



# Quick Start Guide



## Cisco Small Business 300 Series Managed Switches

# Welcome

Thank you for choosing the Cisco Small Business 300 Series Managed Switch, a Cisco Small Business network communications device. This device is designed to be operational right out of the box as a standard bridge. In the default configuration, it will forward packets between connecting devices after power up.

Before you begin installing the switch, make sure you have all of the package contents available, access to the *Cisco Small Business 300 Series Managed Switch Administration Guide*, and a PC with a web browser for using web-based system management tools.

## Package Contents

- Cisco 300 Series Managed Switch
- Rackmount Kit
- Wallmount Kit (only for the 8-port devices)
- Power Cord (power adapter included with 8-port devices)
- This Quick Start Guide
- Product CD
- Serial Cable
- Rubber Feet

This guide will familiarize you with the layout of the managed switch and describe how to deploy the device in your network. For additional information, see [www.cisco.com/smb](http://www.cisco.com/smb).

## 1 Mounting the Cisco Switch

There are three ways to physically install the switch:

- Set the switch on a flat surface.
- Mount the switch on a wall (8-port devices only).
- Mount the switch in a standard rack (1 rack unit high).

Do not deploy the device in a location where any of the following conditions exist:

**High Ambient Temperature**—The ambient temperature must not exceed 104 degrees Fahrenheit (40 degrees Centigrade).

**NOTE** Some switches have a higher temperature rating. The SG300-10SFP, SG300-52P and SG300-52MP are rated at 113 degrees Fahrenheit (45 degrees Centigrade), and the SG300-28MP, and SF300-24MP are rated at 122 degrees Fahrenheit (50 degrees Centigrade).

**Reduced Air Flow**—Both side panels must be unobstructed to prevent overheating.

**Mechanical Overloading**—The device should be level, stable, and secure to prevent it from sliding or shifting out of position.

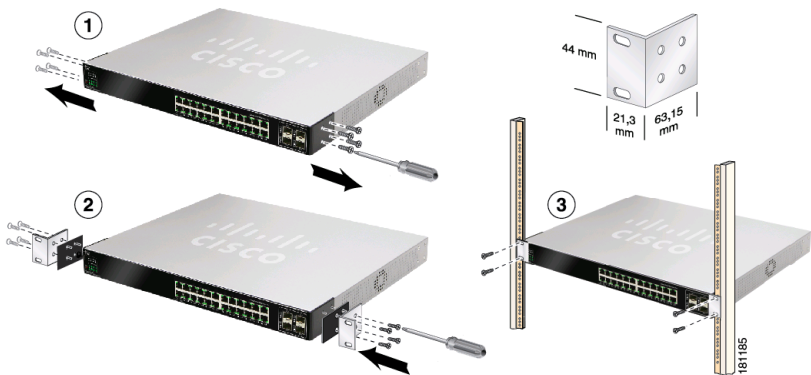
**Circuit Overloading**—Adding the device to the power outlet must not overload that circuit.

## Rack-Mount Placement

**STEP 1** Remove the four screws from each side near the front of the switch. Retain the screws for re-installation. (Do not remove the four screws from each side near the back of the switch.)

**STEP 2** Place one of the supplied spacers on the side of the switch so the four holes of the spacers align to the screw holes. Place a rack mount bracket next to the spacer and reinstall the four screws removed in **Step 1**.

**NOTE** If your screws are not long enough to reattach the bracket with the spacer in place, attach the bracket directly to the case without the spacer.



**STEP 3** Repeat **Step 2** for the other side of the switch.

**STEP 4** After the mounting hardware has been securely attached, the switch is now ready to be installed into a standard 19-inch rack.



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For stability, load the rack from the bottom to the top, with the heaviest devices on the bottom. A top-heavy rack is likely to be unstable and may tip over.

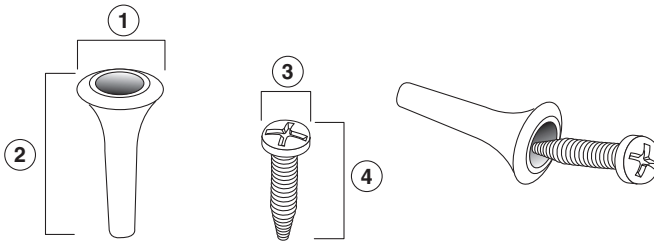
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## Wall Mounting

Only the 8-port models of the switch can be wall-mounted.

**NOTE** The switch should be mounted so that the ports face up or down. Do not mount the switch with the ports to the side.

There is a wall-mount kit packed with your switch. The dimensions for the mount kit are as follows:



1 8 mm/0.4 in    2 22.2 mm/0.9 in    3 6.8 mm/0.3 in    4 17.6 mm/0.7 in

Mount the managed switch to the wall by drilling two pilot holes 3.7 inches (95 mm) apart, attaching the provided anchors and screws to the wall, then sliding the switch into position on the screws.

