

Day One+

QFX5130-32CD

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Step 1: Begin

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In this guide, we provide a simple, three-step path, to quickly get you up and running with your new QFX5130-32CD switch. We've simplified and shortened the installation and configuration steps, and included how-to videos. You'll learn how to install the QFX5130 in a rack, power it up, and deploy it on your network.

NOTE: Are you interested in getting hands-on experience with the topics and operations covered in this guide? Visit [Juniper Networks Virtual Labs](#) and reserve your free sandbox today! You'll find the Junos Day One Experience sandbox in the stand alone category.

Meet the QFX5130-32CD Ethernet Switch

The QFX5130-32CD Ethernet Switches are an optimally designed solution for spine-and-leaf deployments in enterprise, service provider, and cloud data centers. The switches come in a low-profile 1-U form factor and support a bandwidth of 12.8 Tbps.

With 32 400GbE ports, the switches enable a wide variety of configurations that include support for 10-Gbps, 25-Gbps, 40-Gbps, 100-Gbps, and 400-Gbps speeds. The QFX5130-32CD switches are available with either a front-to-back or back-to-front airflow and with dual AC power supplies.



Install the QFX5130-32CD

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What's in the Box?

- QFX5130-32CD switch
- Two power cords appropriate for your geographic location
- RJ-45 Ethernet cable
- RJ-45 to DB-9 serial port adapter
- Rack mount kit with:
 - Twelve flat-head M4x6-mm Phillips mounting screws
 - One pair of mounting blades
 - One pair of mounting rails

What Else Do I Need?

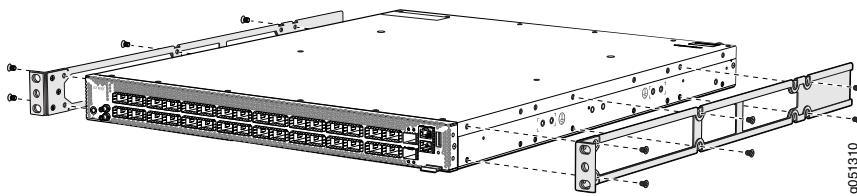
You'll need to provide:

- Someone to help you secure the switch to the rack
- Eight rack mount screws
- Panduit LCD10-10A-L grounding lug or equivalent
- Two 10-32 x 0.25 screws with #10 split-lock washers
- A number two Phillips (+) screwdriver
- A serial-to-USB adapter (If your laptop or desktop PC doesn't have a serial port)

Install the QFX5130-32CD in a Four-Post Rack

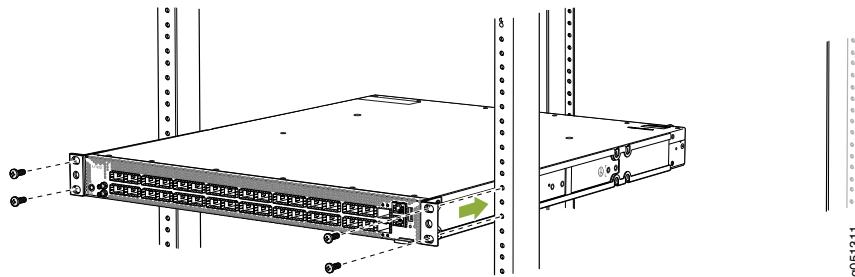
Here's how to install the QFX5130-32CD in a four-post rack:

1. Review the [General Safety Guidelines and Warnings](#).
2. Wrap and fasten one end of the ESD grounding strap around your bare wrist, and connect the other end to a site ESD point.
3. Decide which end of the switch you want to place at the front of the rack. Position the switch so that the **AIR IN** labels are next to the cold aisle and the **AIR OUT** labels are next to the hot aisle.
4. Attach the mounting rails to the sides of the switch using the twelve flat-head screws.

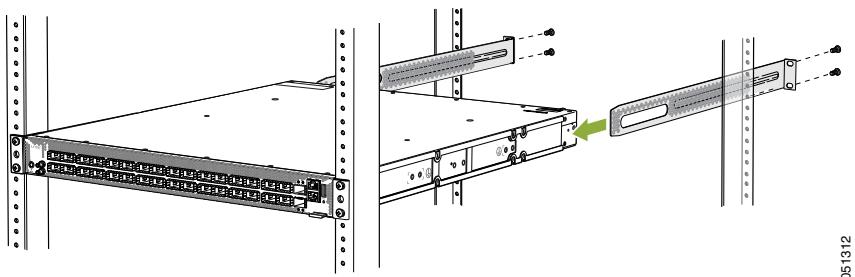


5. Lift the switch and position it in the rack. Line up the bottom hole in each mounting rail with a hole in each rack rail, making sure the switch is level.

