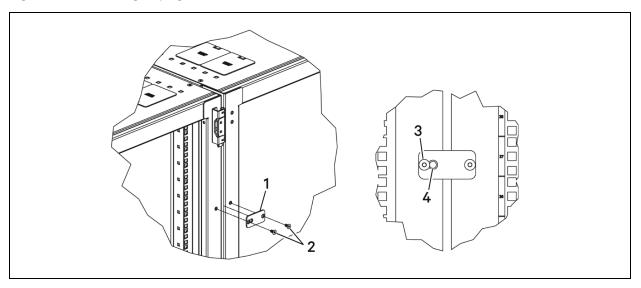


4.13 Baying Kit: E9013

To install the racks in a bay configuration:

- 1. Place racks in a row and open or remove doors for easy access to frame holes.
- 2. Decide spacing between rack centers, 24 in. or 600 mm, which determines the screw holes used in the bracket, see the following figure.
- 3. Install 2 brackets at front and 2 at rear per the rack's mating planes, as shown in the figure.

Figure 4.16 Installing baying brackets



ITEM	DESCRIPTION
1	Baying bracket
2	M6 flat-head Torx screw
3	Screw hole for 24-in. centers
4	Screw hole for 600-mm centers



This page intentionally left blank.



completeness herein, Vertiv Co. assumes no responsibility, and disclaims all liability, for damages resulting from use of this information or for any errors or

omissions. Specifications are subject to change without notice.