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EX2300C Quick Start

RELEASE

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Step 1: Begin

In this guide, we provide a simple, three-step path, to quickly get you up and running with your new EX2300-C. We've simplified and shortened the installation and configuration steps, and included how-to videos. You'll learn how to install an AC-powered EX2300-C on a desktop, power it up, and configure basic settings.

> *(i)* **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. EX switches are not virtualized. In the demonstration, focus on the virtual QFX device. Both the EX and QFX switches are configured with the same Junos commands.

Meet the EX2300-C Ethernet Switches

The Juniper Networks® EX2300-C Ethernet switches offer a compact, power-efficient, cost-effective solution for low-density branch offices and enterprise workgroups. Featuring a fanless design, the EX2300-C switches are completely silent, making them ideal for open office areas and commercial locations such as in retail stores.

You can interconnect up to four EX2300 switches to form a Virtual Chassis, enabling these switches to be managed as a single device.

There are two EX2300-C switch models: EX2300-C-12P and EX2300-C-12T. Each model has 12 front-panel 10/100/1000BASE-T network ports and two optional 10GbE uplink ports for connecting to higher-level devices. The uplink ports support small form-factor pluggable plus (SFP+) transceivers. The network ports for the EX2300-C-12P switch support Power over Ethernet (PoE) and Power over Ethernet Plus (PoE+) for powering attached network devices. The network ports for the EX2300-C-12T switch do not support PoE or PoE+.

EX2300-C-12P

EX2300-C-12T

Install the EX2300-C Switch

You typically install an EX2300-C on a flat surface like a desk or a shelf. If you want to mount the switch on the wall or in a two-post rack, you'll need to order a wall mount kit or rack mount kit. If the switch is in an open area, we suggest you order a cable guard to secure the cables to the switch so that they don't accidentally get unplugged.

What's in the Box?

The EX2300-C switch comes with everything you need to install it:

- An AC power cord appropriate for your geographical location

- Power cord retainer clip

- Rubber feet (preinstalled on the chassis)

What Else Do I Need?

- An electrostatic discharge (ESD) grounding strap

- Serial-to-USB adapter (if your laptop doesn't have a serial port)

- An Ethernet cable with RJ-45 connectors attached and an RJ-45 to DB-9 serial port adapter

> **(i)** **NOTE**: We no longer include the RJ-45 console cable with the DB-9 adapter as part of the device package. If the console cable and adapter are not included in your device package, or if you need a different type of adapter, you can order the following separately:
>
> - RJ-45 to DB-9 adapter (JNP-CBL-RJ45-DB9)
>
> - RJ-45 to USB-A adapter (JNP-CBL-RJ45-USBA)
>
> - RJ-45 to USB-C adapter (JNP-CBL-RJ45-USBC)
>
> If you want to use RJ-45 to USB-A or RJ-45 to USB-C adapter you must have X64 (64-Bit) Virtual COM port (VCP) driver installed on your PC. See, https://ftdichip.com/drivers/vcp-drivers/ to download the driver.

Install and Power On the EX2300-C Switch

Here's how to install the EX2300-C switch on a desk or other level surface, connect it to an AC power source, and then power it on:

1. Review General Safety Guidelines and Warnings
2. Place the switch on the desk or other level surface.

> **⚠ CAUTION**: Do not block the vents on the top of EX2300-C switches. This can cause the switch to overheat.

3. On the rear panel, connect the power cord retainer clip for the AC power socket:
   a. Squeeze the two sides of the power cord retainer clip.

   b. Insert the L-shaped ends of the wire clip into the holes in the bracket above and below the AC power socket.

