AVAYA

Installation Job Aid for Avaya Ethernet Routing Switch 4900 Series (NN47212-302, ver 02.01)

How to get help

To access the complete range of services and support that Avaya provides, go to www.avaya.com.

You can also go to www.avaya.com/support to access the following pages:

- technical documentation
- product training
- technical support

If you purchased a service contract for your Avaya product from a distributor or authorized reseller and you need assistance, contact the technical support staff for that distributor or reseller.

Notices

Notice paragraphs alert you about issues that require your attention. The following paragraphs describe the types of notices used in this guide.

✱ **Note:**

Notes provide tips and useful information regarding the installation and operation of Avaya products.

⚠ **Electrostatic alert:**

ESD

ESD notices provide information about how to avoid discharge of static electricity and subsequent damage to Avaya products.

⚠ **Caution:**

Caution notices provide information about how to avoid possible service disruption or damage to Avaya products.

⚠️ **Warning:**

Warning notices provide information about how to avoid personal injury when working with Avaya products.

⚠️ **Voltage:**

Danger — High Voltage notices provide information about how to avoid a situation or condition that can cause serious personal injury or death from high voltage or electric shock.

⚠️ **Danger:**

Danger notices provide information about how to avoid a situation or condition that can cause serious personal injury or death.

Safety messages

Safety messages are an important part of the technical documentation. The messages alert you to hazards to personnel and equipment and provide guidance for the safe operation of your equipment. Failure to comply with the safety messages could result in equipment damage and personal injury.

Following are the most common types of safety messages.

⚠️ **Warning:**

Installation must be performed by qualified service personnel only. Read and follow all warning notices and instructions marked on the product or included in the documentation.

⚠️ **Voltage:**

This equipment relies on the building's installation for overcurrent protection. Ensure that a fuse or circuit breaker no larger than 120 VAC/20 A or 240 VAC/16 A is used on the phase conductors.

⚠️ **Caution:**

This device is a Class A product. In a domestic environment, this device can cause radio interference, in which case the user may be required to take appropriate measures.

⚠️ **Caution:**

When mounting this device in a rack, do not stack units directly on top of one another in the rack. Each unit must be secured to the rack with appropriate mounting brackets. Mounting brackets are not designed to support multiple units.

⚠️ **Voltage:**

Use only power cords that have a grounding path. Without a proper ground, a person who touches the switch is in danger of receiving an electrical shock. Lack of a grounding path to the switch can result in excessive emissions.

⚠️ **Warning:**

Disconnecting the power cord is the only way to turn off power to this device. Always connect the power cord in a location that can be reached quickly and safely in case of an emergency.

⚠️ **Warning:**

Fiber optic equipment can emit laser or infrared light that can injure your eyes. Never look into an optical fiber or connector port. Always assume that fiber optic cables are connected to a light source.

CLASS 1 LASER PRODUCT
LASERSCHUTZKLASSE 1 PRODUKT
TO EN 60825

⚠️ **Caution:**

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

Technical specifications

The following table provides the technical specifications for the switches in this series. Ensure that the area where you install the switch and where it operates meets these requirements.

⚠️ **Warning:**

To avoid bodily injury from hazardous electrical shock and current, never remove the top of the device. No user-serviceable components are inside.

Table 1: Physical specifications

Height	4.4 cm – 1RU
Width	17.32 inch (440 mm or 44 cm) - 19 inch rack mountable
Depth	18.89 inch (480 mm or 48 cm)
Weight (switch weight with one PSU. Where, PSU approximately weighs 1.6 kg)	• ERS4926GTS: 7.2 kg • ERS4926GTS-PWR+: 7.9 kg • ERS4950GTS: 7.3 kg • ERS4950GTS-PWR+: 8.0 kg

Table 2: Environmental specifications

Operating Temperature	0° and 50° C (32° and 106° F)
Storage Temperature	–40°C to 85°C (-40°F to 185°F)

Table continues…

Operating Humidity	0 to 95 percent non-condensing
Storage Humidity	0 to 95 percent non-condensing
Maximum Operating Altitude	3,048 m (10,000 feet) above sea level
Storage Altitude	0 to 12,192 m (0 to 40,000 feet) above sea level
Acoustic Noise	At 25°C Ambient Temperature, less than 48 dBA typical, at 50°C, less than 61 dBA.
Miscellaneous Operating Considerations	• No nearby heat sources such as hot air vents or direct sunlight • No nearby sources of severe electromagnetic noise • No excessive dust • Adequate power source within six feet; one circuit required for each power supply (see table, AC power specifications) • At least 2 inches (5.08 cm) on each side of the switch unit for ventilation • Cables should be dressed to prevent blocking air flow.

