



# Cisco IE 2000 Switch Getting Started Guide

---

- [About This Guide, page 2](#)
- [Shipping Box Contents, page 3](#)
- [Running Express Setup, page 4](#)
- [Managing the Switch, page 9](#)
- [Installing the Switch, page 12](#)
- [Connecting to the Switch Ports, page 23](#)
- [Troubleshooting, page 26](#)
- [Obtaining Documentation and Submitting a Service Request, page 29](#)

# About This Guide

This guide provides instructions on how to use Express Setup to initially configure your Cisco IE 2000 switch. The guide also covers switch management options, installation and basic mounting procedures, and troubleshooting help.

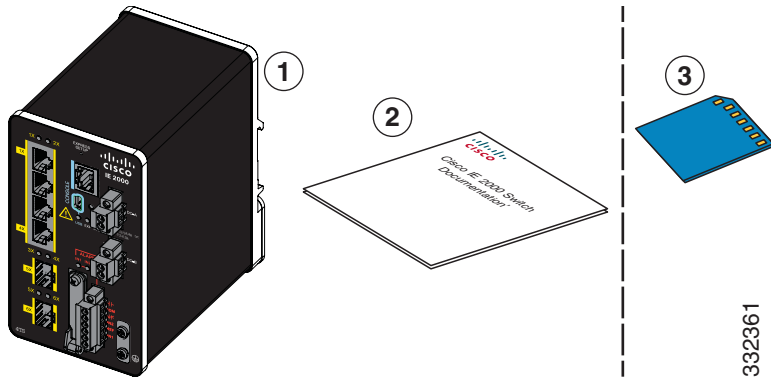
For additional installation and configuration information for Cisco IE 2000 switches, see the Cisco IE 2000 documentation on Cisco.com. For system requirements, important notes, limitations, open and resolved bugs, and last-minute documentation updates, see the Cisco IE 2000 release notes, which are also on Cisco.com.

For translations of the warnings that appear in this publication, see the *Regulatory Compliance and Safety Information for the Cisco IE 2000 Switch* on Cisco.com.

When using the online publications, see the documents that match the Cisco IOS software version running on the switch.

# Shipping Box Contents

**Figure 1** Cisco IE 2000 Shipping Box Contents



<b>1</b>	Cisco IE 2000 switch <sup>1</sup>	<b>3</b>	(Optional) Flash memory card <sup>2</sup>
<b>2</b>	Documentation		

1. The Cisco IE-2000-4TS-L is shown as an example. Your switch model might look different.
2. The flash memory card is orderable.

# Running Express Setup

When you first set up the switch, you should use Express Setup to enter the initial IP information. This process enables the switch to connect to local routers and the Internet. You can then access the switch through the IP address for additional configuration.

You need this equipment to set up the switch:

- PC with Windows 2000, XP, Vista, or Windows Server 2003
- Web browser (Internet Explorer 6.0, 7.0, or Firefox 1.5, 2.0, 3.0) with JavaScript enabled
- Straight-through or crossover Category 5 or 6 cable

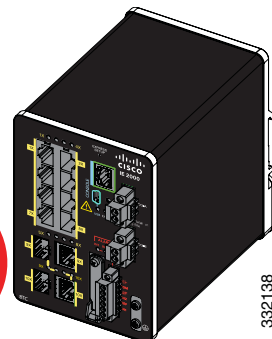
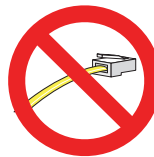


## Note

Before running Express Setup, disable any pop-up blockers or proxy settings on your browser and any wireless client running on your PC.

To run Express Setup:

- Step 1** Make sure that nothing is connected to the switch.
- During Express Setup, the switch acts as a DHCP server. If your PC has a static IP address, temporarily configure your PC settings to use DHCP before going to the next step.
- Note** Write down the static IP address. You will need this IP address in [Step 11](#).



- Step 2** Connect power to the switch.
- See the wiring instructions in the [“Grounding the Switch”](#) section on [page 17](#) and the [“Wiring the DC Power Source”](#) section on [page 19](#).

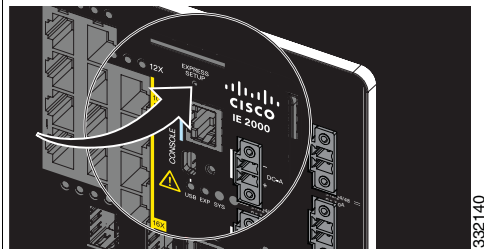
- Step 3** After the switch powers on, it begins the boot fast sequence, which can take up to 60 seconds. During boot fast, the SYS LED blinks green, and the other LEDs turn green. When boot fast is complete, the SYS LED turns green, and the other LEDs turn off.

