



Virtualization Experience Media Engine

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Cisco Unified Communications and the Virtual Environment

In a virtual environment, your Cisco Unified Communications application (such as Cisco Jabber or Cisco UC Integration for Microsoft Lync) runs on your hosted virtual desktop. The hosted virtual desktop is a form of desktop computing. Your hosted virtual desktop looks and functions like a regular desktop; however, your Windows desktop, other software, and your data reside in a central location called a data center. You access your hosted virtual desktop over a secure Citrix or VMware connection.

The hosted virtual desktop removes the need for typically more costly physical desktop PCs. Central hosting in the data center reduces the cost of providing the applications and computing services that you need. This type of setup is commonly referred to as a virtual environment.

In a virtual environment, Cisco Virtualization Experience Media Engine is required to support audio and video calls with your Cisco Unified Communications application. Cisco Virtualization Experience Media Engine also provides support for the following accessories:

- Logitech UC Keyboard K725-C
- Logitech Mouse M525-C
- Logitech Webcam C920-C
- Jabra Handset 450 Cisco
- Jabra Speak 450 Cisco

**Note**

If you use supported accessories other than those that are designed for Cisco, the function of these devices may be different from the function of the devices that are described in this document.

For a complete listing of supported audio and video accessories, see Unified Communications Endpoint and Client Accessories at http://www.cisco.com/en/US/prod/voicesw/uc_endpoints_accessories.html.

For information about Cisco Virtualization Experience Client and the designed for Cisco Accessories, see *User Guide for Cisco Virtualization Experience Client 6215*.

Device Management

Cisco Virtualization Experience Media Engine (VXME) includes a component called Device Selector. Device Selector is a menu that you can use to manage your cameras, speaker devices, microphones, and ring alerts. You can view your currently active devices or change them. A list of speaker devices appears first in the menu, followed by the lists of microphones, ring devices, and cameras.

After you connect a new device, a “New device found” message appears in the notification area and the new device becomes active.

**Note**

With some wireless headsets, you may not hear the ringtone for incoming calls, because the wireless link that connects device is not open. To open the wireless link, press the call answer button on the headset. Some headsets play their own internal tone.


When you disconnect a device, a “Device disconnected message” appears in the notification area and the next device in your Preference list (**File > Options > Audio > Advanced**) becomes active.

The Device Selector icon (⊙) appears in the notification area (system tray), in the bottom right corner of the screen. Some icons, including the Device Selector, can be hidden. Click the up arrow in the notification area to show hidden icons.

View Your Active Camera or Audio Device

You can check to see which of your cameras or audio devices is currently selected.


Procedure

In the Windows notification area, click .
Check marks indicate the selected devices.

Change Your Active Camera or Audio Device

Use the **Device Selector** menu to select a different active camera or audio device. You must have multiple devices connected.

Procedure

- Step 1** In the Windows notification area, click . Check marks indicate the selected devices.
- Step 2** Click a device (camera or audio) to make it active.
- Step 3** Click anywhere except on the **Device Selector** menu to close the menu.
-

Audio

All audio from your Cisco Virtualization Experience Client and your hosted virtual desktop plays through your selected audio device. You can adjust the volume on the Cisco Virtualization Experience Client; however, each time you log in to your hosted virtual desktop, the volume setting synchronizes with the setting on your hosted virtual desktop.

Default Audio Device Selection

When you start your Cisco Virtualization Experience Client for the first time, the default audio device is the first device in the following order:

- 1 Hands-free—If multiple hands-free devices are connected, the default is the first device in alphabetical order.
- 2 Headset—If multiple headsets are connected, the default is the first headset in alphabetical order.
- 3 Handset—If multiple handsets are connected, the default is the first handset in alphabetical order.
- 4 No devices connected—The default audio device is the Cisco Virtualization Experience Client built-in speaker.

