



CHAPTER 2

Switch Installation

Read the topics and perform the procedures in this order:

- [Warnings, page 2-1](#)
- [Installation Guidelines, page 2-4](#)
- [Verifying Switch Operation, page 2-5](#)
- [Installing the Switch, page 2-5](#)
- [Installing and Removing SFP Modules, page 2-19](#)
- [Inserting and Removing the SFP Module Patch Cable, page 2-21](#)
- [Connecting to the 10/100 and 10/100/1000 Ports, page 2-22](#)
- [Connecting to Fiber-Optic SFP Modules, page 2-24](#)
- [Connecting to 1000BASE-T SFP Modules, page 2-25](#)
- [Connecting to Dual-Purpose Ports, page 2-26](#)
- [Where to Go Next, page 2-26](#)

Warnings

These warnings are translated into several languages in the *Regulatory Compliance and Safety Information for the Cisco ME 3400E Ethernet Access Switches* document that ships with the switch.

These warning statements apply to all the switches:



Warning

Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals. Statement 43



Warning

Do not stack the chassis on any other equipment. If the chassis falls, it can cause severe bodily injury and equipment damage. Statement 48

**Warning**

Blank faceplates (filler panels) serve three important functions: they prevent exposure to hazardous voltages and currents inside the chassis; they contain electromagnetic interference (EMI) that might disrupt other equipment; and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards and faceplates are in place. Statement 156

**Warning**

Ethernet cables must be shielded when used in a central office environment. Statement 171

**Note**

Ethernet cables must be shielded and grounded at both ends when they are used in a central office environment.

**Warning**

Read the wall-mounting instructions carefully before beginning installation. Failure to use the correct hardware or to follow the correct procedures could result in a hazardous situation to people and damage to the system. Statement 378

**Warning**

Do not work on the system or connect or disconnect cables during periods of lightning activity. Statement 1001

**Warning**

Read the installation instructions before connecting the system to the power source. Statement 1004

**Warning**

To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

- **This unit should be mounted at the bottom of the rack if it is the only unit in the rack.**
- **When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.**
- **If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.** Statement 1006

**Warning**

Class 1 laser product. Statement 1008

**Warning**

This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security. Statement 1017

**Warning**

The plug-socket combination must be accessible at all times, because it serves as the main disconnecting device. Statement 1019

**Warning**

This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 1024

**Warning**

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

**Warning**

Ultimate disposal of this product should be handled according to all national laws and regulations. Statement 1040

**Warning**

For connections outside the building where the equipment is installed, the following ports must be connected through an approved network termination unit with integral circuit protection. 10/100/1000 Ethernet Statement 1044

**Warning**

When installing or replacing the unit, the ground connection must always be made first and disconnected last. Statement 1046

**Warning**

No user-serviceable parts inside. Do not open. Statement 1073

**Warning**

Installation of the equipment must comply with local and national electrical codes. Statement 1074

**Caution**

To comply with the Telcordia GR-1089 Network Equipment Building Systems (NEBS) standard for electromagnetic compatibility and safety, connect the Ethernet cables only to intrabuilding or nonexposed wiring or cabling.

**Note**

The grounding architecture of this product is DC-isolated (DC-I).

You can use the grounding lug to attach a wrist strap for ESD protection during servicing.

These warning statements apply to the Cisco ME 3400E-24TS-M and the Cisco ME 3400EG-12CS-M:



Warning

To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of: 149°F (65°C) Statement 1047



Warning

This unit might have more than one power supply connection. All connections must be removed to de-energize the unit. Statement 1028

This warning statement applies to the Cisco ME 3400EG-2CS-A:



Warning

To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of: 140°F (60°C) Statement 1047

Installation Guidelines

Before installing the switch, verify that these guidelines are met:

- For Ethernet ports, including the 10/100, the 10/100/1000 dual-purpose, and 1000BASE-T SFP module ports, cable lengths from the switch to connected devices can be up to 328 feet (100 meters).
- For cable requirements for SFP module connections, see the [“Cable Pinouts” section on page B-6](#).
- Operating environment is within the ranges listed in [Appendix A, “Technical Specifications.”](#)
- Front-panel indicators can be easily read, and access to ports is sufficient for unrestricted cabling.
- AC-power cord reaches from the power outlet to the connector.
- Cabling is away from sources of electrical noise, such as radios, power lines, and fluorescent lighting fixtures. Make sure that the cabling is safely away from other devices that might damage the cables.
- Airflow around the switch and through the vents is unrestricted.



Note

If the switch is installed in a closed or multitrack assembly, the temperature around it might be greater than normal room temperature.

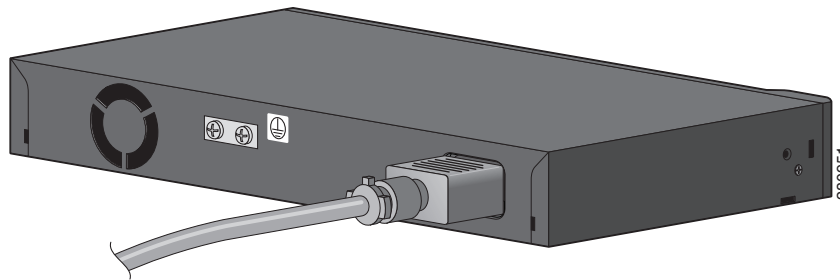
- Before you connect the switch to a power source, note the power consumption specifications in [Appendix A, “Technical Specifications.”](#)

Verifying Switch Operation

Before installing the switch in a rack, on a wall, on a table, or on a shelf, you should power the switch and verify that the switch passes the power-on self-test (POST).

- To power on the Cisco ME 3400E-24TS-M and Cisco ME 3400EG-12CS-M, see [Chapter 3, “Installing and Removing AC- and DC-Power-Supply Modules.”](#)
- To power on the Cisco ME 3400EG-2CS-A, connect one end of the AC- power cord to the AC-power connector on the switch, and connect the other end of the power cord to an AC-power outlet. (See [Figure 2-1.](#))

Figure 2-1 Cisco ME 3400EG-2CS-A Rear Panel



When the switch begins POST, the System LED blinks green, and the other LEDs remain solid green. When the switch passes POST, the System LED becomes solid green. The other LEDs turn off and return to their operating status. If the switch fails POST, the System LED is solid amber.



Note

Contact Cisco Systems immediately if your switch fails POST.

Powering Off the Switch

After a successful POST, disconnect the power cord from the switch. Install the switch in a rack, on a wall, on a table, or on a shelf as described in the [“Installing the Switch”](#) section on [page 2-5](#).

Installing the Switch

- [Rack-Mounting, page 2-6](#)
- [Wall-Mounting, page 2-14](#)
- [Table- or Shelf-Mounting, page 2-19](#)

Rack-Mounting

To install the switch in a 19-inch, 23-inch, 24-inch rack, or a European Telecommunications Standards Institute (ETSI) rack, follow these instructions. (The 24-inch racks and the ETSI racks require optional mounting hardware.)

- [Removing Screws from the Switch](#), page 2-6
- [Attaching Brackets to the Switch](#), page 2-7
- [Mounting in a Rack](#), page 2-13



Warning

To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

- This unit should be mounted at the bottom of the rack if it is the only unit in the rack.
- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack. Statement 1006



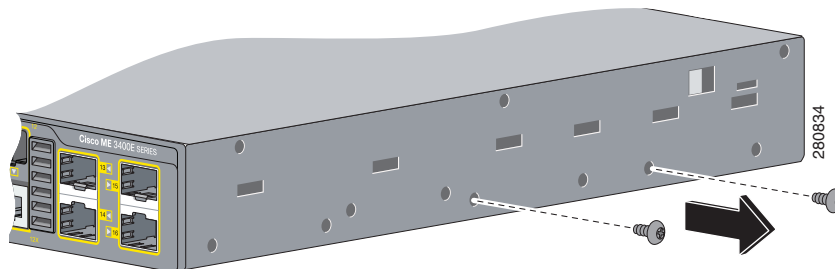
Note

Installing the switch in a 24-inch rack requires an optional bracket kit that is not included with the switch. You can order a kit containing the 24-inch rack-mounting brackets and hardware from Cisco. The kit part number is RCKMNT-1RU= (700-12398-XX).