**Troubleshooting:**

If the SYS LED is off (system not powered on), continues to blink green (POST in progress), or is solid red (Fault), contact the Cisco Technical Assistance Center (TAC). The SYS LED should be solid green when operating normally in Cisco IOS.

- Step 4** Press the Express Setup button for 2 to 3 seconds. This button is recessed behind the front panel, so you can use a simple tool, such as a paper clip.

When you press the Express Setup button, a switch port LED begins blinking green.



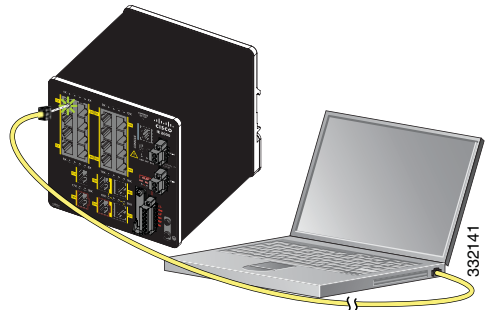
- Step 5** Connect a Category 5 Ethernet cable (not provided) from the blinking switch port to the Ethernet port on your PC.

The port LEDs on your PC and on the switch blink green while the switch configures the connection. The green port LEDs indicate a successful connection.

**Troubleshooting:**

If the port LEDs do not turn green after about 30 seconds, make sure that:

- You connected the Ethernet cable to one of the downlink switch ports (not to an uplink port such as the dual-purpose port).
- You are using an undamaged Category 5 or 6 Ethernet cable.
- The other device is turned on.



**Step 6** When the Setup LED turns solid green, start a browser session on the PC. A login prompt appears.

**Step 7** Leave the username blank and enter the default password, cisco.

**Note** The switch ignores text in the username field.

The Express Setup window appears.

#### **Troubleshooting:**

If the Express Setup window does not appear, make sure that any pop-up blockers or proxy settings on your browser are disabled and that any wireless client is disabled on your PC or laptop.

**Step 8** Enter all entries in English letters and Arabic numbers.

#### **Required Fields**

In the Network Settings fields:

- **Management Interface (VLAN):** We recommend using the default, VLAN 1. The management VLAN establishes an IP connection to the switch.

**Note** Enter a new VLAN ID only if you want to change the management interface through which you manage the switch. The VLAN ID range is 1 to 1001.

- **IP Assignment Mode:** We recommend using the default, Static, so that the switch always has the IP address that you assign. Use the DHCP setting when you want the switch to automatically obtain an IP address from a DHCP server.
- **IP Address:** Enter the IP address for the switch. You can later use the IP address to access the switch through Device Manager.
- **Subnet Mask:** Select a mask from the drop-down list.
- **Default Gateway:** Enter the IP address of the router.
- **Switch Password:** Enter a password. The password can be from 1 to 25 alphanumeric characters, can start with a number, is case sensitive, allows embedded spaces, but does not allow spaces at the beginning or end. In the Confirm Password field, enter the password again.

**Note** You must change the password from the default password, cisco.

**Step 9** Enter the Control Industrial Protocol (CIP) VLAN settings:

- **CIP VLAN:** Enter the VLAN on which CIP will be enabled. The CIP VLAN can be the same as the management VLAN, or you can isolate CIP traffic on another VLAN that is already configured on the switch. The default CIP VLAN is VLAN 1. Only one VLAN on a switch can have CIP enabled.
- **IP Address:** Enter the IP address for the CIP VLAN. If the CIP VLAN is different from the management VLAN, you must specify an IP address for the CIP VLAN. Make sure that the IP address that you assign to the switch is not being used by another device in your network.
- **Subnet Mask:** Select a mask from the drop-down list.

For more information about the CIP VLAN settings, click **Help** on the toolbar.

**Step 10** **Optional Settings**

You can enter the optional information now, or enter it later by using Device Manager. For more information about the Express Setup fields, see the online help for the Express Setup window.

Click **Submit** to save your changes and to complete the initial setup.

For more information about the optional settings, click **Help** on the toolbar.

**Step 11** After you click **Submit**, these events occur:

- The switch is configured and exits Express Setup mode.
- The browser displays a warning message and tries to connect with the earlier switch IP address. Typically, connectivity between the PC and the switch is lost because the configured switch IP address is in a different subnet from the IP address on the PC.

**Step 12** Turn off DC power at the source, disconnect all cables to the switch, and install the switch in your network. See the [“Managing the Switch” section on page 9](#) for information about configuring and managing the switch.

**Step 13** If you changed the static IP address on your PC in Step 1, change it to the previously configured static IP address.

**Step 14** You can now manage the switch by using the Cisco Network Assistant, Device Manager, or both. See the [“Managing the Switch” section on page 9](#) for information about configuring and managing the switch.

