Quick Start Guide

Cisco Small Business

VC240 Outdoor WDR Day/Night PoE Network Camera

Package Contents

- Cisco VC240 Outdoor Network Camera
- Mounting and Installation Accessories
- Open-end Wrench and Allen Wrench
- Female-to-Female Ethernet Adapter
- Setup and Documentation CD
- I/O and RS-485 Connectors
- Quick Start Guide
- Camera Stand
- Sun Shield

Versión en Español para México en el CD
Version en français sur CD
Versione italiana sul CD
Deutsch Version auf CD

Welcome

Thank you for choosing the Cisco VC240 Outdoor Wide Dynamic Range (WDR) Day/Night PoE Network Camera. This camera is a high-performance, web-ready camera and can be part of a flexible surveillance system.

This guide describes how to physically install your VC240 camera and how to install and launch the Setup Wizard.

1 Before You Begin

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

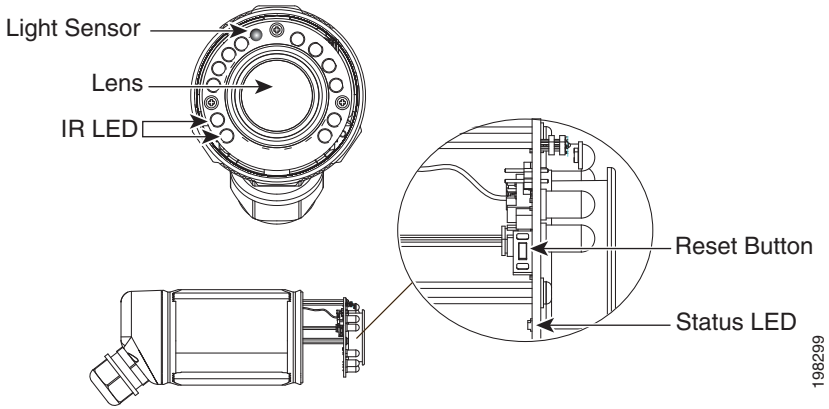
- Power over Ethernet (PoE)-enabled Ethernet network switch or an 802.3af-compliant PoE power injector
- Tools for installing the camera (drill, 1/4" drill bits, Phillips screwdriver, stud finder if attaching the camera to a dry wall)
- All the connections must be long enough to connect to the camera's 6-foot cable
- PC with Microsoft Internet Explorer 6.0 or later for accessing the camera's web-based configuration utility
- One or more Ethernet network switches

2 VC240 Features

Default Settings

Parameter	Default Value
Username	cisco
Password	cisco
LAN IP	DHCP
DHCP Range	Depends on router settings
Netmask	255.255.255.0

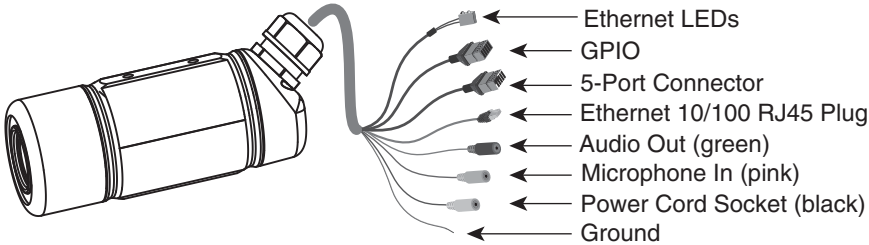
Front Panel

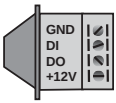


Light Sensor	Detects the amount of ambient light and switches the camera from day to night mode. If light is too low, the light sensor triggers the IR LEDs to turn on.
Lens	▪ Computar varifocal board lens 3.3–12mm F/1.4 ▪ Viewing angle 23.9–89.8° (horizontal) ▪ Removable IR-cut filter with focus compensation ▪ Manual zoom (3.5x)
IR LED	Enables operation in complete darkness. The ring of 12 infrared (IR) LEDs are built-in with a working range of 50 feet (about 15 meters).
Reset Button	Allows you to perform two functions: ▪ **Reset**—Press and hold the Reset button for less than 5 seconds to reset the camera. ▪ **Restore Factory Defaults**—Press and hold the Reset button for 5 seconds until Status LED is flashing red every 0.2 seconds.