6. While you're holding the switch in place, have a second person insert and tighten the rack mount screws to secure the mounting rails to the rack rails. Make sure they tighten the screws in the two bottom holes first and then tighten the screws in the two top holes.



7. Continue holding the switch in place and have the second person slide the mounting blades into the channel of the mounting rails.
8. Screw the mounting blades to the rack using the rack mount screws (and cage nuts and washers if your rack requires them).



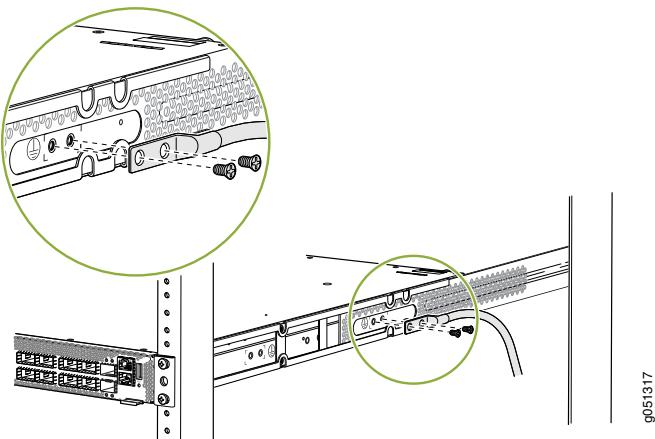
9. Check that the mounting brackets on each side of the rack are level.

NOTE: If you have unused ports, plug them using dust covers to prevent dust from entering the switch.

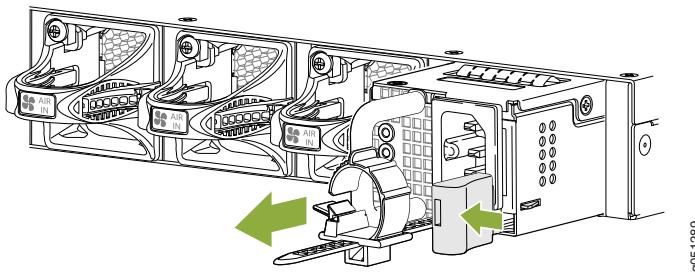
Power On

Now that you've installed your QFX5130-32CD in the rack, you're ready to connect it to power.

1. Wrap and fasten one end of the ESD grounding strap around your bare wrist, and connect the other end to one of the ESD grounding points on the switch.
2. Use two 10-32 x 0.25 screws with #10 split-lock washers to secure the grounding lug and attached cable to the chassis. Attach the lug through the left rail and blade assembly to the chassis.

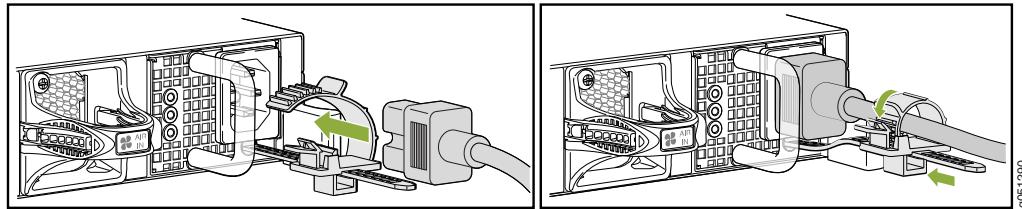


3. Connect the remaining end of the grounding cable to a proper earth ground, such as the rack. Dress the grounding cable and ensure that it doesn't touch or block access to other device components and that it doesn't drape where people could trip over it.
4. Ensure that the power supplies are fully inserted in the chassis and the latches are secure.
5. For each power supply, ensure that the loop on the power cord retainer is open and there's enough space to insert the power cord coupler into the inlet. If the loop is closed, press the small tab on the retainer to loosen the loop.



6. Thread the power cord coupler through the power cord retainer loop.
7. Plug the power cord into the AC inlet on the power supply faceplate.
8. Slide the power cord retainer loop toward the power supply until it is snug against the base of the coupler.

9. Press the tab on the loop and draw out the loop to enclose the power cord.



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WARNING: Ensure that the power cord does not block access to device components or drape where people can trip on it.

10. If the AC power source outlet has a power switch, turn it off.

NOTE: The switch powers on as soon as you connect it to power. It doesn't have a power switch.

11. Plug in the power cord to the AC power source outlet.

12. If the AC power source outlet has a power switch, turn it on.

13. Verify that the AC LEDs on each power supply are lit green.

Step 2: Up and Running

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Now that the QFX5130-32CD is powered on, let's do some initial configuration to get it up and running on the network. It's simple to provision and manage the QFX5130 using the CLI.