You can display Device Manager by following these steps:

1. Start a web browser on your PC or laptop.
2. Enter the switch IP address, username, and password (assigned in [Step 7](#)) in the web browser, and press **Enter**. The Device Manager page appears.

### Troubleshooting:

If the Device Manager page does not appear:

- Confirm that the port LED for the switch port connected to your network is green.
- Confirm that the PC or laptop that you are using to access the switch has network connectivity by connecting it to a well known web server in your network. If there is no network connection, troubleshoot the network settings on the PC or laptop.
- Make sure that the switch IP address in the browser is correct.
- If the switch IP address in the browser is correct, the switch port LED is green, and the PC or laptop has network connectivity, continue troubleshooting by reconnecting the PC or laptop to the switch. Configure a static IP address on the PC or laptop that is in the same subnet as the switch IP address. For example:
  - If your switch IP address is 172.20.20.85 and your PC or laptop IP address is 172.20.20.84, both devices are in the same network.
  - If your switch IP address is 172.20.20.85 and your PC or laptop IP address is 10.0.0.2, the devices are in different networks and cannot communicate directly.
- When the LED on the switch port connected to the PC or laptop is green, reenter the switch IP address in a web browser to display the Device Manager. When Device Manager appears, you can continue with the switch configuration.



# Managing the Switch

After completing Express Setup and installing the switch in your network, you can use one of these options for further configuration:

- [Using Device Manager](#)
- [Downloading Cisco Network Assistant](#)
- [Accessing the Command-Line Interface](#)
- [Other Management Options](#)

## Using Device Manager

The simplest way to manage the switch is by using Device Manager in the switch memory. This web interface offers quick configuration and monitoring. You can access Device Manager from anywhere in your network through a web browser.

To use Device Manager:

- 
- Step 1** Launch a web browser on your PC or workstation.
  - Step 2** Enter the switch IP address in the web browser, and press **Enter**. The Device Manager page appears.
  - Step 3** Use Device Manager to perform basic switch configuration and monitoring. See the Device Manager online help for more information.
  - Step 4** For more advanced configuration, download and run Cisco Network Assistant, which is described in the next section.
- 

## Downloading Cisco Network Assistant

Cisco Network Assistant is a software program that you download from Cisco.com and run on your PC. This program offers advanced options for configuring and monitoring multiple devices, including switches, switch clusters, switch stacks, routers, and access points. Cisco Network Assistant is free; there is no charge to download, install, or use it.

To download Cisco Network Assistant:

- 
- Step 1** Go to this Web address:  
[http://www.cisco.com/en/US/products/ps5931/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps5931/tsd_products_support_series_home.html).
- Step 2** You must be a registered Cisco.com user, but you need no other access privileges.
- Step 3** Find the Network Assistant installer.
- Step 4** Download the Network Assistant installer and run it. (You can run it directly from the Web if your browser offers this choice.)
- Step 5** When you run the installer, follow the displayed instructions. In the final panel, click **Finish** to complete the Network Assistant installation.
- Step 6** See the Network Assistant online help and the getting started guide for more information.
- 

## Accessing the Command-Line Interface

You can enter Cisco IOS commands and parameters through the CLI. Access the CLI by using one of these options:

- [Switch RJ-45 Console Port](#)
- [Switch USB Mini-Type B Console Port](#)

### Switch RJ-45 Console Port

To use the switch RJ-45 console port:

- 
- Step 1** Connect the supplied RJ-45-to-DB-9 adapter cable to the 9-pin serial port on the PC. Connect the other end of the cable to the console port on the switch.
- Step 2** Start a terminal-emulation program on the PC.
- Step 3** Configure the PC terminal emulation software for 9600 baud, 8 data bits, no parity, 1 stop bit, and no flow control.

**Step 4** Use the CLI to enter commands to configure the switch.

See the *Cisco IE 2000 Switch Software Configuration Guide* and the *Cisco IE 2000 Switch Command Reference* for more information.

---

## Switch USB Mini-Type B Console Port

If you use the USB-mini console port, you must install the Cisco Windows USB device driver on the PC that is connected to that port. See the *Cisco IE 2000 Switch Hardware Installation Guide* for installation instructions.

**Note**

You cannot use the switch console port and the switch USB-mini console port at the same time to access the CLI.

---

To use the switch USB mini-type B console port:

---

**Step 1** Start a terminal-emulation program on the PC.

**Step 2** Configure the PC terminal emulation software for 9600 baud, 8 data bits, no parity, 1 stop bit, and no flow control.

**Step 3** Use the CLI to enter commands to configure the switch.

See the *Cisco IE 2000 Switch Software Configuration Guide* and the *Cisco IE 2000 Switch Command Reference* for more information.

