Installing a Network Module

Installing a Network Module in the Switch

Safety Warnings

This section includes the installation cautions and warnings. Translations of the safety warnings are available in the *Regulatory Compliance and Safety Information for Cisco Catalyst 9200 Series Switches* .

Read this section before you install a network module.

Caution   Proper ESD protection is required whenever you handle equipment. Installation and maintenance personnel should be properly grounded by grounding straps to eliminate the risk of ESD damage to the equipment. Equipment is subject to ESD damage whenever you remove it.

Warning   Only trained and qualified personnel should be allowed to install, replace, or service this equipment. Statement 1030

Warning   Do not reach into a vacant slot or chassis while you install or remove a module. Exposed circuitry could constitute an energy hazard. Statement 206

Installing a Network Module

Note The switch can operate without a network module, but a blank module (with no ports or SFP slots) is available and should be installed when uplink ports are not required.

Note The switch generates logs when you insert or remove a network module with SFP/SFP+ slots.

Use only supported network modules and Cisco pluggable transceivers. Each module has an internal serial EEPROM that is encoded with security information.

The network module is hot-swappable. If you remove a module, replace it with another network module or a blank module.

Note The switch complies with EMC, safety, and thermal specifications when a network module is present. If no uplink ports are required, install a blank network module.
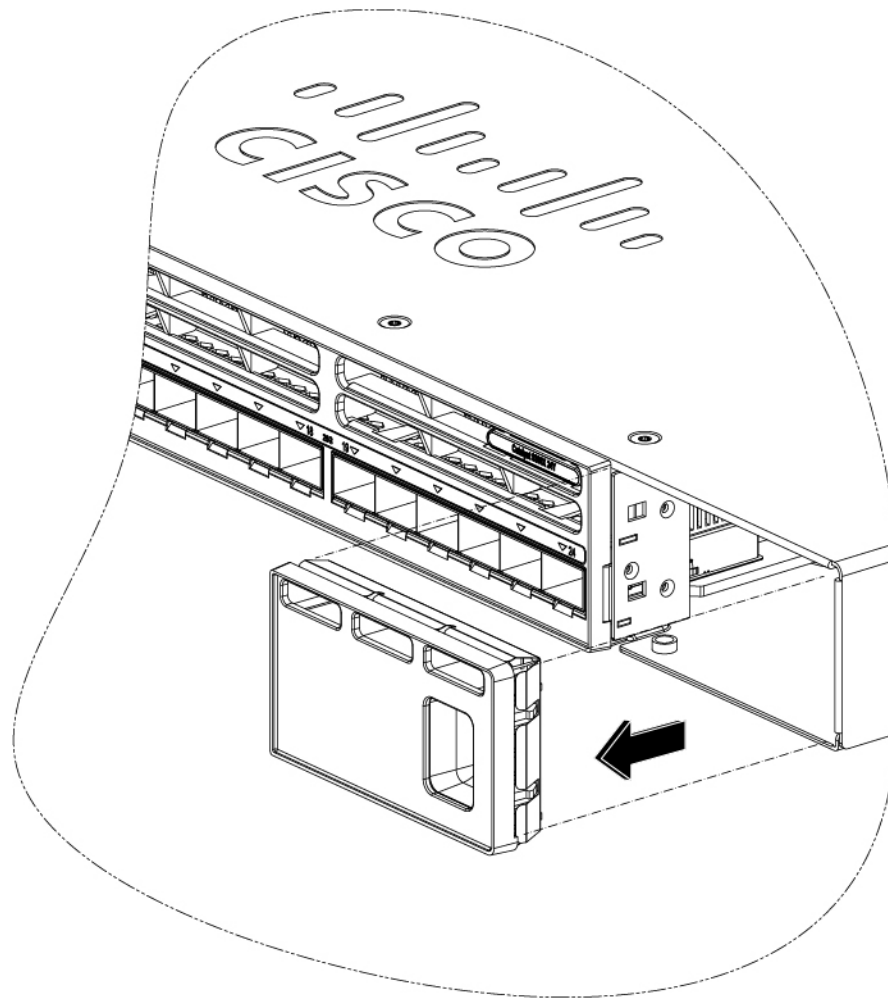
Before you begin

When installing network modules, observe these precautions:

- Do not remove the blank module from the slot unless you are installing a network module. A module must be in the uplink slot at all times.

- Do not remove the dust plugs from the pluggable transceivers or the rubber caps from the fiber-optic cable until you connect the cable. The plugs and caps protect the module ports and cables from contamination and ambient light.

