

Quick Start Guide

EX9251

IN THIS GUIDE

- [Step 1: Begin | 1](#)
- [Step 2: Up and Running | 9](#)
- [Step 3: Keep Going | 11](#)

Step 1: Begin

IN THIS SECTION

- [Mount the EX9251 | 3](#)
- [Connect Power to the Switch | 4](#)

To install and perform initial configuration of a Juniper Networks EX9251 Ethernet Switch, you need:

- Two front-mounting brackets and 16 screws to secure the brackets to the chassis—provided
- Two rear-mounting brackets—provided
- Eight screws to secure the switch to the rack—not provided
- Phillips (+) screwdriver, number 2—not provided
- Electrostatic discharge (ESD) wrist strap with cable—provided

To connect the switch to earth ground, you need:

- A grounding cable (minimum 12 AWG (2.5 mm²), minimum 60°C wire or as permitted by local code)—not provided
- A grounding lug (Panduit LCD10-10A-L or equivalent)—not provided
- A pair of 10-32 screws—provided

To connect AC power to the switch, you need:

- An AC power supply installed in the switch—provided
- An AC power cord with a plug appropriate for your geographical location—provided
- A power cord retainer—provided

To connect DC power to the switch, you need:

- A DC power supply installed in the switch—provided
- Two DC power source cables (minimum 12 AWG (2.5 mm²), minimum 60°C wire or as permitted by local code)—not provided
- Two ring lugs (Molex 01907000969 or equivalent)—provided

To perform initial configuration of the switch, you need:

- An Ethernet cable with an RJ-45 connector attached—provided
- An RJ-45 to DB-9 serial port adapter—provided
- A management host, such as a PC, with an Ethernet port—not provided

Register product serial numbers on the Juniper Networks website and update the installation base data if there is any addition or change to the installation base or if the installation base is moved. Juniper Networks will not be held accountable for not meeting the hardware replacement service-level agreement for products that do not have registered serial numbers or accurate installation base data.

Register your product(s) at <https://tools.juniper.net/svcreg/SRegSerialNum.jsp>.

Update your install base at <https://www.juniper.net/customers/csc/management/updateinstallbase.jsp>.

The fan trays and power supplies in EX9251 switches are hot-removable and hot-insertable field-replaceable units installed in the rear panel of the switch. You can replace them without powering off the switch or disrupting switch functions.



CAUTION: Do not mix AC and DC power supplies in the same switch.



WARNING: Ensure that you understand how to prevent ESD damage. Wrap and fasten one end of an ESD wrist strap around your bare wrist, and connect the other end of the strap to the ESD point on the switch.

Mount the EX9251

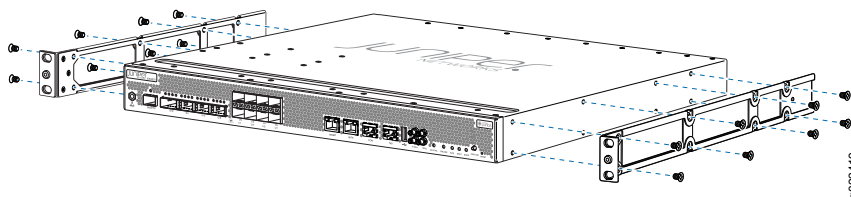
You can mount an EX9251 switch on four posts of a 19-in. rack or an ETSI rack. This guide describes the procedure to mount the switch on a 19-in. rack.

Mounting an EX9251 switch requires one person to lift the switch and a second person to install the mounting screws to secure the switch to the rack.

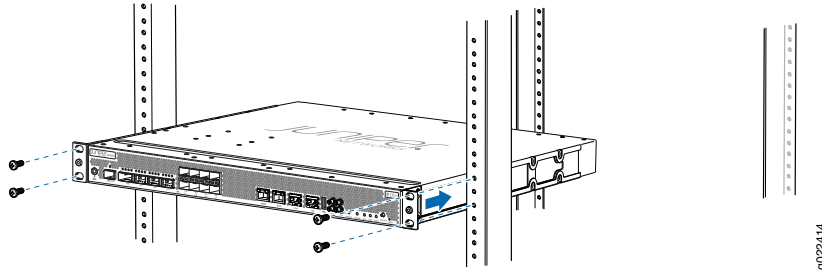
1. Place the rack in its permanent location, allowing adequate clearance for airflow and maintenance, and secure it to the building structure.

NOTE: When mounting multiple units on a rack, mount the heaviest unit at the bottom and mount the other units from the bottom to the top in decreasing order of weight.