Power specifications

This section provides the following power specifications for the switch:

- AC power specifications on page 4
- Typical power consumption on page 5
- PoE+ specifications on page 6

The following table describes the AC power specifications.

Table 3: AC power specifications

Model	Number of Power supplies	Power supply		Input power (margined by 10%)		Thermal rating (BTUs/hr maximum)
		Rated	Line voltage	Watts (Total)	Amps	
ERS 4950GTS	1	250 W	200–240 VAC	53.14	0.30	181.31
	2	250 W/PSU	200–240 VAC	58.88	0.44	200.89
	1	250 W	100–110 VAC	53.67	0.51	183.12
	2	250 W/PSU	100–110 VAC	59.53	0.58	203.11
ERS 4926GTS	1	250 W	200–240 VAC	39.37	0.25	134.33
	2	250 W/PSU	200–240 VAC	46.23	0.40	157.73

Table continues…

Model	Number of Power supplies	Power supply		Input power (margined by 10%)		Thermal rating (BTUs/hr maximum)
		Rated	Line voltage	Watts (Total)	Amps	
	1	250 W	100–110 VAC	39.43	0.38	134.53
	2	250 W/PSU	100–110 VAC	44.35	0.46	151.32
ERS 4950GTS-PWR+	1	1025 W	200–240 VAC	820.89	3.80	358.90
	2	1025 W	200–240 VAC	1586.25	7.15	584.30
	1	1025 W	100–110 VAC	842.10	7.75	431.95
	2	1025 W	100–110 VAC	1660.07	15.15	837.88
ERS 4926GTS-PWR+	1	1025 W	200–240 VAC	792.53	3.57	308.88
	2	1025 W	200–240 VAC	816.03	3.78	342.32
	1	1025 W	100–110 VAC	825.11	7.55	413.56
	2	1025 W	100–110 VAC	839.64	7.73	424.24

The following table provides typical power consumption.

Table 4: Typical power consumption

Model	Idle Power consumption (Watts)	Typical Power consumption (Watts)		
		Devices connected to all ports, typical traffic, without SFPs	Devices connected to all ports, typical traffic, 6 W average per PoE device	With Avaya Energy Saver enabled (PoE Saver disabled on PoE models)
ERS 4950GTS	43.9	53.0	NA	44.0
ERS 4926GTS	34.9	40.0	NA	34.9
ERS 4950GTS-PWR+	65.9	73.4	382.0	65.9
ERS 4926GTS-PWR+	51.4	55.8	208.8	51.5

The following table describes the Power over Ethernet (PoE+) specifications.

Table 5: PoE+ specifications

Model	Number of Power Supplies	Power supply		Power over Ethernet (PoE+) power output		
		Rated	Line voltage	Max Power per Port (Watts)	Max power output Sum of all Ports (Watts)	
ERS 4950GTS-PWR+	1	1025 W	200–240 VAC	30 W	720 W	24 ports at 30 W
	2	1025 W	200–240 VAC	30 W	1440 W	48 ports at 30 W
	1	1025 W	100–110 VAC	30 W	720 W	24 ports at 30 W
	2	1025 W	100–110 VAC	30 W	1440 W	48 ports at 30 W
ERS 4926GTS-PWR+	1	1025 W	200–240 VAC	30 W	720 W	24 ports at 30 W
	2	1025 W	200–240 VAC	30 W	720 W	24 ports at 30 W
	1	1025 W	100–110 VAC	30 W	720 W	24 ports at 30 W
	2	1025 W	100–110 VAC	30 W	720 W	24 ports at 30 W

AC power cord specifications

The following section outlines the AC power cord specifications for various countries. Ensure that you use the correct cord for your location.

