Installing the Chassis

Rack Mount the Chassis

The chassis can be mounted on a 4-post rack.

Warning

Statement 1032—Lifting the Chassis

To prevent personal injury or damage to the chassis, never attempt to lift or tilt the chassis using the handles on modules, such as power supplies, fans, or cards. These types of handles are not designed to support the weight of the unit.

Warning

Statement 1006—Chassis Warning for Rack-Mounting and Servicing

To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

- This unit should be mounted at the bottom of the rack if it is the only unit in the rack.
- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.

Rack-Mount the Chassis in a 4-Post Rack

This section describes how to install the router in a 4-post rack.

Caution If the rack is on wheels, ensure that the brakes are engaged or that the rack is otherwise stabilized.

The following table lists the items that are contained in the rack-mount kit.

Table 1: Rack-Mount Kit

Quantity	Part Description
2	Rack-mount brackets
18	M4 x 6-mm Phillips flat-head screws
2	M4 x 6-mm Phillips pan-head screws
2	Rack-mount guides
2	Rack-mount guide rails, 2 lengths for different 4-post depths
1	Grounding plate (applies to Cisco 8201, Cisco 8201-32FH, and Cisco 8201-24H8FH routers)
1	Grounding lug and screws

Step 1 Install the rack-mount brackets to the router as follows:

a) Determine which end of the chassis is to be located in the cold aisle as follows:

- If the router has port-side intake modules (fan modules and power modules with burgundy coloring), position the router so that the ports are in the cold aisle.
- If the router has port-side exhaust modules (fan modules and power modules with blue coloring), position the router so that the fan and power supply modules are in the cold aisle.

b) (Only Cisco 8201, Cisco 8201-32FH, and Cisco 8201-24H8FH) Attach the grounding plate to the chassis. Use two M4 flat-head screws with 13.25 in-lbs (1.5 N-m) torque value to attach the grounding plate to the chassis.

Note The Cisco 8201 chassis has a grounding cover label that must be removed before attaching the grounding plate to the chassis.

c) Position a rack-mount bracket on the side of the chassis with its four holes that are aligned to four of the screw holes on the side of the chassis, and then use four M4 flat-head screws with 13.25 in-lbs (1.5 N-m) torque value to attach the bracket to the chassis.

Note You can align four holes in the rack-mount bracket to four screw holes on the front side of chassis or four screw holes on the rear side of the chassis. The holes that you use depend on which end of your chassis is located in the cold aisle.

Figure 1: Rack-Mount Brackets on Cisco 8201 Router—Port-Side Intake

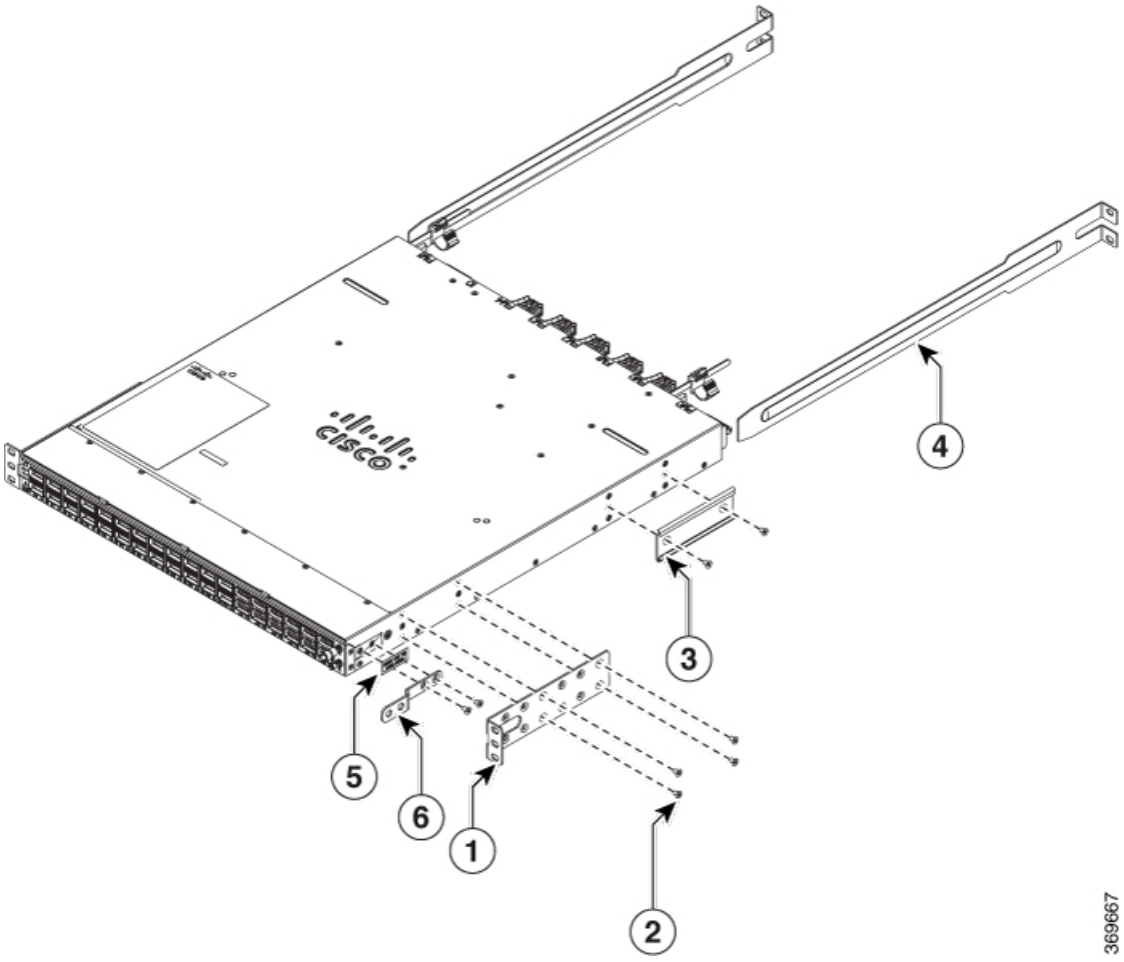
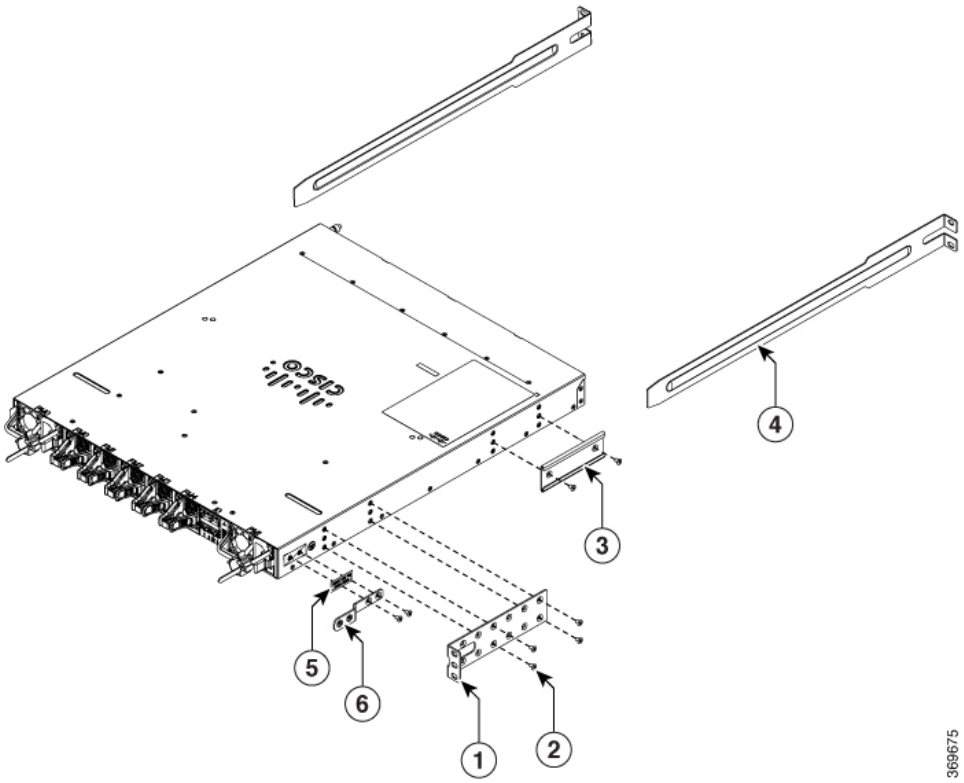


Figure 2: Rack-Mount Brackets on Cisco 8201 Router—Port-Side Exhaust



1	Rack-mount brackets	4	Rack-mount guide rails
2	M4 x 6mm Phillips flat-head screws	5	Remove grounding cover label
3	Rack-mount guide	6	Grounding plate

Figure 3: Rack-Mount Brackets (8K-2RU-KIT-S) on Cisco 8202-32FH-M Router—Port-Side Intake

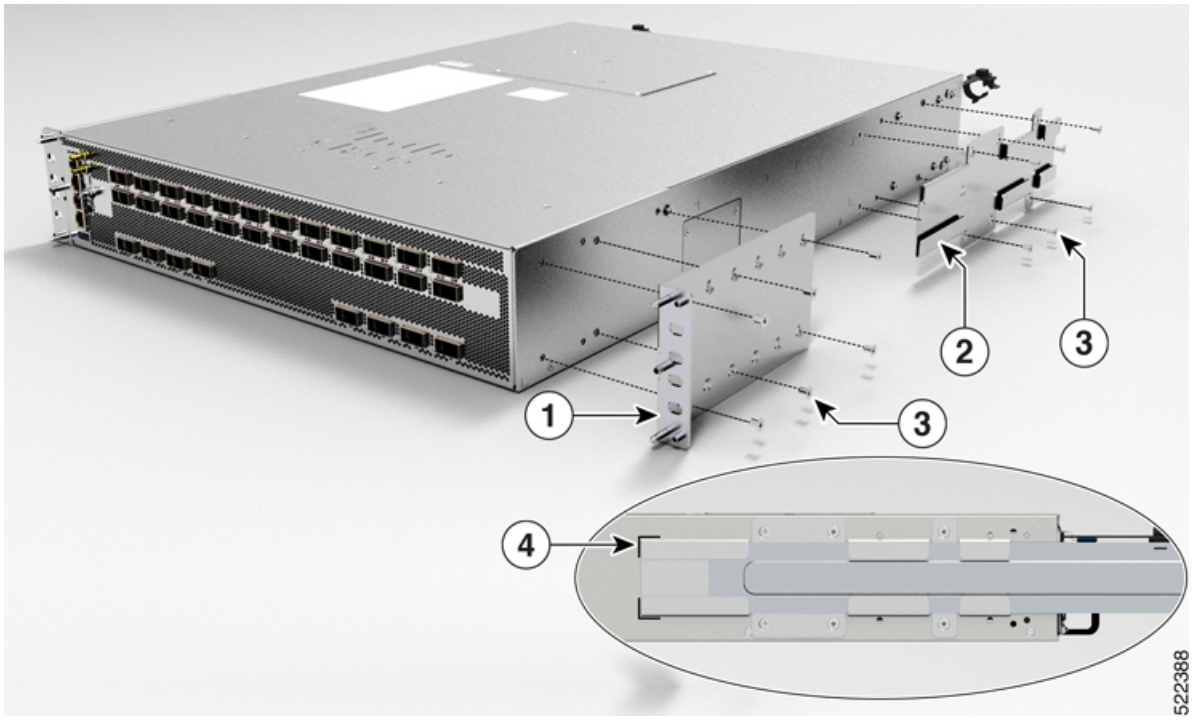
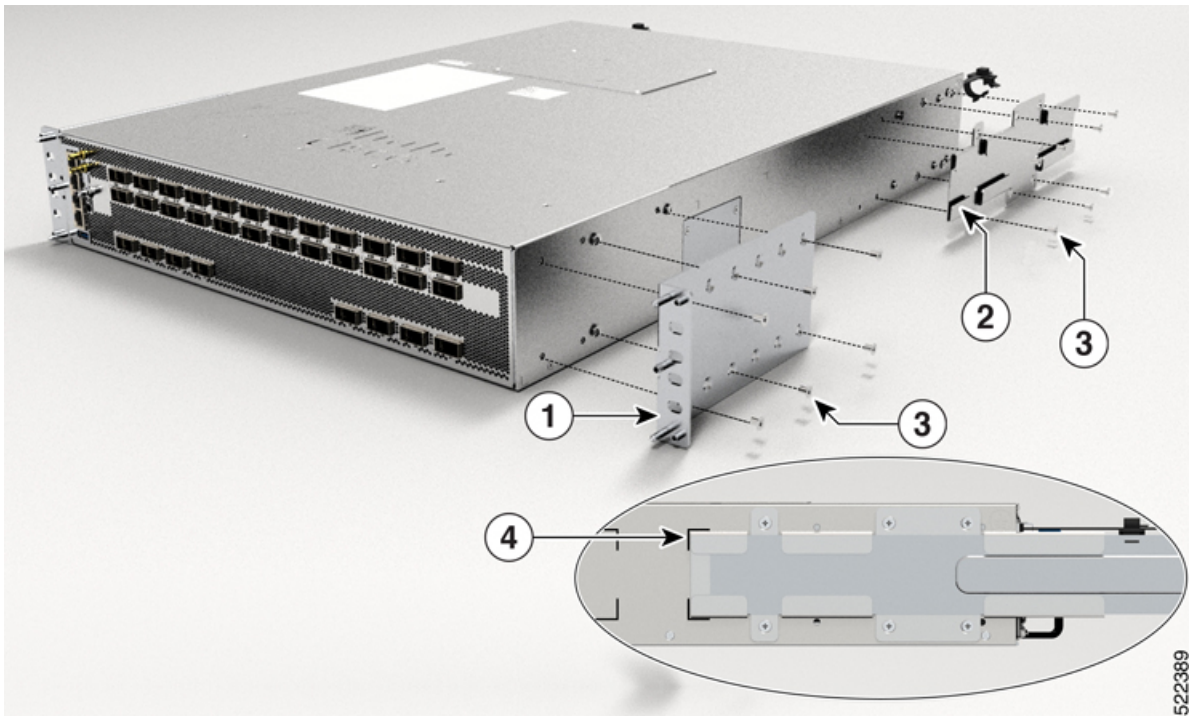


Figure 4: Rack-Mount Brackets (8K-2RU-KIT-L) on Cisco 8202-32FH-M Router—Port-Side Intake



1	Rack-mount brackets	3	M4 x 6mm Phillips flat-head screws

2	Rack-mount guide	4	Rack-mount guide rails. The orientation of the rail changes depending upon the rail that you select. The following rail types are available for Cisco 8202-32FH-M router: • 8K-2RU-KIT-S - Used for rack depth of 23" to 30" • 8K-2RU-KIT-L - Used for rack depth of 30" to 40"

Figure 5: Rack-Mount Brackets (8K-2RU-KIT-S) on Cisco 8212-48FH-M Router—Port-Side Intake

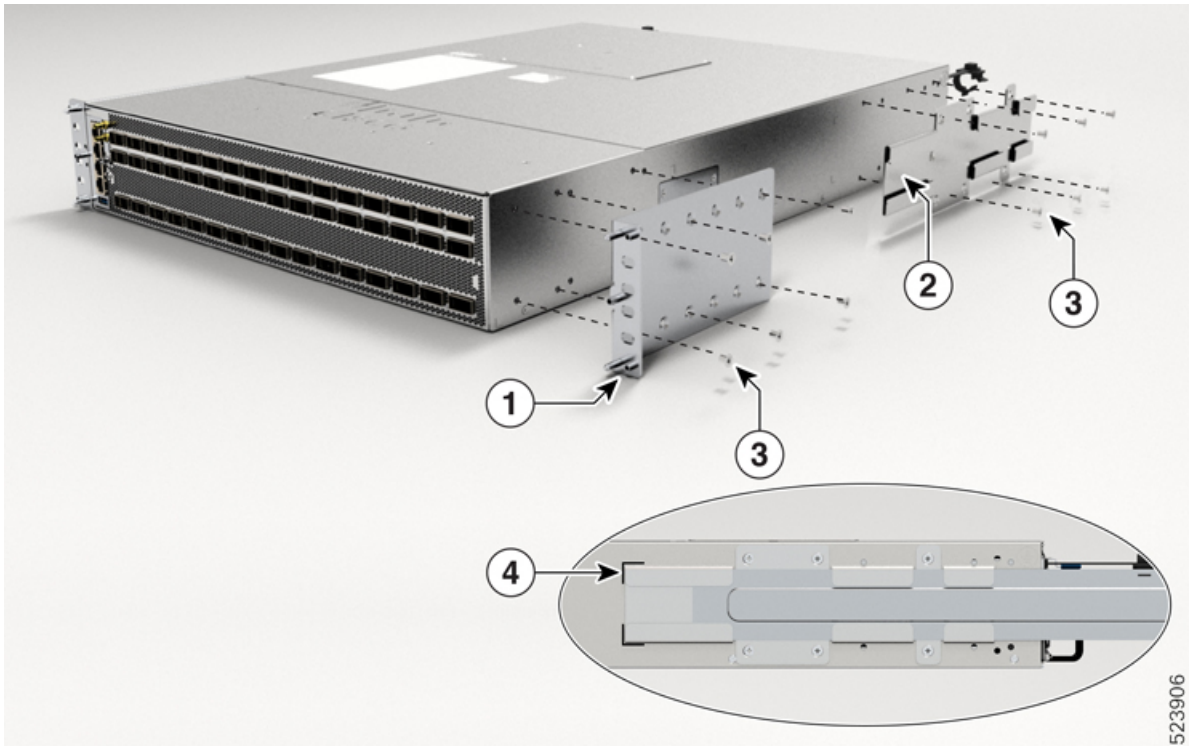
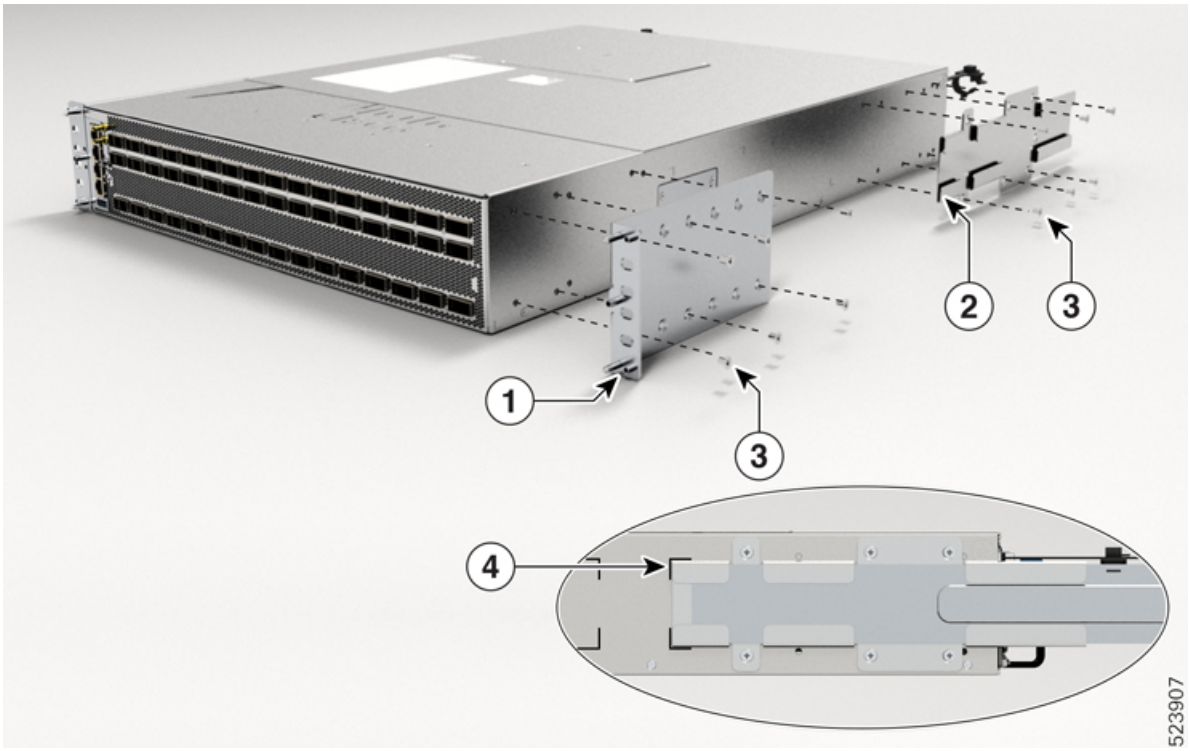