The next time that you start your Cisco Virtualization Experience Client the default audio device is the last selected active device, provided that the device is still connected. Otherwise, Device Selector makes the first available device active (subject to the preceding order of selection.)

After you connect a new device, a “New device found” message appears in the notification area and the new device becomes the active device.

When you disconnect a device, a “Device disconnected message” appears in the notification area and the next device in the Device Selector list becomes active.

Ringtone

When you have an incoming call, an incoming call notification appears on your screen and your active audio device plays the ringtone. Depending on your active device, the Cisco Virtualization Experience Client built-in speaker also plays the ringtone to ensure that you can hear it. If the hands-free speakerphone is the active device, the ringtone plays on the speakerphone. If the hands-free speakerphone is not the active device, or it

is not connected, both the active device and the Cisco Virtualization Experience Client built-in speaker play the ringtone.



Note With some wireless headsets, you may not hear the ringtone. Some headsets play their own internal tone.

Device Ready Indicator

If you perform one of the following off hook actions and you have no incoming or in-progress calls, the active device plays a beep tone to indicate that the device is ready. The device becomes the active device if it was not already.

- Press the **Call** key on the Logitech UC Keyboard. If the headset is the active device, the beep plays on the Cisco Virtualization Experience Client built-in speaker.
- Press the **Call** key on a headset.
- Press the **Speaker** button on the Jabra Speak 450.
- Lift the Jabra Handset 450 from its cradle.

For example, if your current active device is your headset and you lift the handset from the cradle, the handset becomes the active device and plays the beep tone to indicate that it is ready. The UC Keyboard indicates your new selection.



Note You must be signed in to Cisco Jabber or Cisco UC Integration™ for Microsoft Lync.

Adjust Cisco Unified Communications Volume

You can adjust the volume settings for certain applications on your hosted virtual desktop, including Cisco Jabber or Cisco UC Integration™ for Microsoft Lync.



Note You can adjust the Cisco Unified Communication volume during a call by using the volume control on the call strip, in the active call window.

Procedure

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- Step 1** In the notification area, click the **Speaker** icon.
 - Step 2** Click **Mixer**.
 - Step 3** Use the slider for Cisco Jabber or Cisco UC Integration™ for Microsoft Lync to increase or decrease the volume.
-

Adjust Settings for Jabra Bluetooth Devices

Before You Begin

Jabra PC Suite must be installed.

Procedure

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- Step 1** Open the Jabra Control Center.
 - Step 2** Click the Jabra device for which you want to modify the settings.
 - Step 3** Click **Softphone (PC)**.
 - Step 4** Check the **Open phone line on undock** check box.
 - Step 5** Under **PC audio control**, click **Automatic**.
 - Step 6** From the Softphone Vendor list, select **Other**.
 - Step 7** Click **Apply**.
-

Video Resolution

The only supported camera that features hardware encoding is the Logitech WebCam C920-C.

You must use this model camera with Cisco Jabber or Cisco UC Integration™ for Microsoft Lync and Cisco Virtualization Experience Media Engine to support video resolutions up to 720p (720 horizontal lines and an aspect ratio of 16:9) at 30 frames per second in the virtual environment. Other supported cameras only support video resolution up to 360p.

Numerous other variables, such as network traffic or far-endpoint video capability, can affect video quality.



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- Note** Do not switch from a high definition (HD) camera with hardware encoding to a standard definition (SD) camera during a call. Video calls use the settings that are established at the start of the call. The higher setting for the HD camera causes video performance issues with an SD camera. If you want to switch to an SD camera, do so between calls.
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Screen Lock Call Control

While your hosted virtual desktop is in screen lock, you cannot make calls, but you can receive them. If you have an incoming call while your hosted virtual desktop is in screen lock, you can use one of your accessories to answer the call. With supported accessories, the following call control features are available during screen lock:

- Answer call

- End call
- Hold call
- Resume call
- Change active device (Logitech UC Keyboard feature)
- Toggle audio mute
- Toggle video start and stop (Logitech UC Keyboard feature)
- Adjust audio volume

Cisco Approved Audio and Video Accessories

For a complete listing of supported audio and video accessories, see the *Cisco Approved Audio and Video Accessories Data Sheet*, at http://www.cisco.com/c/en/us/products/collateral/collaboration-endpoints/virtualization-experience-media-engine/data_sheet_c78-702849.html.