The switch should have a minimum of 5 inches (130 mm) of clearance on all sides.



**WARNING**

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Insecure mounting may damage the device or cause injury. Cisco is not responsible for damages incurred by insecure wall-mounting.

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# 2

## Connecting Network Devices

To connect the switch to the network:

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- STEP 1** Connect the Ethernet cable to the Ethernet port of a computer, printer, network storage, or other network device.
- STEP 2** Connect the other end of the network Ethernet cable to one of the numbered managed switch Ethernet ports.
- The Ethernet port light turns green when the connection is active. Refer to **Features of the Cisco Small Business 300 Series Managed Switch, page 12** for details about the different ports and LEDs on each switch.
- STEP 3** Repeat **Step 1** and **Step 2** for each device you want to connect to the managed switch.

**NOTE** Cisco strongly recommends using Cat5 or better cable for Gigabit connectivity. When you connect your network devices, do not exceed the maximum cabling distance of 100 meters (328 feet). It can take up to one minute for attached devices or the LAN to be operational after it is connected. This is normal behavior.

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## Power over Ethernet (PoE) Considerations

If your switch is one of the PoE models, consider the following table for specific information:

300 Series Switches with Power Over Ethernet			
Model	Power Dedicated to PoE	Number of Ports Supporting PoE	PoE Standard Supported
SF302-08P	62 Watts	8	802.3af
SF302-08MP	124 Watts	8	802.3af
SF300-24P	180 Watts	24	802.3af
SF300-24MP	375 Watts	24	802.3af and 802.3at
SF300-48P	375 Watts	48	802.3af
SG300-10P	62 Watts	8	802.3af
SG300-10MP	124 Watts	8	802.3af
SG300-28P	180 Watts	24	802.3af
SG300-28MP	375 Watts	24	802.3af and 802.3at
SG300-52P	375 Watts	48	802.3af and 802.3at
SG300-52MP	740 Watts	48	802.3af and 802.3at

**NOTE** The switch can deliver a maximum of 15.4 Watts to any 10/100 or Gigabit PoE port. The 24MP, 28MP, 52P and 52MP models of the switch can deliver a maximum of 30 Watts to any PoE port.



### WARNING

The switch is to be connected only to PoE networks without routing to the outside plant.

**CAUTION**

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Consider the following when connecting switches capable of supplying PoE:

The PoE models of the switches are PSE (Power Sourcing Equipment) that are capable of supplying DC power to attaching PD (Powered Devices). These devices include VoIP phones, IP cameras, and wireless access points. The PoE switches can detect and supply power to pre-standard legacy PoE Powered Devices. Due to the support of legacy PoE, it is possible that a PoE switch acting as a PSE may mistakenly detect and supply power to an attaching PSE, including other PoE switches, as a legacy PD.

Even though PoE switches are PSE, and as such should be powered by AC, they could be powered up as a legacy PD by another PSE due to false detection. When this happens, the PoE switch may not operate properly and may not be able to properly supply power to its attaching PDs.

To prevent false detection, you should disable PoE on the ports on the PoE switches that are used to connect to PSEs. You should also first power up a PSE device before connecting it to a PoE switch. When a device is being falsely detected as a PD, you should disconnect the device from the PoE port and power recycle the device with AC power before reconnecting its PoE ports.

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# 3

## Configuring the Cisco Small Business Managed Switch

### Before You Begin

Verify the managing computer requirements in the product release notes. The switch can be accessed and managed by two different methods; over your IP network using the web-based interface, or by the Command Line Interface (CLI) through the console port. Using the console port requires advanced user skills.

### Accessing and Managing Your Switch

#### Use the Web-Based Interface

To access the switch by using the web-based interface, you must know the IP address the switch is using. The switch uses the factory default IP address of **192.168.1.254** by default.

When the switch is using the factory default IP address, the System LED flashes continuously. When the switch is using a DHCP server-assigned IP address or an administrator has configured a static IP address, the System LED is on solid (DHCP is enabled by default).

**NOTE** If you are managing the switch through a network connection and the switch IP address is changed, either by a DHCP server or manually, your access to the switch will be lost. You must enter the new IP address the switch is using into your browser to use the *web-based interface*. If you are managing the switch through a console port connection, the link is retained.

To configure the switch through an IP network:

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**STEP 1** Power on the computer and the switch.

**STEP 2** Set the IP configuration on your computer.

- a. If the switch is using the factory default IP address of **192.168.1.254**, you must choose an IP address for the computer in the range of 192.168.1.1—192.168.1.253 that is not already in use.
- b. If the IP addresses is assigned by a DHCP server, make sure the DHCP server is running and can be reached from the switch and the computer. It might be necessary to disconnect and reconnect the devices for them to discover their new IP addresses from the DHCP server.