Figure 6: Rack-Mount Brackets (8K-2RU-KIT-L) on Cisco 8212-48FH-M Router—Port-Side Intake



1	Rack-mount brackets	3	M4 x 6mm Phillips flat-head screws
2	Rack-mount guide	4	Rack-mount guide rails. The orientation of the rail changes depending upon the rail that you select. The following rail types are available for Cisco 8212-48FH-M router: • 8K-2RU-KIT-S - Used for rack depths between 23 in. (584.2 mm) and 32 in. (812.8 mm) • 8K-2RU-KIT-L - Used for rack depths between 32 in. (812.8 mm) and 42 in. (1066.8 mm)

Figure 7: Rack-Mount Brackets on Cisco 8202 Router—Port-Side Intake

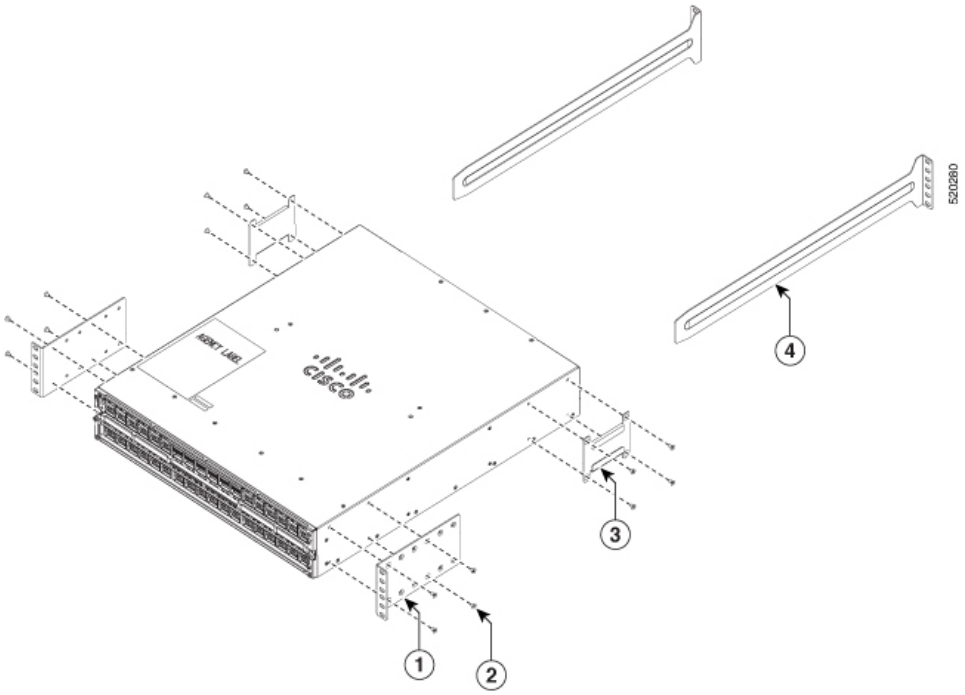
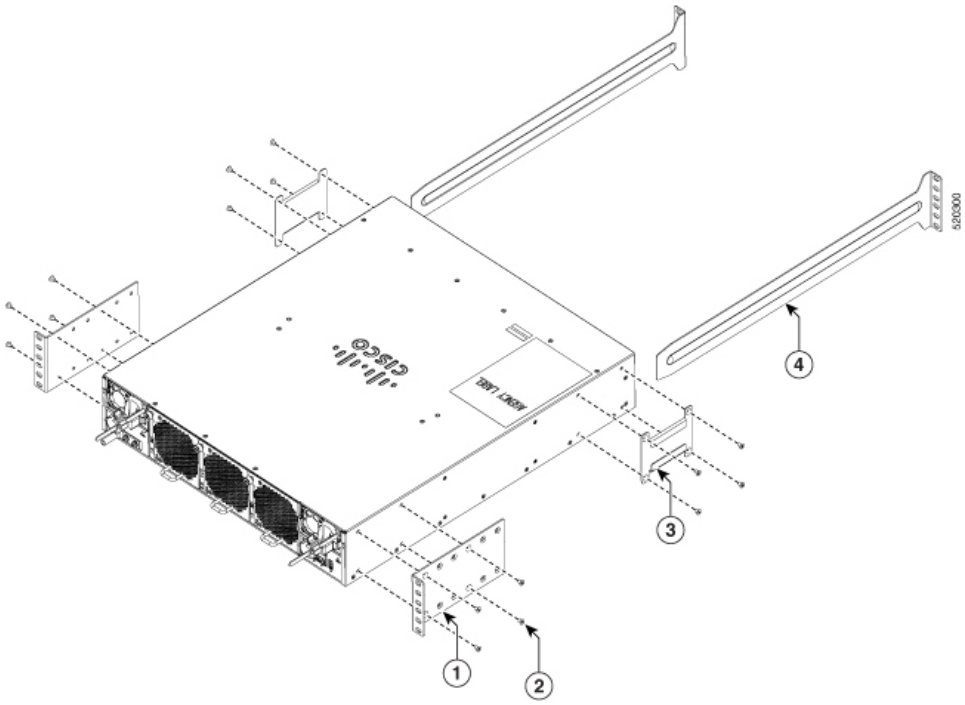


Figure 8: Rack-Mount Brackets on Cisco 8202 Router—Port-Side Exhaust



1	Rack-mount brackets	3	Rack-mount guide
2	M4 x 6mm Phillips flat-head screws	4	Rack-mount guide rails

Figure 9: Rack-Mount Brackets on Cisco 8201-32FH or Cisco 8201-24H8FH Router—Port-Side Intake

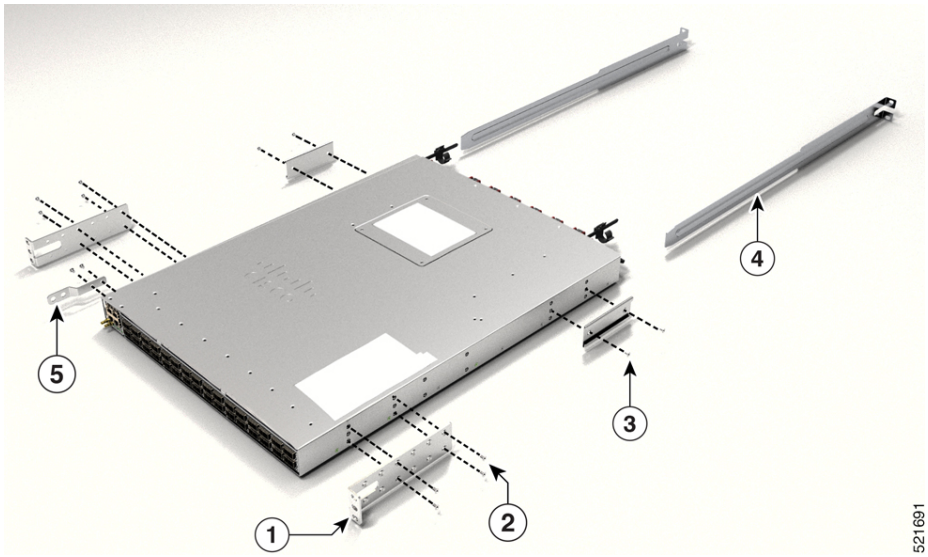
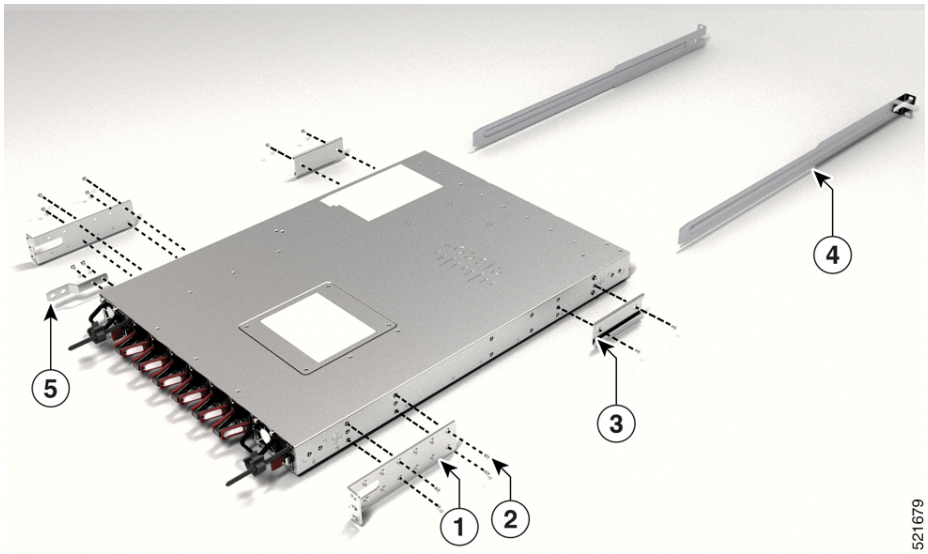


Figure 10: Rack-Mount Brackets on Cisco 8201-32FH or Cisco 8201-24H8FH Router—Port-Side Exhaust



1	Rack-mount brackets	4	Rack-mount guide rails
2	M4 x 6mm Phillips flat-head screws	5	Grounding plate
3	Rack-mount guide		

d) Repeat Step 1b with the other rack-mount bracket on the other side of the router.

Step 2 Install the two rack-mount guides on the chassis:

a) Position a rack-mount guides on the side of the chassis with its two holes aligned to the two screw holes on the side of the chassis, and use two M4 flat-head screws to attach the guides to the chassis. Tighten the screws to a torque of 13.25 in-lb (1.5 N-m).

b) Repeat with the other rack-mount guides on the other side of the router.

Step 3 Install the guide rails to the rack:

a) Position the guide rails at the desired levels on the back side of the rack and use four 12-24 screws or four 10-32 screws, depending on the rack thread type, to attach the rails to the rack.

Note For racks with square holes, you may need to position a 12-24 or 10-32 cage nut behind each mounting hole in a guide rail before using a 12-24 or 10-32 screw.

b) Repeat with the other guide rail on the other side of the rack.

c) Use a tape measure and level to verify that the rails are at the same height and horizontal.

Step 4 Insert the router into the rack and attach:

a) Holding the router with both hands, position the back of the router between the front posts of the rack.

b) Align the two rack-mount guides on either side of the router with the guide rails installed in the rack. Slide the rack-mount guides onto the guide rails, and then gently slide the router all the way into the rack.

Note If the router does not slide easily, try realigning the rack-mount guides on the guide rails.

c) Holding the chassis level, insert two screws (12-24 or 10-32, depending on the rack type) through the holes in each of the rack-mount brackets and into the cage nuts or threaded holes in the rack-mounting rail.

d) Tighten the 10-32 screws to 20 in-lb (2.26 N.m) or tighten the 12-24 screws to 30 in-lb (3.39 N.m).

Rack-Mount the Chassis in a 2-Post Rack

This section describes how to install the Cisco 8201, Cisco 8202, Cisco 8201-32FH, Cisco 8202-32FH-M, Cisco 8212-48FH-M, or Cisco 8201-24H8FH router into a cabinet or 2-post rack.

⚠

Caution If the rack is on wheels, ensure that the brakes are engaged or that the rack is otherwise stabilized.

The following table lists the items contained in the rack-mount kit that is provided with the routers.

Table 2: Rack-Mount Kit

Quantity	Part Description
2	Rack-mount brackets
8	M4 x 0.7 x 6-mm Phillips flat-head screws

Step 1 Install two rack-mount brackets to the router:

a) Determine which end of the chassis is to be located in the cold aisle:

- If the router has port-side intake modules (fan modules and power modules with burgundy coloring), position the router so that its optical ports are in the cold aisle, and fans and power modules will be in the hot aisle.
- If the router has port-side exhaust modules (fan modules and power modules with blue coloring), position the router so that its fan and power supply modules are in the cold aisle and optical ports will be in the hot aisle.

b) (Only Cisco 8201, Cisco 8201-32FH, and Cisco 8201-24H8FH) Attach the grounding plate to the chassis. Use two M4 flat-head screws with 13.25 in-lbs (1.5 N-m) torque value to attach the grounding plate to the chassis.

Note The Cisco 8201 chassis has a grounding cover label that must be removed before attaching the grounding plate to the chassis.

c) With the bracket ears facing toward the center of the chassis, position a front rack-mount bracket on the side of the chassis so that the four holes are aligned to four of the screw holes on the side of the chassis.

d) Use four M4 flat-head screws with 13.25 in-lbs (1.5 N-m) torque value to attach the bracket to the chassis.

Figure 11: Rack-Mount Brackets on Cisco 8201 Router—Port-Side Intake

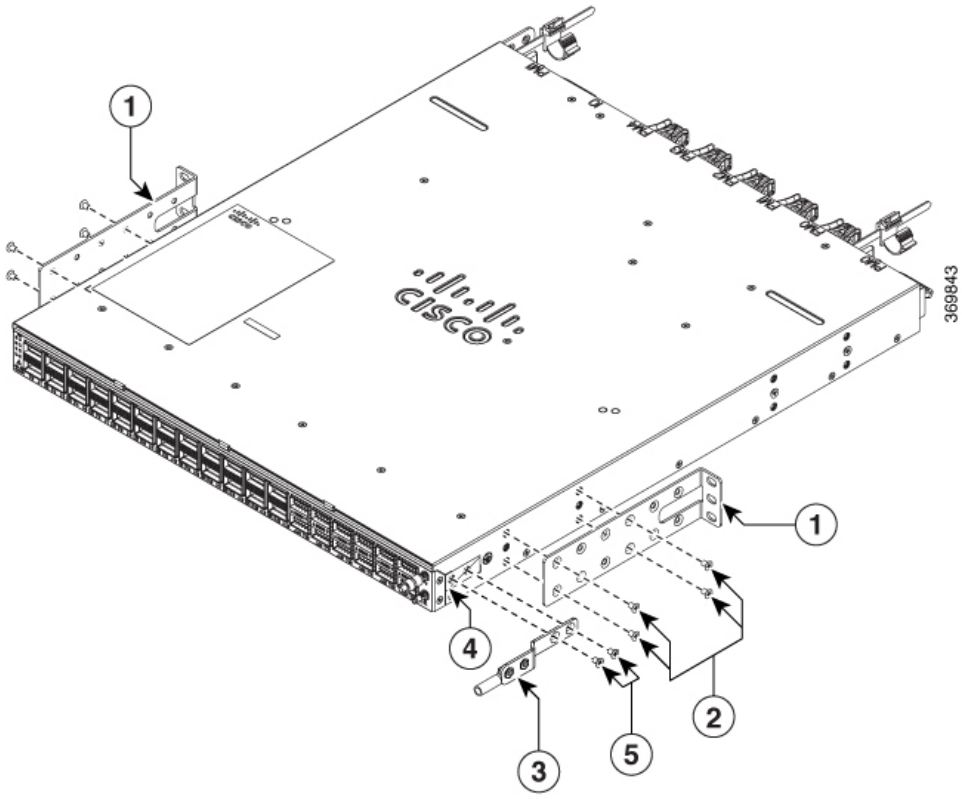
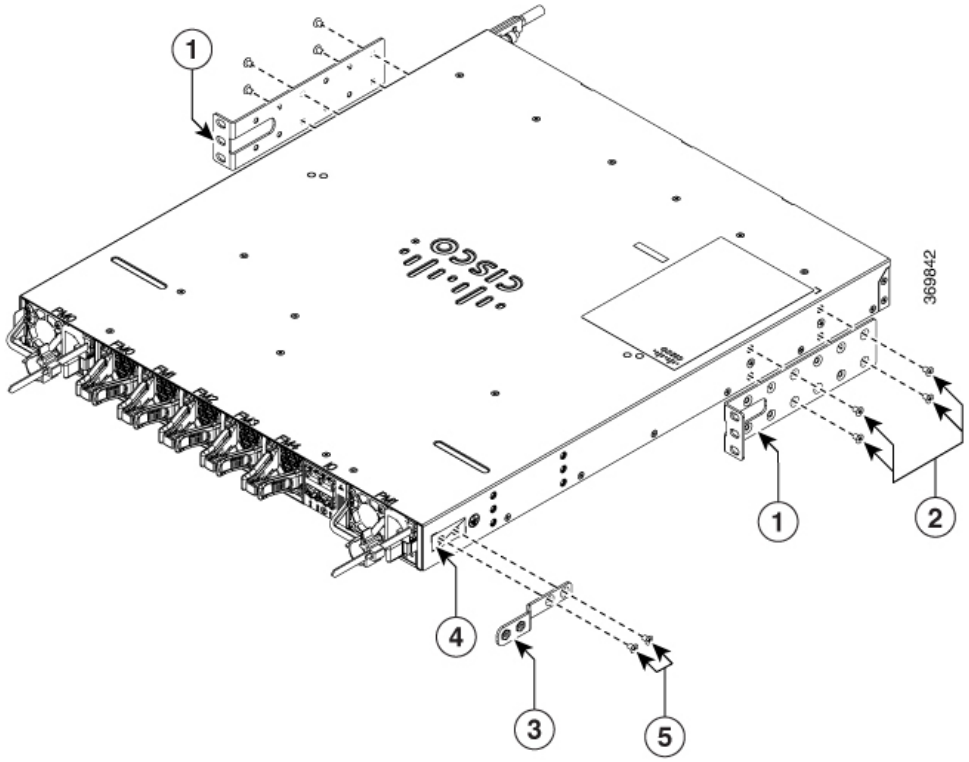