- Removing and installing a network module can shorten its useful life. Do not remove and insert a network module more often than is necessary.

- To prevent ESD damage, follow your normal board and component handling procedures when connecting cables to the switch and other devices.

Procedure

Step 1 Attach an ESD-preventive wrist strap to your wrist and to an earth ground surface.

Step 2 Remove the module from the protective packaging.

Step 3 Remove the blank module from the switch and save it.
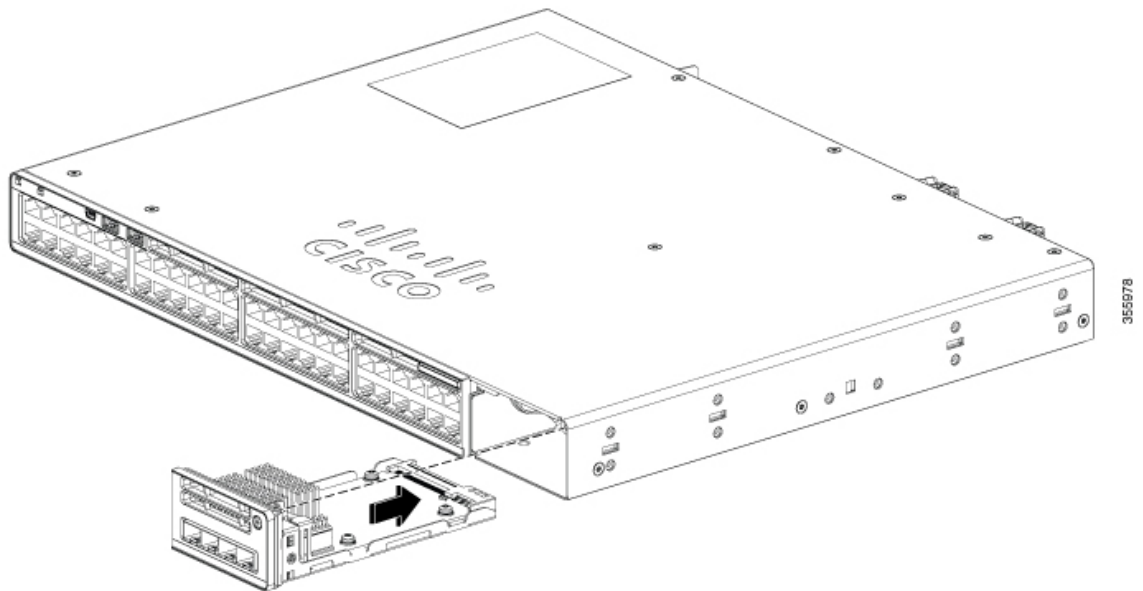
Figure 1: Removing the Blank Module

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| Caution | Verify the correct orientation of your module before installing it. Incorrect installation can damage the module. |

| Caution | Do not install the network module with connected cables or installed pluggable transceivers. Always remove any cables and transceiver modules before you install the network module. |

| Caution | A module interface might become error-disabled when a network module with connected fiber-optic cables is installed or removed. If an interface is error-disabled, you can reenable the interface by using the **shutdown** and **no shutdown** interface configuration commands. |

Step 4   Position the module face up to install it in the module slot. Slide the module into the slot until the screw makes contact with the chassis. Fasten the captive screws to secure the network module in place.

