

Quick Start Guide

EX4600

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Step 1: Begin

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To install and perform initial configuration of a Juniper Networks EX4600 Ethernet Switch, you need:

- Electrostatic discharge (ESD) grounding strap (not provided)
- One pair of side mounting-rails (provided)
- One pair of rear mounting-blades (provided)
- Twelve screws to secure the mounting-rails and mounting-blades to the chassis (provided)
- Eight screws to secure the chassis and mounting-blades to the rack (not provided)
- Screwdriver appropriate for your rack-mounting screws (not provided)
- Two power cords with plugs appropriate for your geographical location (provided, for all EX4600 switches except the EX4600-40F-S switch).

- RJ-45 cable and RJ-45 to DB-9 serial port adapter (provided)
- Two fan modules (if not installed)
- Two power supply modules (if not installed)
- Management host, such as a PC laptop, with a serial port (not provided)
- (Optional) Grounding cable kit with bracket, lug, and three nuts with integrated washers. To install the grounding cable, see the EX4600 documentation at https://www.juniper.net/documentation/product/en_US/ex4600.

EX4600-40F-S switches are not shipped with fan modules or power supplies. 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>.



WARNING: Ensure you understand and follow all ESD safety procedures to prevent damage to the switch and switch components. Perform all hardware installation tasks with an ESD grounding strap attached to your bare wrist and to a site ESD point on the chassis.



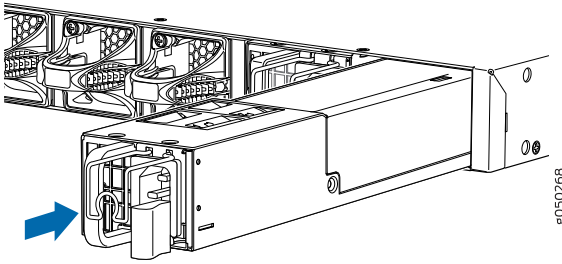
CAUTION: Do not mix:

- AC and DC power supplies in the same switch chassis.
- Power supplies and fan modules with different airflow. All modules must use the same airflow direction, either airflow in (AFI) or airflow out (AFO) or the chassis will overheat. With AFO, air flows from the ports to the field replaceable units (FRUs); with AFI, it flows from the FRUs to the ports.

Install the Power Supplies (If Not Already Installed)

The EX4600 switch can operate with one power supply installed. However, two power supplies must be installed for redundancy so that you can remove and replace one, if required, without powering off the switch or disrupting switch functions. If pre-installed, proceed to the next section, Install the Fan Modules (If Not Already Installed).

1. Taking care not to touch power supply components, pins, leads, or solder connections, remove the power supply from its bag.
2. Using both hands, place the power supply in the power supply slot on the FRU panel of the switch and slide it in until it is fully seated and the locking lever slides into place.

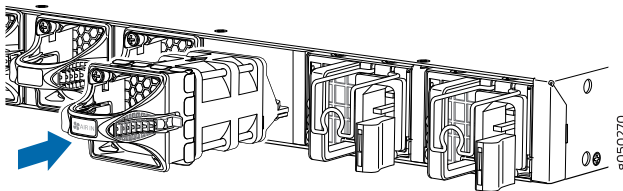


Install the Fan Modules (If Not Already Installed)

If both fan modules are already installed, proceed to the next section, Mount the Switch.

To install a fan module:

1. Taking care not to touch the connectors, remove the fan module from its bag.
2. Align the module with the open slot on the management panel of the chassis and slide it in until it is fully seated.
3. Using a Phillips screwdriver, turn the locking screw until it is tight.



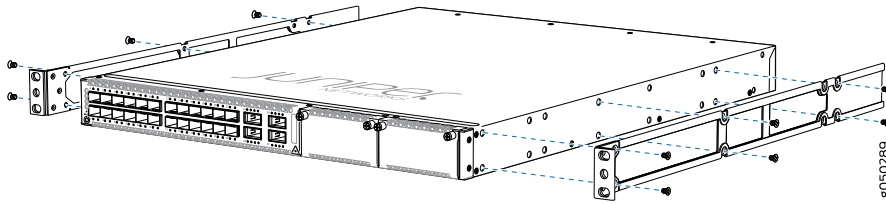
Mount the EX4600

The EX4600 switch can only be mounted in a four-post rack configuration. To mount the switch:

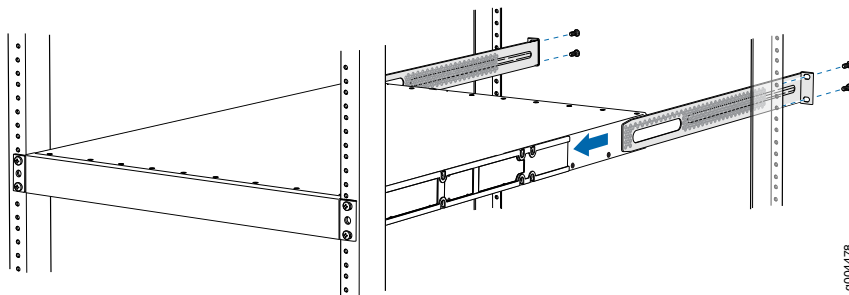
NOTE: If you are mounting multiple units in the rack, mount the heaviest unit at the bottom and mount the others from bottom to top in order of decreasing weight. The switch weighs approximately 21.4 lb (9.7 kg). Installing the EX4600 switch in a rack or cabinet requires two people; one person to lift the switch while the other secures it 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.
2. Determine whether the end with FRUs or the ports will be placed at the front of the rack.