Note

Cisco does not provide technical support for these accessories. For more information about, or technical assistance with your

- Logitech accessories, visit the Logitech website: <http://www.logitech.com/>.
- Jabra accessories, visit the Jabra website: <http://www.jabra.com/>.

The following accessories are made for Cisco and supported for use with Cisco Virtualization Experience Media Engine:

- Logitech UC Keyboard K725-C
- Logitech Mouse M525-C
- Logitech Webcam C920-C
- Jabra Handset 450 for Cisco
- Jabra Speak 450 for Cisco



Note

If you use supported accessories other than those made for Cisco, the behavior of these devices may be different than described in this document.

Related Topics

[Logitech UC Keyboard K725-C, on page 7](#)

[Logitech Mouse M525-C, on page 9](#)

[Logitech WebCam C920-C, on page 12](#)

[Jabra Handset 450 for Cisco, on page 14](#)

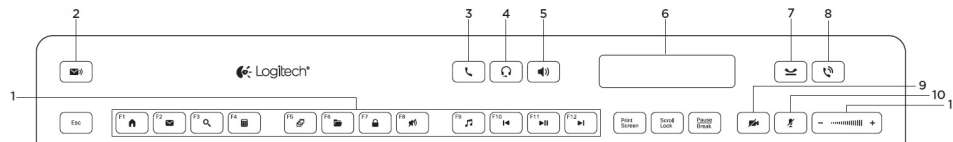
[Jabra Speak 450 for Cisco, on page 17](#)

Logitech UC Keyboard K725-C

The Logitech UC Keyboard K725-C is designed for Cisco for use in Cisco Unified Communications (UC) environments. The Logitech UC Keyboard features Cisco UC integration with Cisco UC Integration for Microsoft Lync.

Logitech UC Keyboard Features

Figure 1: Logitech UC Keyboard Features



Note

Enhanced functions (items 2 through 11) are available only in Cisco Unified Communications environments. To use these functions, you must be signed in to your Cisco Unified Communications client (Cisco Jabber or Cisco UC Integration™ for Microsoft Lync).

Table 1: Legend

1	See the table <i>Function Keys</i> , which follows this legend.
2	Call your voicemail service. Follow the audio prompts. The key lights up red when you have a new voice message. Note If you have not set up your Cisco Unified Communications client (Cisco Jabber or Cisco UC Integration™ for Microsoft Lync) with your Cisco Unity credentials for voicemail, or if you use a third-party voicemail system, the message waiting indicator on the keyboard may not be in sync with Cisco Jabber or Cisco UC Integration™ for Microsoft Lync.
3	Press to use your default handset for audio. The name of your default handset device appears briefly on the LCD display.
4	Press to use your default headset for audio. The name of your default headset device appears briefly on the LCD display.
5	Press to use your default hands-free (speakerphone) device for audio. The name of your default hands-free device appears briefly on the LCD display.

6	<p>See the LCD display for status information. If your phone is registered, your user name and number appear. If your phone is not registered, the message "Phone is not registered" appears. For active calls, the display shows the same information available from the Cisco Jabber or Cisco UC Integration™ for Microsoft Lync call window, such as caller ID and call timer. The icons that appear depend on the status of the call: active, on hold, or microphone muted.</p> <p>You can adjust the brightness and the contrast for the LCD display.</p> <p>Press FN and the Volume + or Volume - key to adjust the brightness for the LCD display.</p> <p>Press FN, Alt, and the Volume + or Volume - key to adjust the contrast for the LCD display.</p>
7	Press to place a call on hold, or to resume a held call.
8	Press to answer an incoming call or to end your current active call.
9	Press to toggle your video: add or remove video for a call in progress.
10	<p>Press to toggle audio: mute and unmute audio for a call in progress.</p> <p>Note This feature is not available if you connect to your hosted virtual desktop over a VMware connection.</p>
11	<p>Press the Volume + or Volume - key to increase or decrease Cisco Jabber or Cisco UC Integration™ for Microsoft Lync audio volume.</p> <p>Note This feature is not available if you connect to your hosted virtual desktop over a VMware connection.</p>