Figure 12: Figure 6: Rack-Mount Brackets on Cisco 8201 Router—Port-Side Exhaust



1	Rack-mount brackets	4	Ground plate mount location
2	M4 x 6-mm Phillips flat-head screws	5	M4 x 6-mm Phillips flat-head screws
3	Grounding plate		

Figure 13: Rack-Mount Brackets on Cisco 8202 Router—Port-Side Intake

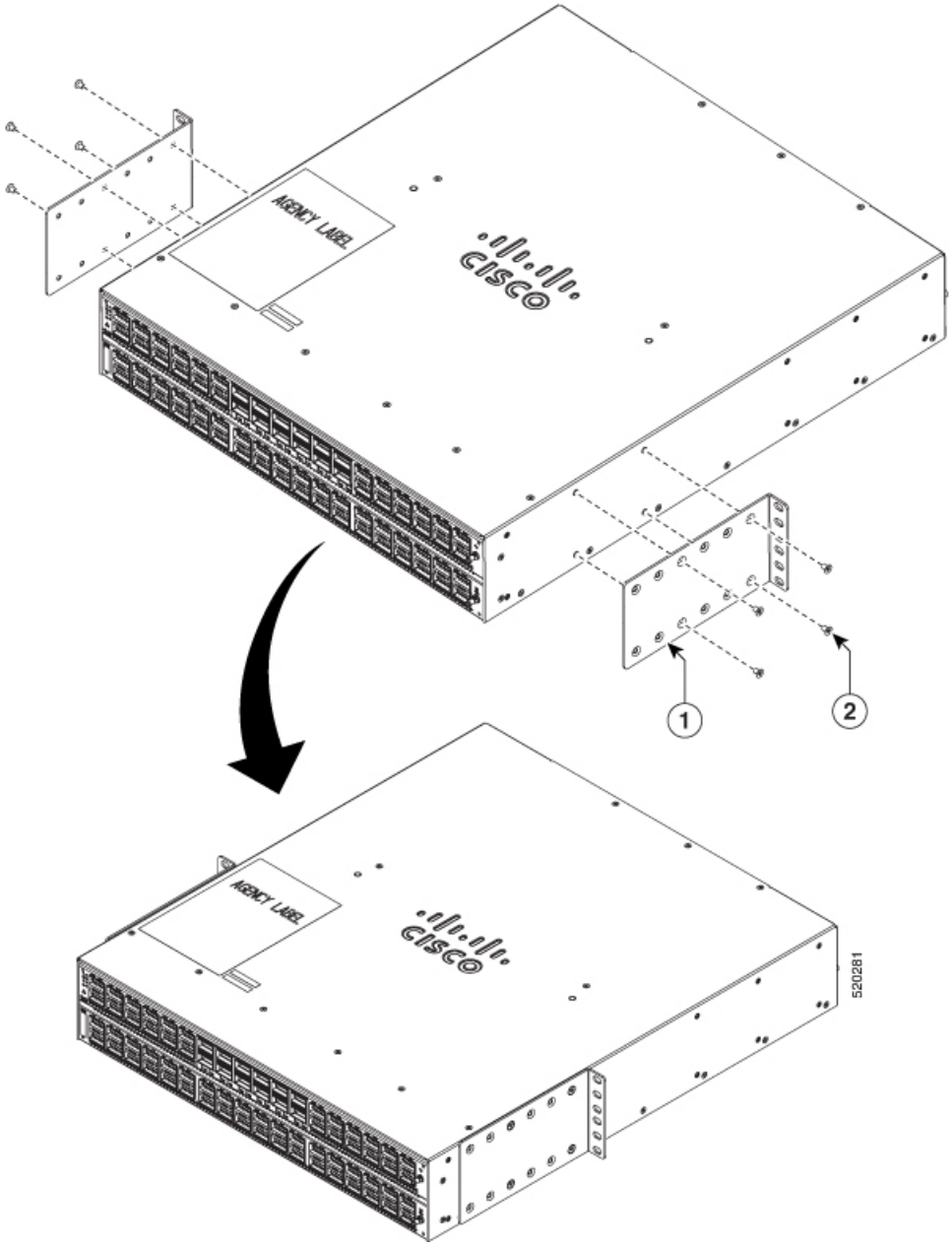
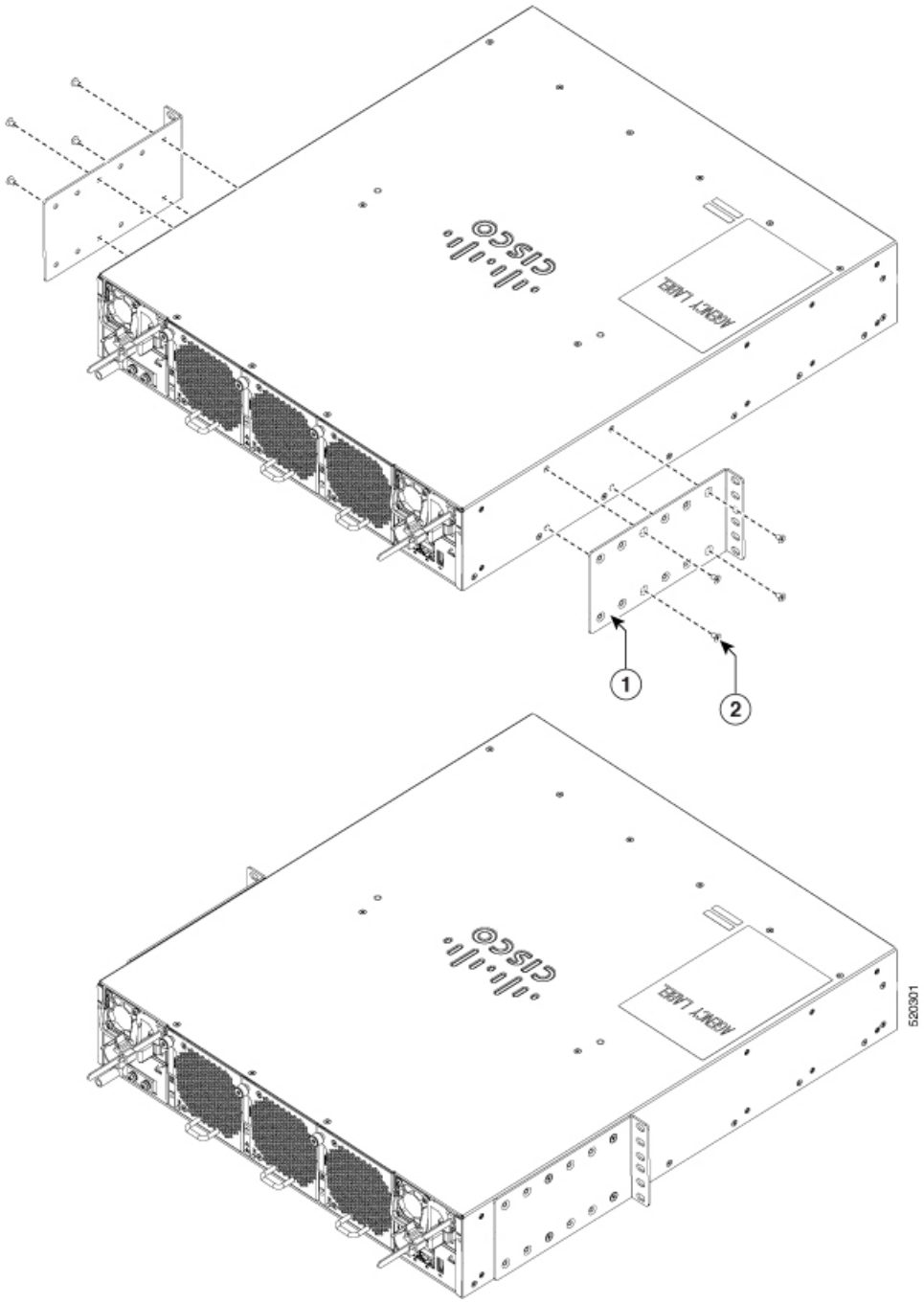


Figure 14: Rack-Mount Brackets on Cisco 8202 Router—Port-Side Exhaust



1	Rack-mount brackets	2	M4 x 6-mm Phillips flat-head screws

Figure 15: Rack-Mount Brackets on Cisco 8201-32FH or Cisco 8201-24H8FH Router—Port-Side Intake

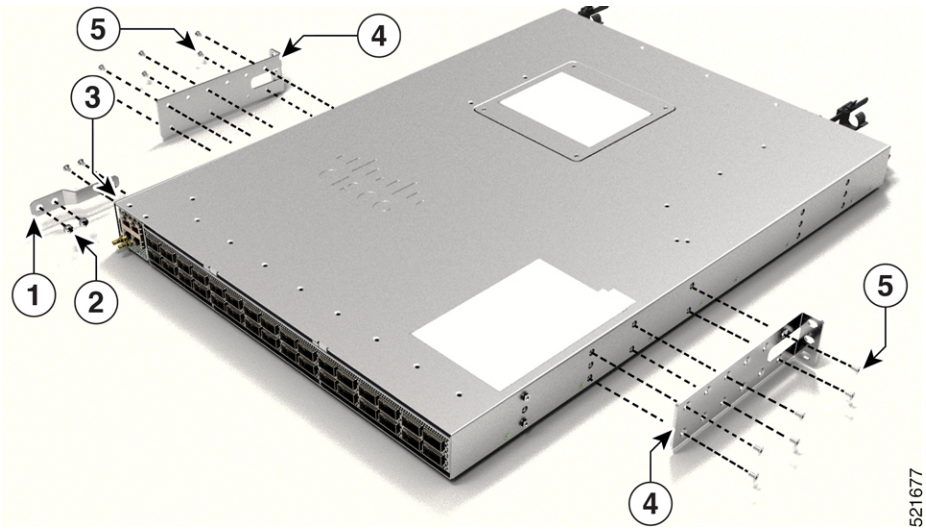
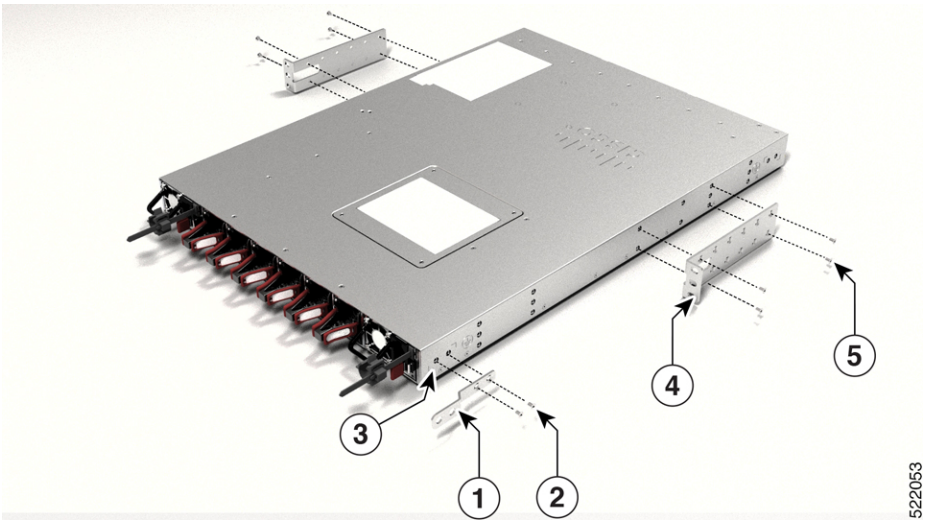
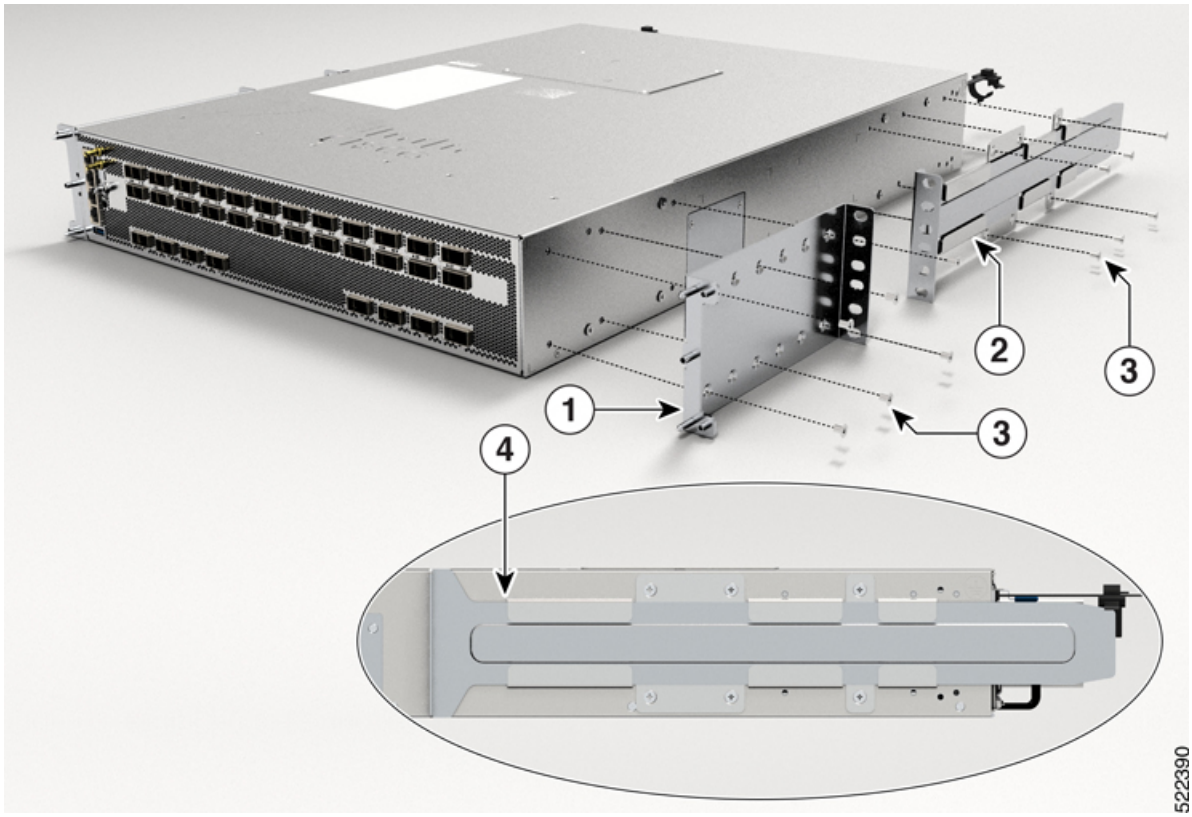


Figure 16: Rack-Mount Brackets on Cisco 8201-32FH or Cisco 8201-24H8FH Router—Port-Side Exhaust



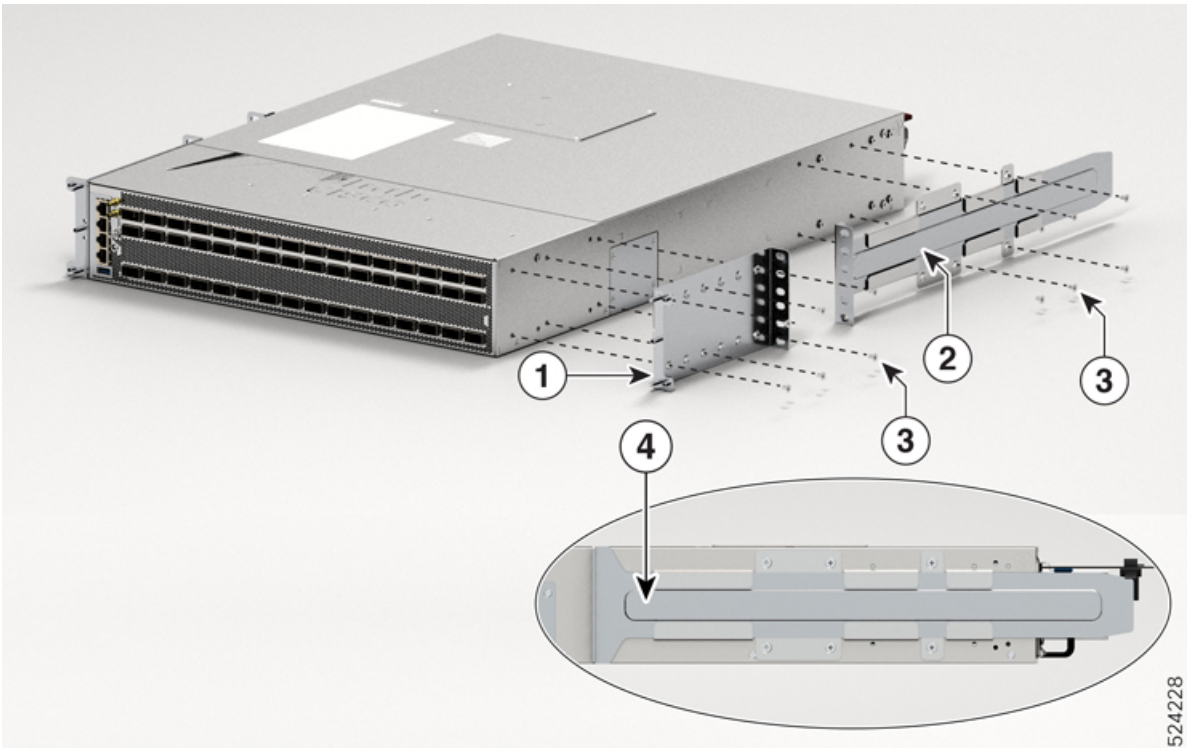
1	Grounding plate	2	M4 x 6-mm Phillips flat-head screws
3	Ground plate mount location	4	Rack-mount brackets
5	M4 x 6-mm Phillips flat-head screws		

Figure 17: Rack-Mount Brackets on Cisco 8202-32FH-M Router—Port-Side Intake



1	Rack-mount bracket	3	M4 x 6-mm Phillips flat-head screws
2	Slider fixed in rack-mount bracket	4	Rail slider

Figure 18: Rack-Mount Brackets on Cisco 8212-48FH-M Router—Port-Side Intake



1	Rack-mount bracket	3	M4 x 6-mm Phillips flat-head screws
2	Slider fixed in rack-mount bracket	4	Rail slider

e) Repeat Steps 1b and 1c with the other rack-mount bracket on the other side of the router.

