



Quick Start Guide



Cisco Small Business

WAP351 Wireless-N Dual Radio Access Point with 5 Ports Switch

Package Contents

- Wireless Access Point
- Mounting Kit
- This Quick Start Guide
- Product CD
- Ethernet Cable
- Technical Support Contact
- China RoHS (for China SKU only)

Welcome

Thank you for choosing the Cisco WAP351 Wireless-N Dual Radio Access Point with 5 Ports Switch. The Cisco WAP351 is an indoor concurrent dual band radio 802.11n access point with integrated PoE switch.

This guide is designed to familiarize you with the general layout of the Cisco WAP351, describe how to deploy the Cisco WAP351 in your network, and describe how to configure the Cisco WAP351. For additional information, see www.cisco.com/go/300_wap_resources.

1 Before You Begin

Before you begin the installation, make sure that you have the following equipment and services:

- A computer with browser support for for:
 - Internet Explorer 7.0 or later
 - Chrome 5.0 or later
 - Firefox 3.0 or later
 - Safari 3.0 or later
- Tools for installing the hardware
- One or more Ethernet network switches with PoE

2 Cisco WAP351 Features

Front Panel

The front panel of the Cisco WAP351 consists of three lights: Power, WLAN, and PSE. For full descriptions of the colors of the lights and their indications, see “[Verifying the Hardware Installation](#)”.

Back Panel

POWER—This button is used to turn the power on and off. It is not applicable when using PoE.

48V DC—This jack is used to connect the power adapter to the Cisco WAP351 if you are not using PoE.

RESET—See “[Rebooting the Cisco WAP351 or Returning it to its Factory Default Settings](#)” for information on the Reset button.

PD—The Powered Device (PD) port is used to power the Cisco WAP351 using PoE.

PSE—The Power Sourcing Equipment (PSE) port is used to power the device connected to the Cisco WAP351 through it.

LAN1-3—The RJ-45 Ethernet port is an auto-sensing, Gigabit Ethernet (802.3) port used to connect your WAP devices to network devices, such as computers, routers, or switches. We strongly recommend that you use a Category 5e or better cable for gigabit connectivity.

Side Panel

The side panel of the Cisco WAP351 has a Kensington lock slot. You can use it to attach a cable and lock to the Cisco WAP351.

Default Settings

Parameter	Default Value
Username	cisco
Password	cisco
LAN IP Address	DHCP address assigned by server
Fallback LAN IP	192.168.1.245
Subnetwork Mask	255.255.255.0

If you are using a Cisco Small Business RV Series router, the default range for the DHCP assigned address is from 192.168.1.100 to 192.168.1.254. Any device connecting to the same LAN will be assigned an IP address in this range.

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Mounting the Cisco WAP351

There are two ways to physically install the Cisco WAP351:

- Place the Cisco WAP351 horizontally on a flat surface so that it sits on its four rubber feet.
- Mount the Cisco WAP351 to a wall or ceiling.

Placement Tips

- **Ambient Temperature**—To prevent the Cisco WAP351 from overheating, do not operate it in an area that exceeds an ambient temperature of 104°F (40°C).
- **Air Flow**—Both side panels have vents that must be unobstructed to prevent overheating.

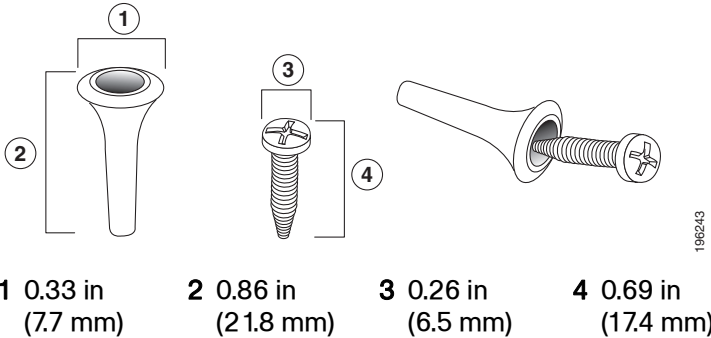
- **Mechanical Loading**—The Cisco WAP351 should be level, stable, and secure to prevent it from sliding or shifting out of position.

Wall and Ceiling Mounting

The Cisco WAP351 can be wall or ceiling-mounted. A mounting kit is packaged with your Cisco WAP351. The kit is designed to install your Cisco WAP351 to the wall or the ceiling.

The mounting bracket has some flexibility so that you can reuse existing holes drilled for the Cisco WAP351.

The dimensions for the mount kit screws are as follows:



196243



WARNING

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

To mount the Cisco WAP351 to a wall or ceiling:

- STEP 1** Determine where you want to mount the Cisco WAP351. Verify that the surface is smooth, flat, dry, and sturdy.
- STEP 2** Drill two pilot holes into the surface 2.75 inches (70 mm) apart for the Cisco WAP351.
- STEP 3** Insert a screw into each hole, leaving a gap between the surface and the base of the screw head.
- STEP 4** Place the upper slots of the bracket over the screws, adjust the screws accordingly, and slide the bracket down until the screws fit snugly into the slots.
- STEP 5** Using the bracket as a template, drill two more holes for the lower screws.
- STEP 6** Insert a screw into each lower hole.