---

## Other Management Options

You can use SNMP management applications such as CiscoWorks LAN Management Solution (LMS) and Cisco netManager to configure and manage the switch. You also can manage it from an SNMP-compatible workstation that is running applications such as Cisco netManager or SunNet Manager.

The Cisco Configuration Engine is a network management device that works with embedded Cisco Networking Services (CNS) agents in the switch software. You can use it to automate initial configurations and configuration updates on the switch.

## Installing the Switch

These sections explain how to install the switch on a DIN rail. See the switch hardware guide for more information.



### Note

For instructions on how to install the switch in a hazardous environment, see the “Installation in a Hazardous Environment” chapter of the *Cisco IE 2000 Switch Hardware Installation Guide* on Cisco.com.

- [Equipment That You Supply](#), page 12
- [Before You Begin](#), page 13
- [Installation Warning Statements](#), page 14
- [Mounting the Switch to a DIN Rail](#), page 16
- [Grounding the Switch](#), page 17
- [Wiring the DC Power Source](#), page 19
- [Attaching the Power Connector](#), page 22
- [Optional Procedures](#), page 23

## Equipment That You Supply

Obtain these necessary tools and equipment:

- Ratcheting torque flathead screwdriver that exerts up to 15 in-lb (1.69 N-m) of pressure
- For the protective ground connector, obtain a single or pair of stud size 6 ring terminals (such as Hollingsworth part number R3456B or equivalent)
- Crimping tool (such as Thomas & Bett part number WT2000, ERG-2001, or equivalent)

- 10-gauge copper ground wire (such as Belden part number 9912 or equivalent)
- For DC power connections, use UL- and CSA-rated style 1007 or 1569 twisted-pair copper appliance wiring material (AWM) wire (such as Belden part number 9318)
- Wire-stripping tools for stripping 10- and 18-gauge wires
- A number 2 Phillips screwdriver
- A flat-blade screwdriver

## Before You Begin

When you determine where to install the switch, verify that these guidelines are met:

- Operating environment is within the range in the switch hardware installation guide.
- Clearance to front and rear panels meets these conditions:
  - Front-panel LEDs can be easily read.
  - Access to ports is sufficient for unrestricted cabling.
  - Front-panel direct current (DC) power and alarm connectors are within reach of the connection to the DC power source.
- Airflow around the switch must be unrestricted. To prevent the switch from overheating, there must be the following minimum clearances:
  - Top and bottom: 2.0 in. (50.8 mm)
  - Sides: 2.0 in. (50.8 mm)
  - Front: 2.0 in. (50.8 mm)

Contact your Cisco TAC if tighter spacings are required.

- Temperature surrounding the unit does not exceed 140°F (60°C), the maximum ambient temperature of the switch.



### Note

When the switch is installed in an industrial enclosure, the temperature within the enclosure is greater than normal room temperature outside the enclosure.

- Cabling is away from sources of electrical noise, such as radios, power lines, and fluorescent lighting fixtures.
- This product is grounded to a bare metal surface, such as a ground bus, a grounded DIN rail, or a grounded bare rack. Use a zinc-plated, yellow-chromate steel DIN rail to assure proper grounding. The use of other materials (such as aluminum, plastic, and so on) that can corrode, oxidize, or are poor conductors can result in improper or intermittent grounding. When grounding to a DIN rail, secure the DIN rail to the mounting surface approximately every 7.8 in. (200 mm), and use appropriate end-anchors.

## Installation Warning Statements



Warning

**Before performing any of the following procedures, ensure that power is removed from the DC circuit.** Statement 1003



Warning

**This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 3A.** Statement 1005



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

**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**

---

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

---

**Warning**

---

This equipment is supplied as “open type” equipment. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The interior of the enclosure must be accessible only by the use of a tool.

**The enclosure must meet IP 54 or NEMA type 4 minimum enclosure rating standards.** Statement 1063

---

**Warning**

---

This equipment is intended to be grounded to comply with emission and immunity requirements. Ensure that the switch functional ground lug is connected to earth ground during normal use. Statement 1064

---

**Warning**

---

When used in a Class I, Division 2, hazardous location, this equipment must be mounted in a suitable enclosure with proper wiring method, for all power, input and output wiring, that complies with the governing electrical codes and in accordance with the authority having jurisdiction over Class I, Division 2 installations. Statement 1066

---

**Caution**

---

Airflow around the switch must be unrestricted. To prevent the switch from overheating, there must be the following minimum clearances:

- Top and bottom: 2.0 in. (50.8 mm)
- Sides: 2.0 in. (50.8 mm)
- Front: 2.0 in. (50.8 mm)

Contact your Cisco TAC representative if tighter spacings are required.