**NOTE** Details on how to change the IP address on your computer depend upon the type of architecture and operating system you are using. Use the computer Help and Support functionality to search for “IP Addressing.”

- STEP 3** Open a Web browser window. If you are prompted to install an Active-X plug-in when connecting to the device, follow the prompts to accept the plug-in.
- STEP 4** Enter the switch IP address in the address bar and press **Enter**. For example, **http://192.168.1.254**.  
The *Switch Login Page* displays.
- STEP 5** Enter the default login information:
- Username is **cisco**
  - Default password is **cisco** (passwords are case sensitive)
- STEP 6** If this is the first time that you have logged on with the default username and password, the *Change Password Page* opens. The rules for constructing a new login and password are displayed on the page. Enter a new administrator password and click **Apply**.



**CAUTION**

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Make sure that any configuration changes made are saved to the Startup configuration before exiting from the web-based interface by clicking on the **Save** icon. Exiting before you save your configuration will result in all current changes being lost the next time the switch is rebooted.

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The **Getting Started** window displays. You are now ready to configure the switch. Refer to the *Cisco 300 Series Managed Switch Administration Guide* for further information.

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## Use the console port

To configure the switch by using the console port:

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- STEP 1** Connect a computer to the switch console port using the provided serial cable.
- STEP 2** Start a terminal application such as HyperTerminal on the computer.
- STEP 3** Configure the utility with the following parameters:
- 115200 bits per second (with release 1.2.5 of the firmware, autobaud detection is enabled by default, so the switch should detect the speed after you press Enter).

- 8 data bits
- no parity
- 1 stop bit
- no flow control

**STEP 4** Enter a user name and password. User names and passwords are both case sensitive and alpha-numeric. The default username is **cisco**, and the default password is **cisco**.

**STEP 5** If this is the first time that you have logged on with the default username and password, the following message appears:

```
Please change your password from the default
settings. Please change the password for better
protection of your network. Do you want to change
the password (Y/N) [Y]?
```

**STEP 6** Select **y**, and enter a new administrator password.



**CAUTION**

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Make sure that any configuration changes are saved before exiting by issuing the command:

```
copy running-config startup-config
```

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You are now ready to configure the switch. Refer to the *Cisco Small Business 300 Series Managed Switch Administration Guide* for further information.

**NOTE** If you are not using DHCP on your network, set the IP address type on the switch to **Static** and change the static IP address and subnet mask to match your network topology. Failure to do so may result in multiple switches using the same factory default IP address of 192.168.1.254.

## Troubleshoot Your Connection

If you cannot access your switch from the web-based interface, the switch may not be reachable from your computer. You can test network connections by using **ping** on a computer running Windows:

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**STEP 1** Open a command window by using **Start > Run** and enter **cmd**.

**STEP 2** At the **Command** window prompt enter **ping** and the *managed switch IP address*. For example **ping 192.168.1.254** (the default static IP address of the managed switch).

If you can reach the switch, you should get a reply similar to the following:

```
Pinging 192.168.1.254 with 32 bytes of data:  
Reply from 192.168.1.254: bytes=32 time<1ms TTL=128
```

If you cannot reach the switch, you should get a reply similar to the following:

```
Pinging 192.168.1.254 with 32 bytes of data:  
Request timed out.
```

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### Possible Causes and Resolutions

#### *Bad Ethernet connection:*

Check the LEDs for proper indications. Check the connectors of the Ethernet cable to ensure they are firmly plugged into the switch and your computer.

#### *Bad Console port connection:*

Check the console cable connectors to make sure they are firmly plugged into the switch and your computer. Make sure the console port utility is configured with the correct parameters.

#### *Wrong IP address:*

Make sure you are using the correct IP address for the switch. You can determine the status of how the switch obtained the current IP address by observing the system LED. You can determine the current IP address of the switch through the console port interface by using the CLI, or from your network administrator.

Make sure that no other device is using the same IP address as the switch.

#### *No IP route:*

If the switch and your computer are in different IP subnets, you need one or more routers to route the packets between the two subnets.

*Unusually long access time:*

Due to the standard spanning tree loop detection logic, adding new connections may take 30 to 60 seconds for the affected interfaces and/or LAN to become operational.

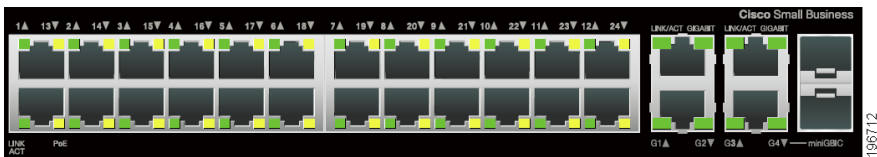
## 4

# Features of the Cisco Small Business 300 Series Managed Switch

This section describes the exterior of the managed switches including ports, LEDs, and connections.