Step 2 Install the router onto the 2-post rack:

a) With the assistance of another person, lift the router into position between the two rack posts.
b) Move the router until the rack-mount brackets come in contact with two rack posts.
c) Hold the chassis at a level position while the second person inserts two screws (12-24 or 10-32, depending on the rack type) in each of the two rack-mount brackets (a total of four screws) and into the cage nuts or threaded holes in the vertical rack-mounting rails.

For Cisco 8202-32FH-M and Cisco 8212-48FH-M chassis:

1. Hold the chassis at a level position while the second person inserts three screws (12-24 or 10-32, depending on the rack type) in each of the two front rack-mount brackets (a total of six screws) and into the cage nuts or threaded holes in the vertical rack-mounting rails.
2. Attach the rear rack mount bracket and rail slider on both sides of the chassis (marked as 2 in the *Rack-Mount Brackets on Cisco 8202-32FH-M Router—Port-Side Intake* and *Rack-Mount Brackets on Cisco 8212-48FH-M Router—Port-Side Intake* images). You must first slide the rail into rear rack mount and then fix them in the assembled condition to the chassis.
3. Insert the two screws (12-24 or 10-32, depending on the rack type) in each of the two rear rack-mount brackets (a total of four screws) and into the cage nuts or threaded holes in the vertical rack mounting rails.

Figure 19: Cisco 8202-32FH-M Router

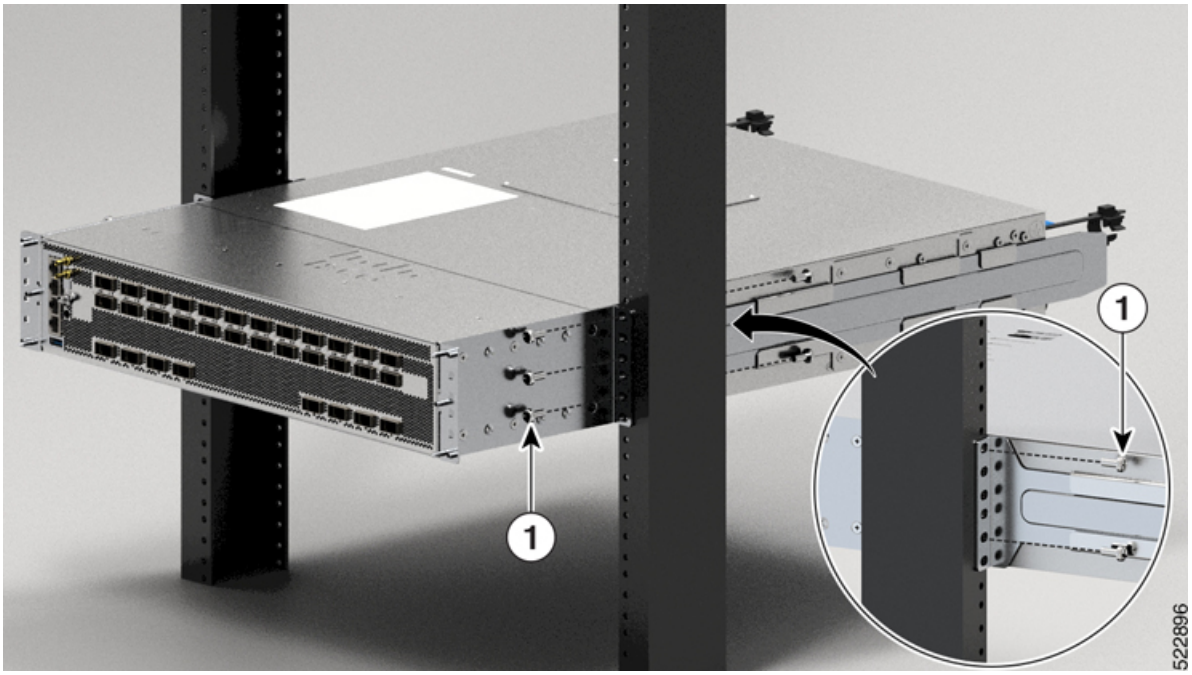
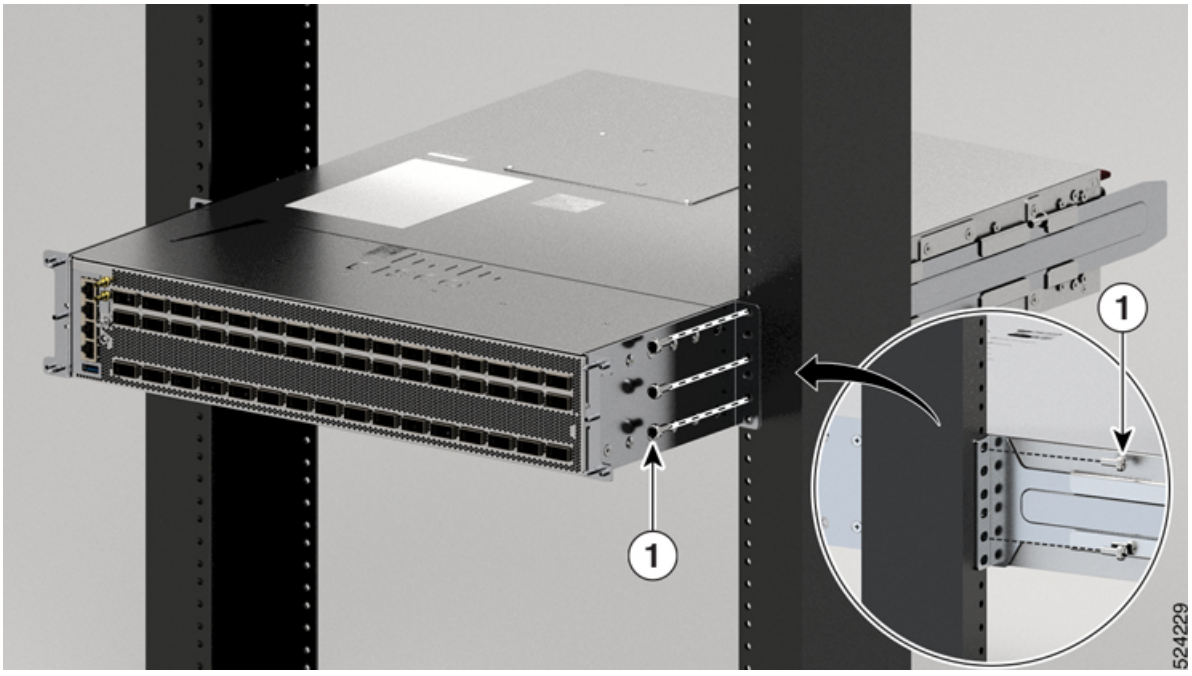


Figure 20: Cisco 8212-48FH-M Router



1	M4 x 6-mm Phillips flat-head screws

d) Tighten the 10-32 screws to 20 in-lb (2.26 N.m) or tighten the 12-24 screws to 30 in-lb (3.39 N.m).

Installing a Cable Management Bracket

To install a cable-management bracket, follow these steps:

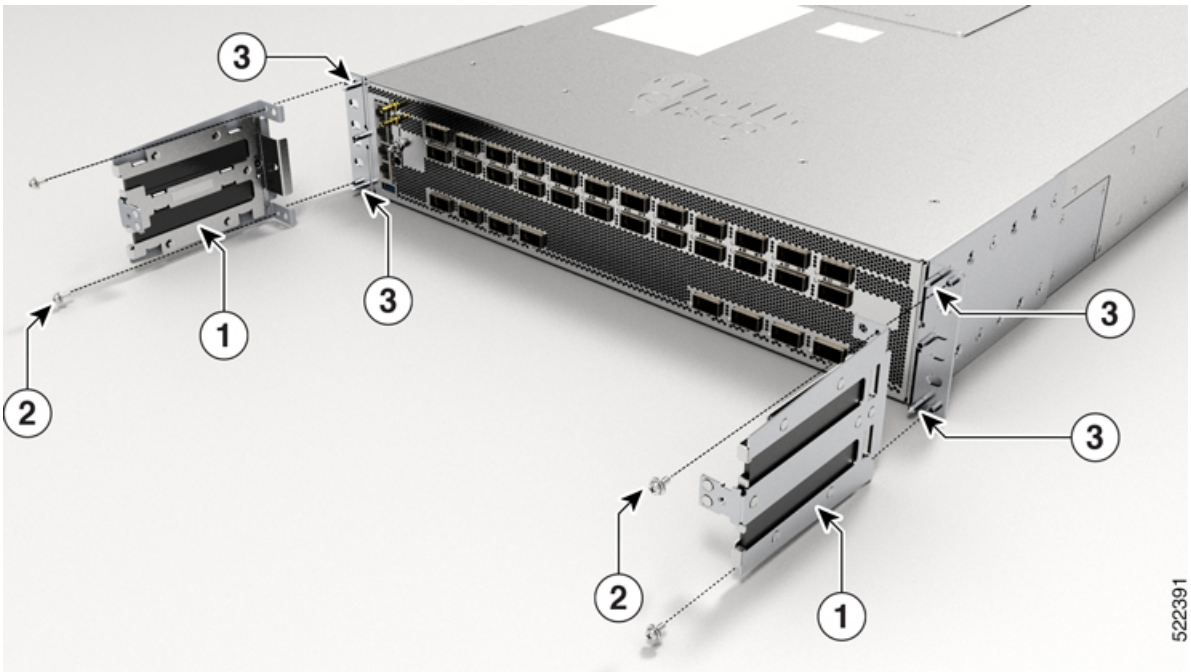
Note

- This procedure is applicable for Cisco 8202-32FH-M and 8212-48FH-M chassis.
- The cable management brackets for Cisco 8202-32FH-M and 8212-48FH-M chassis supports only optics cables.

Step 1 Attach an ESD-preventive wrist or ankle strap and follow its instructions for use.

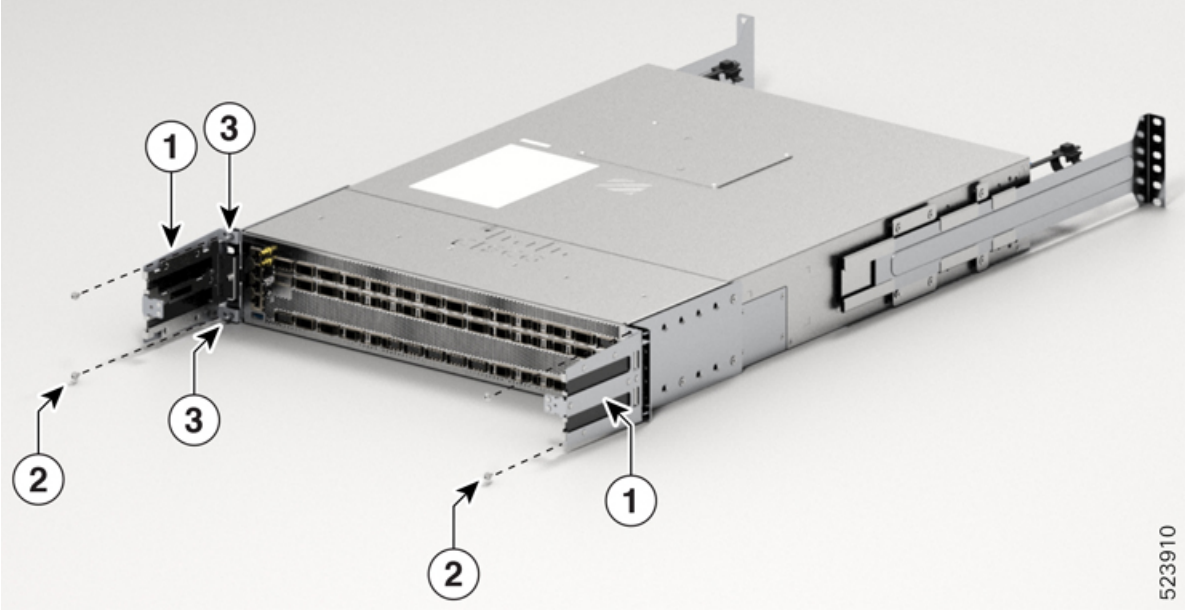
Step 2 Align the cable-management bracket with the two alignment pins on the rack-mount bracket.

Figure 21: Cable-Management Bracket Installation and Removal on Cisco 8202-32FH-M Router



1	Cable-Management Bracket	2	Securing Screws - M3 x 8mm pan-head screws
3	Alignment Pins		

Figure 22: Cable-Management Bracket Installation and Removal on Cisco 8212-48FH-M Router



1	Cable-Management Bracket	2	Securing Screws - M3 x 8mm pan-head screws
3	Alignment Pins		

Step 3 Secure the cable management bracket with the screws provided in the cable management kit.

Step 4 Connect all the cables to the intended ports and pass them through the cable management bracket in an organized manner.

Install the Air Filter

The Cisco 8200 series routers offer the following optional air filters:

Router	Filter Kit (port-side intake)	Filter Kit (port-side exhaust)
Cisco 8202	8202-FILTER-PI	FILTER-2RU-PE
Cisco 8202-32FH-M	8K-2RU-FILTER	NA
Cisco 8212-48FH-M	8K-2RU-FILTER	NA

Note We recommend that you inspect the air filter every three months and replace, if necessary, every six months.

Note To install an air filter on a Cisco 8202-32FH-M or Cisco 8212-48FH-M chassis, you must first install a cable management bracket. For information on cable management bracket, see Installing a Cable Management Bracket.

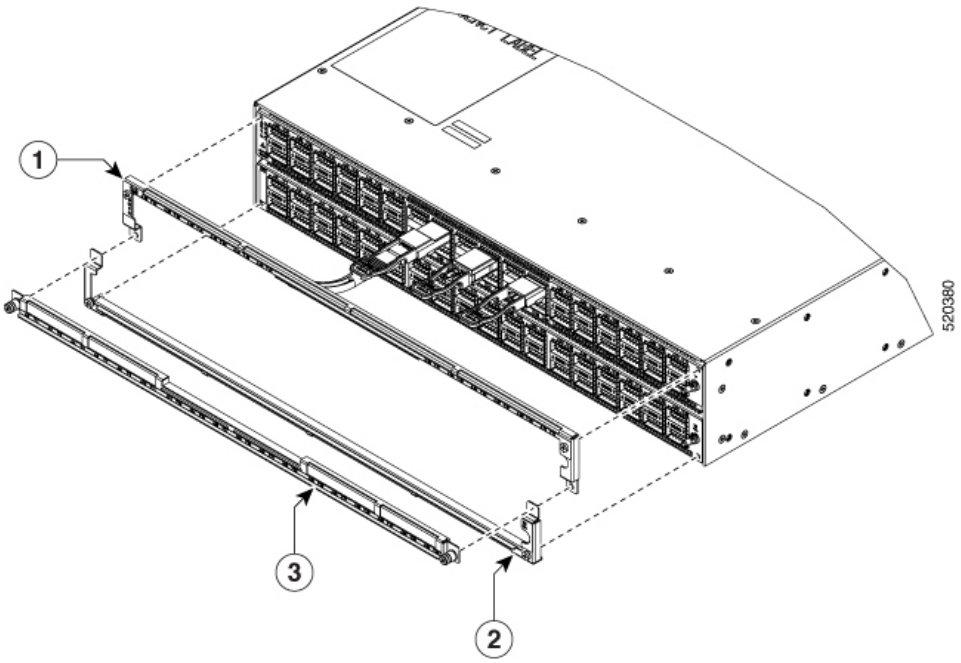
Install the Air Filter on the Port Side Inlet

If the air filter on the port-side inlet needs replacement, follow this procedure.

Note To fix the top and bottom filters use a manual screwdriver to gently turn the screws. Ensure that you turn the screws only three to four times, and that you do not overtighten the screws. Use 0.65 in-lbs (5.9 N-m) torque value to tighten the screws.

Step 1 Place the top air filter section on the top port-side of the chassis and secure it with the two screws at the upper left and right.

Figure 23: Port-side Inlet Air Filter



1	Top Air Filter Section	3	Air Filter
2	Bottom Air Filter Section		

Step 2 Place the bottom air filter section along the bottom port-side of the chassis and secure it with the two screws at the lower left and right.