Status LED	▪ **Light off**—Power is off or Status LED is off. ▪ **Flashing red every second**—Camera and network are functioning (heartbeat). ▪ **Steady red**—Network failure. ▪ **Flashing red every 2 seconds**—Audio is disabled. ▪ **Flashing red every 0.2 seconds**—Restoring default settings. ▪ **Flashing red every 0.5 seconds**—Upgrading firmware.

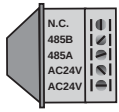
Back Panel





GND: Ground
DI: Digital Input
DO: Digital Output
+12V: Power (12VDC)

GPIO



NC: No Connector
485B: RS485-
485A: RS485+
AC24V: Power (24VAC)
AC24V: Power (24VAC)

5-Port Connector

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Ethernet LEDs	The green and amber Ethernet LEDs indicate status. If powered using PoE: ▪ **Green steady, amber steady**—Power on. ▪ **Green blinking, amber steady**—Power on with Ethernet data activity. If powered using an external power adapter: ▪ **Green steady, amber off**—Power on. ▪ **Green blinking, amber off**—Power on with Ethernet data activity.
General Purpose Input/ Output (GPIO)	Allows you to connect the camera to external input/ output devices that can provide additional controlling functions. For more information, see the *Cisco VC240 Outdoor WDR Day/Night PoE Network Camera Administration Guide* found at: **http://www.cisco.com/en/US/products/ps9944/prod_maintenance_guides_list.html**
5-Port Connector	Connects the camera to 24 VAC power (0.5 A) or serves as an RS-485 port.

Ethernet 10/100 RJ45 Plug	Connects the Cisco VC240 camera to a PoE switch or router, or to a PoE power injector (not provided) for connection to a non-PoE switch or router.
Audio Out (green)	Connects the Cisco VC240 camera through the 3.5 mm input jack to an external speaker or computer.
Microphone In (pink)	Connects the Cisco VC240 camera through the 3.5 mm input jack to an external microphone.
Power Cord Socket (black)	Connects the Cisco VC240 camera to 12 VDC (1 A) power when not using PoE or 24 VAC.
Ground	Connects the Cisco VC240 camera to ground.

3 Mounting the VC240

This section describes how to mount the camera. This does not include connecting the camera and adjusting the zoom and focus, which is covered later in this guide.

WARNING The power line of either 24 VAC or PoE is prohibited being exposed outdoor and bridged over buildings for surge protection by lightning strike.

WARNING Make sure the camera's Ground cable is connected to ground.

WARNING Make sure that all the camera's cables, including I/O and power, are connected to other devices in an indoor environment.

NOTE Install the VC240 camera with a UL-listed and marked outdoor conduit for the cable exposed in an outdoor environment.

NOTE You should reliably connect the VC240 camera to the main protective earthing terminal.

NOTE The VC240 camera uses a UL-listed AC/DC power adapter with a marked output rating of 12 VDC, 600 mA.

NOTE The VC240 camera uses a UL-listed AC/DC power adapter with a marked output rating of 24 VAC, 700 mA.

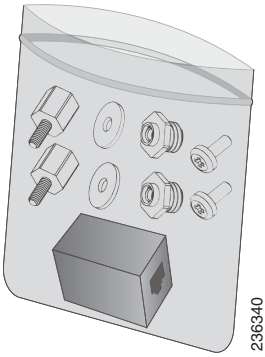
Placement Tips

- **Ambient Temperature**—To prevent the camera from overheating, do not operate it in an area that exceeds an ambient temperature of 122°F (50°C).
- **Air Flow**—Be sure that there is adequate air flow around the device to prevent the camera from overheating.
- **Mechanical Loading**—To avoid accidents or hazardous conditions, make sure the device is level, stable, and securely mounted.