Table 6: International power cord specifications
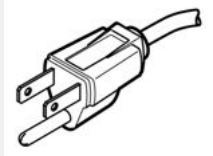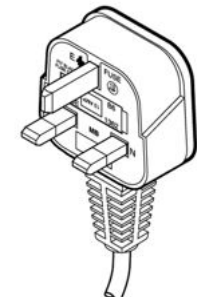
Country / Plug Specification	Specifications	Typical Plug
Continental Europe: • CEE7 standard VII male plug • Harmonized cord (HAR marking on the outside of the cord jacket to comply with the CENELEC Harmonized Document HD-21)	• 220 or 230 VAC • 50 Hz • Single Phase	 228FA

Table continues…

Country / Plug Specification	Specifications	Typical Plug
United States of America / Canada / Japan: • NEMA5-15P male plug • UL-recognized (UL stamped on cord jacket) • CSA-certified (CSA label secured to the cord)	• 100 or 120 VAC • 50 - 60 Hz • Single Phase	227FA
United Kingdom: • BS1363 male plug with fuse • Harmonized cord	• 240 VAC • 50 Hz • Single Phase	229FA
Australia: • AS3112-1981 male plug	• 240 VAC • 50 Hz • Single Phase	230FA

Installing the switch in an equipment rack

✱ **Note:**

The instructions in this section apply to all switches in Avaya Ethernet Routing Switch 4900 Series.

About this task

Install the switch in an equipment rack.

Before you begin

Tool requirements

• Phillips screwdriver to attach brackets to the switch and the switch to the rack.

Rack requirements

• Space of 2.8 inches (7.1 cm) for each switch is available in an E1A or 1EC standard 19 inch (48.2 cm) equipment rack and T1A 23 inch (58.5 cm) equipment rack.

• Appropriate rack space is available to accommodate 1U switch height (44 mm).

• Rack is bolted to the floor and braced if necessary.

- Rack is grounded to the same grounding electrode used by the power service in the area. The ground path must be permanent and must not exceed 1 Ohm of resistance from the rack to the grounding electrode.

✳ **Note:**

Avaya does not supply the bolts used to secure the switch to the rack. Ensure you obtain the appropriate bolts to secure the switch to your specific rack before you begin.