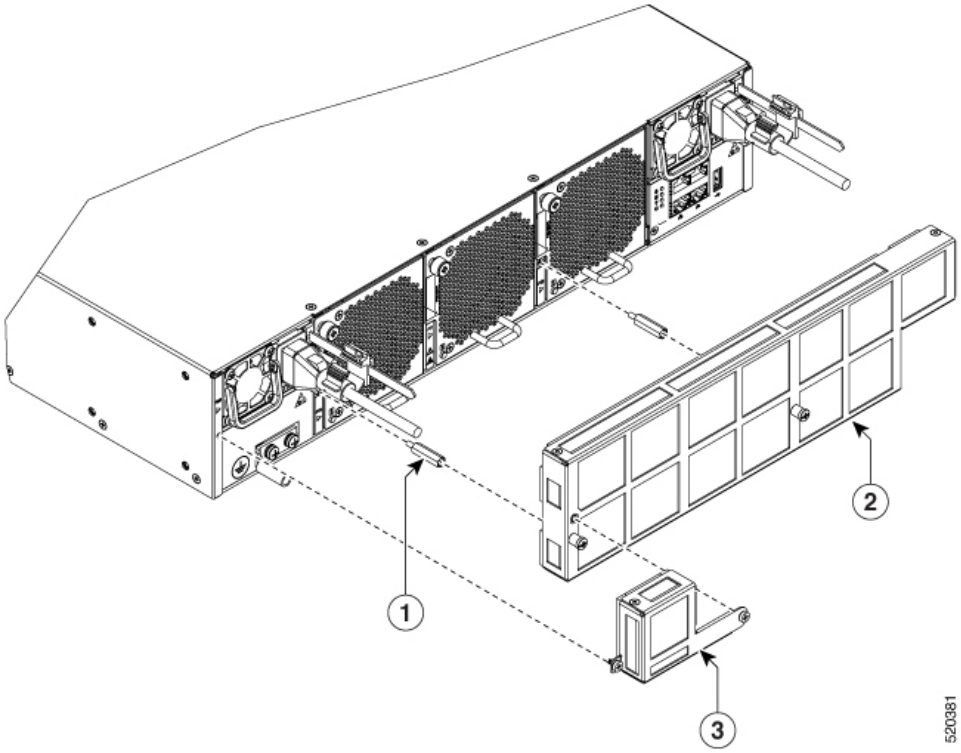
Step 3 Insert the air filter between the top and bottom air filter sections and tighten the six screws (two on each side, and two in the middle).

Install the Air Filter on the Port Side Exhaust

If the air filter on the port-side exhaust needs replacement, follow this procedure.

Step 1 Install the two standoffs to the chassis.

Figure 24: Port Side Exhaust Air Filter



1	Standoffs	3	Side Filter Extension
2	Main Air Filter		

Step 2 Install the main air filter by aligning it to the standoffs and tightening the two thumb screws.

Step 3 Install the side filter extension and tighten the 2 screws (1 to the chassis and 1 to the main air filter).

Install the Air Filter on the Port Side Inlet for Cisco 8202-32FH-M and Cisco 8212-48FH-M Chassis

If the air filter on the port-side inlet needs replacement, follow this procedure.

Note Ensure that you do not overtighten the screws. Use 0.65 in-lbs (5.9 N-m) torque value to tighten the screws.

Step 1 Place the air filter as shown in the below figure. Ensure that the filter is aligned with the pins on the cable management bracket.

Figure 25: Port-side Inlet Air Filter on Cisco 8202-32FH-M Chassis

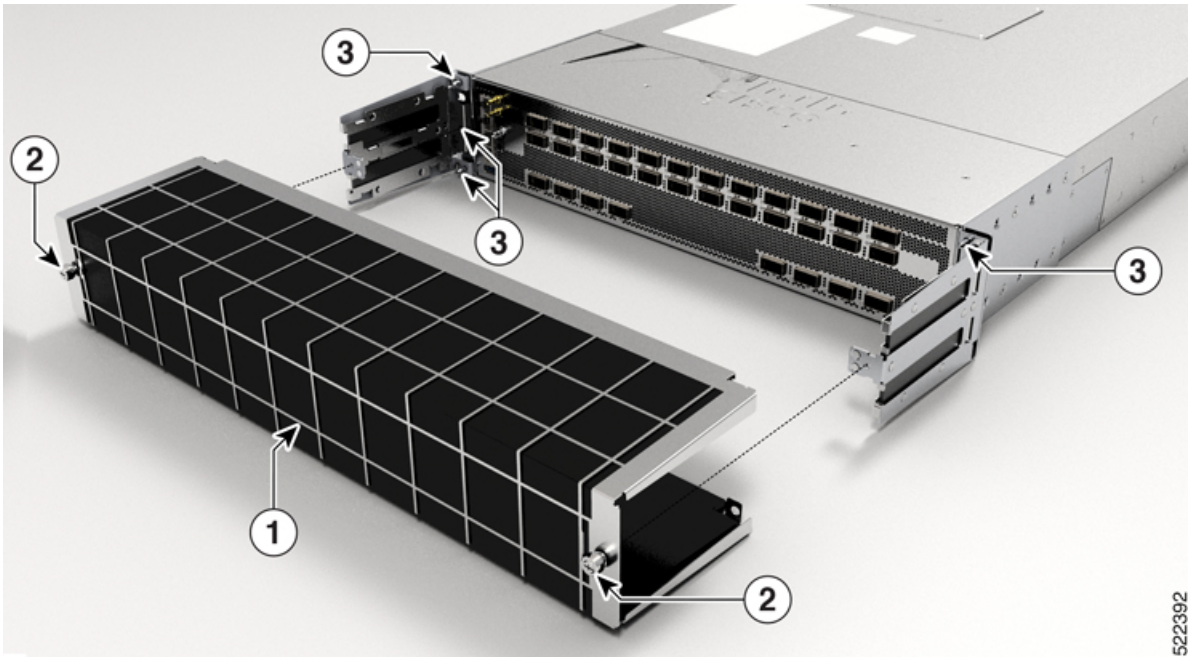
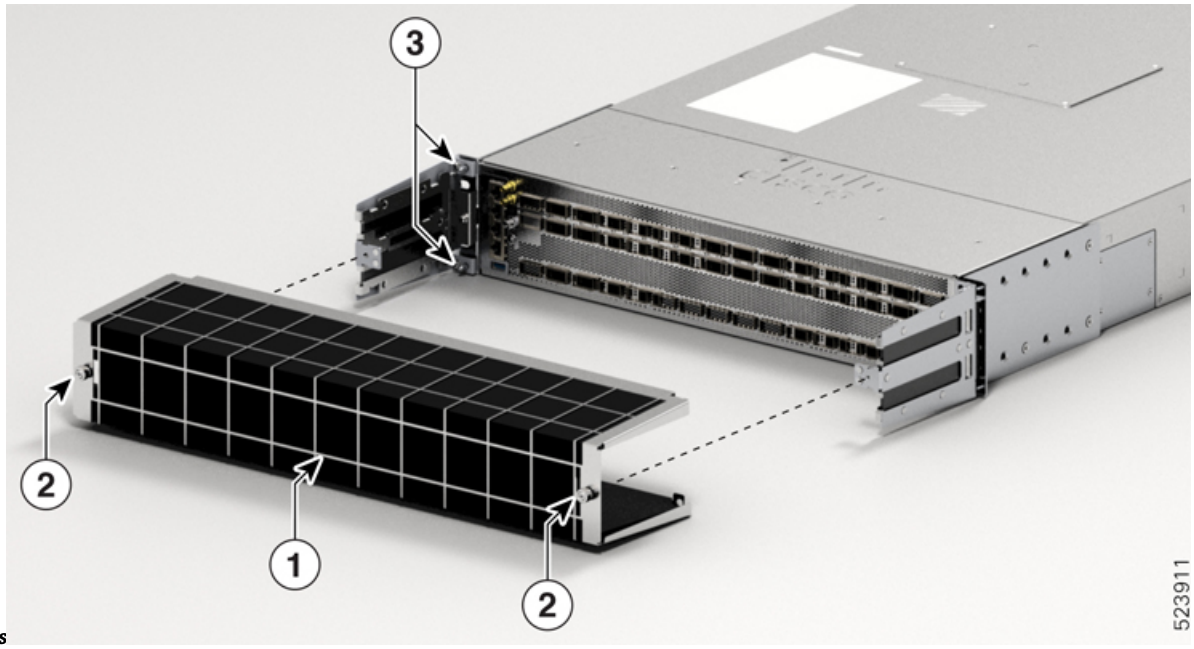


Figure 26: Port-side Inlet Air Filter on Cisco 8212-48FH-M



Chassis

1	Air Filter	2	Securing screws
3	Alignment pins		

Step 2 Tighten the two screws to secure the air filter.

Ground the Chassis

Warning **Statement 1101—**Connected To Grounded Outlet

In the Scandinavian countries (Denmark, Finland, Iceland, Norway, and Sweden) the appliance must be connected to a grounded outlet.

Warning **Statement 1024—**Ground Conductor

This equipment must be grounded. To reduce the risk of electric shock, never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.

Warning **Statement 1046—**Installing or Replacing the Unit

To reduce risk of electric shock, when installing or replacing the unit, the ground connection must always be made first and disconnected last.

If your unit has modules, secure them with the provided screws.

Caution Grounding the chassis is required, even if the rack is already grounded. A grounding pad with two threaded holes is provided on the chassis for attaching either a grounding lug or grounding plate. The ground lug must be NRTL-listed. In addition, a copper conductor (wires) must be used and the copper conductor must comply with NEC code for ampacity.

Caution When terminating the frame ground, do not use soldering lug connectors, screwless (push-in) connectors, quick connect connectors, or other friction-fit connectors.

Step 1 Use a wire-stripping tool to remove approximately 0.75 inches (19 mm) of the covering from the end of the #6 AWG grounding cable.

Step 2 Insert the stripped end of the grounding cable into the open end of the grounding lug.

Step 3 Use the crimping tool to secure the grounding cable in the grounding lug.

Step 4 Attach the ground cable:

- Attach one end of the shelf ground cable (#6 AWG cable) to the grounding plate using the specified dual-hole lug connector.

Figure 27: Cisco 8201 Router Ground Lug

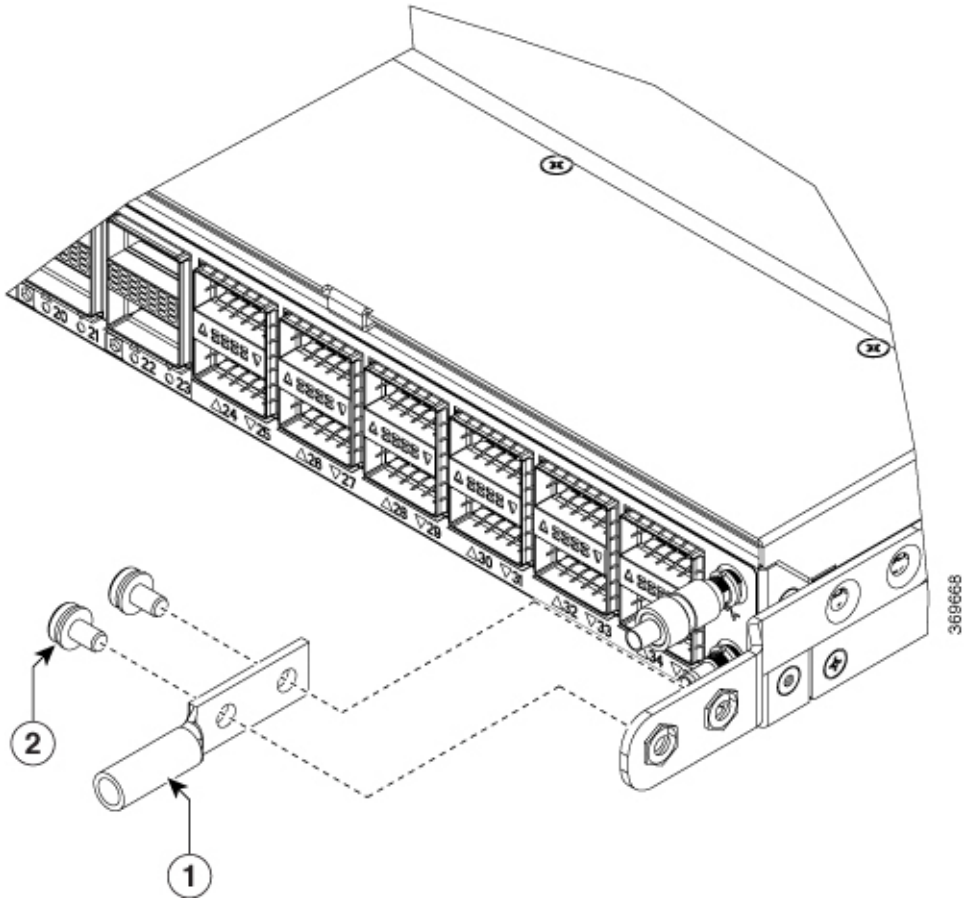


Figure 28: Cisco 8202 Router Ground Lug

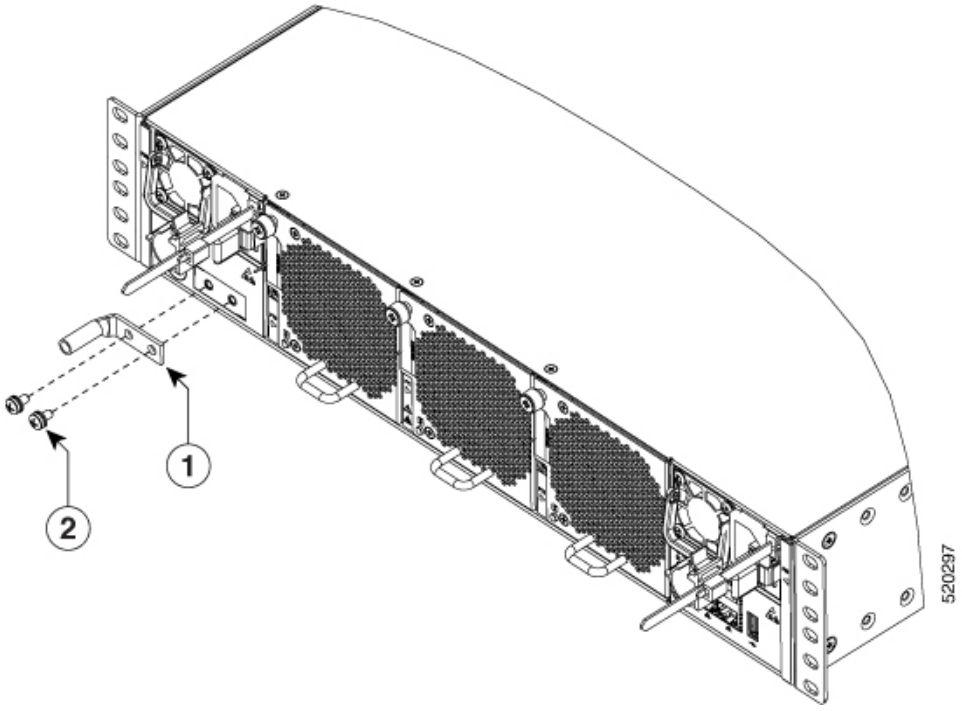
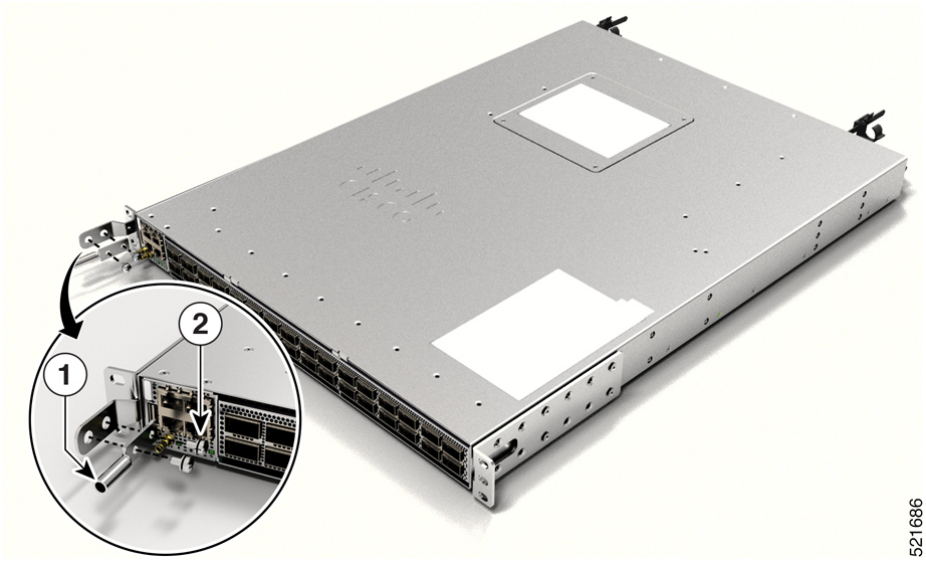
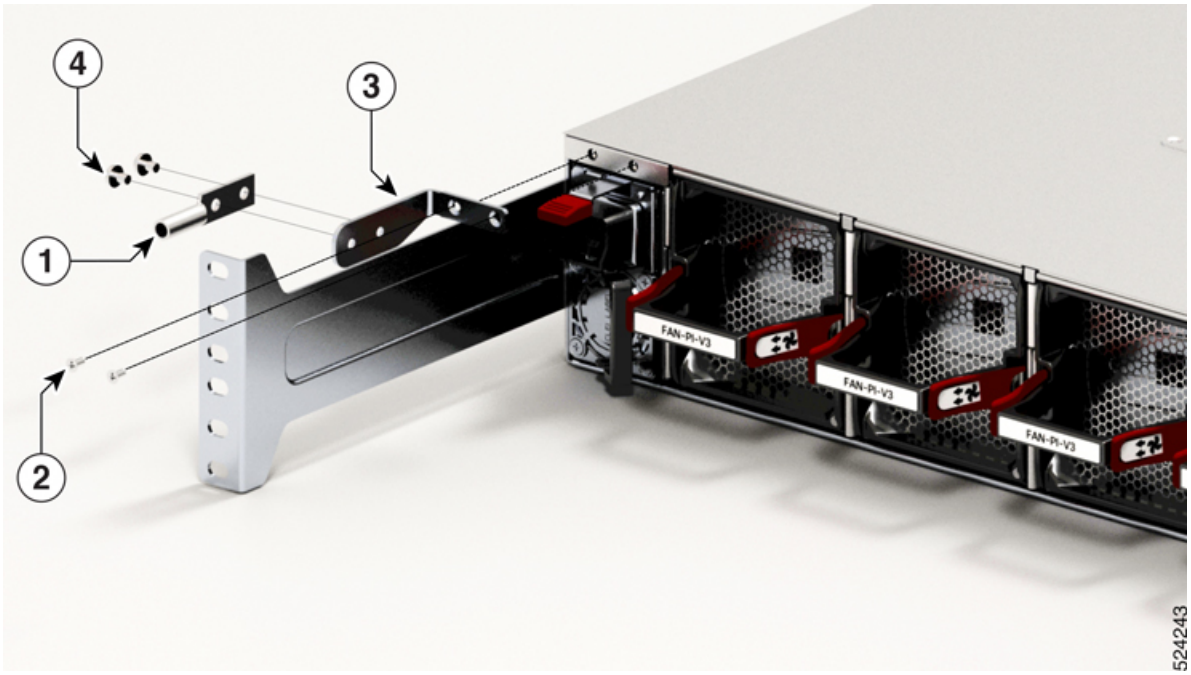


Figure 29: Cisco 8201-32FH or Cisco 8201-24H8FH Ground Lug



1	Grounding lug	2	M4 x 6mm pan-head screws

Figure 30: Cisco 8202-32FH-M or Cisco 8212-48FH-M Ground Lug



1	Grounding lug	2	• M4 x 6mm flat-head screws for Cisco 8202-32FH-M • M3 x 6mm flat-head screws for Cisco 8212-48FH-M
3	• L Bracket (700-128326-01 part number for Cisco 8202-32FH-M) • L Bracket (700-133064-01 part number for Cisco 8212-48FH-M)	4	M4 x 6mm pan-head screws

Step 5 Tighten the pan-head screws to torque value of 13.25 in-lbs (1.5 N-m).