Removing Screws from the Switch

First remove the screws in the switch chassis so that the mounting brackets can be attached ([Figure 2-2](#)).

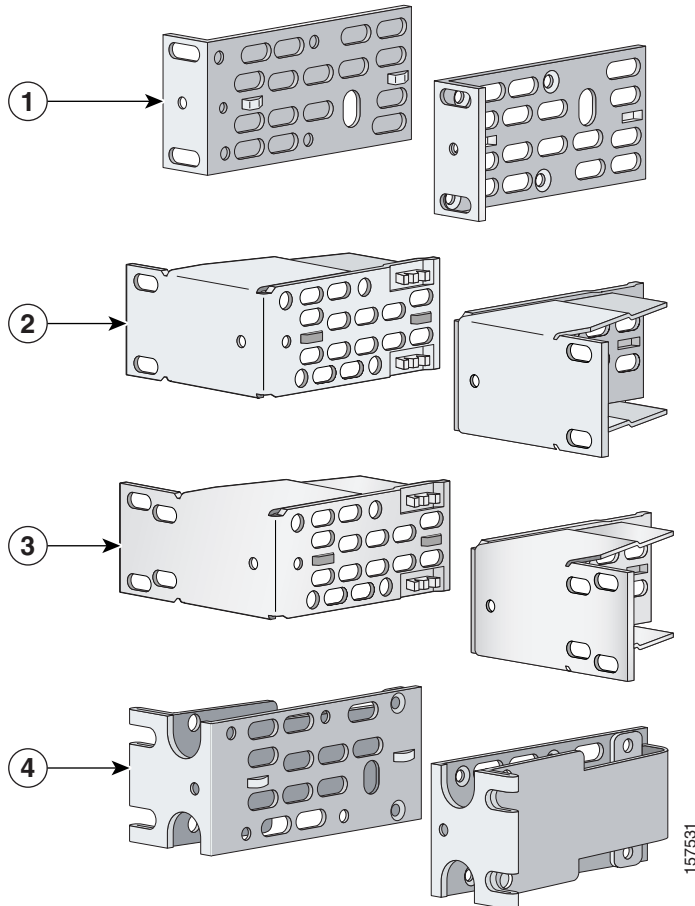
Figure 2-2 Removing Screws from the Switch



Attaching Brackets to the Switch

The bracket orientation and the brackets that you use depend on whether you are attaching the brackets for a 19-inch, 23-inch, 24-inch, or an ETSI rack. [Figure 2-3](#) shows the standard types of mounting brackets.

Figure 2-3 Rack-Mounting Brackets



1	19-inch brackets	3	24-inch rack-mounting brackets
2	23-inch mounting brackets	4	ETSI-rack brackets

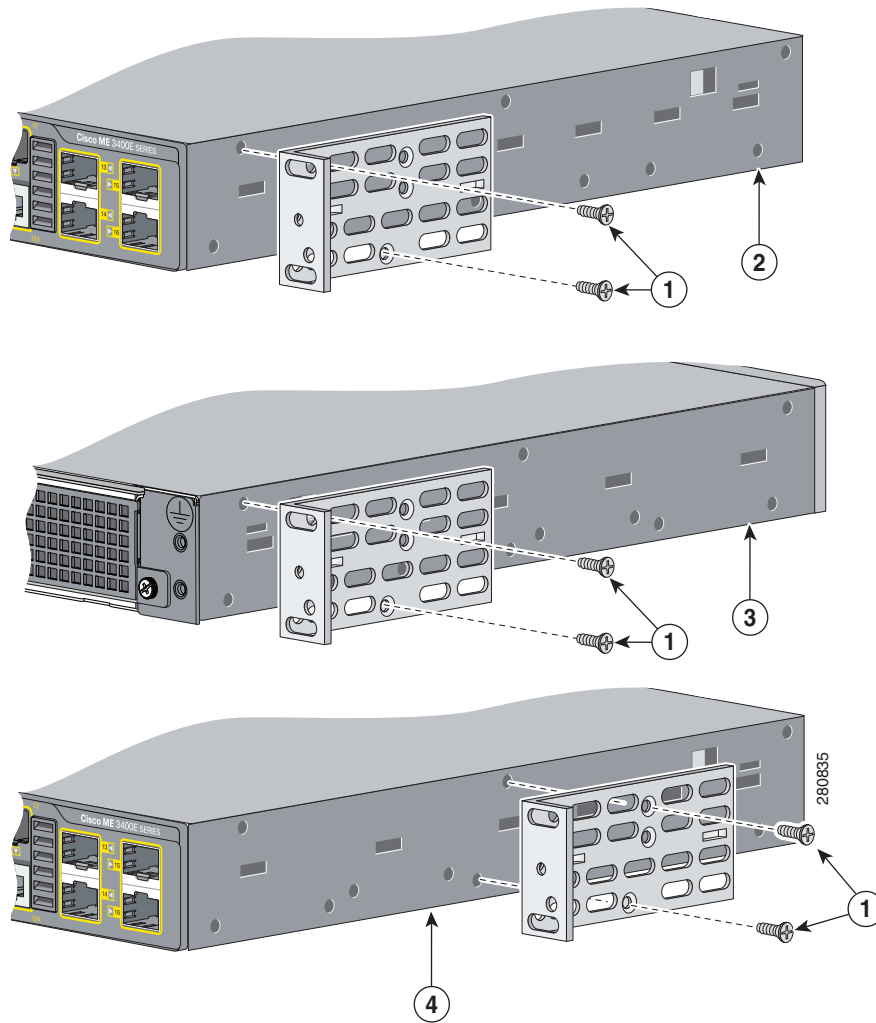
- For 19-inch racks, use part number RCKMNT-19IN-1RU (700-08209-XX) on all except the Cisco ME 3400EG-2CS-A, and see [Figure 2-4 on page 2-8](#). For the Cisco ME 3400EG-2CS-A, use RCKMNT-19-CMPCT= (700-23401-XX), and see [Figure 2-5 on page 2-9](#).
- For 23-inch racks, use part number RCKMNT-23IN-1RU (700-21646-XX) on all except the Cisco ME 33400EG-2CS-A, and see [Figure 2-6 on page 2-10](#). For the Cisco ME 3400EG-2CS-A, use RCKMNT-23-CMPCT= (700-23402-01).

- For 24-inch racks, use part number RCKMNT-24IN-1RU (700-13248-XX), and see [Figure 2-7 on page 2-11](#).
- For ETSI racks, use part number RCKMNT-ETSI-1RU= (700-19781-XX), and see [Figure 2-8 on page 2-12](#). The Cisco ME 3400EG-2CS-A does not support the ETSI racks.

Attaching Brackets for 19-Inch Racks

[Figure 2-4](#) shows how to attach brackets for 19-inch racks on all switches except the Cisco ME 3400EG-2CS-A.