Mounting and Installation Accessories

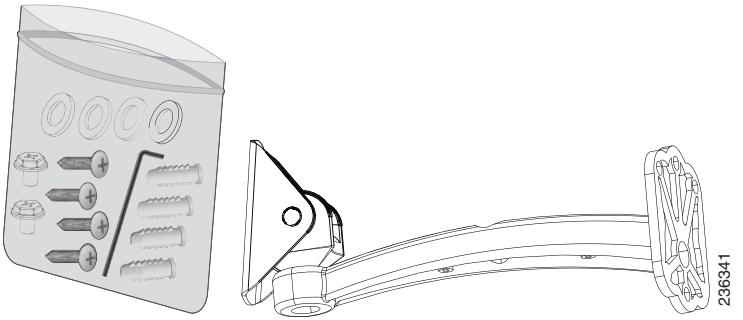
The camera ships with mounting and installation accessories.

Screws and RJ45 Ethernet Female/Female Coupler



- 1 Ethernet female/female coupler
- 2 screws (M3 x 8 mm)
- 2 M3 washers
- 2 M6-to-M3 male-to-female adapter
- 2 M3-to-M6 male-to-female adapter

Camera Stand Installation Accessories



- 4 #6M anchors
- 1 Allen wrench (5 mm)
- 4 washers (6 mm)
- 2 hex-head bolts (6 mm x 8 mm)
- 4 self-tapping screws (M4 x 32 mm)

Mounting the Camera to a Wall or Ceiling

You can mount the Cisco VC240 camera on the flat surface of a wall or a ceiling. The flat surface must be smooth, dry, and sturdy.

NOTE Provided with the camera is a kit that includes anchors (#8–#10 US) and screws (#8 US) to help you secure the camera to the wall or ceiling.

CAUTION Before drilling holes into the wall or ceiling when mounting the camera, make sure there are no electrical wires, water pipes, or other objects that might get damaged by the drilling.

NOTE If you plan on using the supplied sun shield with the camera, review the steps in the **"Attaching the Sun Shield" section on page 18** before mounting the camera.

NOTE To adjust the camera's zoom and focus settings, wait until you can view live video from the camera. After mounting the camera as described in this section, follow the steps in the **"Connecting the Equipment" section on page 12**, the **"Verifying the Hardware Installation" section on page 15**, and the **"Getting Started with the Configuration" section on page 15**. After you get live feed from the camera, follow the instructions in the **"Adjusting the Lens" section on page 17** to adjust the zoom and focus settings.

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

Installing the Stand

To install the camera's stand, follow these steps:

STEP 1 Unscrew the Allen-head bolt from the bracket mount using the supplied Allen wrench.

STEP 2 Attach the bracket mount to the camera using the two supplied hex-head bolts (6 mm x 8 mm).

STEP 3 Place the bracket mount, with the camera attached to it, over the pivot of the camera stand.

STEP 4 Attach the bracket mount to the pivot using the supplied M6 Allen-head bolt and its M6 lock washer. Use the Allen wrench to tighten the screw.

STEP 5 Attach the base of the camera stand to the wall or ceiling:

a. Use the base of the camera stand to mark the location of the four holes that you are going to drill in the next step.