Procedure

1. Ensure power is disconnected from the switch.

2. Attach a bracket to each side of the switch with the included screws.

   You have different options for front and rear mounting positions. Attach the brackets in the best position for your specific equipment rack.
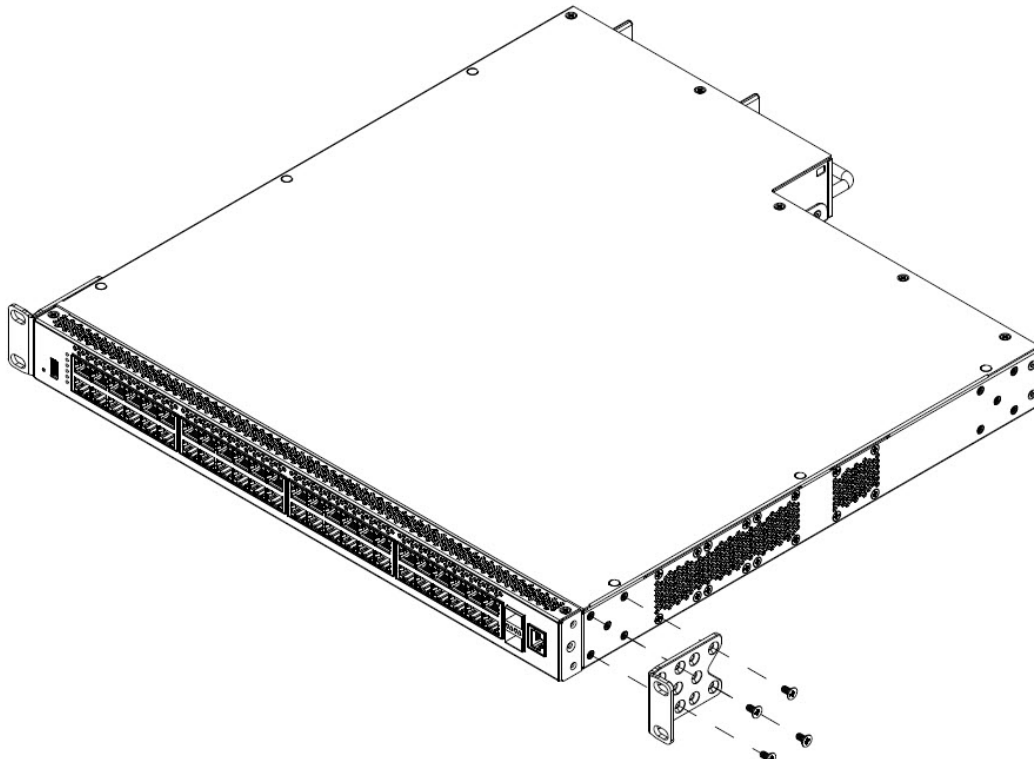
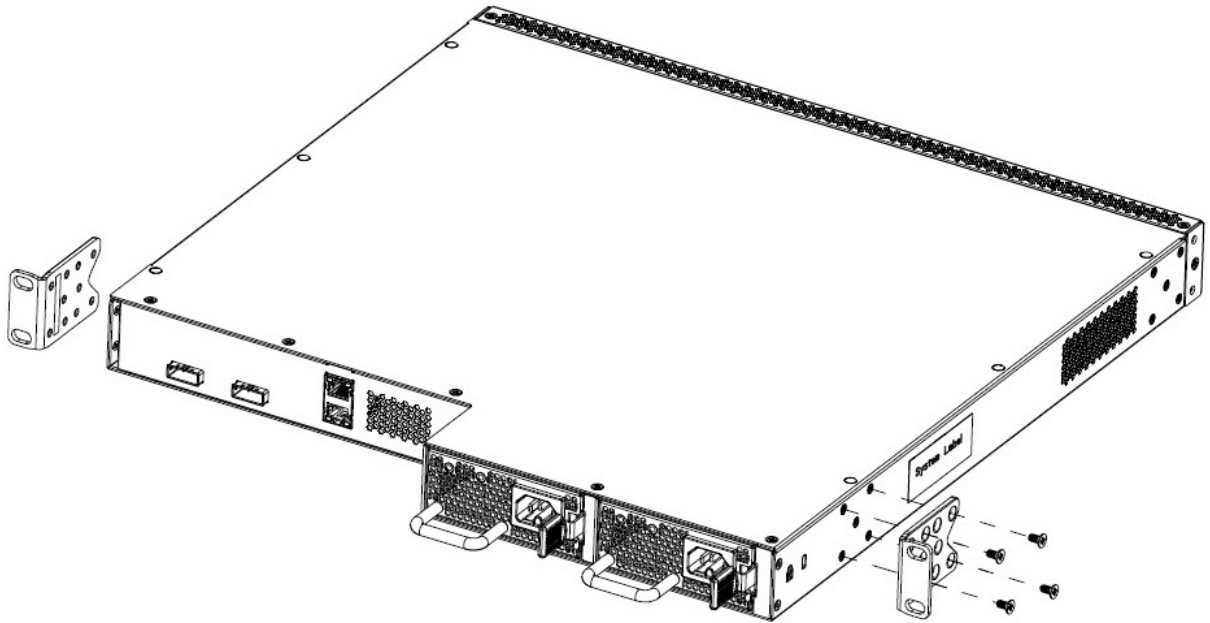**Figure 1: Front-mounted rack bracket installation**