## Front Panel Ports

The ports and LEDs are located on the front panel of the switch.

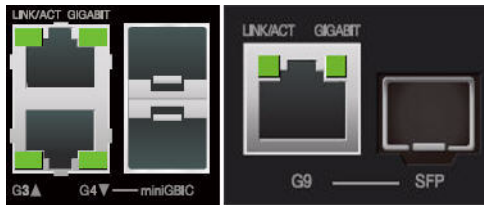


**RJ-45 Ethernet Ports**—Use these ports to connect network devices, such as computers, printers, and access points, to the switch.

**SFP (if present)**—The small form-factor pluggable (SFP) ports are connection points for modules, so the switch can link to other switches. These ports are also commonly referred to as miniGigaBit Interface Converter (miniGBIC) ports. The term SFP will be used in this guide.

- SFP ports are compatible with Cisco modules MGBT1, MGBSX1, MGBLH1, MGBLX1, MGBBX1, MFELX1, MFEFX1, and MFEBX1, as well as other brands of modules.
- Some SFP interfaces are shared with one other RJ-45 port, called a combo port. When the SFP is active, the adjacent RJ-45 port is

disabled. Combo ports are indicated by the presence of a bar on the panel that connects them, as shown in the following example:



- The LEDs of the corresponding RJ-45 port light to respond to the SFP interface traffic.

**NOTE** SG300-10SFP ports 1—8 are dedicated SFP ports. Their LED status and indication are the same as on the RJ-45 ports.

## Front Panel LEDs

**System LED**—(Green) Lights steady when the switch is powered on, and flashes when booting, performing self tests, and acquiring an IP address. If the LED flashes Amber, the switch has detected a hardware failure.

**LINK/ACT LED**—(Green) Located on the left of the port. Lights steady when a link between the corresponding port and another device is detected. Flashes when the port is passing traffic.

**PoE (if present)**—(Amber) Located on the right of the port. Lights steady to indicate that power is being supplied to a device attached to the corresponding port.

**100M LED (if present)**—(Green) Located on the right of the port. Lights steady when another device is connected to the port, is powered on, and a 100 Mbps link is established between the devices. When the LED is off, the connection speed is under 100 Mbps or nothing is cabled to the port.

**Gigabit LED (if present)**—(Green) Located on the right of the port. Lights steady when another device is connected to the port, is powered on, and a 1000 Mbps link is established between the devices. When the LED is off, the connection speed is under 1000 Mbps or nothing is cabled to the port.

**SFP (if present)**—(Green) Located on the right of a GE port. Lights steady when a connection is made through the shared port. Flashes when the port is passing traffic.

## Reset Button

The switch can be reset by inserting a pin or paper clip into the reset opening. See [“Returning the Device to the Factory Default Settings”](#) for details.

## Back Panel

The power port and console port are located on the back panel of the managed switch.



**Power**—The Power port is where you will connect the switch to power. Depending on the model of switch you are using, this may be a power cord or a power adaptor.

**Console**—The Console port is where you can connect a serial cable to a computers serial port for configuration using a terminal emulation program.

## 5

## Returning the Device to the Factory Default Settings

To use the **Reset** button to reboot or reset the managed switch, do the following:

- To **reboot** the managed switch, press the **Reset** button for less than 10 seconds.
- To **restore** the managed switch configuration to the factory default settings:
  1. Disconnect the managed switch from the network or disable all DHCP servers on your network.
  2. With the power on, press-and-hold the **Reset** button for more than 10 seconds.

## 6

## Where to Go From Here

**Support**

Cisco Small Business Support Community	<a href="http://www.cisco.com/go/smallbizsupport">www.cisco.com/go/smallbizsupport</a>
Cisco Small Business Support and Resources	<a href="http://www.cisco.com/go/smallbizhelp">www.cisco.com/go/smallbizhelp</a>
Cisco Small Business Support Center (SBSC) Contacts	<a href="http://www.cisco.com/go/sbsc">www.cisco.com/go/sbsc</a>
Cisco Small Business Firmware Downloads	<a href="http://www.cisco.com/go/smallbizfirmware">www.cisco.com/go/smallbizfirmware</a> Select a link to download firmware for Cisco Small Business Products. No login is required.

**Product Documentation**

300 Series Managed Switches Click on the Resources Tab	<a href="http://www.cisco.com/go/300switches">www.cisco.com/go/300switches</a>
Regulatory, Compliance, and Safety Information	<a href="http://www.cisco.com/en/US/docs/switches/lan/csb_switching_general/rcsi/Switch_RCSI.pdf">www.cisco.com/en/US/docs/switches/lan/csb_switching_general/rcsi/Switch_RCSI.pdf</a>
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