---

**Caution**

This equipment is suitable for use in Class I, Division 2, Groups A, B, C, D, or only nonhazardous locations.

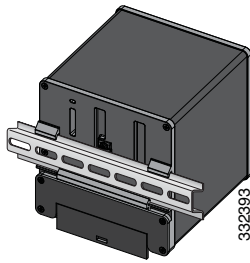
**Caution**

Connect the unit only to a Class 2 DC power source.

## Mounting the Switch to a DIN Rail

The switch ships with a spring-loaded latch on the rear panel for a mounting on a DIN rail.

To attach the switch to a DIN rail, follow these steps:

- |   |   |
|---|---|
| <p><b>Step 1</b> Position the rear panel of the switch directly in front of the DIN rail, making sure that the DIN rail fits in the space between the two hooks near the top of the switch and the spring-loaded latch near the bottom.</p> |  |
| <p><b>Step 2</b> Holding the bottom of the switch away from the DIN rail, place the two hooks on the back of the switch over the top of the DIN rail.</p>   |   |
| <p><b>Step 3</b> Push the switch toward the DIN rail to cause the spring-loaded latch at the bottom rear of the switch to move down, and snap into place.</p>   |   |
| <p><b>Step 4</b> Connect power to the switch.</p> <p>See the wiring instructions in the <a href="#">“Grounding the Switch”</a> section on page 17 and the <a href="#">“Wiring the DC Power Source”</a> section on page 19.</p>              |   |



## Grounding the Switch

**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**

**This equipment is intended to be grounded to comply with emission and immunity requirements. Ensure that the switch functional ground lug is connected to earth ground during normal use.** Statement 1064

**Caution**

To make sure that the equipment is reliably connected to earth ground, follow the grounding procedure instructions, and use a UL-listed ring terminal lug suitable for number 10-to-12 AWG wire, such as Hollingsworth part number R3456B or equivalent.

**Note**

Use at least a 4 mm<sup>2</sup> conductor to connect to the external grounding screw.

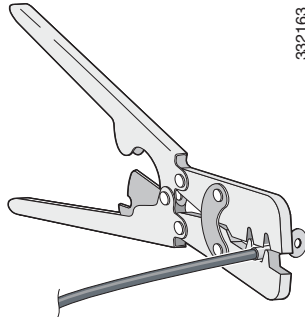
The ground lug is not supplied with the switch. You can use one of the these options:

- Single ring terminal
- Two single ring terminals

To connect the switch to a protective ground:

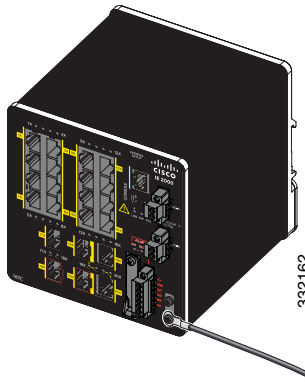
- 
- Step 1** Use a standard Phillips screwdriver or a ratcheting torque screwdriver with a Phillips head to remove the ground screw from the front panel of the switch. Store the ground screw for later use.
- 
- Step 2** Use the manufacturer's guidelines to determine the wire length to be stripped.
-

- Step 3** Insert the ground wire into the ring terminal lug, and using a crimping tool, crimp the terminal to the wire. If two ring terminals are being used, repeat this action for a second ring terminal.



- Step 4** Slide the ground screw from Step 1 through the ring terminal.

- Step 5** Insert the ground screw into the functional ground screw opening on the front panel.



- Step 6** Use a ratcheting torque screwdriver to tighten the ground screws and ring terminal to the switch front panel to 3.5 in-lb (0.4 N-m). The torque should not exceed 3.5 in-lb (0.4 N-m).

- Step 7** Attach the other end of the ground wire to a grounded bare metal surface, such as a ground bus, a grounded DIN rail, or a grounded bare rack.

## Wiring the DC Power Source

Read the warnings in this section before wiring the DC power source:

**Caution**

This product is intended to be supplied by a Class 2 power source marked with Class 2 and rated from 12, 24, or 48 VDC, 2.5 A.

**Warning**

**A readily accessible two-poled disconnect device must be incorporated in the fixed wiring.** Statement 1022

**Warning**

**This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 3A.** Statement 1005

**Warning**

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

**Warning**

**Before performing any of the following procedures, ensure that power is removed from the DC circuit.** Statement 1003

**Warning**

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

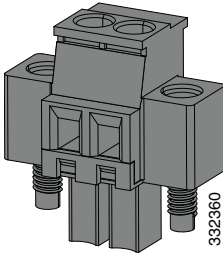

**Caution**

You must connect the switch only to a DC-input power source that has an input supply voltage of 12, 24, or 48 VDC. If the supply voltage is not in this range, the switch might not operate properly or might be damaged.