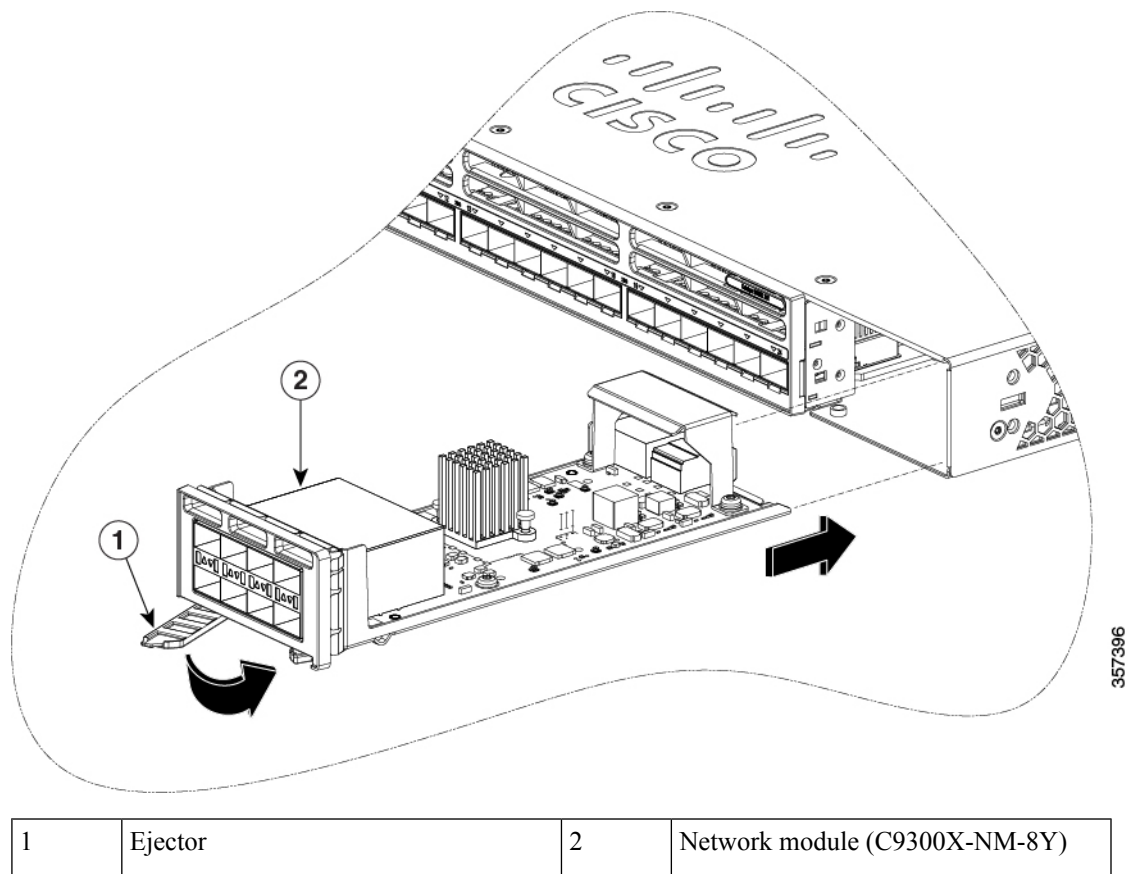*Figure 2: Installing the Network Module in the Switch*

Step 5   Do one of the following:

- While installing C9300 network modules, position the module face up to install it in the module slot. Slide the module into the slot until the screw makes contact with the chassis. Fasten the captive screws to secure the network module in place.

Figure 3: Installing the C9300 Network Module in the Switch

- While installing C9300X network modules, position the module face up to install it in the module slot. Slide the module into the slot until the back of the module faceplate is flush with the switch faceplate. Secure the network module in place by the ejector and the latch.

Figure 4: Installing the C9300X Network Module in the Switch

| 1 | Ejector | 2 | Network module (C9300X-NM-8Y) |

Removing a Network Module

Note The switch complies with EMC, safety, and thermal specifications when a network module is present. If no uplink ports are required, install a blank network module.

Note To avoid authentication failure and non-detection of modules, wait for a minimum of 6-8 seconds between the online insertion and removal (OIR) of network modules.