Step 6 Ensure that the lug and cable do not interfere with other equipment.

Step 7 Prepare the other end of the grounding cable, and connect it to an appropriate grounding point in your site to ensure adequate earth ground.

Power Supply Unit Input and Output Ranges

Power Supply Restrictions and Considerations

Warning **Statement 1090—**Installation by Skilled Person

Only a skilled person should be allowed to install, replace, or service this equipment. See statement 1089 for the definition of a skilled person.

There are no serviceable parts inside. To avoid risk of electric shock, do not open.

Warning **Statement 1091—**Installation by an Instructed Person

Only an instructed person or skilled person should be allowed to install, replace, or service this equipment. See statement 1089 for the definition of an instructed or skilled person.

There are no serviceable parts inside. To avoid risk of electric shock, do not open.

Warning **Statement 1073—**No User-Serviceable Parts

There are no serviceable parts inside. To avoid risk of electric shock, do not open.

Observe the following guidelines and limitations:

- Use one type of power supply in a router.
- The power supply type that is used in the router depends on the type and configuration of the transceivers installed in it.
- Do not install a mix of AC and DC power supplies in a router.
- The airflow direction must be the same for all power supply and fan modules in the router.
- The AC-input power supplies support low-line voltage of 120V (Nominal) and high-line voltage of 220V (Nominal). If you need to change voltage type after installation, disconnect the feed from the power supply before switching the input voltage level.

This table summarizes the list of power supplies' input and output power ranges for different input applications:

Table 3: Input and Output Power Ranges at Low Line, High Line, Low Voltage, and High Voltage Applications

Power Supply Unit PIDs	Supported Routers	Input Voltage	Input Current (Max)	Output Power
PSU1.4KW-ACPI PSU1.4KW-ACPE For low line applications	Cisco 8201 Cisco 8202 Cisco 8201-32FH Cisco 8201-24H8FH	100V -127V AC	13A	1000W
PSU1.4KW-ACPI PSU1.4KW-ACPE For high line applications	Cisco 8201 Cisco 8202 Cisco 8201-32FH Cisco 8201-24H8FH	200V - 240V AC	9 A	1450W
PSU2KW-ACPI PSU2KW-ACPE For low line applications	Cisco 8201 Cisco 8202 Cisco 8201-32FH Cisco 8201-24H8FH Note: Cisco 8202-32FH-M supports only PSU2KW-ACPI	100V - 127V AC	12A	1000W
PSU2KW-ACPI PSU2KW-ACPE For high line applications	Cisco 8201 Cisco 8202 Cisco 8201-32FH Cisco 8201-24H8FH Note: Cisco 8202-32FH-M supports only PSU2KW-ACPI	200V AC - 240V AC	12 A	2000W
PSU2KW-DCPI PSU2KW-DCPE Low Input DC voltage applications	Cisco 8201 Cisco 8202 Cisco 8201-32FH Cisco 8201-24H8FH Note: Cisco 8202-32FH-M supports only PSU2KW-DCPI	-48V DC - -60V DC	55A	2000W

Power Supply Unit PIDs	Supported Routers	Input Voltage	Input Current (Max)	Output Power
PSU2KW-HVPI For AC high line applications	Cisco 8201 Cisco 8202 Cisco 8201-32FH Cisco 8201-24H8FH Cisco 8202-32FH-M	180V AC - 305V AC	12A	2000W
PSU2KW-HVPI For AC low line applications	Cisco 8201 Cisco 8202 Cisco 8201-32FH Cisco 8201-24H8FH Cisco 8202-32FH-M	90V AC - 140V AC	12A	1000W
PSU2KW-HVPI For HVDC applications	Cisco 8201 Cisco 8202 Cisco 8201-32FH Cisco 8201-24H8FH Cisco 8202-32FH-M	192V DC - 400V DC	12A	2000W
PSU3KW-HVPI For AC high line applications	Cisco 8202-32FH-M Cisco 8212-48FH-M	180V AC - 305V AC	16.5A	3000W
PSU3KW-HVPI For AC low line applications	Cisco 8202-32FH-M Cisco 8212-48FH-M	90V AC - 140V AC	17.2A	1500W
PSU3KW-HVPI For HVDC applications	Cisco 8202-32FH-M Cisco 8212-48FH-M	192V DC - 400V DC	17A	3000W
PSU3KW-DCPI	Cisco 8212-48FH-M Cisco 8202-32FH-M	- 40V DC to - 72V DC	42A	3000W

Connect AC Power to the Chassis

Caution The chassis relies on the protective devices in the building installation to protect against short circuit, overcurrent, and ground faults. Ensure that the protective devices comply with local and national electrical codes.

Note We recommend that you occupy both the power supply slots of the fixed port routers with power supplies. In case a power module fails, it is recommended to retain the failed power module in its slot until it is replaced with a new power module. This recommendation ensures that the system airflow is not impacted adversely, which may then result in the overheating of the router and its components.

Note A dual pole breaker is needed for installation. For determining the recommended breaker size, please adhere to local and national rules and regulations. The breaker size is based on the specifications of the product for the current drawn and the specified voltage level.

Step 1 Verify that the AC cable is installed in the correct AC source and outlet type.

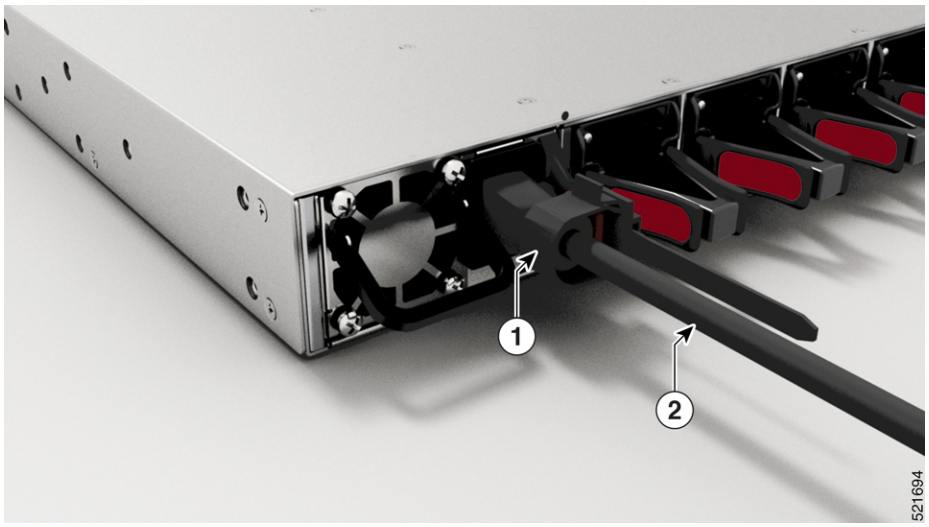
Step 2 Attach the AC power cable to the cable connector in the AC power module.

Step 3 Place the cable through the opening in the power cord retention clamp.

Step 4 Slide the power cord retention clamp towards the plug.

Step 5 Close the power cord retention clamp on the shoulder of the power cable to secure the power cable.

Figure 31: Connecting AC Power



1	Power cord retention clamp	2	AC power cable

AC-Input Power Cord Options

This table summarises the input and output power ranges for PSU high line applications:

Table 4: AC-Input Power Cord Options for Cisco 8200 Series Router

Locale	Part Number	Length	Power Cord Rating
Australia, New Zealand	CAB-AC-10A-ANZ	14 ft (4.26 m)	10A, 250 VAC
Brazil	CAB-AC-10A-BRZ	14 ft (4.26 m)	10A, 250 VAC
Britain	CAB-AC-10A-GBR	14 ft (4.26 m)	10A, 250 VAC
China	CAB-AC-10A-CHN	14 ft (4.26 m)	10A, 250 VAC
Denmark	CAB-AC-10A-DEN	14 ft (4.26 m)	10A, 250 VAC
Europe	CAB-AC-10A-EU	14 ft (4.26 m)	10A, 250 VAC
Italy	CAB-AC-10A-ITA	14 ft (4.26 m)	10A, 250 VAC
Japan	CAB-AC-10A-JPN1	14 ft (4.26 m)	10A, 250 VAC
Japan	CAB-AC-10A-JPN2	14 ft (4.26 m)	10A, 250 VAC
Korea	CAB-AC-10A-KOR	14 ft (4.26 m)	10A, 250 VAC
North America	CAB-AC-10A-NA	14 ft (4.26 m)	13A, 125 VAC
Switzerland	CAB-AC-10A-CHE	14 ft (4.26 m)	10A, 250 VAC

Figure 32: CAB-AC-10A-NA

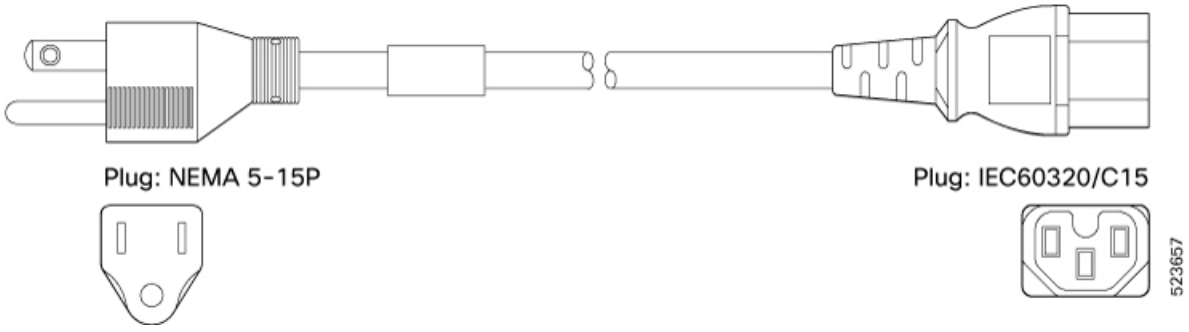


Table 5: High-Voltage Input Power Cord Options for Cisco 8200 Series Router

Locale	Part Number	Length	Power Cord Rating
Argentina	CAB-AC-16A-SG-AR	14 ft (4.26 m)	16A, 250 VAC
Australia	CAB-AC-16A-SG-AZ	14 ft (4.26 m)	16A, 250 VAC
Brazil	CAB-AC-16A-SG-BR	14 ft (4.26 m)	16A, 250 VAC
China	CAB-AC-16A-SG-CH CAB-AC-16A-CN	14 ft (4.26 m)	16A, 250 VAC
Europe	CAB-AC-16A-SG-EU	14 ft (4.26 m)	16A, 250 VAC
India	CAB-AC-16A-SG-IND	14 ft (4.26 m)	16A, 250 VAC
International/UK	CAB-AC-16A-SG-IN	14 ft (4.26 m)	16A, 250 VAC
Israel	CAB-AC-16A-SG-IS	14 ft (4.26 m)	16A, 250 VAC
Italy	CAB-AC-16A-SG-IT	14 ft (4.26 m)	16A, 250 VAC
Japan	CAB-AC-16A-SG-JPN	14 ft (4.26 m)	16A, 250 VAC
South Africa	CAB-AC-16A-SG-SA	14 ft (4.26 m)	16A, 250 VAC
Switzerland	CAB-AC-16A-SG-SW	14 ft (4.26 m)	16A, 250 VAC
South Korea	CAB-AC-16A-SG-SK	14 ft (4.26 m)	16A, 250 VAC
UK	CAB-AC-16A-SG-UK	14 ft (4.26 m)	16A, 250 VAC
North America (non locking) 110 VAC operation	CAB-AC-20A-SG-US	14 ft (4.26 m)	20A, 110 VAC
North America (locking) 125 VAC operation	CAB-AC-20A-SG-US1	14 ft (4.26 m)	20A, 125 VAC
North America (non locking) 200-240 VAC operation	CAB-AC-20A-SG-US2	14 ft (4.26 m)	20A, 250 VAC

Locale	Part Number	Length	Power Cord Rating
North America (locking) 200-240 VAC operation	CAB-AC-20A-SG-US3	14 ft (4.26 m)	20A, 250 VAC
North America 277 VAC operation	CAB-AC-20A-SG-US4	14 ft (4.26 m)	20A, 277 VAC
North America Cabinet Jumper Power Distribution unit (PDU)	CAB-AC-20A-SG-C20	14 ft (4.26 m)	20A, 250 VAC
North America, Ring Terminal source plug	CAB-HV-25A-SG-US2	14 ft (4.26 m)	20A, 300 VAC/500 VDC
International IEC/EU, Ring Terminal source plug	CAB-HV-25A-SG-IN2	14 ft (4.26 m)	20A, 300 VAC/500 VDC

High-Voltage Input AC Power Cord Illustrations for Cisco 8200 Series Router

This section contains the AC power cord illustrations, as described in the above table.