Figure 2-4 Attaching Brackets for 19-Inch Racks

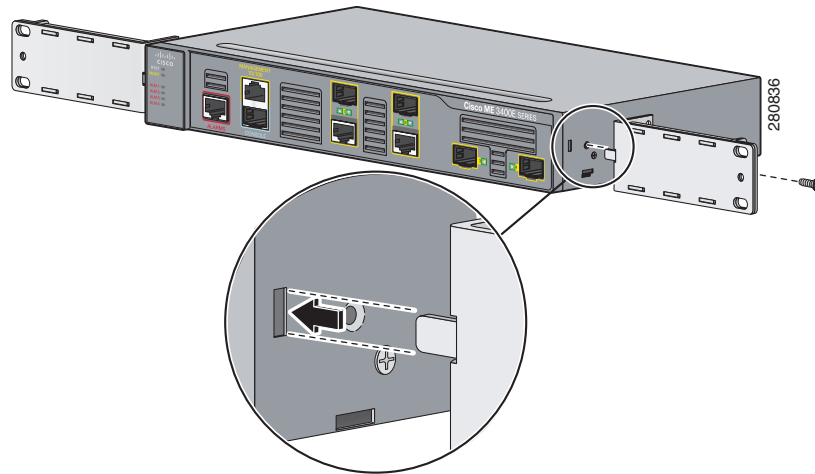


1	Phillips flat-head screws	3	Rear-mounting position
2	Front-mounting position	4	Mid-mounting position

Attaching Brackets on Cisco ME 3400EG-2CS-A for 19-Inch, 23-Inch, and 24-Inch Racks

Figure 2-5 shows how to use the tab on the bracket and the Phillips flat-head screw to attach the short side of each bracket to the switch.

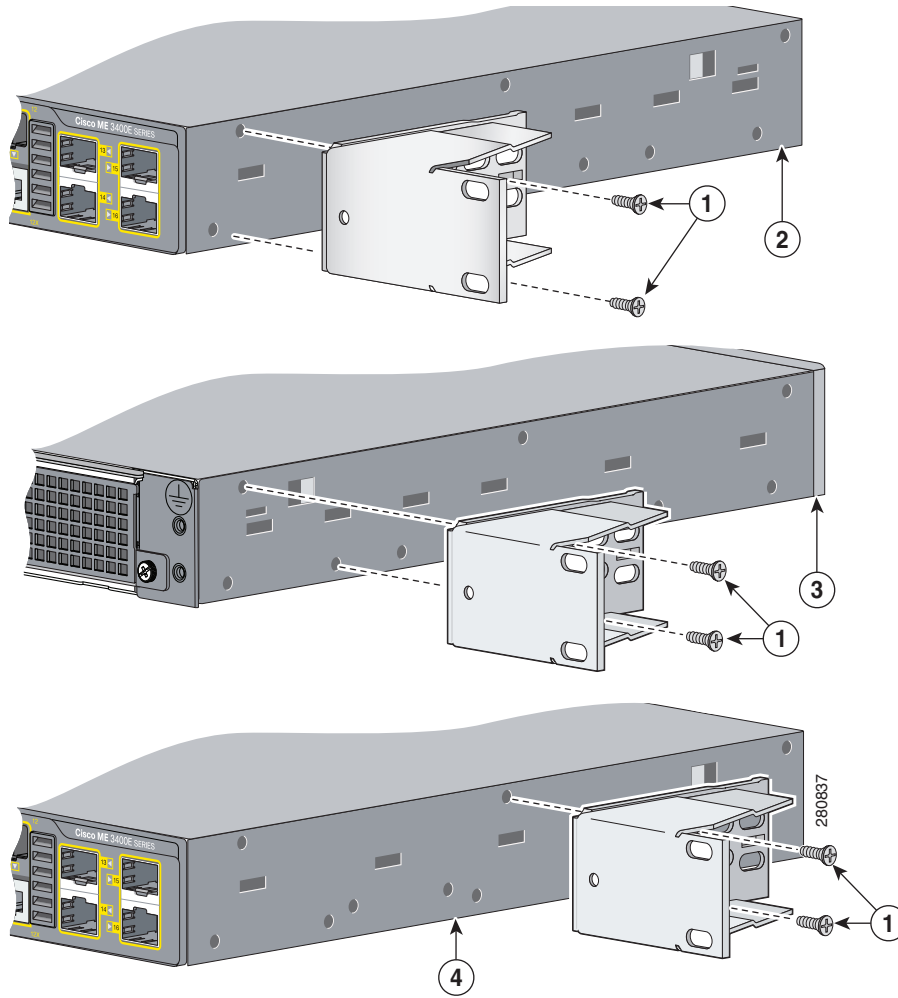
Figure 2-5 Attaching Brackets for 19-Inch, 23-Inch, and 24-Inch Racks



Attaching Brackets for 23-Inch Racks

Figure 2-6 shows how to attach brackets for the 23-inch racks on all switches except the Cisco ME 3400EG-2CS-A.

Figure 2-6 Attaching Brackets for 23-Inch Racks

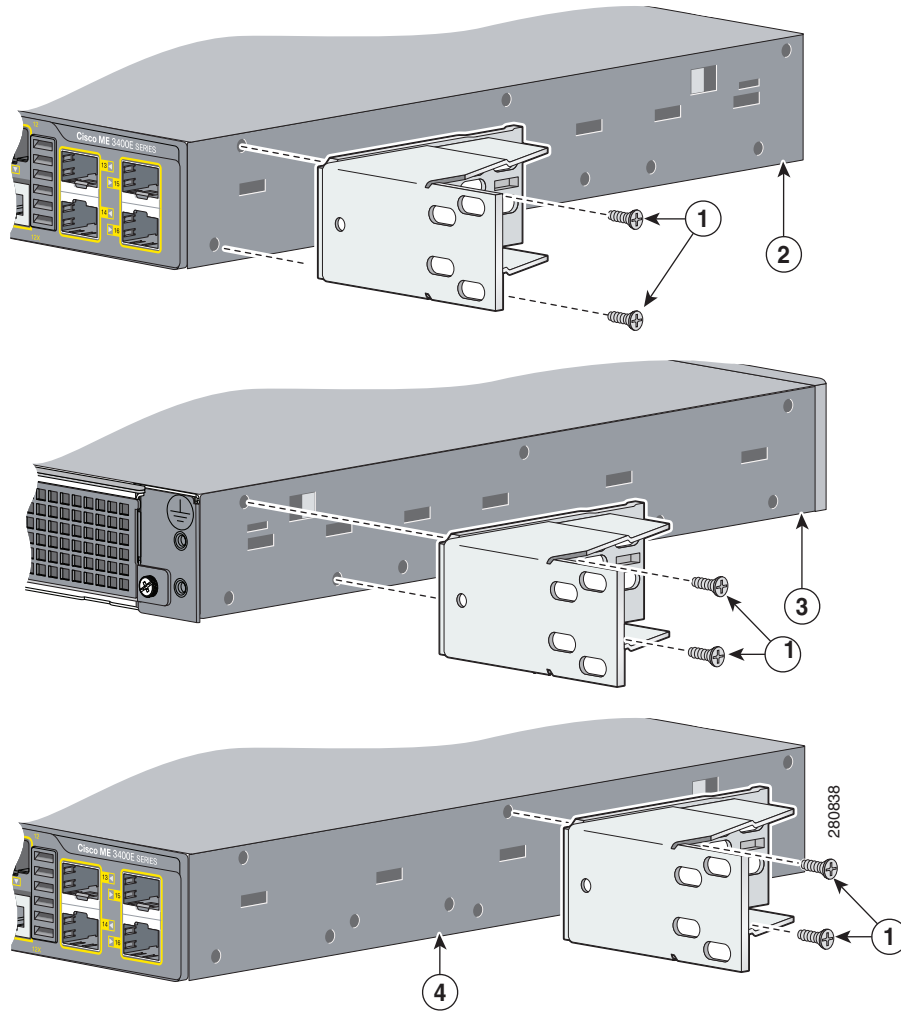


1	Phillips flat-head screws	3	Rear-mounting position
2	Front-mounting position	4	Mid-mounting position

Attaching Brackets for 24-Inch Racks

Figure 2-7 shows how to attach brackets for the 24-inch racks on all switches except the Cisco ME 3400EG-2CS-A.