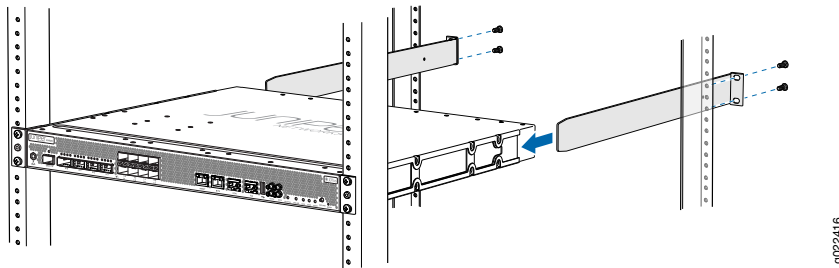
2. Place the switch on a flat, stable surface.
3. Position the front-mounting brackets along the side panels of the chassis, aligning them with the front panel.
4. Attach the mounting brackets to the chassis by using the screws provided and the Phillips (+) number 2 screwdriver.



5. Have one person grasp both sides of the switch, lift the switch, and position it in the rack, aligning the holes on the front-mounting brackets with the threaded holes on the rack. Align the bottom hole in each front-mounting bracket with a hole in each post of the rack, making sure that the chassis is level.
6. Have a second person secure the switch to the rack by inserting the screws appropriate for your rack through the bracket and the threaded holes on the rack.



7. On the rear of the switch chassis, slide the rear-mounting brackets into the front-mounting brackets on either side of the chassis until the rear-mounting brackets contact the rack rails.



8. Secure the rear-mounting brackets to the rear posts by using the screws appropriate for your rack.
9. Ensure that the chassis is level by verifying that all the screws on the front posts of the rack are aligned with the screws on the rear posts of the rack.

Connect Power to the Switch

IN THIS SECTION

- [Connecting Earth Ground to EX9251 | 5](#)
- [Connecting EX9251 to AC power | 5](#)
- [Connecting EX9251 to DC power | 7](#)

Depending on the model, you can use either AC or DC power supplies. The power supplies install in the slots on the rear panel.



CAUTION: Do not mix AC and DC power supplies in the same switch.

NOTE: Grounding is required for models that use DC power supplies and recommended for models that use AC power supplies. An AC-powered switch gets additional grounding when you connect the power supply in the switch to a grounded AC power source outlet by using the power cord.

Before you connect power to the switch, wrap and fasten one end of an ESD wrist strap around your bare wrist, and connect the other end of the strap to the ESD point on the switch.

Connecting Earth Ground to EX9251



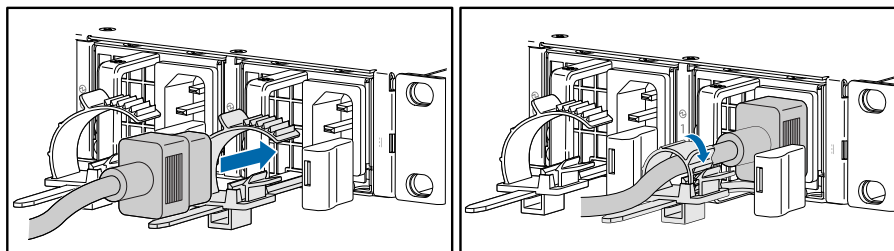
CAUTION: A licensed electrician must attach the grounding lug to the grounding cable.

1. Secure the grounding lug on the grounding cable to the earthing terminal on the rear panel of the switch by using the 10-32 screws.
2. Connect the other end of the grounding cable to a proper earth ground.
3. Dress the grounding cable appropriately. Ensure that it does not touch the switch components, block the air exhaust and access to the switch components, or drape where people could trip on it.

Connecting EX9251 to AC power

For each power supply:

1. Push the end of the AC power cord retainer strip into the hole next to the inlet on the power supply faceplate until it snaps into place. Ensure that the loop in the retainer strip faces toward the power cord.
2. Press the small tab on the retainer strip to loosen the loop. Slide the loop until you have enough space to insert the power cord coupler into the inlet.



3. Insert the coupler end of the power cord into the AC power cord inlet on the power supply faceplate.
4. Slide the loop toward the power supply until it is snug against the base of the coupler.

5. Press the tab on the loop and draw out the loop into a tight circle.
6. If the AC power source outlet has a power switch, set it to the off position.

NOTE: Each power supply must be connected to a dedicated AC power feed with a dedicated customer-site circuit breaker. We recommend that you use a dedicated customer-site circuit breaker rated for either 20 A (110 VAC) minimum or 16 A (220 VAC) minimum, or as required by local code.