The following table lists the default functions for each of the Function Keys (F-keys). Simultaneously press the FN key and the F-key that you want to use.

Table 2: Function Keys

F1	Start your default web browser.
F2	Start your default e-mail application.
F3	Search for files and folders (desktop search).
F4	Start the calculator.
F5	Switch between open applications.
F6	Bring the file browser to the front.
F7	Lock your Microsoft Windows desktop session.
F8	Toggle system audio: mute and unmute.
F9	Start your default media player application.

F10	Play the previous track (Media control).
F11	Toggle playback: play and pause (Media control).
F12	Play the next track (Media control).

Set Up Your Keyboard

Procedure

- Step 1** Power on your Cisco Virtualization Experience Client.
- Step 2** Plug the keyboard into a USB port on your Cisco Virtualization Experience Client. To support the backlight feature on the Logitech UC Keyboard, you must plug the keyboard directly into the Cisco Virtualization Experience Client or a powered USB hub.
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What to Do Next

If you experience issues with the keyboard, plug it into a different USB port and restart the Cisco Virtualization Experience Client.



Important Use the USB port on the back side of the Logitech UC Keyboard K725-C only for the Logitech Mouse M525-C unifying receiver.

[Set Up Your Mouse, on page 11](#)

Logitech Mouse M525-C

The wireless Logitech Mouse M525-C is designed for use with your Logitech UC Keyboard K725-C in Cisco Unified Communications environments.

Logitech Wireless Mouse Features

Figure 2: Logitech Wireless Mouse Features

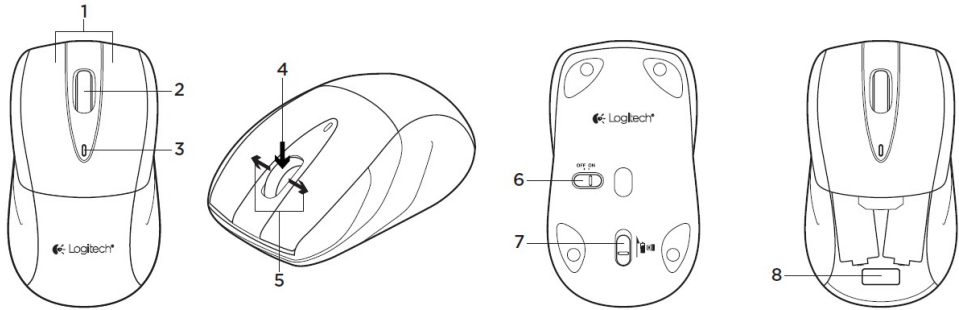
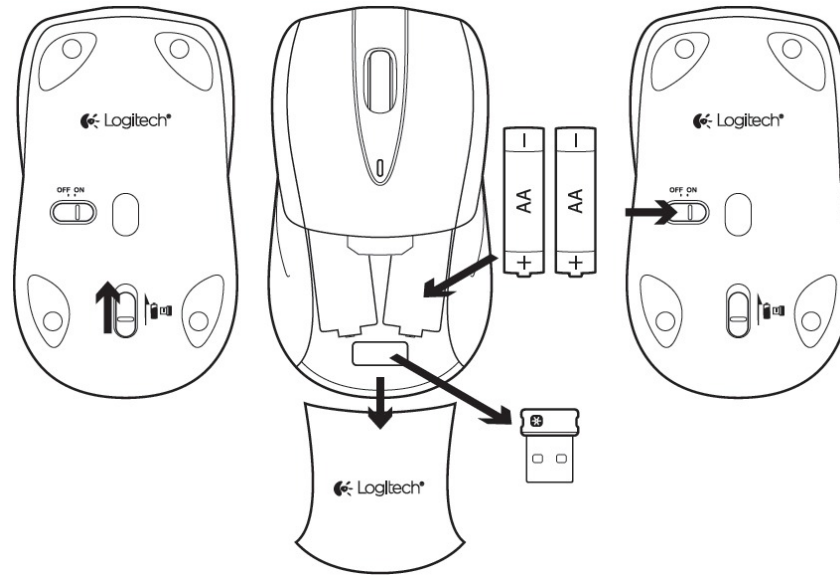