Procedure

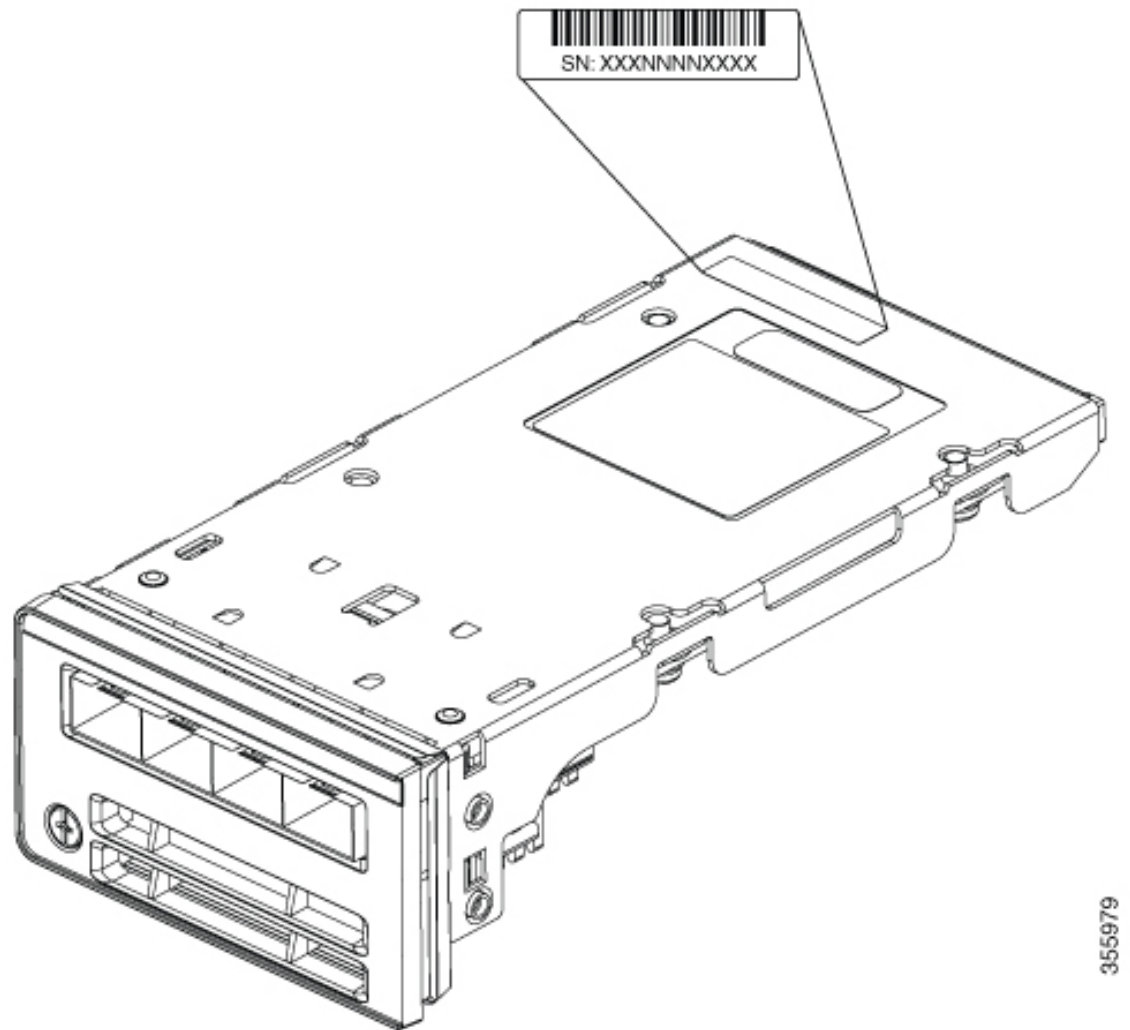**Step 1** Attach an ESD-preventive wrist strap to your wrist and to an earth ground surface

> **Caution**   Do not remove the network module with connected cables or installed pluggable transceiver modules. Always remove any cables and modules before you remove the network module.

> **Caution**   A module interface might become error-disabled when a network module with connected fiber-optic cables is installed or removed. If an interface is error-disabled, you can reenable the interface by using the **shutdown** and **no shutdown** interface configuration commands.

Step 2   Disconnect the cables from the pluggable transceiver module.

Step 3   Remove the pluggable transceiver module from the network module.

Step 4   Loosen the captive screws that hold the network module in place until it completely disengages from the chassis.

Step 5   Carefully slide the network module out of the slot.

Step 6   Install a replacement network module or a blank module in the slot.

Step 7   Place the module that you removed in an antistatic bag or other protective environment.

Finding the Network Module Serial Number

If you contact Cisco Technical Assistance regarding a network module, you need to know its serial number.

Figure 5: Network Module Serial Number Location

Installing and Removing Pluggable Transceiver Modules

Installing a Cisco Pluggable Transceiver Module

Before you begin

See the switch release notes on Cisco.com for the list of supported a Cisco pluggable transceiver modules (SFP, SFP, SFP28 and QSFP+ modules). Use only supported modules on the switch. For the latest information about the supported modules, refer to the Cisco Transceiver Modules Compatibility Information.

For information about installing, removing, cabling, and troubleshooting transceiver modules, see the module documentation that shipped with your device.
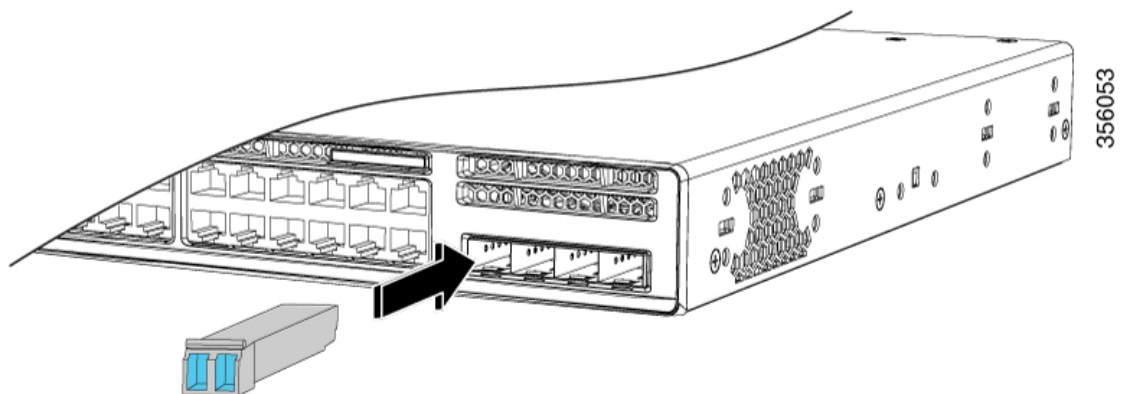
⚠️