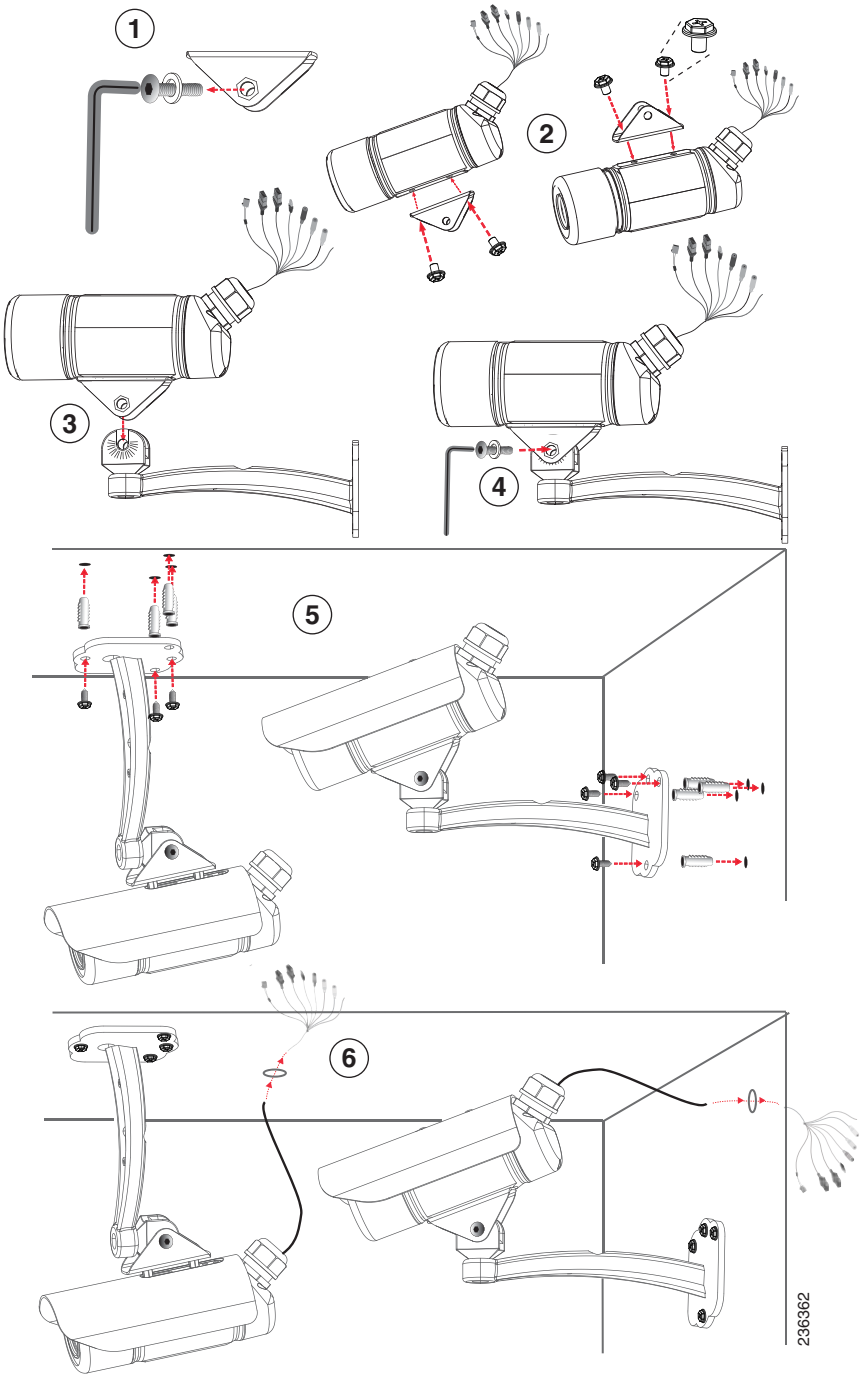
b. Using a 1/4-inch drill bit, drill four holes into the surface.

c. Insert the provided four wall-mounting screw anchors into the holes.

d. Attach the base of the camera stand to the wall or ceiling using the four self-tapping screws (#10x1.5") and the corresponding M6 flat washers.

STEP 6 If you plan to connect the camera's cables from behind the wall or above the ceiling, drill a 1-inch diameter hole in the wall or ceiling and thread the cables through the hole.

In an outdoor installation, make sure that only the portion of the connector cables covered in black is exposed to the elements because it is weather proof. The individual cables should be behind the ceiling or wall.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4 Connecting the Equipment

You can provide power to the camera over Ethernet using a PoE-enabled network switch or a PoE power injector. You can also use an external power adapter (not supplied).

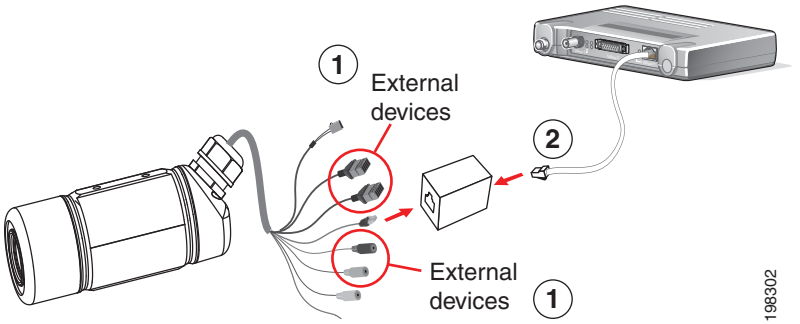
Connecting the Camera to a PoE-Enabled Switch

To connect your camera to a PoE-enabled switch, follow these steps.