Table 3: Legend

1	Left and right mouse buttons.
2	Scroll wheel.
3	Battery LED: Flashes green when mouse is powered on, and flashes red when the battery power is low.
4	Middle button: The function of this button depends on your operating system and the application being used. For example, if you browse the Internet in Microsoft Windows and use the Middle button to click a link, typically the link opens in a new tab.
5	Internet back and forward: Tilt the scroll wheel right to move forward one page. Tilt the scroll wheel left to move back one page.
6	OFF ON slider switch.
7	Lid release for the storage and battery compartment lid.
8	Unifying receiver storage—When the mouse is not in use, you can store the Unifying receiver inside the mouse.

Set Up Your Mouse

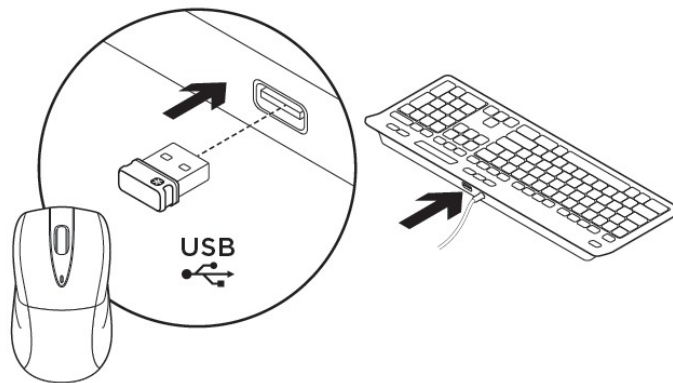
Figure 3: Mouse Setup



Procedure

- Step 1** On the bottom of the mouse, push the release for the storage compartment.
- Step 2** Turn the mouse over and remove the lid from the storage compartment.
- Step 3** Remove the Unifying Receiver from the storage compartment.
- Step 4** Install two AA batteries.
- Step 5** Slide the lid for the storage compartment back into place.
- Step 6** On the bottom of the mouse, move the OFF ON switch to the ON position.
- Step 7** Plug the Unifying Receiver into the USB port on your Logitech UC Keyboard, as shown in the following image.

Figure 4: Plug In the Unifying Receiver



Logitech WebCam C920-C

The Logitech WebCam C920-C features hardware encoding and is designed for Cisco for use in Cisco Unified Communications environments. With the Logitech WebCam C920-C, Cisco Jabber or Cisco UC Integration™ for Microsoft Lync, with Cisco Virtualization Experience Media Engine can support video resolutions up to 720p (720 horizontal lines and an aspect ratio of 16:9) at 30 frames per second, in the virtual environment.



Note Other variables, such as network traffic or far-endpoint video capability can affect video quality.