7. Insert the power cord plug into the power source outlet.
8. Dress the power cord appropriately. Ensure that it does not touch the switch components, block the air exhaust and access to switch components, or drape where people could trip on it.
9. Insert the power cord plug into the power source outlet.
10. Switch on the dedicated customer-site circuit breaker.
11. Power on the external AC power source.
12. Verify that the AC input LED (labeled **AC**) and the DC output LED (labeled **DC**) on the power supply faceplate are on and steadily lit green, and the alarm LED (labeled **!**) is not lit.

Connecting EX9251 to DC power

For each power supply:

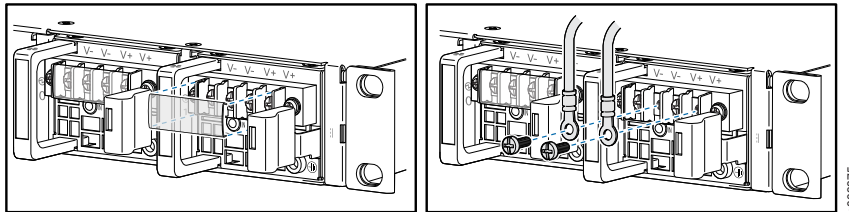


CAUTION: A licensed electrician must attach the ring lugs to the DC power cables.



WARNING: Ensure that the input circuit breaker is open so that the cable leads will not become active while you are connecting DC power and that the voltage across the DC power source cable leads is 0 V.

1. Remove the plastic cover from the terminal block on the power supply faceplate.



2. Verify that the DC power cables are correctly labeled before making connections to the power supply. In a typical power distribution scheme where the return (RTN) is connected to chassis ground at the battery plant, you can use a multimeter to verify the resistance of the -48 V and RTN DC cables to chassis ground:
 - The cable with large resistance (indicating an open circuit) to chassis ground is -48 V.
 - The cable with low resistance (indicating a closed circuit) to chassis ground is RTN.



CAUTION: You must ensure that power connections maintain the proper polarity. The power source cables might be labeled (+) and (-) to indicate their polarity. There is no standard color coding for DC power cables. The color coding used by the external DC power source at your site determines the color coding for the leads on the power cables that attach to the terminal block on each power supply.

3. Remove the screws from each terminal block. Save the screws.



CAUTION: Ensure that each power cable lug seats flush against the surface of the terminal block as you tighten the screws. Ensure that each screw is properly threaded into the terminal block. Before tightening each screw that you insert into the terminal block, ensure that you are able to spin the screw freely with your fingers. Applying installation torque to the screw when improperly threaded might damage the terminal block.



CAUTION: The maximum torque rating of the terminal block on the DC power supply is 6 lb-in. (0.7 Nm). Excessive torque can damage the terminal block. Use only a Phillips (+) number 2 screwdriver to tighten screws on the DC power supply terminal block.

4. Secure each power cable lug to the terminal block by using the screws and a Phillips (+) number 2 screwdriver. Do not overtighten the screws. Apply between 5 lb-in. (0.6 Nm) and 6 lb-in. (0.7 Nm) of torque to each screw.

When connecting DC power, the proper wiring sequence is ground to ground, then +RTN to +RTN, and finally -48 V to -48 V.

- Secure the positive (+) DC source power cable lug to the RTN terminal (labeled **V+**).
- Secure the negative (-) DC source power cable lug to the -48 terminal (labeled **V-**).

5. Replace the clear plastic cover over the terminal block.
6. Verify that the power cabling is correct. Ensure that cables do not touch the switch components, block the air exhaust and access to switch components, or drape where people could trip on them.
7. Connect each DC power cable to the appropriate external DC power source.
8. Switch on the dedicated customer-site circuit breakers.
9. Power on the external DC power source.
10. Verify that the DC input LED (labeled **IN**) and the DC output LED (labeled **OUT**) are steadily lit green, and the alarm LED (labeled **!**) is not lit.

Step 2: Up and Running

IN THIS SECTION

- [Set Parameter Values | 9](#)
- [Perform the Initial Configuration | 9](#)

Set Parameter Values

Before you begin:

- Ensure that the switch is powered on.
- Set these values in the console server or PC: baud rate—9600; flow control—none; data bits—8; parity—none; stop bits—1; DCD state—disregard.
- For console access, connect the console port on the switch (labeled **CON**) to the PC by using an RJ-45 cable and an RJ-45 to DB-9 serial port adapter.
- For out-of-band management, connect the management port on the switch (labeled **MGMT**) to the PC by using an RJ-45 cable.