Figure 33: CAB-AC-16A-SG-AR Power Cord

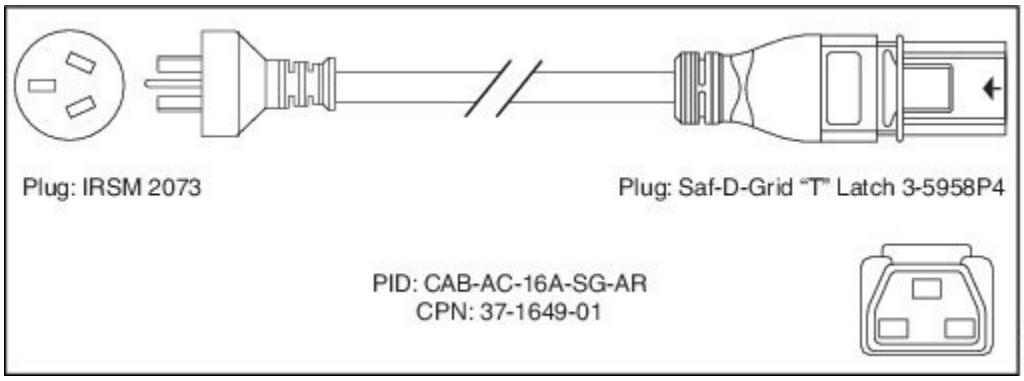


Figure 34: CAB-AC-16A-SG-AZ Power Cord

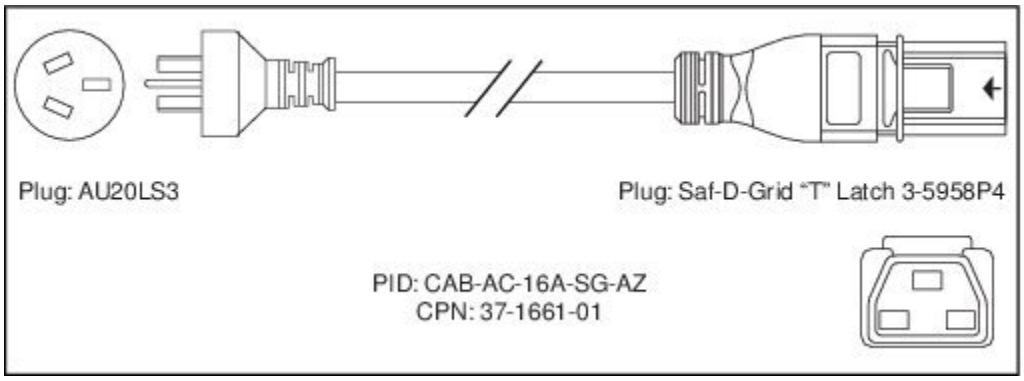


Figure 35: CAB-AC-16A-SG-BR Power Cord

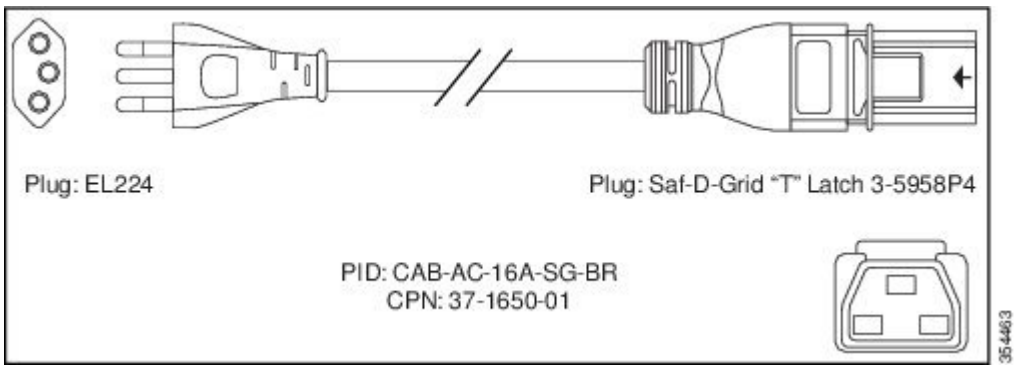


Figure 36: CAB-AC-16A-SG-CH Power Cord

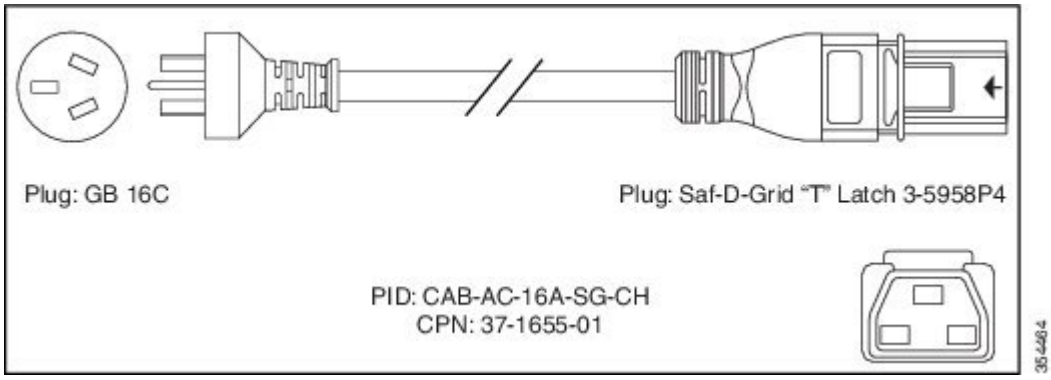


Figure 37: CAB-AC-16A-SG-EU Power Cord

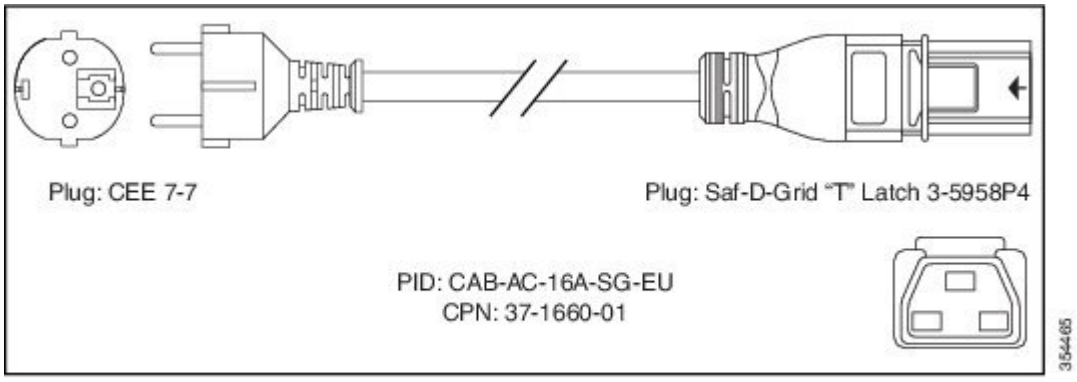


Figure 38: CAB-AC-16A-SG-IND Power Cord

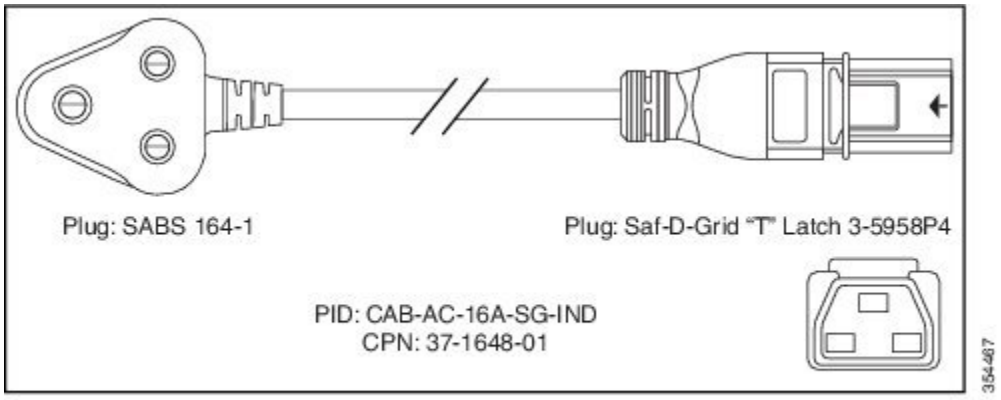


Figure 39: CAB-AC-16A-SG-IN Power Cord

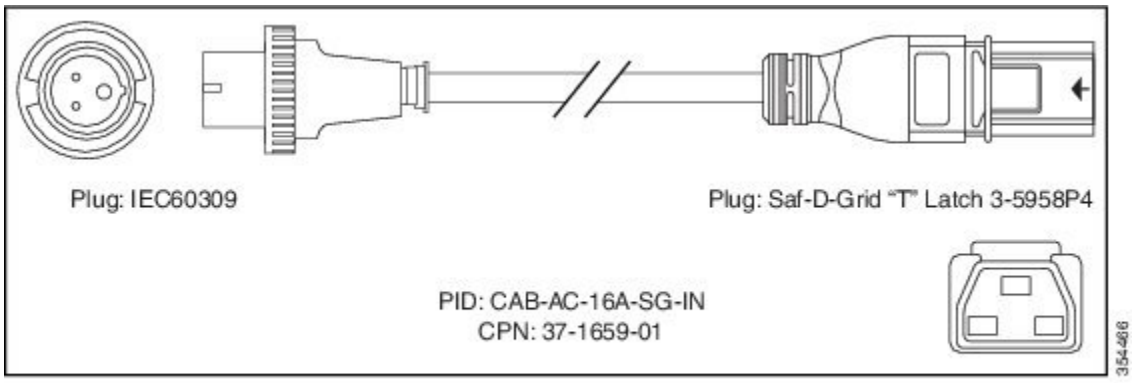


Figure 40: CAB-AC-16A-SG-IS Power Cord

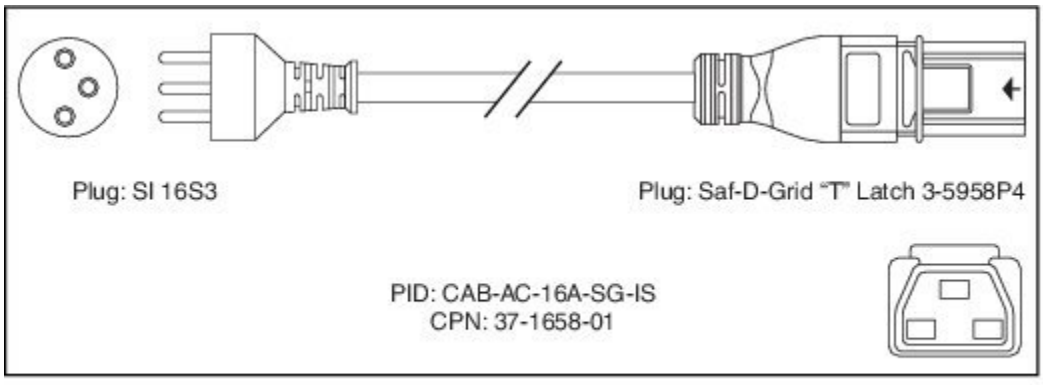


Figure 41: CAB-AC-16A-SG-IT Power Cord

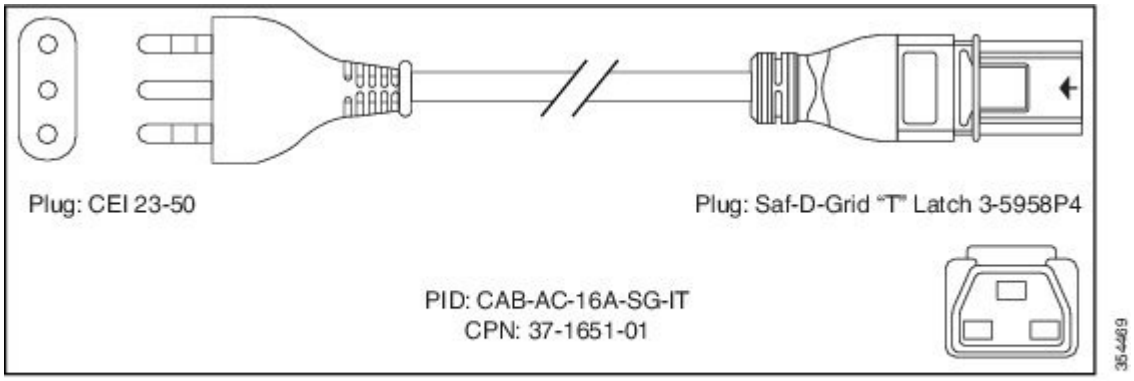


Figure 42: CAB-AC-16A-SG-JPN Power Cord

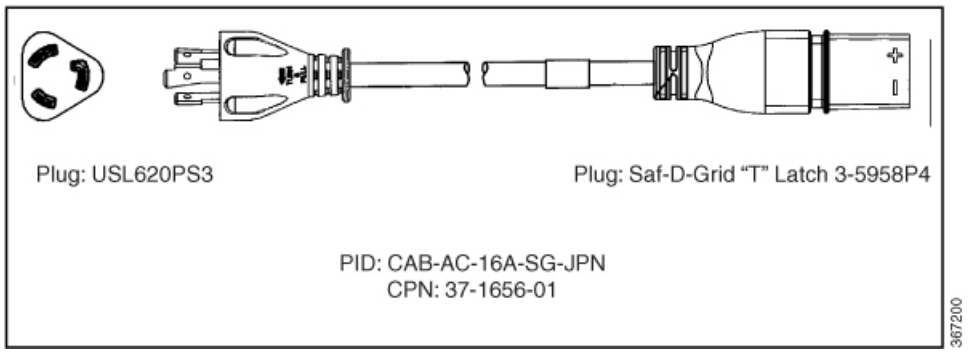


Figure 43: CAB-AC-16A-SG-SA Power Cord

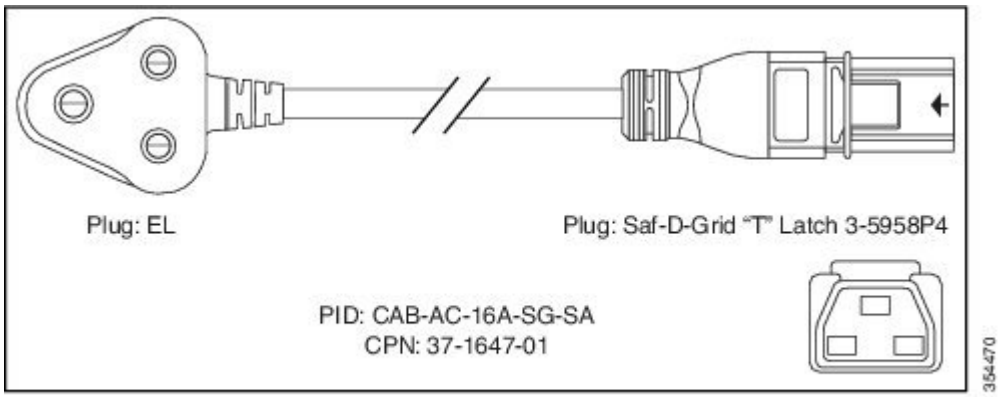


Figure 44: CAB-AC-16A-SG-SW Power Cord

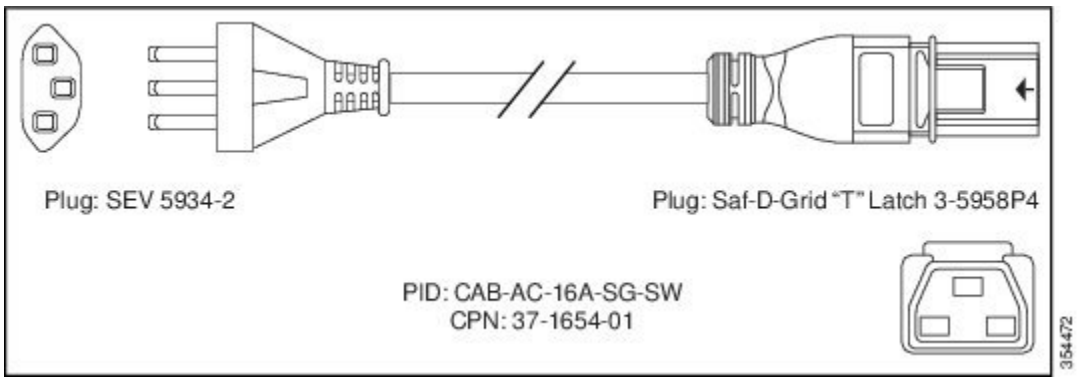


Figure 45: CAB-AC-16A-SG-UK Power Cord

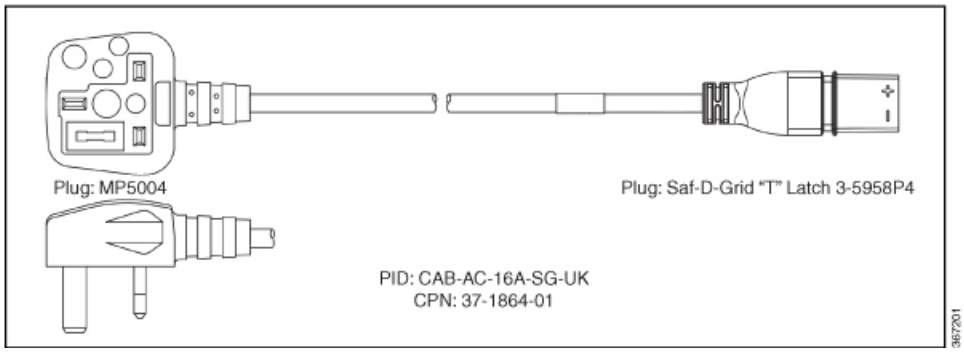


Figure 46: CAB-AC-20A-SG-US Power Cord

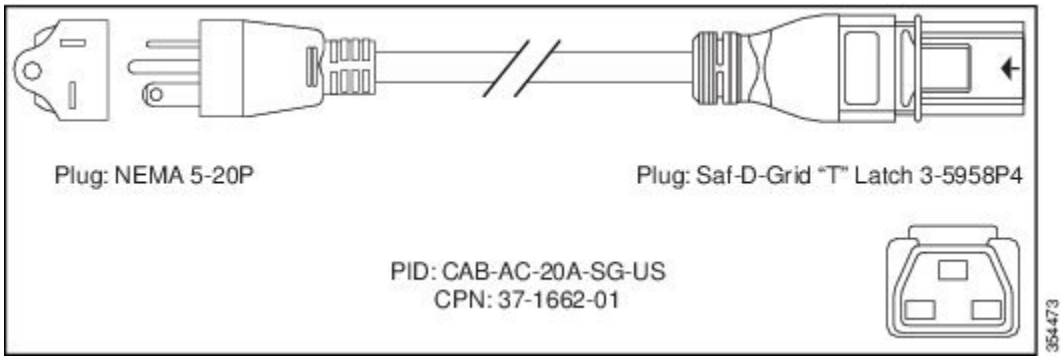


Figure 47: CAB-AC-20A-SG-US1 Power Cord

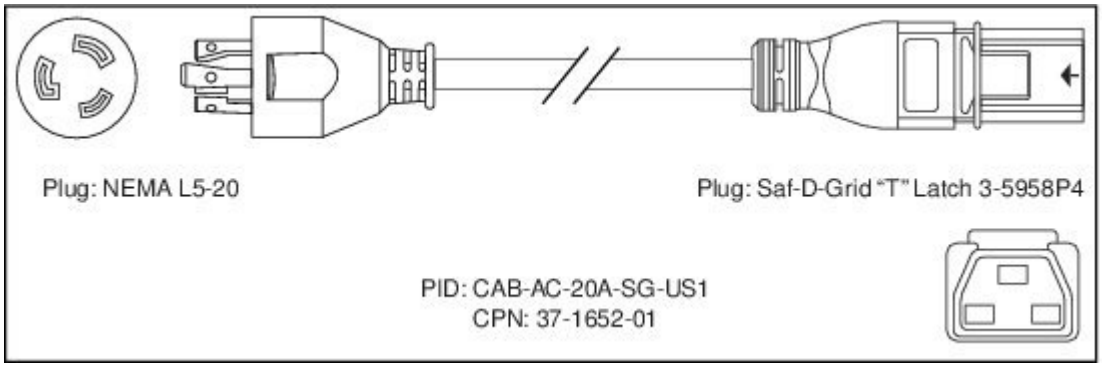


Figure 48: CAB-AC-20A-SG-US2 Power Cord

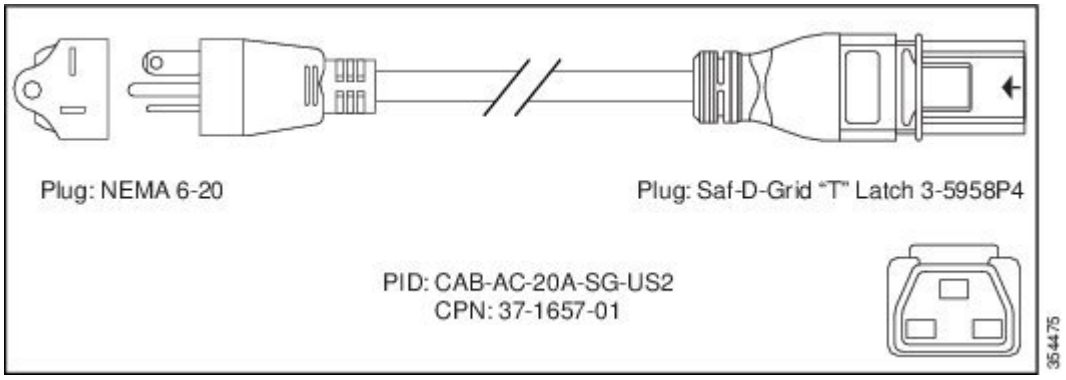


Figure 49: CAB-AC-20A-SG-US3 Power Cord

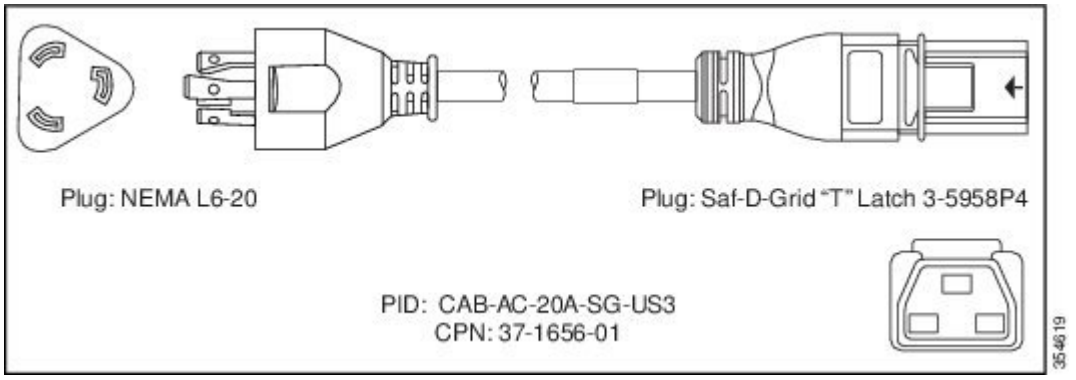


Figure 50: CAB-AC-20A-SG-US4 Power Cord

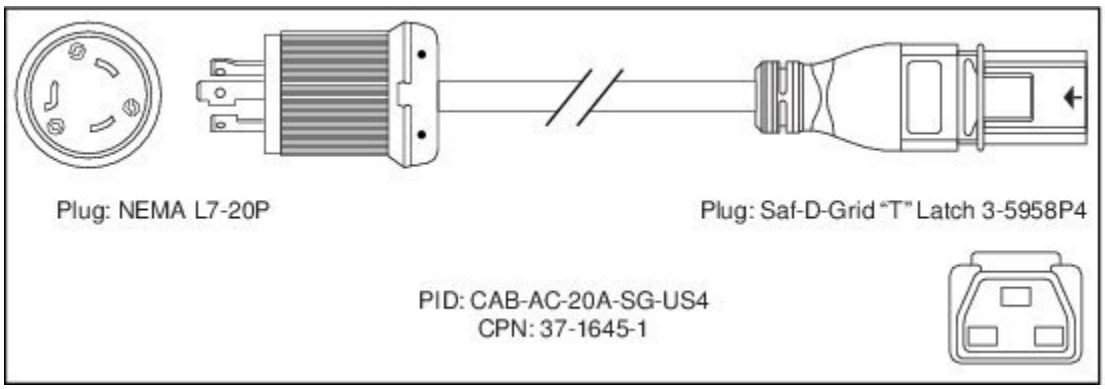


Figure 51: CAB-AC-20A-SG-C20 Power Cord

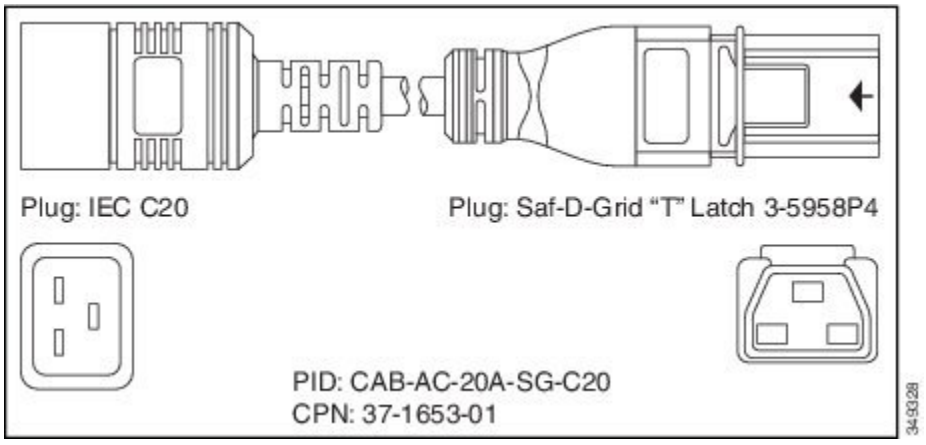


Figure 52: CAB-HV-25A-SG-US2 Power Cord

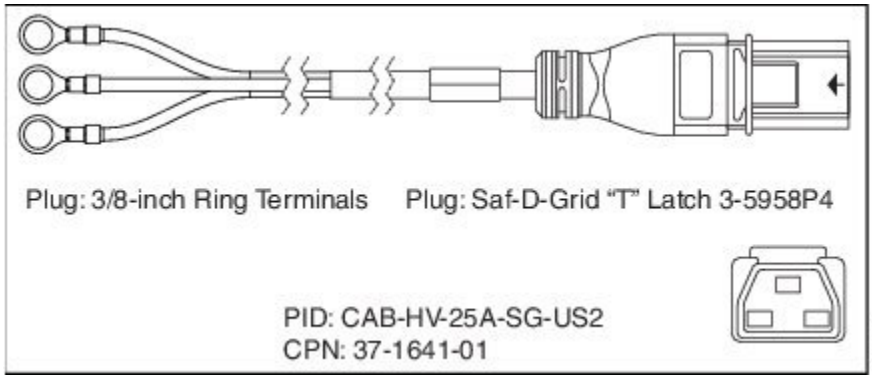


Figure 53: CAB-HV-25A-SG-IN2 Power Cord

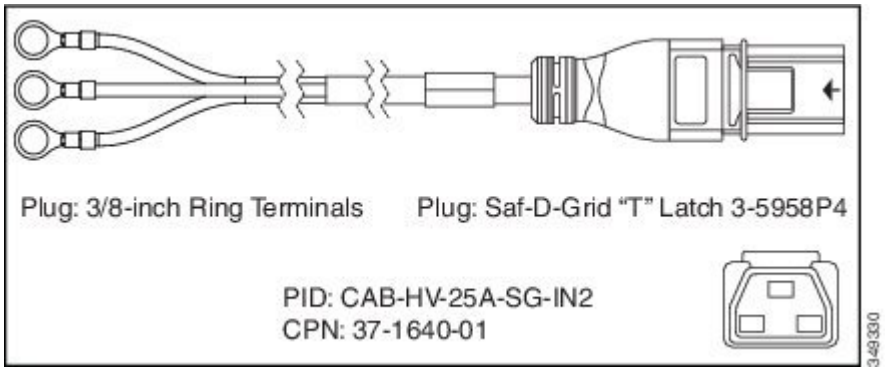
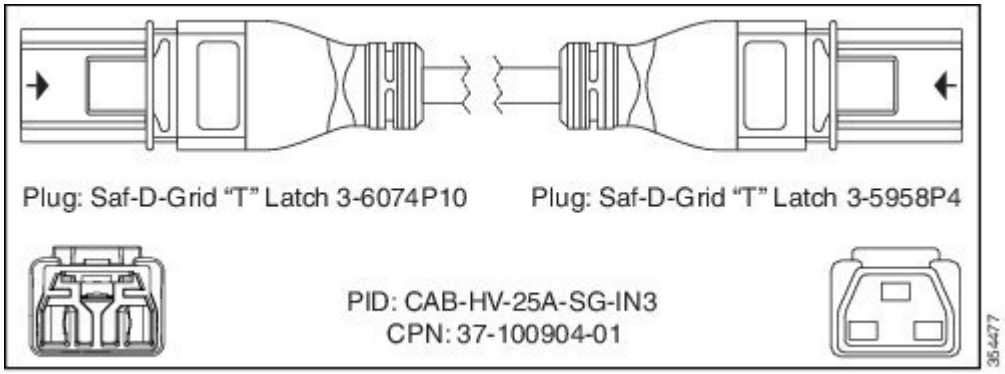


Figure 54: CAB-HV-25A-SG-IN3 Power Cord



Connect DC Power to Chassis

Caution The chassis relies on the protective devices in the building installation to protect against short circuit, overcurrent, and ground faults. Ensure that the protective devices comply with local and national electrical codes.

Note We recommend that you occupy both the power supply slots of the fixed port routers with power supplies. In case a power module fails, it is recommended to retain the failed power module in its slot until it is replaced with a new power module. This recommendation ensures that the system airflow is not impacted adversely, which may then result in the overheating of the router and its components.

Note For information on power supplies, see Power Supply Unit Input and Output Ranges, on page 29