3. Align the holes in the side mounting-rail with the holes on the side of the chassis.



4. Attach the side mounting-rail to the switch using six mounting screws. Use cage nuts and washers if your rack requires them.
5. Repeat Step 3 and Step 4 on the opposite side of the switch.
6. Have one person grasp both sides of the switch, lift it, and position it in the rack so that the front bracket is aligned with the rack holes.
7. Have a second person secure the front of the switch to the rack by using four mounting screws (and cage nuts and washers if your rack requires them). Tighten the screws.
8. Continue to support the switch while sliding the rear mounting-blades into the channel of the side mounting-rails and securing the blades to the rack. Use the four mounting screws (and cage nuts and washers if your rack requires them) to attach each blade to the rack. Tighten the screws.
9. Ensure that the switch chassis is level by verifying that all the screws on the front of the rack are aligned with the screws at the back of the rack.



10. Attach a grounding cable to earth ground and then attach it to the chassis grounding points.

Connect Power to the EX4600

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All EX4600 switches, except the EX4600-40F-S switch, are supplied with two factory-installed power supplies and power cords. Order separate power cords for the EX4600-40F-S.

Connecting EX4600 to AC power

To connect power to an AC-powered switch:

1. Connect each power supply to a dedicated power source outlet.
2. If the AC power source outlet has a power switch, set it to the **OFF (0)** position.
3. Insert the coupler end of the power cord into the AC power cord inlet on the AC power supply faceplate.
4. Push the power cord retainer onto the power cord.
5. Insert the power cord plug into the power source outlet.
6. If the AC power source outlet has a power switch, set it to the **ON (I)** position.
7. Verify that the AC and the DC LEDs are lit green and are on steadily.

Connecting EX4600 to DC power

To connect power to a DC-powered switch:

1. Ensure a licensed electrician has attached a cable lug to the grounding and power cables you supply.
2. Verify that the DC power cables are correctly labeled before connecting the power supply. The DC power supply has four terminals labeled **V+**, **V+**, **V-**, and **V-**; the power source cables are labeled positive (+) and negative (-). The V+ terminals are often referred to as +RTN, and V- terminals are referred to as -48 V.



CAUTION: 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 DC power input terminals on each power supply.

3. Ensure that the input circuit breaker is open so that the voltage across the DC power source cable is 0 V and that the cable leads do not become active while you are connecting DC power.
4. Remove the clear plastic terminal block cover.
5. Remove the screws on the terminals using a screwdriver. Save the screws.



WARNING: Ensure that the power cables do not block access to device components or drape where people can trip on them.

6. Connect each power supply to the power sources. Secure power source cables to the power supplies by screwing the ring lugs attached to the cables to the appropriate terminals by using the screw from the terminals.
 - Secure the ring lug of the positive; (+) DC power source cable to the **V+** terminal on the DC power supply.
 - Secure the ring lug of the negative (-) DC power source cable to the **V-** terminal on the DC power supply.
 - Tighten the screws on the power supply terminals until they are snug using the screwdriver, but do not overtighten.
7. Replace the terminal block cover and close the circuit breaker.
8. Verify that the **IN** and **OUT** LEDs on the power supply are lit green and are on steadily.

Step 2: Up and Running

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Set Parameter Values

You must perform the initial configuration of the switch through the console port. Before you begin, set the following parameter values in the console server or PC:

- Baud Rate—9600
- Flow Control—None
- Data—8
- Parity—None
- Stop Bits—1
- DCD State—Disregard

Perform the Initial Configuration

To connect and configure the switch from the console:

1. Connect the console port to a laptop or PC using the provided RJ-45 cable and RJ-45 to DB-9 serial port adapter. The console (**CON**) port is located on the port panel of the router.
2. Log in as **root**. There is no password. If the software booted before you connect to the console port, you might need to press the Enter key for the prompt to appear.

```
login: root
```

3. Start the command-line interface (CLI).

```
root@% cli
```

4. Enter configuration mode.

```
root>configure
```

5. Add a password to the root administration user account. Enter a plain-text password

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

6. (Optional) Configure the name of the switch. If the name includes spaces, enclose the name in quotation marks (" ").

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

7. Configure the default gateway.

```
[edit]  
root@# set routing-options static route default next-hop address
```

8. Configure the IP address and prefix length for the router management interface.

```
[edit]  
root@# set interfaces em0 unit 0 family inet address address/prefix-length
```

NOTE: The management ports, **em0 (C0)** and **em1 (C1)**, are found on the FRU side of the EX4600 switch.

9. (Optional) Configure the static routes to remote prefixes with access to the management port.

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

10. Enable Telnet service.

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

11. Enable SSH service.

```
[edit]  
root@# commit
```


Step 3: Keep Going

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See the complete EX4600 documentation at https://www.juniper.net/documentation/product/en_US/ex4600.

Safety Warnings Summary

This is a summary of safety warnings. For a complete list of warnings, including translations, see the EX4600 documentation at https://www.juniper.net/documentation/product/en_US/ex4600.



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

- Permit only trained and qualified personnel to install or replace switch components.
- Perform only the procedures described in this quick start and the EX4600 switch documentation. Other services must be performed only by authorized service personnel.
- Before installing the switch, read the planning instructions in the EX4600 switch documentation to make sure 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 EX4600 switch documentation.
- The EX4600 switch weighs approximately 21.4 lb (9.7 kg). Manually installing the EX4600 switch in a rack or cabinet at a height above 60 in. (152.4 cm) requires two people to lift the switch and install mounting screws. To prevent injury, keep your back straight and lift with your legs, not your back.
- If the rack or cabinet has stabilizing devices, install them in the rack before mounting or servicing the switch in the rack or cabinet.
- 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。

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Contacting Juniper Networks

For technical support, see:

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