   The power cord retainer clip extends out of the chassis by 3 in. (7.62 cm).
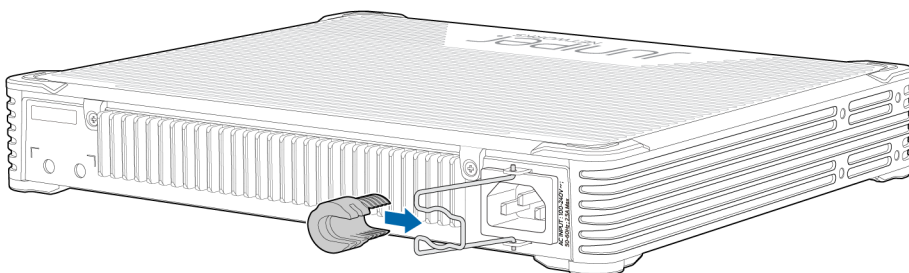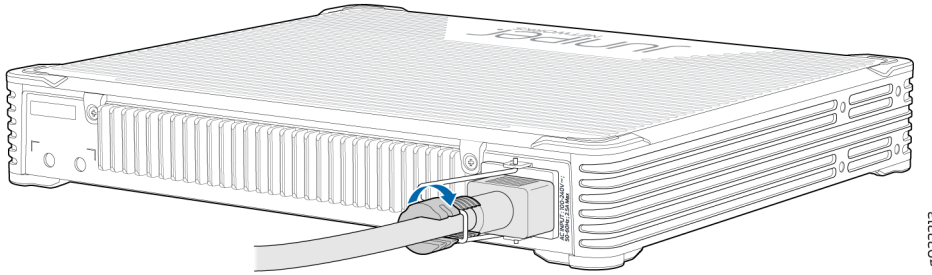

4. Plug in the power cord to the AC power socket on the switch.

5. Push the power cord into the slot in the adjustment nut for the retainer clip.

6. Turn the nut clockwise until it's snug against the base of the coupler. The slot in the coupler should be 90 degrees from the power supply socket.

> ⚠ **WARNING**: Ensure that the power cord does not drape where people can trip on it. Make sure the power cord doesn't block access to switch components.

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

8. Plug in the power cord to the AC power outlet.

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

   The switch powers on as soon as you plug it in to power. It doesn't have a power switch.

Step 2: Up and Running

IN THIS SECTION

Now that the EX2300-C switch is powered on, let's do some initial configuration to get the switch up and running on your network.

Plug and Play

The EX2300-C switches already have factory-default settings configured right out of the box to make them plug-and-play devices. The default settings are stored in a configuration file that:

- Sets values for system parameters, such as `syslog` and `commit`

- Configures Ethernet switching on all interfaces

- Enables IGMP snooping

- Enables the LLDP and RSTP protocols

These settings load as soon as you power on the EX2300-C switch. If you want to see what's in the factory-default configuration file for your EX2300-C switch, see EX2300 Switch Default Configuration.

Provision

It's simple to provision and manage the EX2300-C switch and other devices on your network. You can choose the configuration tool that's right for you:

- Juniper Mist. To use Mist, you'll need an account on the Mist Cloud Platform. See Overview of EX Series Switches and the Juniper Mist Cloud.

- Juniper Networks Contrail Service Orchestration (CSO). To use CSO, you'll need an authentication code. See SD-WAN Deployment Overview in the Contrail Service Orchestration (CSO) Deployment Guide.

- J-Web. See J-Web Platform Package User Guide for EX Series Switches.

- CLI commands

Customize the Basic Configuration Using the CLI

Have these values handy before you begin customizing settings for the switch:

- Hostname

- Root authentication password

- Management port IP address

- Default gateway IP address

- (Optional) DNS server and SNMP read community

1. Verify that the serial port settings for your laptop or desktop PC are set to the default:

    - Baud rate—9600

    - Flow control—None

    - Data—8

    - Parity—None

    - Stop bits—1

    - DCD state—Disregard

2. Connect the console port on the EX2300-C to a laptop or desktop PC using the Ethernet cable and the RJ-45 to DB-9 serial port adapter (not provided). If your laptop or desktop PC 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 boots before you connect your laptop or desktop PC to the console port, you might need to press the Enter key for the prompt to appear.

    > **(i)** **NOTE**: EX switches running current Junos software are enabled for Zero Touch Provisioning (ZTP). However, when you configure an EX switch for the very first time, you'll need to disable ZTP. We show you how to do that here. If you see any ZTP-related messages on the console, just ignore them.