Step 1 Verify that the correct fuse panel is installed in the top mounting space.

Step 2 Ensure that the DC circuit is powered down (either breaker turned off or fuse pulled) and proper lockout tag out procedures are followed.

Note For a 2KW DC PSU, use the cable (PID: PWR-2KW-DC-CBL) supplied with the power supply. You can purchase power supply cord separately from Cisco.

Step 3 Dress the power according to local practice.

Step 4 Connect the office battery and return cables according to the fuse panel engineering specifications.

Step 5 In case of PSU2KW-DCPI/PE PSU, insert the DC connector into the DC receptacle on the power supply.

Figure 55: Connecting DC Power - Cisco 8202 Fixed Port Router

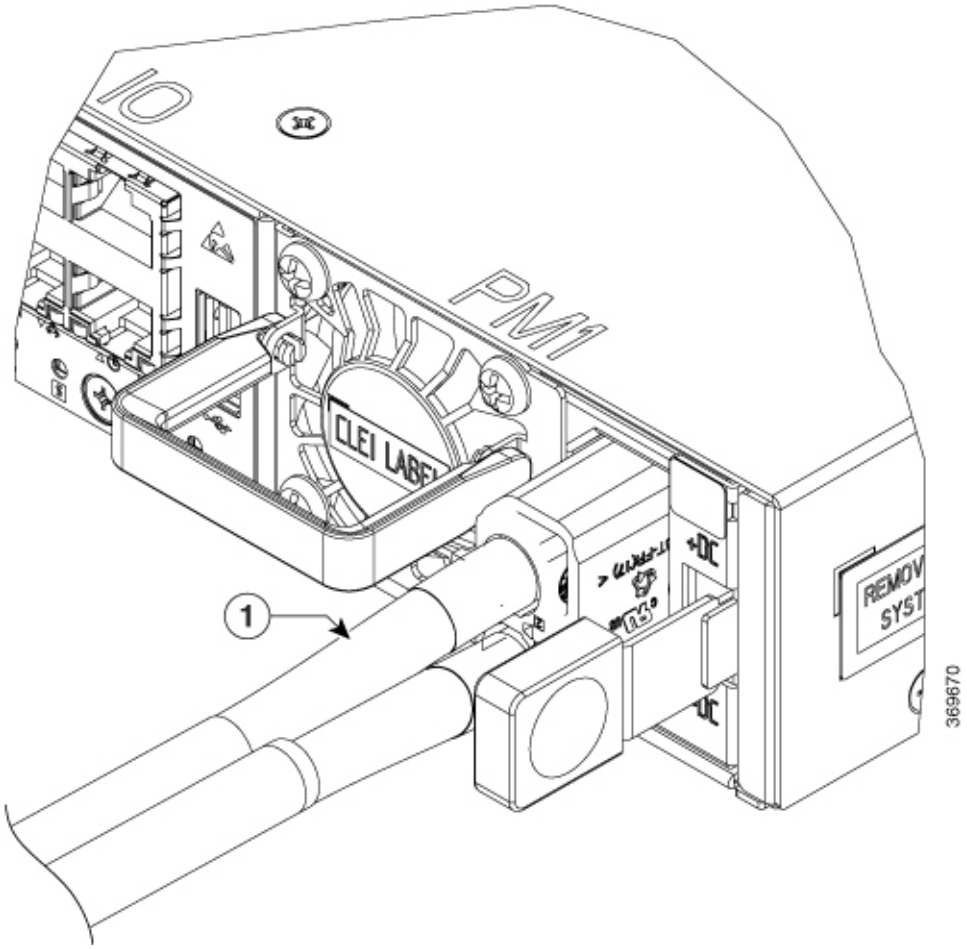
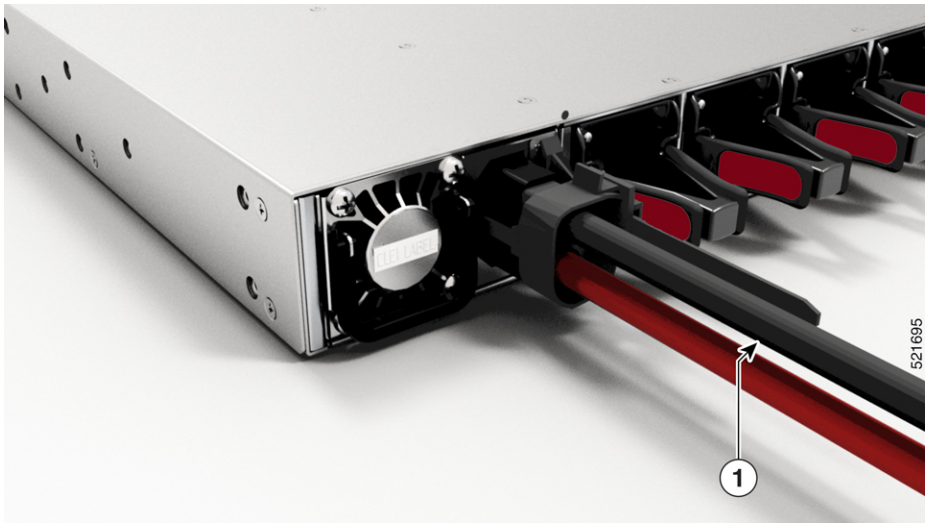


Figure 56: Connecting DC Power - Cisco 8201-32FH Router



Note Ensure that the locking mechanism has engaged to secure the cable.

1	DC power cable

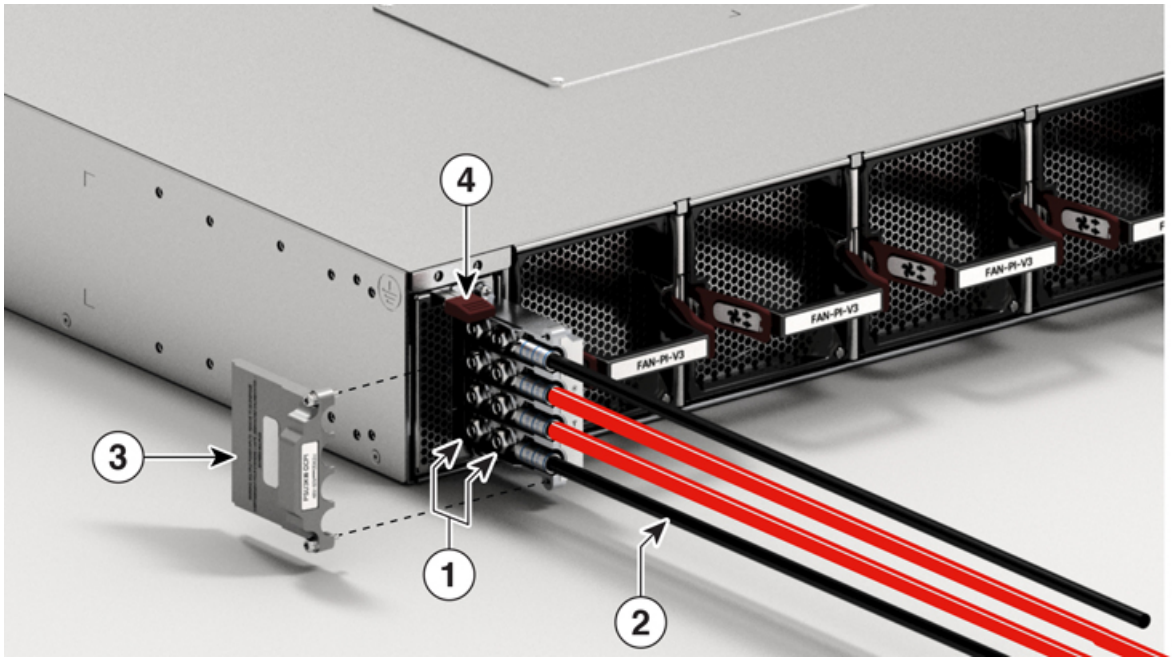
Step 6 In case of PSU3KW-DCPI PSU, to connect the cable to the PSU that has lug holes:

a. Open the DC terminal block cover.

b. Connect red DC power cables to A+ and B+ terminals and black DC power cables to A- and B- terminals.

c. Tighten the 2-hole lug nuts to a torque value of 20 in-lb.

Figure 57: Connect the DC power cables



1	2-hole lug nuts	3	Terminal block cover
2	DC power cables	4	Tab

d. Close the DC terminal block cover. Tighten the cover screws to a torque value of 5 in-lb.

Step 7 Turn on the circuit breaker at the power source.

Connect High Voltage Power Supply Unit to Power Source

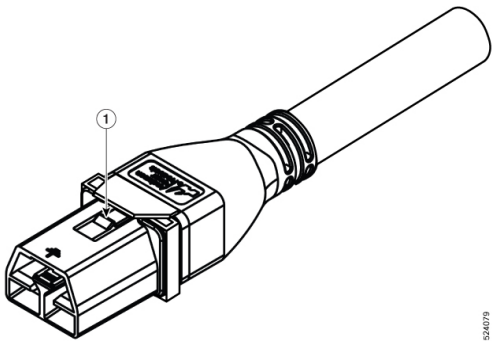
The high voltage PSU (PSU2KW-HVPI or PSU3KW-HVPI) accepts AC, HVAC, or HVDC input power. The HVPI power supply has Anderson power connector for Saf-D-Grid T-latch power cord that can be used for AC, HVAC, or HVDC power.

Step 1 Choose your power source (AC, HVAC, or HVDC) and use the Saf-D-Grid T-latch power cord to connect to the PSU.

For power cord details, see Table 5: High-Voltage Input Power Cord Options for Cisco 8200 Series Router, on page 34.

Note To remove the Saf-D-Grid power cord from the power supply, press the latch before pulling the power cord out.

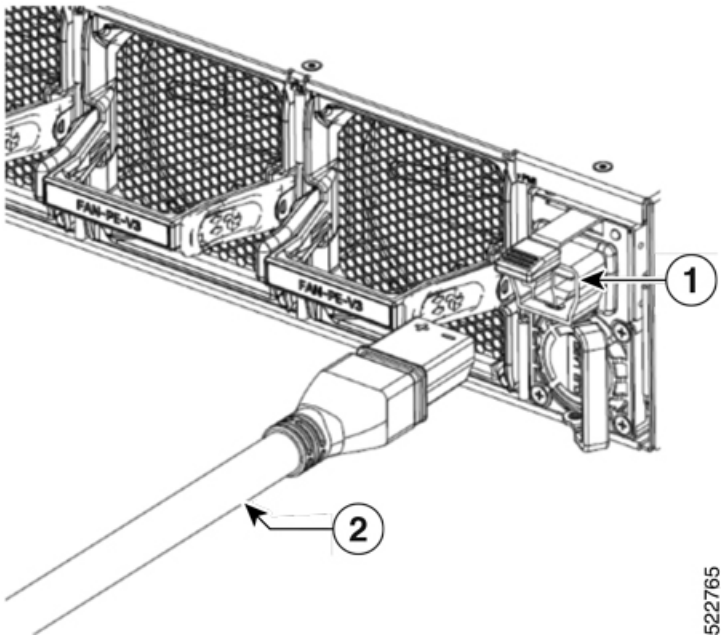
Figure 58: Latch on the Saf-D-Grid power cord



1	Latch

Step 2 Verify that the Saf-D-Grid plug is plugged in completely to secure the built-in retaining latch.

Figure 59: High Voltage (AC, HVAC, or HVDC) Power Connection



1	Anderson power connector	2	Saf-D-Grid T-latch power cord

Step 3 Turn on the circuit breaker for the AC, HVAC, or HVDC power source circuit.