Logitech Webcam Features

Figure 5: Logitech WebCam C920-C Features

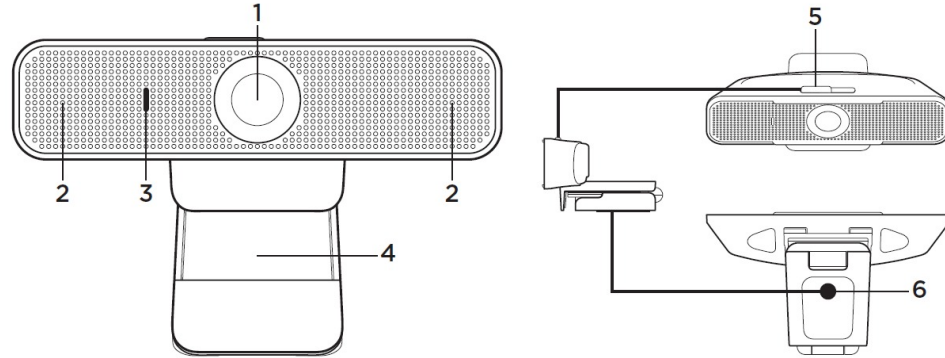


Table 4: Legend

1	Autofocus HD 1080p lens
2	Omnidirectional microphones Note The virtual environment does not use these microphones.
3	Activity light
4	Flexible clip/base
5	Privacy shutter
6	Tripod attachment

Set Up Your Webcam

Procedure

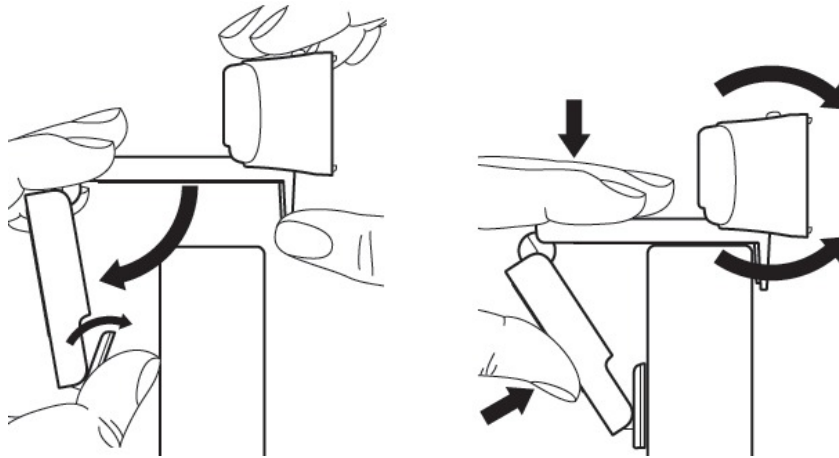
-
- Step 1** Place the webcam where you want it: on a computer monitor, desktop, or tripod.
 - Step 2** Connect the webcam to a USB port.
Driver installation may take a few moments.
 - Step 3** Use your webcam to make video calls with your video calling application.
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Related Topics

[Mount Your Webcam on a Monitor, on page 14](#)

Mount Your Webcam on a Monitor

Figure 6: Monitor Mount



Procedure

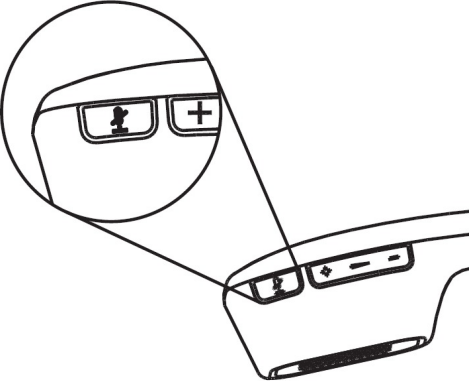
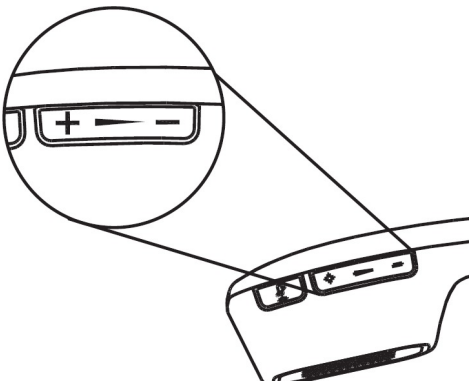
-
- Step 1** Grasp the webcam as shown and open the flexible clip/base with your other hand.
 - Step 2** Mount the webcam, making sure the foot on the flexible clip/base is flush with the back of your monitor.
 - Step 3** Adjust the camera angle up or down.
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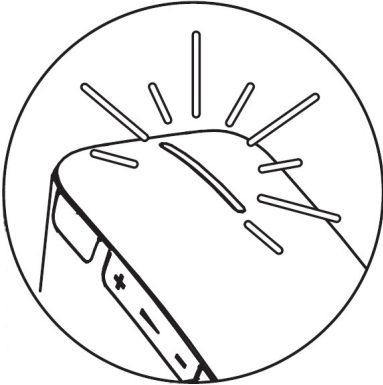
Jabra Handset 450 for Cisco