Figure 2-7 Attaching Brackets for 24-Inch Racks

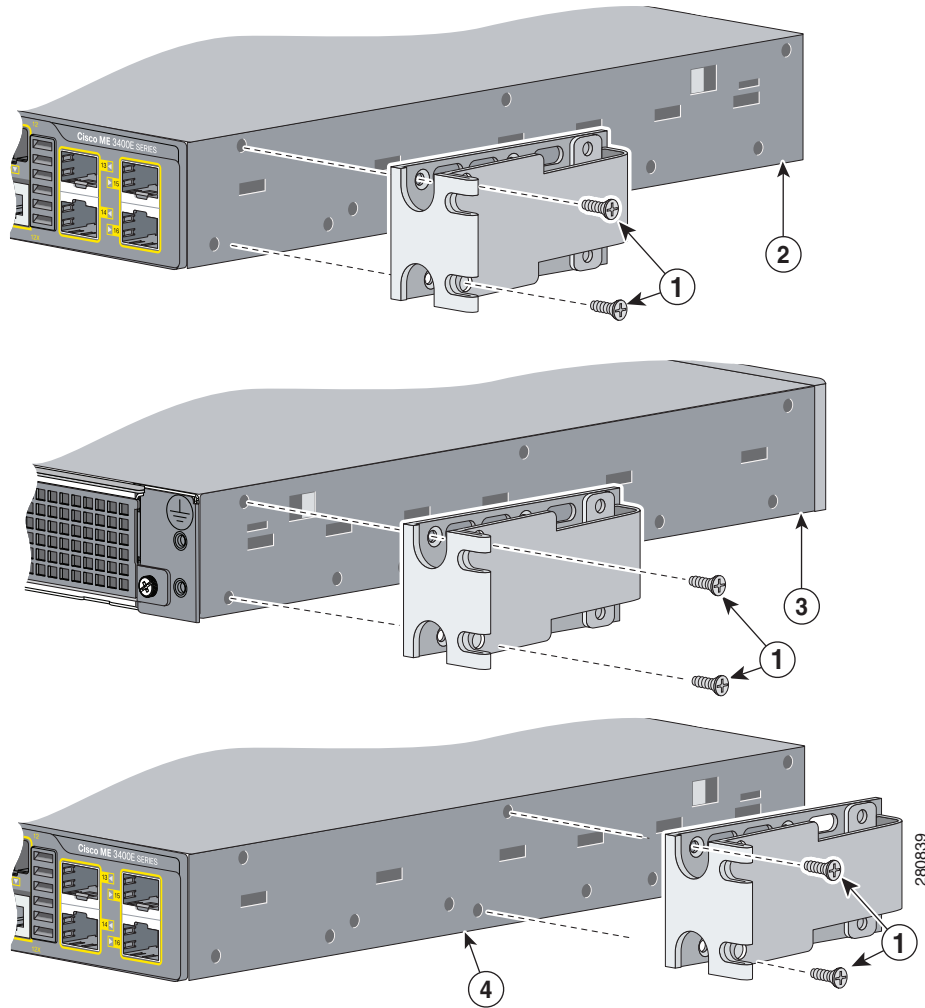


1	Phillips flat-head screws	3	Rear-mounting position
2	Front-mounting position	4	Mid-mounting position

Attaching Brackets for ETSI Racks

Figure 2-8 shows how to attach brackets for the ETSI racks on all switches except the Cisco ME 3400EG-2CS-A.

Figure 2-8 Attaching Brackets for ETSI Racks

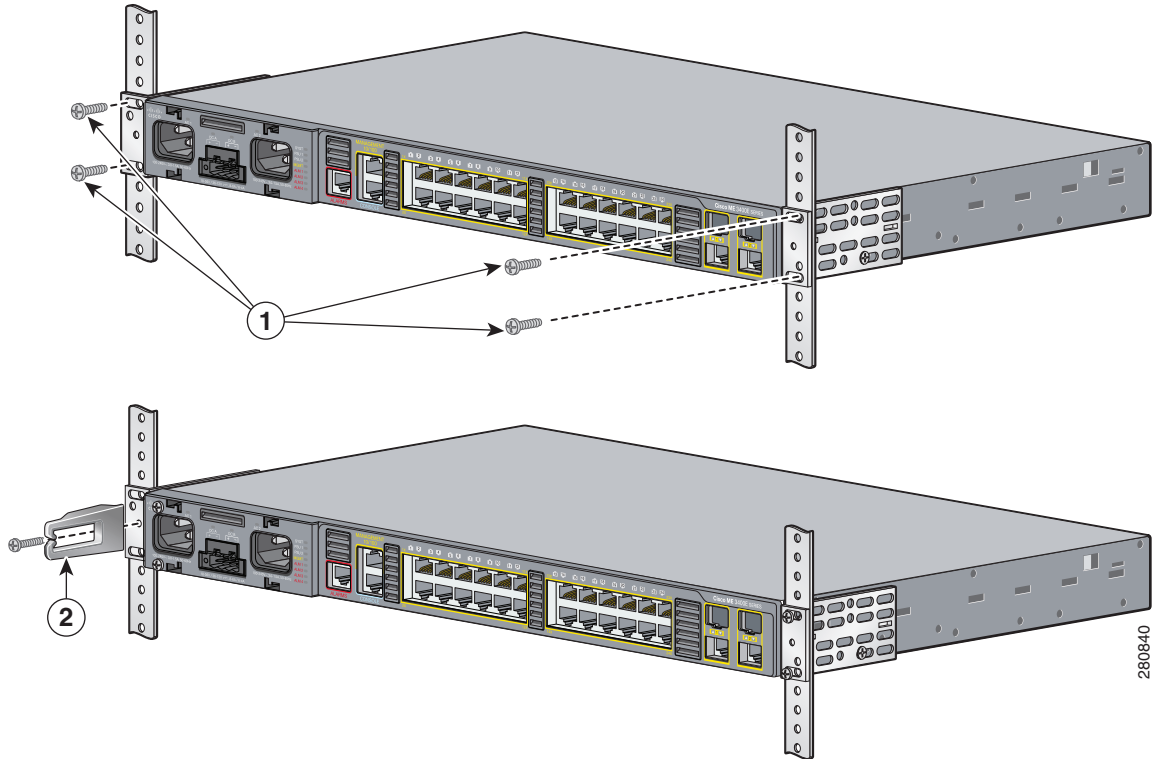


1	Phillips flat-head screws	3	Rear-mounting position
2	Front-mounting position	4	Mid-mounting position

Mounting in a Rack

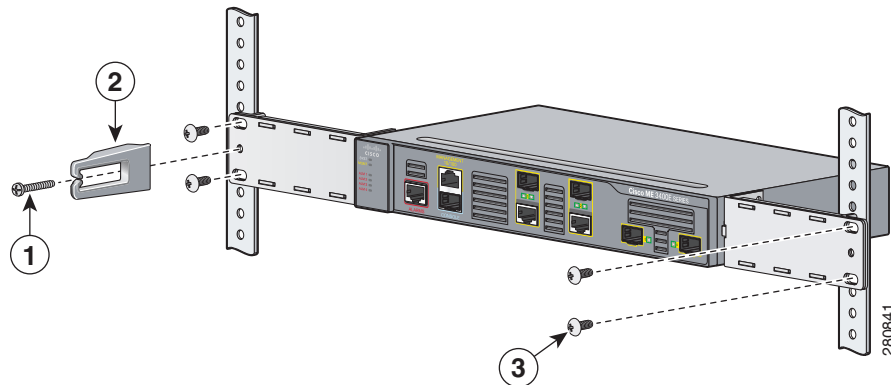
After the brackets are attached on the switch, use the four supplied number-12 Phillips machine screws to securely attach the brackets to the rack. See [Figure 2-9](#).