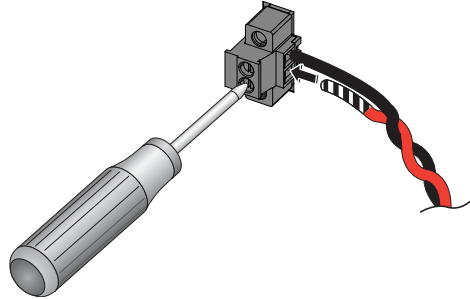
**Caution**

For wire connections to the power and alarm connectors, you must use UL- and CSA-rated, style 1007 or 1569 twisted-pair copper appliance wiring material (AWM) wire (such as Belden part number 9318).

To wire the switch to a DC-input power source:

<p><b>Step 1</b> Locate the power connector.</p>	
<p><b>Step 2</b> Identify the positive and return DC power connections on the connector. The positive DC power connection is labeled “+”, and the return is the adjacent connection labeled “-” on the switch.</p>	
<p><b>Step 3</b> Measure a strand of twisted-pair copper wire (18- to 20-AWG) long enough to connect to the DC power source.</p>	
<p><b>Step 4</b> Using an 18-gauge wire-stripping tool, strip each of the two wires to 0.25 inch (6.3 mm) ± 0.02 inch (0.5 mm). Do not strip more than 0.27 inch (6.8 mm) of insulation from the wire. Stripping more than the recommended amount of wire can leave exposed wire from the connector after installation.</p>	
<p><b>Step 5</b> Remove the two captive screws that attach the power connector to the switch, and remove the power connector. Remove both connectors if you are connecting to two power sources.</p>	

- Step 6** On the power connector, insert the exposed part of the positive wire into the connection labeled “+” and the exposed part of the return wire into the connection labeled “-”. Make sure that you cannot see any wire lead. Only wire *with insulation* should extend from the connector.

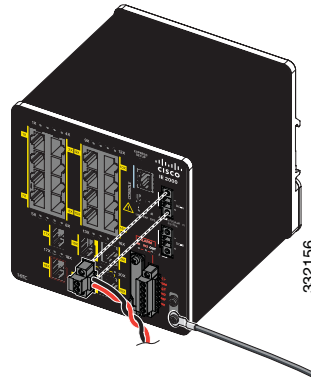


- Step 7** Use a ratcheting torque flathead screwdriver to torque the power connector captive screws (above the installed wire leads) to 2 in-lb (0.23 N-m), the maximum recommended torque.
- Step 8** Connect the other end of the positive wire (the one connected to +) to the positive terminal on the DC power source, and connect the other end of the return wire (the one connected to RT) to the return terminal on the DC power source.
- Step 9** If you are installing the switch and are using a second power source, repeat Step 3 through Step 7 using a second power connector.

## Attaching the Power Connector

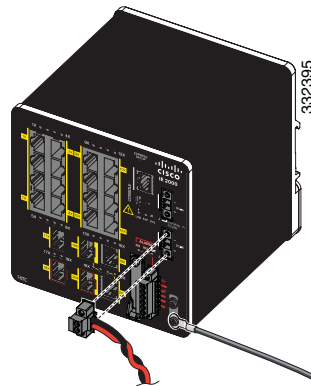
To connect the DC power connector to the switch:

- Step 1** Insert the power connector into the receptacle on the switch front panel.



- Step 2** Use a flathead screwdriver to tighten the captive screws on the sides of the power connector.

- Step 3** (Optional) Insert a second power connector into the receptacle on the switch front panel.



- Step 4** Use a flathead screwdriver to tighten the captive screws on the sides of the second power connector.

- Step 5** To apply power to a switch that is directly connected to a DC power source, locate the circuit breaker on the panel board that services the DC circuit, and switch the circuit breaker to the ON position.

## Optional Procedures

For detailed instructions on these procedures, see the *Cisco IE 2000 Switch Hardware Installation Guide* on Cisco.com:

- Wiring the external alarm relays
- Installation in a hazardous environment

## Connecting to the Switch Ports

These sections describe how to connect to the switch ports, the SFP module ports, and the dual-purpose ports. For additional cabling information, see the *Cisco IE 2000 Switch Hardware Installation Guide* on Cisco.com.

- [Connecting to 10/100 and 10/100/1000 Ports, page 23](#)
- [Installing SFP Modules and Connecting to Ports, page 25](#)
- [Connecting to Dual-Purpose Ports, page 26](#)
- [Verifying Port Connectivity, page 26](#)

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

**Caution**

---

To prevent electrostatic-discharge (ESD) damage, follow your normal board and component handling procedures.