STEP 1 Connect the camera's cables as needed to I/O port devices, an audio speaker, and a microphone.

STEP 2 Use the supplied RJ45 female-to-female Ethernet adapter to connect the camera to a PoE-enabled switch.

NOTE Use a Category 5 crossover cable to directly connect the camera to a computer.



Connecting the Camera to a PoE Power Injector

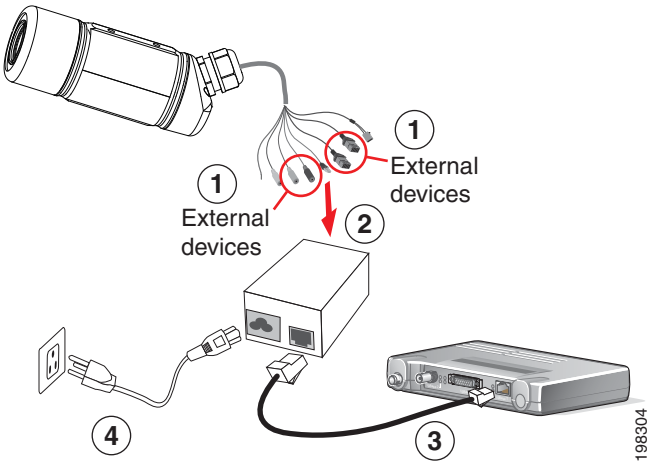
To connect the camera to a non-PoE-enabled switch using an 802.3af-compliant PoE power injector, follow these steps:

STEP 1 Connect the camera's cables as needed to I/O port devices, an audio speaker, and a microphone.

STEP 2 Use the supplied RJ45 female-to-female Ethernet adapter to connect the camera to a PoE power injector.

STEP 3 Connect the switch to the PoE power injector.

STEP 4 Connect the PoE power injector to a power outlet.



Connecting the Camera to an External Power Adapter

To connect the camera to an external power adapter (not supplied) through the camera's power cord socket, you'll need an adapter with the following specifications:

- 12-VDC (1 A) power adapter with an output barrel connector
- Diameter of the outer barrel is 5.5 mm
- Diameter of the inner barrel is 2.1 mm
- Length of the barrel connector is 9.5 mm

You can also connect the camera to power through the 5-port connector (24 VAC, 0.5 A).

To connect the camera to your network and provide power using an external power adapter (not supplied), follow these steps:

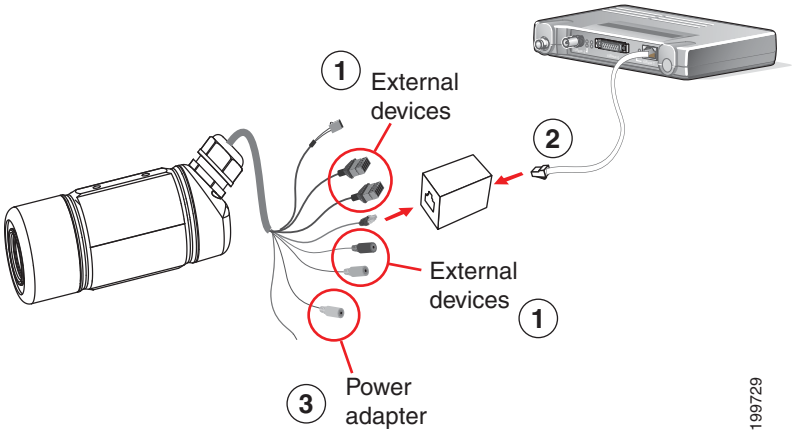
STEP 1 Connect the camera's cables as needed to I/O port devices, an audio speaker, and a microphone.