STEP 7 Slide the Cisco WAP351 into the bracket, placing the cable through the break-out tab found in the back of the bracket. Mount the Cisco WAP351 with the back panel facing up or facing down.

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Connecting the Cisco WAP351

The default configuration of the Cisco WAP351 has the Wi-Fi radio turned off. You must perform the initial configuration using a wired Ethernet connection.

To connect the Cisco WAP351 to the wired network:

-
- STEP 1** Connect the Ethernet cable to the Ethernet port of a switch, a router, or a PC.
- STEP 2** Connect the other end of the network Ethernet cable to the Ethernet port of the Cisco WAP351.
- STEP 3** The power adapter is sold separately for the Cisco WAP351. If PoE is not provided, connect the power adapter (48V/1.25 A) to the 48V DC jack. For more information about the power adapter, see www.cisco.com/go/wap_accessories.

After installation, all lights should be active. Refer to **Verifying the Hardware Installation, page 6** for details about the different lights on the Cisco WAP351.

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Verifying the Hardware Installation

To verify the hardware installation, complete the following tasks:

- Check the cable connections.
- Check the state of the indicator lights.

Label	Activity	Description
POWER	Off	The Cisco WAP351 has no power.
	Solid Green	The Cisco WAP351 is powered on, booting, or in normal operation with DC power supply.
	Solid Blue	The Cisco WAP351 is powered on, booting, or in normal operation with PoE 802.at power supply.
	Solid Amber	The Cisco WAP351 is powered on, booting, or in normal operation with PoE 802.af power supply.
	Solid Red	The Cisco WAP351 fails to boot with both firmware images.
	Flashing	The Cisco WAP351 is upgrading the firmware, or is acquiring an IPv4 or IPv6 address.
WLAN	Off	Wireless is disabled, for both 2.4 GHz and 5 GHz.
	Solid Green	Wireless is enabled in concurrent mode enabled. (The intensity needs to be the same)
	Solid Amber	Wireless is enabled with only 5 GHz in use.
	Solid Blue	Wireless is enabled with only 2.4 GHz in use.
	Flashing	Transmitting or receiving data.
LAN, PD, and PSE on back panel	Off	No Ethernet link.
	Solid Green	GE Ethernet link is active.
	Solid Amber	FE Ethernet link is active.
	Flashing	Transmitting or receiving data.
PSE on front panel	Off	PSE is not in use.
	Solid Blue	PSE is in use.

NOTE If you need help resolving a problem, visit the Cisco Small Business Support Community at www.cisco.com/go/smallbizsupport.

To configure the Cisco WAP351, follow these steps to access the Wizard and then the web-based Configuration Utility from your computer:

STEP 1 Connect the Cisco WAP351 to the same network (IP subnet) as your computer. The factory default IP address configuration of the access points is DHCP. Make sure that your DHCP server is running and can be reached.

See “**Incorrect IP Address**” on page 9 for troubleshooting information, or if you do not have a DHCP server.

STEP 2 Locate the IP address of the Cisco WAP351.

a. The Cisco WAP351 can be accessed and managed by Cisco Small Business network tools and services including the Cisco FindIT Network Discovery Utility that enables you to automatically discover all supported Cisco Small Business devices in the same local network segment as your computer. You can get a snapshot view of each device or launch the product Configuration Utility to view and configure the settings. For more information, see www.cisco.com/go/findit.

b. The Cisco WAP351 is Bonjour-enabled and automatically broadcasts their services and listens for services being advertised by other Bonjour-enabled devices. If you have a Bonjour-enabled browser, such as Microsoft Internet Explorer with a Bonjour plug-in, or the Apple Mac Safari browser, you can find the Cisco WAP351 on your local network without knowing its IP address.

You can download the complete Bonjour for Microsoft Internet Explorer browser from Apple’s website by visiting:
<http://www.apple.com/bonjour/>

c. Locate the IP address assigned by your DHCP server by accessing your router or DHCP server. See your DHCP server instructions for more information.

STEP 3 Launch a web browser, such as Microsoft Internet Explorer.

STEP 4 In the **Address** field, enter the default DHCP address and press the **Enter** key.

STEP 5 Enter the default user name of **cisco** and password of **cisco** in the **User Name** and **Password** fields.

STEP 6 Click **Login**. The Wireless Access Point Setup Wizard appears.

STEP 7 Follow the Setup Wizard instructions to finish the WAP device installation. We strongly recommend that you use the Setup Wizard for the first installation. The Setup Wizard turns on the Wi-Fi radio, which allows you to connect wirelessly. For more advanced configurations, see the Administration Guide. A link to the Administration Guide is found in **“Where to Go From Here” on page 11**.