---

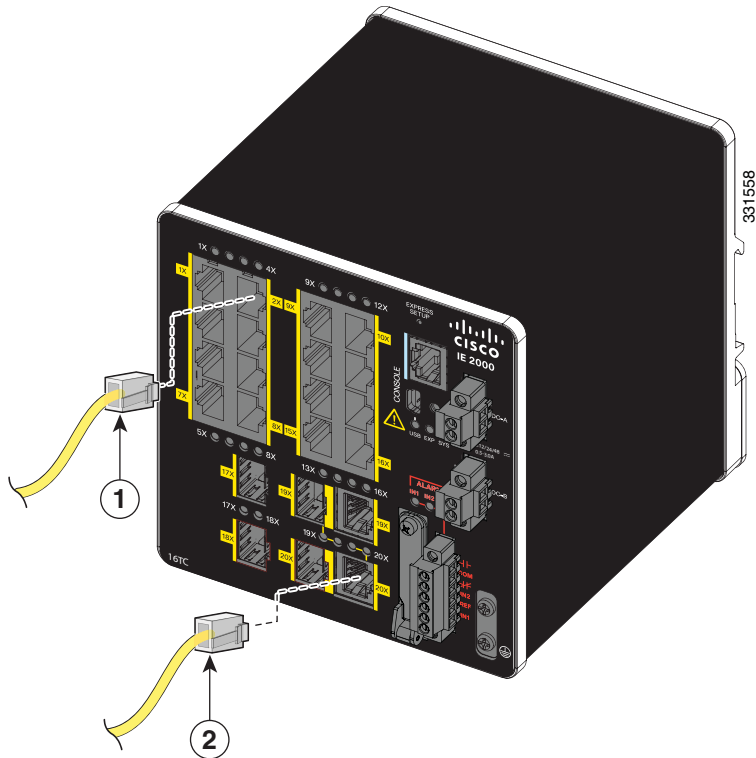
To connect to the ports:

**Step 1**

---

When you connect these switches to any Ethernet-enabled communication devices, insert a straight-through twisted four-pair, Category 5 cable in a switch 10/100 or 10/100/1000 port. Use a twisted four-pair, Category 5 cable when you connect to other switches, hubs, or repeaters.

**Figure 2** Connecting to an Ethernet Port



1	10/100 port
2	10/100 or 10/100/1000 port (depending on model)

**Step 2** Insert the other cable end into an RJ-45 connector on the other device.

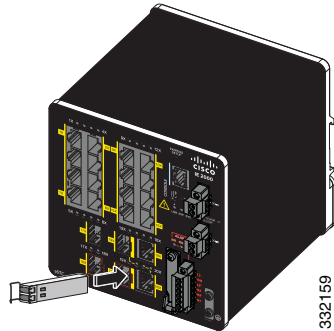
The auto-MDIX feature is enabled by default. For configuration information for this feature, see the *Cisco IE 2000 Switch Software Configuration Guide* or the *Cisco IE 2000 Switch Command Reference*.



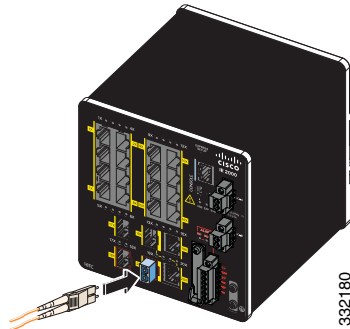
## Installing SFP Modules and Connecting to Ports

To install the modules and connect to ports:

- Step 1** Grasp the module on the sides, and insert it into the switch slot until you feel the connector snap into place.



- Step 2** Insert an appropriate cable into the module port.



- Step 3** Insert the other cable end into the other device.

For a list of supported modules, see the *Release Notes for the Cisco IE 2000 Switch* on Cisco.com. For detailed instructions on installing, removing, and connecting to SFP modules, see the documentation that came with the SFP module.



### Caution

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

## Connecting to Dual-Purpose Ports

Only one port on a dual-purpose port can be active at a time. If both ports are connected, the SFP module port has priority.

To connect to the ports:

- 
- Step 1** Insert either an RJ-45 connector to the 10/100/1000 port (see the [“Connecting to 10/100 and 10/100/1000 Ports” section on page 23](#)), or install an SFP module into the SFP module slot, and connect a cable to the SFP module port. (See the [“Installing SFP Modules and Connecting to Ports” section on page 25](#).)
- Step 2** Insert the other cable end into the other device.
- 

## Verifying Port Connectivity

After you connect to the switch port and another device, the port LED turns amber while the switch establishes a link. This process takes about 30 seconds, and then the LED turns green when the switch and the target device have an established link. If the LED is off, the target device might not be turned on, there might be a cable problem, or there might be a problem with the adapter installed in the target device.