Warning   Class 1 laser product. Statement 1008

- Do not remove the dust plugs from the transceiver modules or the rubber caps from the fiber-optic cable until you are ready to connect the cable. The plugs and caps protect the module ports and cables from contamination and ambient light.

- Removing and installing a transceiver module can shorten its useful life. Do not remove and insert any module more often than necessary.

- To prevent ESD damage, follow your normal board and component handling procedures when connecting cables to the switch and other devices.

- When you insert several transceiver modules in multiple switch ports, wait for 5 seconds between inserting each transceiver module. This will prevent the ports from going into error disabled mode. Similarly, when you remove a transceiver module from a port, wait for 5 seconds before reinserting it.

Procedure

Step 1   Attach an ESD-preventive wrist strap to your wrist and to an earth ground surface.

Step 2   Find the send (TX) and receive (RX) markings that identify the top of the transceiver module.

On some transceiver modules, the send and receive (TX and RX) markings might be shown by arrows that show the direction of the connection.

Step 3   If the transceiver module has a bale-clasp latch, move it to the open, unlocked position.

Step 4   Align the module in front of the slot opening, and push until you feel the connector snap into place.
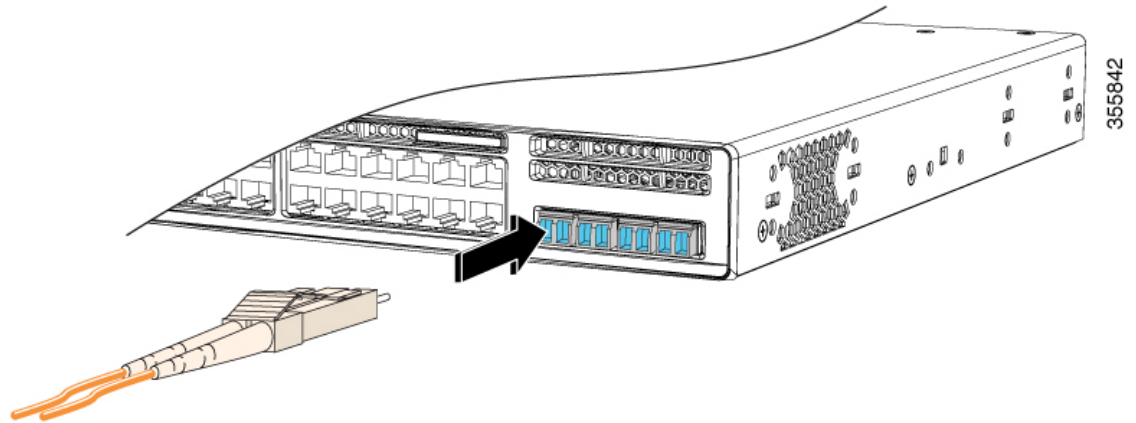
Figure 6: Installing a Transceiver Module into the Network Module

Step 5   If the module has a bale-clasp latch, close it to lock the transceiver module in place.

Step 6   Remove the transceiver module dust plugs and save.

Step 7   Connect the transceiver module cables.

Figure 7: Installing a Transceiver Module in the Uplink Module Slot

Removing a Cisco Pluggable Transceiver Module

Procedure

Step 1   Attach an ESD-preventive wrist strap to your wrist and to an earth ground surface.

Step 2   Disconnect the cable from the transceiver module. For reattachment, note which cable connector plug is send (TX) and which is receive (RX).

Step 3   Insert a dust plug into the optical ports of the transceiver module to keep the optical interfaces clean.

Step 4   If the module has a bale-clasp latch, pull the bale out and down to eject the module. If you cannot use your finger to open the latch, use a small, flat-blade screwdriver or other long, narrow instrument to open it.

Step 5   Grasp the transceiver module and carefully remove it from the slot.

Step 6   Place the transceiver module in an antistatic bag or other protective environment.