The Jabra Handset 450 for Cisco was designed for Cisco, for use in Cisco Unified Communications environments.

Jabra Handset 450 Features

Table 5: Jabra Handset 450 Features

Feature	Description
Answer call	<p>Lift the handset.</p> <p>If your Cisco Unified Communications client (Cisco Jabber or Cisco UC Integration™ for Microsoft Lync) is running and you have no incoming, active, or held calls, you can lift the handset to make it your active device. The handset plays a beep tone when the device is ready and Cisco Jabber or Cisco UC Integration™ for Microsoft Lync becomes the active window.</p>
End call	Place the handset back in the cradle.
Mute handset	<p>Press the mute button on the handset to toggle mute.</p> 
Handset volume control	<p>Press the Volume + and Volume - buttons on the handset to increase or decrease the volume.</p> 

Feature	Description
Handset status indicator light	<p>Indicates the handset status. The light is</p> <ul style="list-style-type: none"> • White (not flashing) when the handset is ready, but not in use. • White (flashing) when the handset is charging, but not in use. • Yellow when the handset battery is low. • Blue (flashing) when the handset is pairing with the cradle. If the handset flashes blue while away from the cradle, this indicates that the handset is out of range. • Red (flashing) when you have an incoming call and the handset is ringing. • Red (not flashing) when you have new voicemail. <p>Note If you have not set up your Cisco Unified Communications client (Cisco Jabber or Cisco UC Integration™ for Microsoft Lync) with your Cisco Unity credentials for voicemail, or if you use a third-party voicemail system, the message waiting indicator on the handset may not be in sync with Cisco Jabber or Cisco UC Integration™ for Microsoft Lync.</p> <ul style="list-style-type: none"> • Green when you have an active call or audio stream. 
Handset charging	Place the handset into the cradle.

Set Up Your Handset

The Jabra Handset 450 for Cisco and the handset cradle are factory paired.



Note

You can pair only one handset with the cradle at a time.

Procedure

- Step 1** Connect the USB cable to the handset cradle.
 - Step 2** Plug the USB cable into an available USB port on your Cisco Virtualization Experience Client.
 - Step 3** Place the handset in the cradle.
The handset pairs with the cradle and begins charging.
-



Power Your Handset Off and On

The Jabra Handset 450 for Cisco is always powered on when it is in the handset cradle.



Note The handset powers off automatically if it is out of range of the cradle, for four minutes or longer.

Procedure

- Step 1** To power off the handset, press and hold  for 5 seconds.
 - Step 2** To power the handset back on, press .
-

Jabra Speak 450 for Cisco

The Jabra Speak 450 for Cisco is a hands-free speakerphone. The Jabra Speak 450 was designed for Cisco to work in Cisco Unified Communications environments.