Figure 2-9 *Mounting in a Rack*



1	Phillips machine screws	2	Cable guide and screw
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Figure 2-10 *Mounting Cisco ME 3400EG-2CS-A in a Rack*



1	Black Phillips machine screw	3	Number-10 Phillips truss-head screws
2	Cable guide		

After the switch is mounted in the rack, you need to do these tasks to complete the installation:

- Power on the switch. See the [“Verifying Switch Operation”](#) section on page 2-5.
- Connect to the RJ-45 connector of a dual-purpose port, and run the initial configuration dialog. See the *Cisco ME 3400E Ethernet Access Switch Getting Started Guide* for instructions.
- Connect to the front-panel ports. See the [“Connecting to the 10/100 and 10/100/1000 Ports”](#) section on page 2-22, the [“Connecting to Fiber-Optic SFP Modules”](#) section on page 2-24, and the [“Connecting to 1000BASE-T SFP Modules”](#) section on page 2-25 to complete the installation.
- We recommend attaching the cable guide to prevent the cables from obscuring the front panel of the switch and the other devices installed in the rack. Use the supplied black screw shown in [Figure 2-9](#) to attach the cable guide to the left or right bracket.

For configuration instructions about using the CLI setup program, go to [Appendix C, “Configuring the Switch with the CLI-Based Setup Program.”](#)

Wall-Mounting

- [Attaching Brackets for Wall-Mounting](#), page 2-14
- [Mounting the Switch on a Wall](#), page 2-15

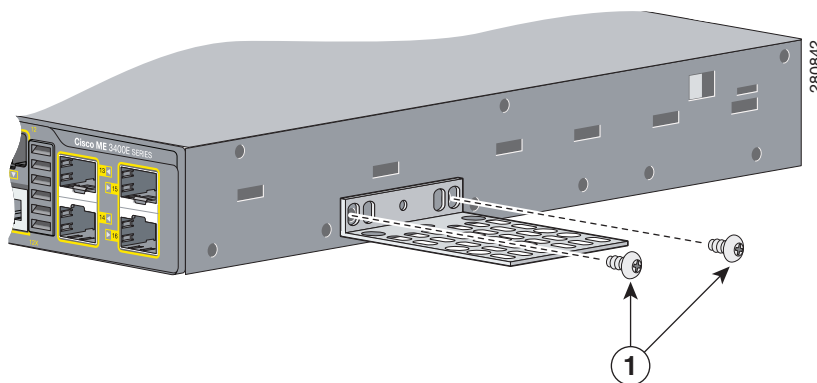


Note

Wall-mounting has not been evaluated for NEBS applications.

Attaching Brackets for Wall-Mounting

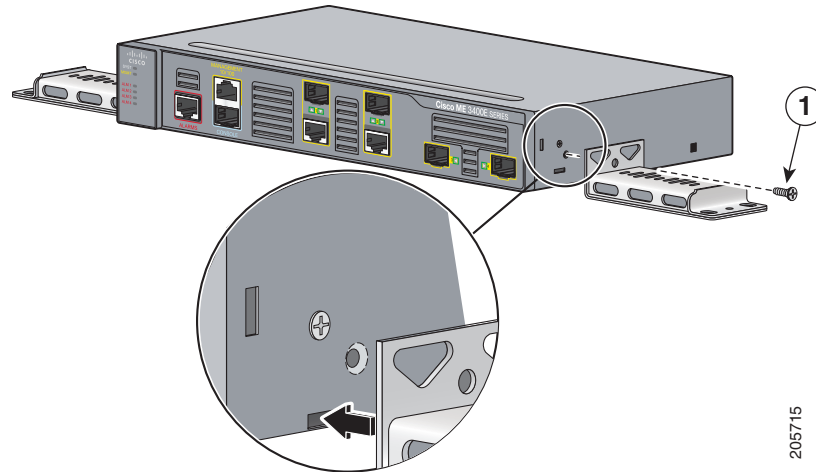
Figure 2-11 Attaching 19-inch Bracket to Wall-Mount Cisco ME 3400EG-12CS-M or Cisco ME 3400E-24TS-M



- | | |
|----------|----------------------------|
| 1 | Phillips truss-head screws |
|----------|----------------------------|

Follow the same steps to attach the second bracket to the opposite side.

Figure 2-12 Attaching 19-inch Brackets to Wall-Mount Cisco ME 3400EG-2CS-A



1 Phillips flat-head screw

Mounting the Switch on a Wall

For the best support of the switch and cables, make sure that the switch is attached securely to wall studs or to a firmly attached plywood mounting backboard.

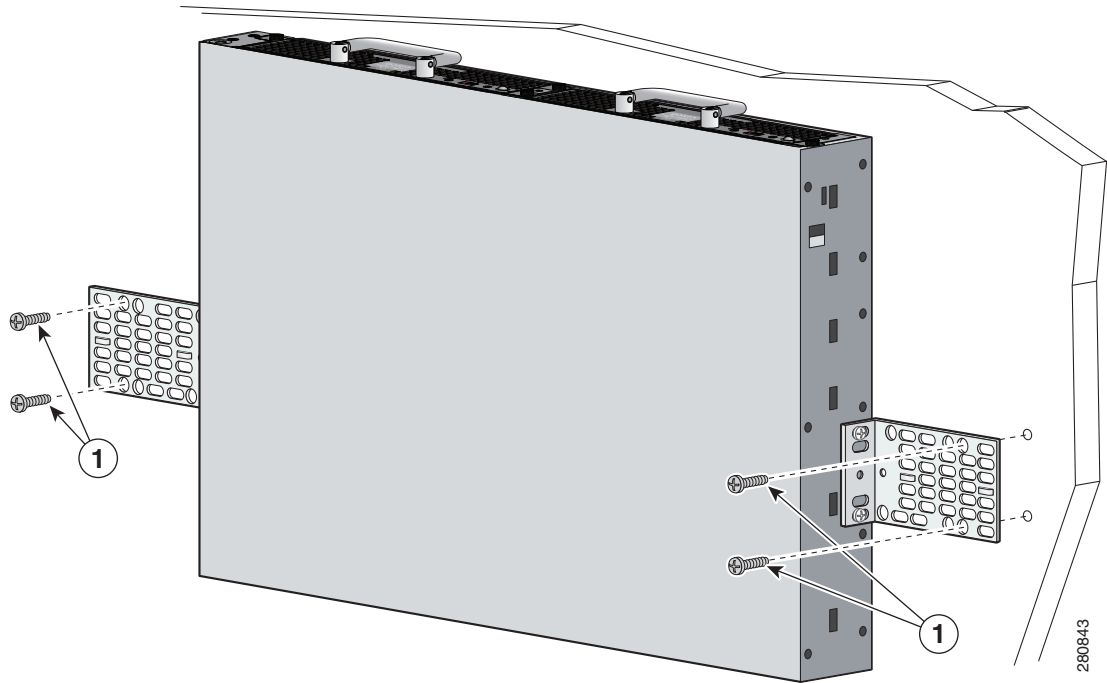


Read the wall-mounting instructions carefully before beginning installation. Failure to use the correct hardware or to follow the correct procedures could result in a hazardous situation to people and damage to the system. Statement 378

Cisco ME 3400EG-12CS-M

Mount the switch with the front panel facing down (Figure 2-13).