STEP 2 Use the supplied RJ45 female-to-female Ethernet adapter to connect the camera to a switch.

NOTE Use a Category 5 cross cable to directly connect the camera to a computer.

STEP 3 Connect the power supply to the camera's power cord socket (black connector).

Alternatively, you can use the 5-port connector to connect the camera to power.



5 Verifying the Hardware Installation

To verify the hardware installation, complete the following tasks:

- Check the cable connections.
- Verify that the Status LED is flashing green as described in the **"Front Panel" section on page 3**.

NOTE If you need help resolving a problem, visit the Cisco Small Business Support Community at www.cisco.com/go/smallbizsupport. For technical documentation and other links, see the **"Where to Go From Here" section on page 19**.

6 Getting Started with the Configuration

Before you begin to use the Configuration Utility, make sure that you have a computer that meets the following requirements:

- Windows XP, Windows Vista, or Windows 7.
- Internet Explorer (version 6 or higher)

NOTE You get limited functionality if you use Firefox or Safari.

To locate and access the camera, follow these steps:

STEP 1 Make sure your computer is on the same network as the camera.

If there is no DHCP server present in the network, the camera defaults to the 192.168.1.99 IP address. In this case, make sure that your computer is on the 192.168.1 network.

STEP 2 Insert the Cisco VC240 Setup CD into your computer's CD-ROM drive. If the CD doesn't run automatically, go to My Computer and double-click the CD-ROM drive to launch the application.

STEP 3 Choose a language from the drop-down menu then click **Next**.

STEP 4 When the Setup screen appears, click **Start**.

STEP 5 Follow the Setup Wizard instructions to locate the Cisco VC240 camera on your network.

After the Setup Wizard locates the camera, the Device Selector window appears.

STEP 6 Select the entry with the same MAC address or serial number as your camera.

NOTE A MAC address is the unique identifier in camera discovery. The Setup Wizard lists the IP addresses and MAC addresses of all the cameras discovered. If you have more than one camera, make a note of the MAC address found on the side of the camera. Knowing the MAC address makes it easier to identify multiple cameras.

STEP 7 Record the IP address of the camera.

NOTE The camera uses DHCP for setting an IP address, with an address being obtained from a DHCP server or a DHCP router. If no DHCP server is present in the network, after 90 seconds, the camera defaults to a static address of 192.168.1.99.

STEP 8 Exit the Setup Wizard.

When you exit the Setup Wizard, it should open the home page of the camera's configuration utility in a web browser window. If after 90 seconds the home page does not appear, open a web browser window and enter 192.168.1.99 in the address field to open the camera's home page.

STEP 9 When the login page appears, enter the user name and password.

The default user name is cisco. The default password is cisco. Passwords are case sensitive.

NOTE To protect your camera from unauthorized use, change the default password.

STEP 10 Click **Login**.

After you log in, an ActiveX request may appear. Click **OK** and live video from the camera appears.

NOTE If you use Safari or Firefox, you can view MJPEG video from the camera without any additional installation. However, to view MPEG-4 video, install the QuickTime plug-in.

For more information about configuring the camera, see *Cisco VC240 Outdoor WDR Day/Night PoE Network Camera Administration Guide*.

7 Suggested Next Steps

Congratulations, you are now ready to start using your Cisco VC240 camera. You may wish to consider taking some of the following steps:

Adjusting the Lens

While viewing live video from your camera, you can now adjust the zoom factor and focus range as needed.

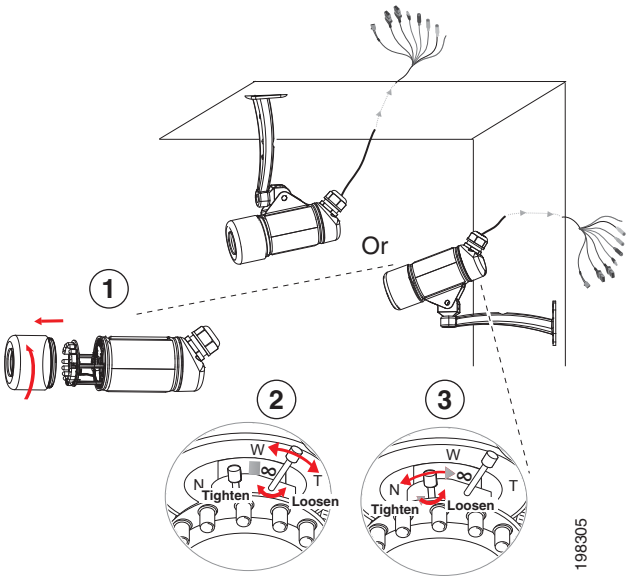
To adjust the zoom factor and focus range, follow these steps:

STEP 1 Remove the lens cover.

STEP 2 Gently loosen the zoom controller (back adjustment) and adjust the zoom factor from Wide (W) to Telephoto (T). Upon completion, gently tighten the zoom controller.

STEP 3 Gently loosen the focus controller (front adjustment) to adjust the focus range from Near to Infinity. Upon completion, gently tighten the focus controller.

STEP 4 Reattach the lens cover.



Attaching the Sun Shield

To use the supplied sun shield in outdoor environments, follow these steps.

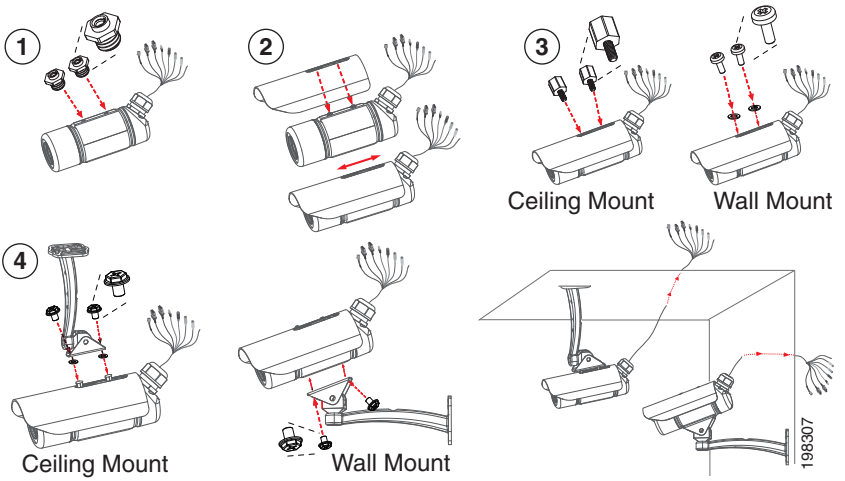
STEP 1 Insert the supplied screws in the corresponding hole on top of the camera as shown below. Then, tighten the screws using the supplied open-end wrench.

STEP 2 Attach the supplied sun shield to the camera and slide it to the desired position.

STEP 3 Secure the sun shield with the appropriate screws.

If you are mounting the camera on a ceiling, insert the screws as shown below.

STEP 4 Attach the camera to the camera stand.



Placing Silica Gel Desiccant Bags Inside the Camera

The VC240 camera comes with silica gel desiccant bags. One is placed inside the camera using two-sided adhesive tape and the other is a replacement bag provided in a sealed aluminum bag.

If you decide to remove the lens cover after more than six months of camera use, remove the used silica bag and place the replacement bag inside the camera before reattaching the lens cover.

While the camera is 100% waterproof, the silica gel desiccant bags help protect the camera by absorbing the small amount of moisture that might form during the initial startup when components go from cold to hot in a matter of few seconds. This prevents moisture from condensing on the lens or its glass cover.

8 Where to Go From Here

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. Downloads for all other Cisco Small Business products, including Network Storage Systems, are available in the Download area on Cisco.com at www.cisco.com/go/software (registration/login required).
Product Documentation	
Cisco VC240 Outdoor WDR Day/Night PoE Network Camera Administration Guide	www.cisco.com/en/US/products/ps9944/tsd_products_support_series_home.html
Cisco Small Business	
Cisco Partner Central for Small Business (Partner Login Required)	www.cisco.com/web/partners/sell/smb
Cisco Small Business Home	www.cisco.com/smb

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