Figure 2: Rear-mounted rack bracket installation

3. Slide the switch into the rack.

4. Insert and tighten the rack mount screws.

For four-post equipment rack installations, an optional four-post rack mounting kit (sold separately) is available that includes adjustable rear brackets. For more information, see *Installing Avaya Ethernet Routing Switch 4900 Series*, NN47212-301.
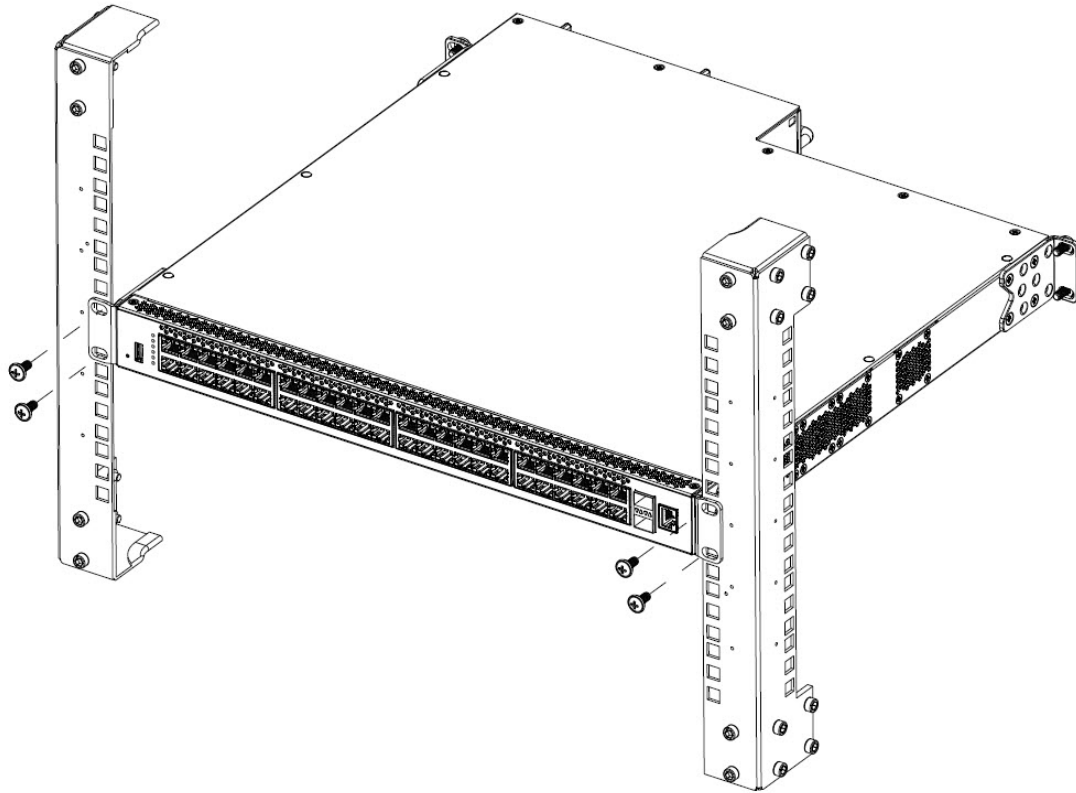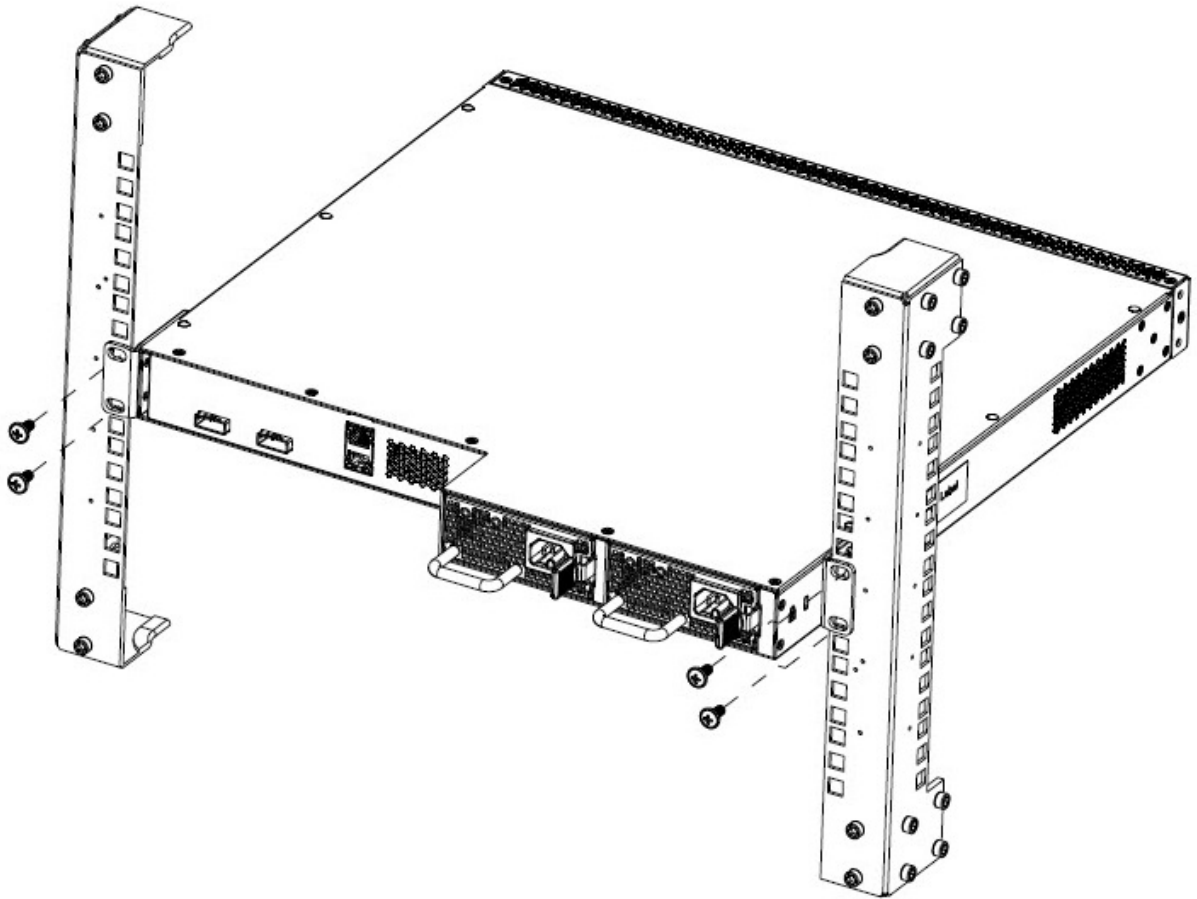
Figure 3: Front-mounted rack installation