Figure 2-13 *Mounting Cisco ME 3400EG-12CS-M on a Wall*

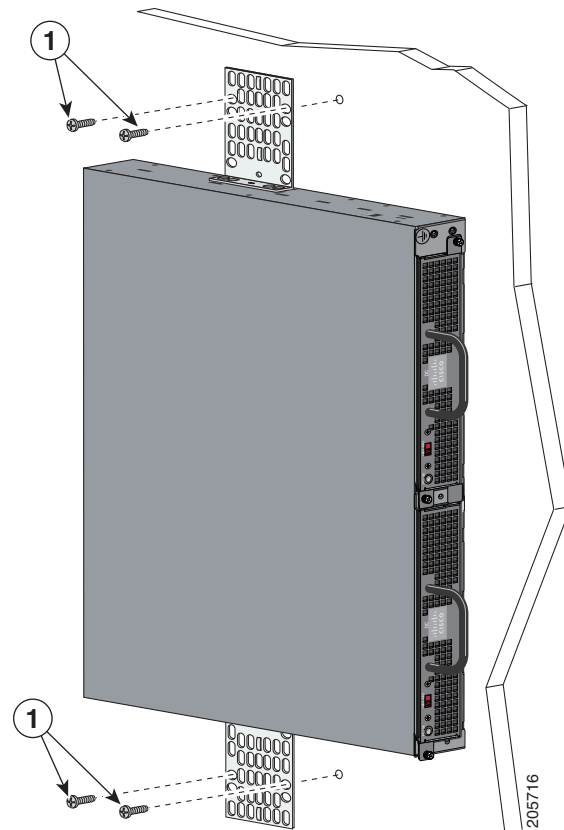


1	User-supplied screws
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Cisco ME 3400E-24TS-M

Mount the switch with the side panel facing up (Figure 2-14).

Figure 2-14 Mounting Cisco ME 3400E-24TS-M on a Wall



1	User-supplied screws
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Cisco ME 3400EG-2CS-A

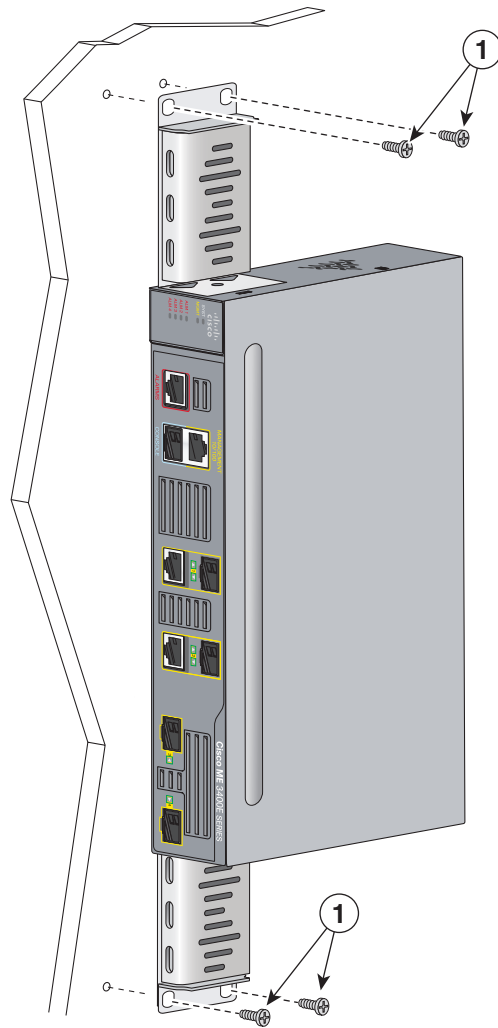
Mount the switch with the side panel facing up (Figure 2-15).



Caution

The side that has the air vents must face up.

Figure 2-15 Mounting the Cisco ME 3400EG-2CS-A on a Wall



1 User-supplied screws

You need to do these tasks to complete the installation:

- Power on the switch. See the “[Verifying Switch Operation](#)” section on page 2-5.
- Connect to a 10/100 port or to the RJ-45 connector of a dual-purpose port, and run the initial configuration dialog. See the *Cisco ME 3400E Ethernet Access Switch Getting Started Guide* for instructions.

- Connect to the front-panel ports. See the “[Connecting to the 10/100 and 10/100/1000 Ports](#)” section on page 2-22, the “[Connecting to Fiber-Optic SFP Modules](#)” section on page 2-24, and the “[Connecting to 1000BASE-T SFP Modules](#)” section on page 2-25 to complete the installation.

For configuration instructions about using the CLI setup program, go to [Appendix C, “Configuring the Switch with the CLI-Based Setup Program.”](#)

Table- or Shelf-Mounting

Follow these steps to install the switch on a table or a shelf:

-
- Step 1** Place the switch on a table or a shelf near an AC-power source.
- Step 2** After the switch is placed on the table or shelf, you need to do these tasks to complete the installation:
- Power on the switch. See the “[Verifying Switch Operation](#)” section on page 2-5.
 - Connect to a 10/100 port or to the RJ-45 connector of a dual-purpose port, and run the initial configuration dialog. See the *Cisco ME 3400E Ethernet Access Switch Getting Started Guide* for instructions.
 - Connect to the front-panel ports. See the “[Connecting to the 10/100 and 10/100/1000 Ports](#)” section on page 2-22, the “[Connecting to Fiber-Optic SFP Modules](#)” section on page 2-24, and the “[Connecting to 1000BASE-T SFP Modules](#)” section on page 2-25 to complete the installation.
-

For configuration instructions about using the CLI setup program, go to [Appendix C, “Configuring the Switch with the CLI-Based Setup Program.”](#)



Note

When the connectors are not being used, replace the dust covers on them for protection.

Installing and Removing SFP Modules

Installing SFP Modules

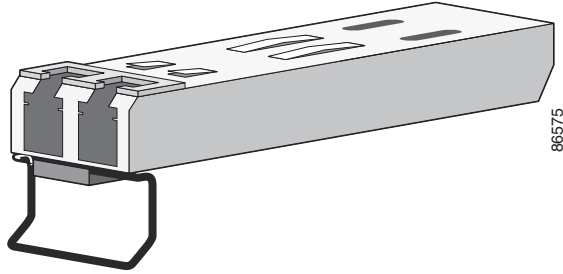
[Figure 2-16](#) shows an SFP module that has a bale-clasp latch.



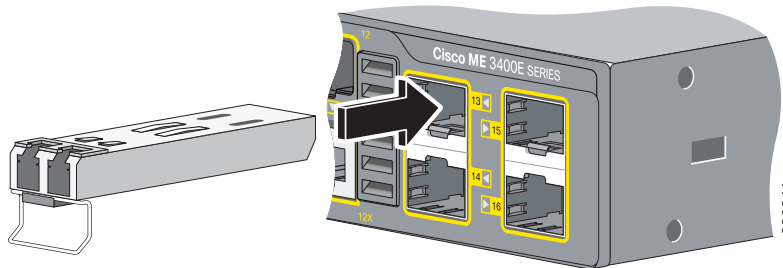
Caution

We strongly recommend that you do not install or remove fiber-optic SFP modules with cables attached because of the potential damage to the cables, the cable connector, or the optical interfaces in the SFP module. Disconnect all cables before removing or installing an SFP module.

Removing and installing an SFP module can shorten its useful life. Do not remove and insert SFP modules more often than is absolutely necessary.