Jabra Speak 450 Features

Figure 7: Jabra Speak 450 Features

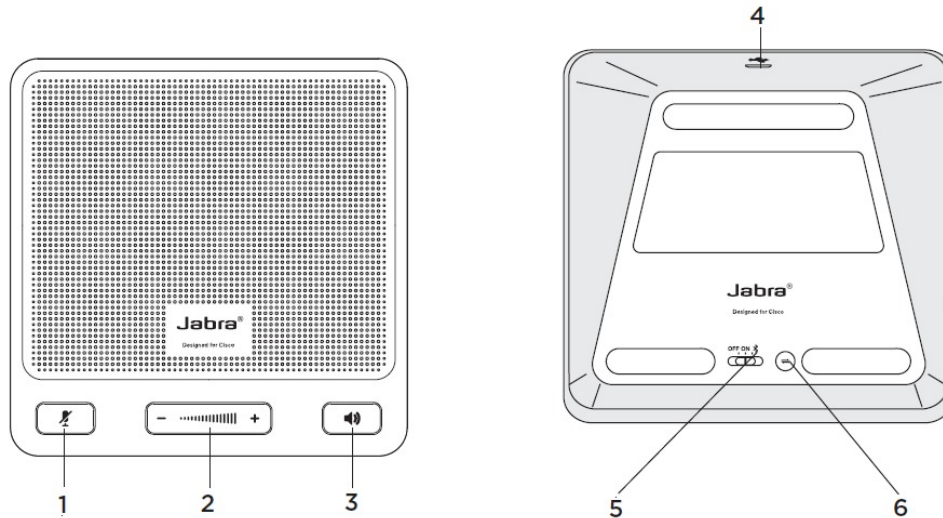


Table 6: Legend

1	Press the Mute button to toggle mute.
2	Press the Volume + or Volume - button to adjust the speaker volume up or down.
3	Press the Speaker button to answer a call, or to end a call. To end an active call and answer an incoming call, press the Speaker button twice. To reject an incoming call, press the Speaker button twice. To put a call on hold and answer an incoming call, press and hold the Speaker button for two seconds. To switch between an active call and a call on hold, press and hold the Speaker button for two seconds. If Cisco Jabber or Cisco UC Integration™ for Microsoft Lync is running and you have no incoming, active, or held calls, you can press the button to make the speakerphone your active device. The speakerphone plays a beep tone to let you know that it is ready and Cisco Jabber or Cisco UC Integration™ for Microsoft Lync becomes the active window.
4	Plug the USB cable into this USB port. (USB connections only)
5	Set the OFF/ON/Bluetooth switch to ON for a USB connection. Set the OFF/ON/Bluetooth switch to Bluetooth for Bluetooth connections.
6	Press the Connect button to reconnect with, or to disconnect from a Bluetooth device.

Set Up Your Hands-Free Speakerphone USB Connection

Procedure

- Step 1** Connect the USB cable to the Jabra Speak 450.
 - Step 2** Plug the other end of the USB cable into an available USB port.
 - Step 3** On the base of the speakerphone, set the **OFF/ON/Bluetooth** switch to the **ON** position.
-

Set Up Your Hands-Free Speakerphone Bluetooth Connection

With the Jabra Link 360, you can connect the Jabra Speak 450 to your Cisco Virtualization Experience Client over Bluetooth.



- Note** You can pair up to eight devices with the Jabra Link 360; however, only one active audio path is supported at a time. For more information about the Jabra Link 360, visit <http://www.jabra.com>.
-

Before You Begin

Power off all devices that previously connected to (paired with) the Jabra Link 360.

Procedure

- Step 1** On the base of the speakerphone, set the **OFF/ON/Bluetooth** switch to the **Bluetooth** position.
 - Step 2** On the base of the speakerphone, press **Connect**.
 - Step 3** Plug the Jabra Link 360 into an available USB port.
The LED indicator flashes blue to indicate that the Jabra Link 360 is in pairing mode. It can take up to a minute to establish the connection. The LED turns solid blue when pairing is complete.
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