## Troubleshooting

In case of difficulty with troubleshooting, this section provides help as well as Cisco.com. This section includes Express Setup troubleshooting, how to reset the switch, how to access help online, and where to find more information.

## Troubleshooting Express Setup

This section provides troubleshooting tips for the initial switch configuration. For additional assistance, see the online resources at Cisco.com as described in [“Accessing Online Help” section on page 28](#).

Checklist	Recommendation
Was the SETUP LED blinking when you pressed the Express Setup button?	If no, or you are not sure, restart the switch. Make sure that the SETUP LED is blinking when you press the Express Setup button.
Did you connect your PC to the wrong switch port?	Verify that you are connected to the switch port with the blinking LED.
Did you start a browser session on your PC before the SETUP LED was solid green?	If yes, or you are not sure, restart the switch, and repeat the Express Setup procedure.
Did you start a browser session on your PC and the setup page did not appear?	If the window does not appear, enter a URL in your browser, such as Cisco.com or another well known website.
Did you have a pop-up blocker running on your PC when you connected to the switch port?	If yes, disconnect the cable from the switch port, disable the pop-up blocker, press the Express Setup button, and reconnect the cable to the blinking Ethernet port.
Did you have proxy settings enabled in your browser software when you connected to the switch port?	If yes, disconnect the cable from the switch port, disable the proxy settings, press the Express Setup button, and reconnect the cable to the blinking Ethernet port.
Did you have a wireless client running on your PC when you connected to the switch port?	If yes, disconnect the cable from the switch port, disable the wireless client, press the Express Setup button, and reconnect the cable to the blinking Ethernet port.
Do you need to change the switch IP address after you have already completed the initial setup?	Go to the <b>Configure &gt; Express Setup</b> Device Manager screen to change the switch IP address. For more information about changing the switch IP address, see the <i>Cisco IE 2000 Switch Software Configuration Guide</i> at Cisco.com.

## Resetting the Switch

These are reasons why you might want to reset the switch to the factory default settings:

- You installed the switch in your network and cannot connect to it because you assigned the wrong IP address.
- You want to reset the password on the switch.

**Caution**

Resetting the switch deletes the configuration and reboots the switch.

**Caution**

If you press the Express Setup button when you power on, the automatic boot sequence stops, and the switch enters bootloader mode.

To reset the switch:

- 
- Step 1** Press and hold the Express Setup button for about 10 seconds. The switch reboots. The system LED turns green after the switch completes rebooting.
- Step 2** Press the Express Setup button again for 3 seconds. A switch 10/100 Ethernet port blinks green.

The switch now behaves like an unconfigured switch. You can configure the switch by following steps 5 to 12 in the [“Running Express Setup” section on page 4](#). You can also configure the switch by using the CLI setup procedure as described in the *Cisco IE 2000 Switch Hardware Installation Guide*.

---

## Accessing Online Help

First look for a solution to your problem in the troubleshooting section of the *Cisco IE 2000 Switch Hardware Installation Guide* or the *Cisco IE 2000 Switch Software Configuration Guide* on Cisco.com. You can also access the Cisco Technical Support and Documentation website for a list of known hardware problems and extensive troubleshooting documentation.

## For More Information

For more information about the switch, see these documents on Cisco.com:

- *Cisco IE 2000 Switch Hardware Installation Guide*. This guide provides complete hardware descriptions and detailed installation procedures.

- *Regulatory Compliance and Safety Information for the Cisco IE 2000 Switch.* This guide contains agency approvals, compliance information, and translated warning statements.
- *Release Notes for the Cisco IE 2000 Switch.* The release notes include important information about the Cisco IOS release software, and any limitations, restrictions, and caveats that apply to the releases.
- *Cisco IE 2000 Switch Software Configuration Guide.* This guide provides a product overview and detailed descriptions and procedures of the switch software features.
- *Cisco IE 2000 Switch Command Reference.* This reference provides detailed descriptions of the Cisco IOS commands specifically created or modified for the switch.
- *Cisco IE 2000 Switch System Message Guide.* This guide provides descriptions of the system messages specifically created or modified for the switch.
- Device Manager online help (available on the switch).
- *Cisco Small Form-Factor Pluggable Modules Installation Notes.*

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

### To Receive a Return Materials Authorization (RMA) Number

Contact the company from whom you purchased the product. If you purchased the product directly from Cisco, contact your Cisco Sales and Service Representative.

Complete the information below, and keep it for reference.

Company product purchased from	
Company telephone number	
Product model number	
Product serial number	
Maintenance contract number	

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: [www.cisco.com/go/trademarks](http://www.cisco.com/go/trademarks). Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses used in this document are not intended to be actual addresses. Any examples, command display output, and figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses in illustrative content is unintentional and coincidental.

© 2012 Cisco Systems, Inc. All rights reserved.