Figure 2-16 SFP Module with a Bale-Clasp Latch

-
- Step 1** Attach an ESD-preventive wrist strap to your wrist and to a bare metal surface.
- Step 2** Find the send (TX) and receive (RX) markings that identify the top side of the SFP module.
- On some SFP modules, the send and receive (TX and RX) markings might be replaced by arrows that show the direction of the connection, either send or receive (TX or RX).
- Step 3** Align the SFP module in front of the slot opening and push until you feel the connector on the module snap into place in the rear of the slot (see [Figure 2-17](#)).

Figure 2-17 Installing an SFP Module into an SFP Module Slot

- Step 4** For fiber-optic SFP modules, remove the dust plugs from the optical ports, and store them for later use.

**Caution**

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

- Step 5** Insert the cable connector into the SFP module:
- For fiber-optic SFP modules, insert the LC or MT-RJ cable connector into the SFP module.
 - For copper 1000BASE-T SFP modules, insert the RJ-45 cable connector into the SFP module.

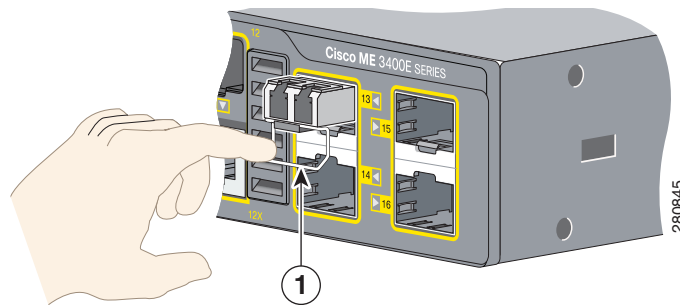
**Note**

When connecting to 1000BASE-T SFP modules, be sure to use a twisted four-pair, Category 5 or higher cable.

Removing SFP Modules

-
- Step 1** Attach an ESD-preventive wrist strap to your wrist and to a bare metal surface.
 - Step 2** Disconnect the cable from the SFP 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 SFP module to keep the optical interfaces clean.
 - Step 4** Pull the bale out and down to eject the module.

Figure 2-18 Removing a Bale-Clasp Latch SFP Module



1	Bale clasp
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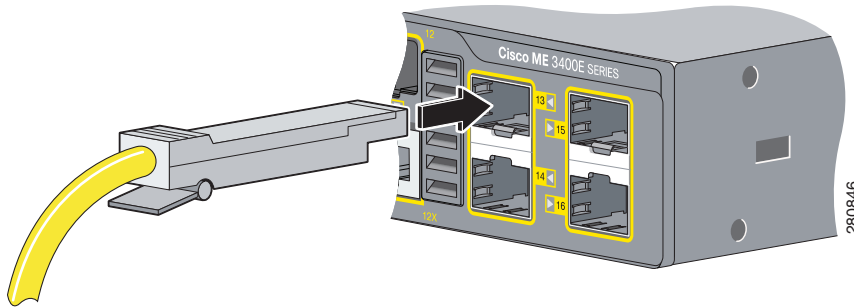
- Step 5** Grasp the SFP module, and carefully remove it from the module slot.
 - Step 6** For fiber-optic SFP modules, insert a dust plug into the optical ports of the SFP module to keep the optical interfaces clean.
 - Step 7** Place the removed SFP module in an antistatic bag or other protective environment.
-

Inserting and Removing the SFP Module Patch Cable

To insert an SFP module patch cable into the SFP module slot, follow these steps:

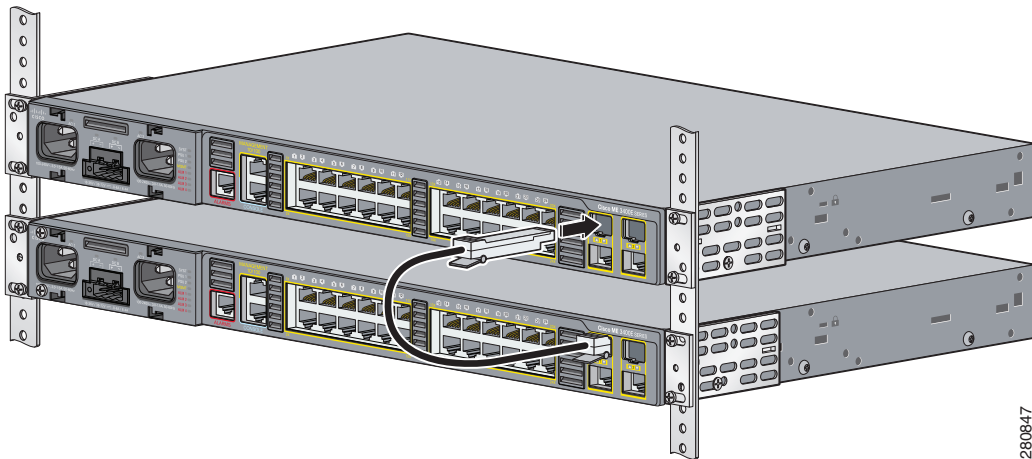
-
- Step 1** Attach an ESD-preventive wrist strap to your wrist and to a bare metal surface.
 - Step 2** Insert the SFP module patch cable into the slot until you feel the connector on the cable snap into place in the rear of the slot (see [Figure 2-19](#)).

Figure 2-19 Inserting an SFP Module Patch Cable into an SFP Module Slot



Step 3 Repeat these steps for the second switch to which you want to connect the first switch.

Figure 2-20 Connecting Two Switches with an SFP Module Patch Cable



Removing the SFP Module Patch Cable

To remove an SFP module patch cable from the SFP module slot, release the connector, and pull it from the SFP module slot.

Connecting to the 10/100 and 10/100/1000 Ports

The switch 10/100 and 10/100/1000 ports configure themselves to operate at the speed of attached devices. If the attached ports do not support autonegotiation, you can explicitly set the speed and duplex parameters. Connecting devices that do not autonegotiate or that have their speed and duplex parameters manually set can reduce performance or result in no linkage.

To maximize performance, choose one of these methods for configuring the Ethernet ports:

- Let the ports autonegotiate both speed and duplex.
- Set the port speed and duplex parameters on both ends of the connection.

Follow these steps to connect to 10BASE-T, 100BASE-TX, or 1000-BASE-T devices:

- Step 1** When connecting to workstations, servers, and routers, connect a straight-through cable to an RJ-45 connector on the front panel. (See [Figure 2-21](#).) When connecting to switches or repeaters, use a crossover cable. (See the “Cables and Adapters” section on page B-4 for cable-pinout descriptions.)

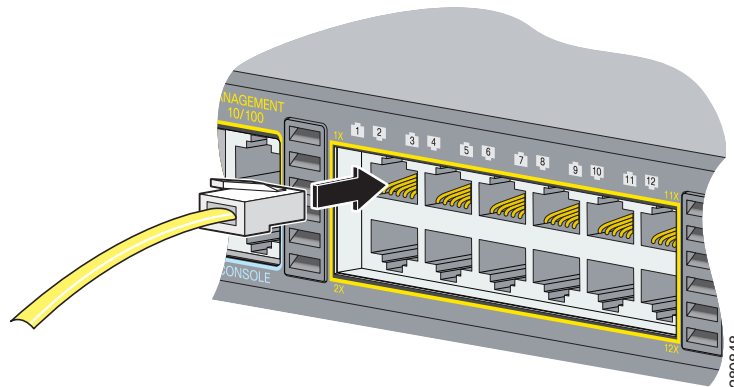


Note

You can use the **mdix auto** interface configuration command in the CLI to enable the automatic medium-dependent interface crossover (auto-MDIX) feature. The switch then detects the required cable type for copper Ethernet connections and configures the interfaces accordingly. Therefore, you can use either a crossover or a straight-through cable for connections to a copper 10/100, 10/100/1000, or 1000BASE-T SFP module port on the switch, regardless of the type of device on the other end of the connection.