Congratulations, you can now start using the Cisco WAP351.

7 Suggested Next Steps

In case of an error while installing, try the following troubleshooting procedures described in this section:

Troubleshooting

If you cannot display the Configuration Utility, you can test the ability of the computer to communicate with the Cisco WAP351 by using **ping**.

To use **ping** on a computer running Windows:

STEP 1 Verify that the Cisco WAP351 is powered on and the lights indicate the appropriate links.

STEP 2 Locate the Cisco WAP351's IP address. While there are different ways to locate your device's IP address, this procedure uses Cisco FindIT.

- a. If you have previously downloaded Cisco FindIT, open Internet Explorer and launch Cisco FindIT. For more information on downloading Cisco FindIT, see www.cisco.com/go/findit.
- b. In the Cisco FindIT display, place your mouse over the device's name. The Cisco WAP351's IP address is displayed along with other device information.

STEP 3 Open a command window by choosing **Start > Run** and enter **cmd**.

STEP 4 At the **command** window prompt, enter **ping** and the Cisco WAP351's IP address. In this example, we **pinged 192.0.2.10**.

If successful, you should get a reply similar to the following:

```
Pinging 192.0.2.10 with 32 bytes of data:  
Reply from 192.0.2.10: bytes=32 time<1ms TTL=128
```


If it fails, you should get a reply similar to the following:

```
Pinging 192.0.2.10 with 32 bytes of data:  
Request timed out.
```

Possible Cause of Installation Failure

Devices Cant Connect using Wi-Fi

Complete the Setup Wizard. The Wi-Fi radio on the Cisco WAP351 is turned off by default, and the Setup Wizard activates it. For users who do not want to use the Setup Wizard, log into the Cisco WAP351 using a Category 5e Ethernet cable, and activate the Wi-Fi radio manually. See the Administration Guide for details on activating the Wi-Fi radio.

No Power

Power up the switch and your computer if they are turned off.

Make sure that your PoE switch is powered on and the lights indicate that you have a link. See [“Verifying the Hardware Installation” on page 6](#).

Verify that the devices on your network are not plugged into a switchable outlet.

Bad Ethernet Connection

Check the state of the indicator lights. See [“Verifying the Hardware Installation” on page 6](#).

Check the Ethernet cable to ensure that it is firmly connected to your devices. Devices connected by the Ethernet cable can include the WAP device, and routers, any switches, and your computer.

Verify the connected switch has auto-negotiation enabled. The Cisco WAP351 and the switch need the same negotiation parameters set.

Bad Image

After a new firmware installation, if the POWER light is flashing quickly, contact system support; see [“Where to Go From Here” on page 11](#).

Incorrect IP Address

The most likely cause of connectivity failure is an incorrect IP address. The Web browser may be pointing to the wrong IP address, or your computer may be configured with an IP address that is not in the same subnet as the Cisco WAP351.

Because the factory default IP address configuration is DHCP, make sure that your DHCP server is running and can be reached. You may need to disconnect and reconnect the devices for them to discover their new IP addresses from the DHCP server. You can then query the DHCP server for the new IP address. See [Step 2 of “Getting Started with the Configuration” on page 7](#) for more information on how to find the DHCP address.

If the wireless access points do not receive a DHCP response (there is no DHCP server on your network) after 60 seconds, the access points will fallback to the following default static IP address: 192.168.1.245 and a default mask of 255.255.255.0. To reach that IP address, be sure that your computer is on the 192.168.1.xxx network.

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Rebooting the Cisco WAP351 or Returning it to its Factory Default Settings

To reboot your Cisco WAP351:

- When the power supply is PoE, unplug your Ethernet connection for three seconds and plug it back in.
- or
- With the power on, press the **RESET** button with an opened paper clip for less than 10 seconds, or until the lights go off.
 - When all the lights go off, release the **RESET** button.
 - Release the **RESET** button as soon as the lights go off, or you will restore the Cisco WAP351 to factory default settings and lose your configurations.

To reset the Cisco WAP351 to factory default settings:

- With the power on, press and hold the **RESET** button with an opened paper clip for more than 10 seconds.
 - All of the lights will go off.
 - Release the **RESET** button when the power light turns on.

Support

Cisco Small Business Support Community	www.cisco.com/go/smallbizsupport
Cisco Small Business Support and Resources	www.cisco.com/go/smallbizhelp
Phone Support Contacts	www.cisco.com/en/US/support/tsd_cisco_small_business_support_center_contacts.html
Cisco Small Business Firmware Downloads	www.cisco.com/go/smallbizfirmware Select a link to download firmware for Cisco Small Business Products. No login is required.
Cisco Small Business Open Source Requests	www.cisco.com/go/smallbiz_opensource_request

Product Documentation

Cisco Cisco WAP351 Administration Guide	www.cisco.com/go/300_wap_resources
Cisco Small Business Power Adapters	Go to www.cisco.com/go/wap_accessories and select the Resources tab. Scroll down to Technical Documentation.

Cisco Small Business

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