    ```
    FreeBSD/arm (w) (ttyu0):
    login: root
    ```

4. Start the CLI.

    ```
    root@:RE:0% cli
    {master:0} root>
    ```

5. Enter configuration mode.

    ```
     {master:0} root> configure
    {master:0}[edit]
    root#
    ```

6. Delete the ZTP configuration. Factory default configurations can vary over different releases. You may see a message that the statement does not exist. Don't worry, it's safe to proceed.

```
{master:0}[edit]
root# delete chassis auto-image-upgrade
```

7. Add a password to the root administration user account. Enter a plain-text password, an encrypted password, or an SSH public key string. In this example, we show you how to enter a plain-text password.

```
{master:0}[edit]
root# set system root-authentication plain-text-password
New password: password
Retype new password: password
```

8. Activate the current configuration to stop ZTP messages on the console.

```
{master:0}[edit]
root# commit
configuration check succeeds
commit complete
```

9. Configure the hostname.

```
{master:0}[edit]
root# set system host-name name
```

10. Configure the IP address and prefix length for the management interface on the switch. As part of this step, you remove the factory default DHCP setting for the management interface.

```
{master:0}[edit]
root# delete interfaces vme unit 0 family inet dhcp
root# set interfaces vme unit 0 family inet address address/prefix-length
```

> **(i)** **NOTE**: The management port vme (labeled **MGMT**) is on the front panel of the EX2300-C switch.

11. Configure the default gateway for the management network.

```
{master:0}[edit]
root# set routing-options static route 0/0 next-hop address
```

12. Configure the SSH service. By default the root user cannot login remotely. In this step you enable the SSH service and also enable root login via SSH.

```
{master:0}[edit]
root# set system services ssh root-login allow
```

13. Optional: Configure the IP address of a DNS server.

```
{master:0}[edit]
root# set system name-server address
```

14. Optional: Configure an SNMP read community.

```
{master:0}[edit]
root# set snmp community community_name
```

15. Optional: Continue customizing the configuration using the CLI. See the Getting Started Guide for Junos OS for more details.

16. Commit the configuration to activate it on the switch.

```
{master:0}[edit]
root# commit
```

17. When you've finished configuring the switch, exit configuration mode.

```
{master:0}[edit]
root# exit
{master:0}
root@name
```

Step 3: Keep Going

Congratulations! Now that you've done the initial configuration, your EX2300-C switch is ready to use. 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 EX series switch	See Activate Junos OS Licenses in the Juniper Licensing Guide
Jump in and start configuring your EX Series switch with the Junos OS CLI	Start with the Day One+ for Junos OS guide
Configure Ethernet Interfaces	See Configuring Gigabit Ethernet Interfaces (J-Web Procedure)
Configure Layer 3 Protocols	See Configuring Static Routing (J-Web Procedure)
Administer the EX2300 switch	See J-Web Platform Package User Guide for EX Series Switches
See, automate, and protect your network with Juniper Security	Visit the Security Design Center

(Continued)

If you want to	Then
Get hands-on experience with the procedures covered in this guide	Visit Juniper Networks Virtual Labs and reserve your free sandbox. You'll find the Junos Day One Experience sandbox in the stand alone category. EX switches are not virtualized. In the demonstration, focus on the virtual QFX device. Both the EX and QFX switches are configured with the same Junos commands.

General Information

If you want to	Then
See all documentation available for the EX2300 switches	Visit the EX2300 page in the Juniper Tech Library
Find more in-depth information about installing and maintaining your EX2300 switch	Browse through the EX2300 Switch Hardware Guide
Stay up-to-date on new and changed features and known and resolved issues	See Junos OS Release Notes
Manage software upgrades on your EX Series switch	See Installing Software on EX Series Switches

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 EX2300-C and describes how to install and deploy it	Watch the EX2300-C Ethernet Switch Overview and Deployment (WBT) video
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