- Step 2** Connect the other end of the cable to an RJ-45 connector on the other device. The port LED turns on when both devices have established link. (See [Figure 2-21](#).)

Figure 2-21 Connecting to an Ethernet Port



The port LED is amber while Spanning Tree Protocol (STP) discovers the topology and searches for loops. This takes about 30 seconds, and then the port LED turns green. If the port LED does not turn on, the device at the other end might not be turned on, or there might be a cable problem or a problem with the adapter installed in the attached device. See [Chapter 4, “Troubleshooting,”](#) for solutions to cabling problems.



Note

On user network interface (UNI) ports, the port LED is green after the link is established. It does not turn amber because STP is not supported.

- Step 3** Reconfigure and reboot the connected device, if necessary.
- Step 4** Repeat Steps 1 through 3 to connect each device.

Connecting to Fiber-Optic SFP Modules


Warning

Class 1 laser product. Statement 1008

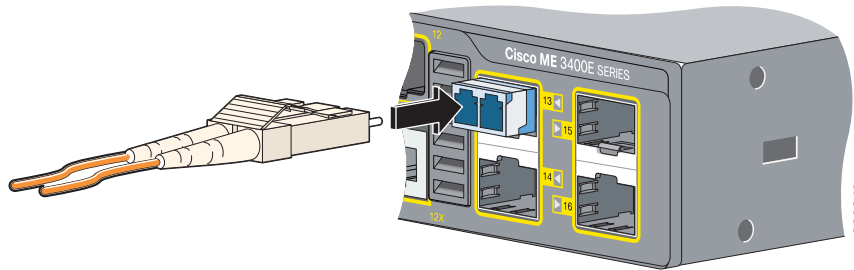

Caution

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

Before connecting to the SFP module, be sure that you understand the port and cabling stipulations in the “Installation Guidelines” section on page 2-4 and in the “SFP Modules” section on page 1-5. See Appendix B, “Connector and Cable Specifications,” for information about the LC on the SFP module.

- Step 1** Remove the rubber plugs from the module port and fiber-optic cable, and store them for future use.
- Step 2** Insert one end of the fiber-optic cable into the SFP module port (see Figure 2-22).

Figure 2-22 Connecting to a Fiber-Optic SFP Module Port



- Step 3** Insert the other cable end into a fiber-optic connector on a target device.
- Step 4** Observe the port status LED.

The LED turns green when the switch and the target device have an established link.

The LED turns amber while the STP discovers the network topology and searches for loops. This process takes about 30 seconds, and then the port LED turns green.

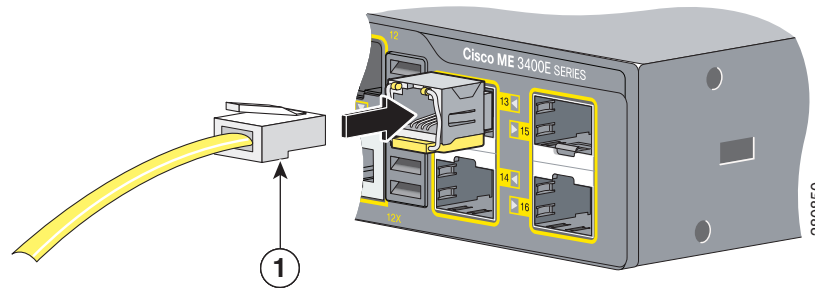
If the LED is off, the target device might not be turned on, there might be a cable problem, or there might be problem with the adapter installed in the target device. See Chapter 4, “Troubleshooting,” for solutions to cabling problems.

- Step 5** If necessary, reconfigure and restart the switch or target device.

Connecting to 1000BASE-T SFP Modules

Follow these steps to connect a Category 5 or higher cable to a 1000BASE-T SFP module (see [Figure 2-23](#)):

Figure 2-23 Connecting to a 1000BASE-T SFP Module



1	RJ-45 connector
----------	-----------------



Caution

To prevent ESD damage, follow your normal board and component handling procedures.

Step 1

When connecting to servers, workstations, and routers, insert a four twisted-pair, straight-through cable in the RJ-45 connector. When connecting to switches or repeaters, insert a four twisted-pair, crossover cable.



Note

When connecting to a 1000BASE-T device, be sure to use a four twisted-pair, Category 5 or higher cable.

You can use the **mdix auto** interface configuration command in the CLI to enable the automatic medium-dependent interface crossover (auto-MDIX) feature. When the auto-MDIX feature is enabled, the switch detects the required cable type for copper Ethernet connections and configures the interfaces accordingly. Therefore, you can use either a crossover or a straight-through cable for connections to a copper 10/100, 10/100/1000, or 1000BASE-T SFP module port on the switch, regardless of the type of device on the other end of the connection.

Step 2

Insert the other cable end in an RJ-45 connector on a target device.

Step 3

Observe the port status LED.

The LED turns green when the switch and the target device have an established link.

The LED turns amber while the STP discovers the network topology and searches for loops. This process takes about 30 seconds, and then the port LED turns green.

If the LED is off, the target device might not be turned on, there might be a cable problem, or there might be problem with the adapter installed in the target device. See [Chapter 4, “Troubleshooting,”](#) for solutions to cabling problems.

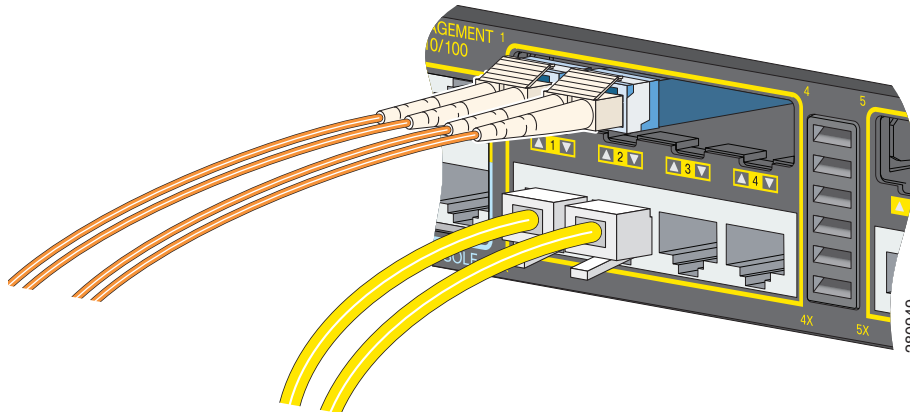
Step 4

If necessary, reconfigure and restart the switch or target device.

Connecting to Dual-Purpose Ports

- Step 1** Insert an RJ-45 connector or an SFP module in the port. See [Figure 2-24](#).
For more information about RJ-45 connectors and SFP modules, see the “[Connecting to the 10/100 and 10/100/1000 Ports](#)” section on page 2-22 and the “[Connecting to Fiber-Optic SFP Modules](#)” section on page 2-24.

Figure 2-24 Connecting to a Dual-Purpose Port



- Step 2** Connect the other end of the cable to the other device. The switch automatically detects the connection and configures the port.
By default, the switch detects that either an RJ-45 copper connector or a fiber-optic SFP module in a dual-purpose port and configures the port accordingly. You can change this setting and configure the port to recognize only an RJ-45 connector or only an SFP module by using the **media type** interface configuration command. For more information, see the switch command reference.

Where to Go Next

You can use the default configuration or use any of the management options described in the “[Management Options](#)” section on page 1-14 to change the switch settings.