NOTE: Ensure that the removable storage media that contains a copy of Junos OS is not installed in the switch except when you want to install Junos OS from the storage media. If the storage media is installed during normal operation and if the switch is rebooted intentionally or accidentally (for example, because of a power outage), the configuration in the switch is deleted and the copy of the software in the storage media is installed in the switch.

Perform the Initial Configuration

Configure the software:

1. Log in as the **root** user by using the CLI and enter configuration mode.

```
root@#
```

2. Set the root authentication password.

```
[edit]
root@# set system root-authentication plain-text-password
New password: password
Retype new password: password
```

You can also set an encrypted password or an SSH public key string (DSA or RSA) instead of a plain-text password.

3. Configure the name of the host. If the name includes spaces, enclose the name in double quotation marks (" ").

```
[edit]
root@# set system host-name host-name
```

4. Create a management console user account.

```
[edit]
root@#set system login user-name authentication plain-text-password
New password: password
Retype new password: password
```

5. Set the user account class to **super-user**.

```
[edit]
root@# set system login user user-name class super-user
```

6. Configure the host domain name.

```
[edit]
root@# set system domain-name domain-name
```

7. Configure the IP address and prefix length for the switch's management Ethernet interface.

```
[edit]
root@# set interfaces fxp0 unit 0 family inet address address/prefix-length
```

8. Configure the IP address of a backup router, which is used only while the routing protocol is not running.

```
[edit]
root@# set system backup-router address
```

9. Configure the IP address of a DNS server.

```
[edit]
root@# set system name-server address
```

10. (Optional) Configure the static routes to remote subnets with access to the management port. Access to the management port is limited to the local subnet. To access the management port from a remote subnet, you need to add a static route to that subnet within the routing table.

```
[edit]
root@# set system name-server set routing-options static route remote-subnet next-hop destination-IP retain no-readvertise
```

11. Configure the Telnet service at the **[edit system services]** hierarchy level.

```
[edit]
root@# set system services telnet
```

12. (Optional) Configure additional properties by adding the necessary configuration statements.

13. Commit the configuration and exit configuration mode.

Step 3: Keep Going

IN THIS SECTION

- [Safety Warnings Summary | 11](#)
- [Power Cable Warning \(Japanese\) | 12](#)
- [Contacting Juniper Networks | 13](#)

See the complete EX9251 documentation at https://www.juniper.net/documentation/product/en_US/ex9251.

Safety Warnings Summary

This is a summary of safety warnings. For a complete list of warnings, including translations, see the EX9251 documentation at https://www.juniper.net/documentation/product/en_US/ex9251.



WARNING: Failure to observe these safety warnings can result in personal injury or death.

- Before removing or installing components of a switch, attach an ESD strap to an ESD point, and place the other end of the strap around your bare wrist to avoid. Failure to use an ESD strap could result in damage to the switch.
- Permit only trained and qualified personnel to install or replace switch components.
- Perform only the procedures described in this quick start and the EX Series documentation. Other services must be performed only by authorized service personnel.
- Before installing the switch, read the planning instructions in the EX Series documentation to ensure that the site meets power, environmental, and clearance requirements for the switch.
- Before connecting the switch to a power source, read the installation instructions in the EX Series documentation.
- For the cooling system to function properly, the airflow around the chassis must be unrestricted. Read the clearance requirements for the switch in the EX Series documentation.
- Mounting the switch on a rack requires one person to lift the switch and a second person to install the mounting screws to secure the switch chassis to the rack.
- Do not lift the chassis by the power supply or fan tray handles.
- When you install the switch, always connect the grounding cable first and disconnect it the last.
- If the rack has stabilizing devices, install them in the rack before mounting or servicing the switch in the rack.
- Before installing or after removing an electrical component, always place it component-side up on an antistatic mat placed on a flat, stable surface or in an antistatic bag.
- Do not work on the switch or connect or disconnect cables during electrical storms.
- Before working on equipment that is connected to power lines, remove jewelry, including rings, necklaces, and watches. Metal objects heat up when connected to power and ground and can cause serious burns or become welded to the terminals.

Power Cable Warning (Japanese)

The attached power cable is only for this product. Do not use this cable for another product.

注意

付属の電源コードセットはこの製品専用です。
他の電気機器には使用しないでください。

9040300

Contacting Juniper Networks

For technical support, see:

<http://www.juniper.net/support/requesting-support.html>