Plug and Play

The QFX5130-32CD switch ships with factory-default settings that enable plug-and-play operation. The default settings enable the Link Layer Discovery Protocol (LLDP). These settings load as soon as you power on the QFX5130-32CD switch.

Customize the Basic Configuration

You can easily customize the factory-default configuration using CLI commands. Initially, you must make changes through the console port. After you configure the management port, you can access the device using SSH to make additional configuration changes. You can revert to the factory-default configuration whenever you want.

Have the following information ready before you begin to configure custom settings for the switch:

- Hostname
- Root authentication password
- Management port IP address
- Default gateway IP address
- (Optional) SNMP read community, location, and contact information

1. Verify that your laptop or desktop PC has these default serial port settings:

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

2. Connect the console port on the QFX5130-32CD to a laptop or desktop PC using the supplied RJ-45 cable and RJ-45 to DB-9 adapter. The console (**CON**) port is located on the upper right corner of the port panel.

 **NOTE:** If your laptop or desktop doesn't have a serial port, use a serial-to-USB adapter (not provided).

3. At the Junos OS login prompt, type **root** to log in. You don't need to enter a password. If the software booted before you connected the laptop or desktop to the console port, you might need to press the Enter key for the prompt to appear.

`login: root`

4. Start the CLI.

```
root@% cli
```

5. Enter configuration mode.

```
root> configure
```

6. Add a password for the root administration user account.

```
[edit]
```

```
root@# set system root-authentication plain-text-password
```

```
New password: password
```

```
Retype new password: password
```

7. (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
```

8. Configure the IP address and prefix length for the management port on the switch. On the QFX5130-32CD, the management port **re0:mgmt-0** is the lower RJ-45 port on the right side of the port panel and is labeled **MGMT**.

NOTE: Although the CLI permits you to configure two management Ethernet interfaces within the same subnet, only one interface is usable and supported at any point of time.

```
[edit]
```

```
root@# set interfaces re0:mgmt-0 unit 0 family inet address address/prefix-length
```

9. Create a routing instance.

```
[edit]
```

```
root@# edit routing-instances mgmt_junos
```

```
root@# set routing-instances mgmt_junos routing-options static route 0.0.0.0/0 next-hop 10.102.70.254
```

10. Configure the static routes to remote prefixes.

```
[edit]
```

```
root@# set routing-options static route remote-prefix next-hop destination-ip
```

11. Enable the management instance.

```
[edit]
```

```
root@# set system management-instance
```

12. Enable Telnet service if needed.

```
[edit]
```

```
root@# set system services telnet
```

NOTE: When Telnet is enabled, you cannot log in to the QFX5130-32CD through Telnet using root credentials. Root login is allowed only for SSH access.

13. Enable SSH service.

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

14. To allow users to log in to the switch as root through SSH, include the **root-login** statement.

```
[edit system services ssh]  
root@# root-login (allow | deny | deny-password)
```

NOTE: By default, users are not allowed to log in to the switch as root through SSH.

15. Commit the configuration. Your changes become the active configuration for the switch.

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

Step 3: Keep Going

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Congratulations! Your QFX5130 is configured and ready to go. Here are some things you can do next.

What's Next?

If you want to	Then
Download, activate, and manage your software licenses to unlock additional features for your QFX series switch	See Activate Junos OS Licenses in the Juniper Licensing Guide
See all documentation available for the QFX5130-32CD	See the QFX5130-32CD Documentation in the Juniper Networks TechLibrary.
Find more in-depth information about how to install and configure the QFX5130-32CD	See the QFX5130-32CD Hardware Installation Guide .
Manage software upgrades for your QFX5130-32CD	See Installing Software on QFX Series Devices .
Stay up-to-date on new and changed features and known and resolved issues	See the Junos OS Evolved Release Notes .
See, automate, and protect your network with Juniper Security	Visit the Security Design Center .
Get hands-on experience with the procedures covered in this guide	Visit Juniper Networks Virtual Labs and reserve your free Junos Day One Experience sandbox today! You'll find the sandbox in the stand alone category.

Learn With Videos

Our video library continues to grow! We've created many, many videos that demonstrate how to do everything from install your hardware to configure advanced Junos OS network features. Here are some great video and training resources that will help you expand your knowledge of Junos OS.

If you want to	Then
View a Web-based training video which provides an overview of the QFX5130 and describes how to install and configure it	QFX5130 Ethernet Switch (WBT)
Get short and concise tips and instructions that provide quick answers, clarity, and insight into specific features and functions of Juniper technologies	See Learning with Juniper on Juniper Networks main YouTube page
View a list of the many free technical trainings we offer at Juniper	Visit the Getting Started page on the Juniper Learning Portal

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