Figure 4: Rear-mounted rack bracket installation

For four-post equipment rack installations, an optional four-post rack mounting kit (sold separately) is available that includes adjustable rear brackets. For more information, see *Installing Avaya Ethernet Routing Switch 4900 Series*, NN47212-301.
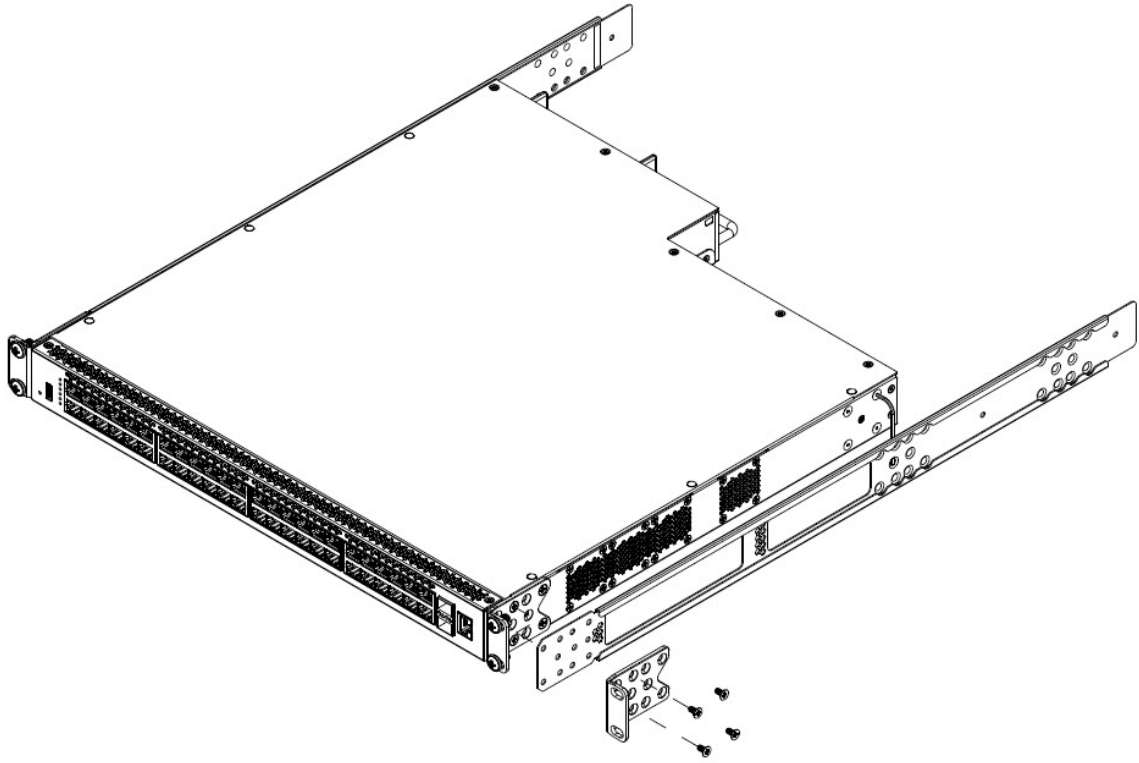
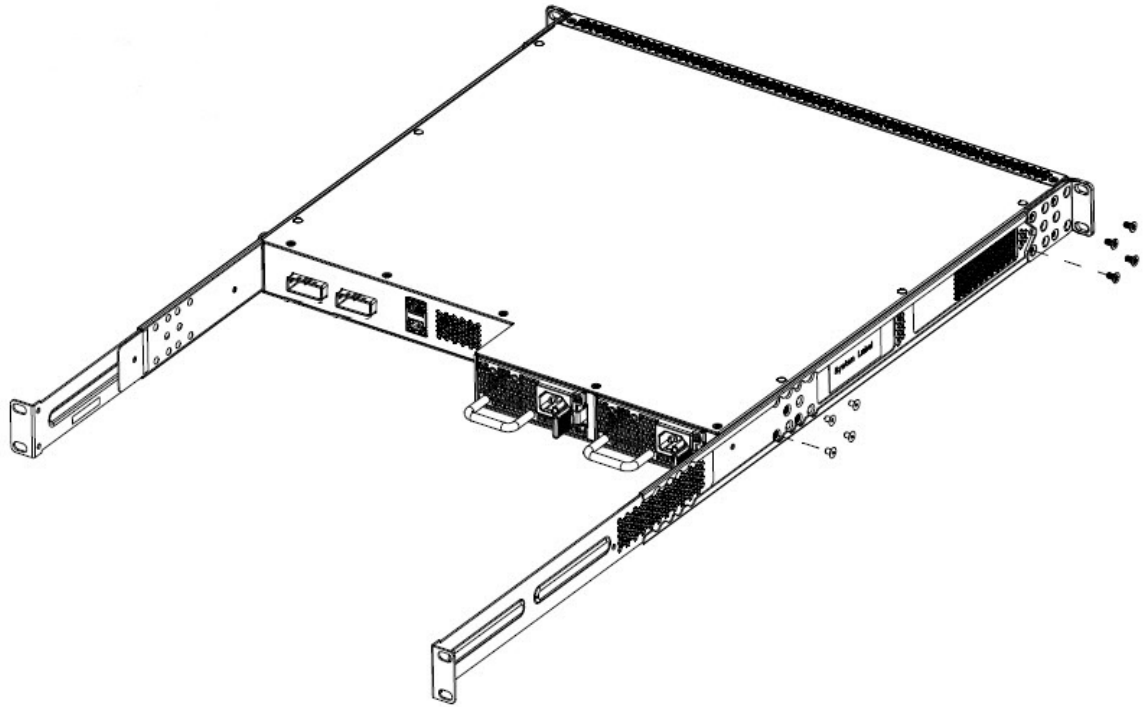**Figure 5: Rack mount attachment screws**

Figure 6: Optional four-post rack mount brackets

5. Slide the switch into the rack.

6. Fasten the switch to the equipment rack with rack mount screws.

   For four-post equipment rack installations, fasten the switch to the equipment rack with rack mount screws on all four corners.

7. Verify that the switch is securely fastened to the rack.

   You can proceed with the installation by connecting power and network connections to the switch.

Connecting AC power

About this task

The Ethernet Routing Switch 4900 Series does not have a power switch. When you connect the AC power cord to a suitable AC power outlet, the switch powers up immediately.

Before you begin

Ensure to use the correct power cord for the switch and power supply.

Procedure

1. Connect the AC power cord to the back of the switch.

2. Connect the cord to a power outlet.