



Cisco IP Phone Accessories

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Accessories Overview for Cisco IP Phone 8800 Series with Multiplatform Firmware

Table 1: Accessory Support for the Cisco IP Phone 8800 Series with Multiplatform Firmware

Accessory	Type	Cisco IP Phone				
		8811 and 8841	8845	8851	8861	8865
Cisco Accessory						
Cisco IP Phone 8800 Key Expansion Module	Add-on module	Not supported	Not supported	Supported	Supported	Supported
				Supports up to 2 expansion modules.	Supports up to 3 expansion modules.	
Wall Mount Kit		Supported	Supported	Supported	Supported	Supported
Footstand		Supported	Supported	Supported	Supported	Supported
Cable Lock		Supported	Supported	Supported	Supported	Supported
Cisco Headset 520 Series	USB	Not supported	Not supported	Supported	Supported	Supported

Accessory	Type	Cisco IP Phone				
		8811 and 8841	8845	8851	8861	8865
Cisco Headset 530 Series	Standard RJ9	Supported	Supported	Supported	Supported	Supported
	USB Adapter	Not supported	Not supported	Supported	Supported	Supported
Cisco Headset 560 Series with Standard Base Cisco Headset 560 Series with Multibase	Standard RJ9 and AUX	Supported	Supported	Supported	Supported	Supported
	USB	Not supported	Not supported	Supported	Supported	Supported
Cisco Headset 730	Bluetooth*	Not supported	Not supported	Not supported	Not supported	Not supported
	USB Adapter	Not supported	Not supported	Supported	Supported	Supported
	USB-C Cable	Not supported	Not supported	Supported	Supported	Supported
<p>*—For the Bluetooth connection with Cisco IP Phone Multiplatform Phones, the limited call features (for example, answer or end a call) are available. The call features will be fully supported in a future release. Currently, we recommend that you use the Cisco Headset 730 by a USB adapter or a USB-C cable.</p>						
Third-Party Accessories						
Headsets: See Third Party Headsets, on page 8 . This section includes information about each headset type.	Analog	Supported	Supported	Supported	Supported	Supported
	Analog Wideband	Supported	Supported	Supported	Supported	Supported
	Bluetooth*	Not supported	Supported	Supported	Supported	Supported
	USB	Not supported	Not supported	Supported	Supported	Supported
	Electronic Hookswitch	Supported	Supported	Supported	Supported	Supported
		See Note 1.		See Note 2.		
Microphones: See External Speakers and Microphone, on page 4 .	External PC	Not supported	Not supported	Not supported	Supported	Supported
Speakers: See External Speakers and Microphone, on page 4 .	External PC	Not supported	Not supported	Not supported	Supported	Supported

**Note**

1. If you connect your headset to the phone with the Y-cable (RJ-9 connector and AUX connector), make sure that you enable **Electronic HookSwitch Control** in the **Audio Volume** area from **Voice > User** tab on the phone administration web page.
2. When you use the Electronic Hookswitch (EHS):
 - The EHS connects to the Cisco IP Phone 8811, 8841, and 8845 with the auxiliary port.
 - The EHS connects to the Cisco IP Phone 8851, 8861, and 8865 with the auxiliary port, the USB port, or with Bluetooth.

Connect the Footstand

If your phone is placed on a table or desk, connect the footstand to the back of the phone.

Procedure

- Step 1** Insert the connectors into the slots.
- Step 2** Press the footstand until the connectors snap into place.
- Step 3** Adjust the angle of the phone.

Secure the Phone with a Cable Lock

You can secure your phone with a laptop cable lock up to 20 mm wide.

Procedure

- Step 1** Take the looped end of the cable lock and wrap it around the object to which you want to secure your phone.
- Step 2** Pass the lock through the looped end of the cable.
- Step 3** Unlock the cable lock.
- Step 4** Press and hold the locking button to align the locking teeth.
- Step 5** Insert the cable lock into the lock slot of your phone and release the locking button.
- Step 6** Lock the cable lock.

External Speakers and Microphone

External speakers and microphones are plug-and-play accessories. You can connect an external PC-type microphone and powered speakers (with amplifier) on the Cisco IP Phone by using the line in/out jacks. Connecting an external microphone disables the internal microphone and connecting an external speaker disables the internal phone speaker.



Note Using poor quality external audio devices, playing loudspeakers at very loud volumes, or placing the microphone very close to the loudspeaker may result in undesirable echo for other parties on your speakerphone calls.

Headsets

Important Headset Safety Information



High Sound Pressure—Avoid listening to high volume levels for long periods to prevent possible hearing damage.

When you plug in your headset, lower the volume of the headset speaker before you put the headset on. If you remember to lower the volume before you take the headset off, the volume will start lower when you plug in your headset again.

Be aware of your surroundings. When you use your headset, it may block out important external sounds, particularly in emergencies or in noisy environments. Don't use the headset while driving. Don't leave your headset or headset cables in an area where people or pets can trip over them. Always supervise children who are near your headset or headset cables.

Cisco Headsets 500 Series

You can use the Cisco Headset 500 Series with your Cisco IP Phone 8800 Series Multiplatform Phones. The Cisco Headset 500 Series offers a more enhanced experience with:

- In-call indicators: LEDs on an ear plate
- Simplified call controls
- Customized audio

The supported headsets are:

- Cisco Headset 520 Series
- Cisco Headset 531 and 532
- Cisco Headset 560 Series (Standard Base and Multibase)

Cisco Headset 521 and 522

The Cisco Headsets 521 and 522 are two wired headsets that have been developed for use on Cisco IP Phones and devices. The Cisco Headset 521 features a single earpiece for extended wear and comfort. The Cisco Headset 522 features two earpieces for use in a noisy workplace.

Both headsets feature a 3.5-mm connector for use on laptops and mobile devices. An inline controller with a USB connector is also available for use on the Cisco IP Phone 8851, 8861, and 8865 with Multiplatform Firmware. The controller is an easy way to answer your calls, and to access basic phone features such as hold and resume, mute, and volume control.

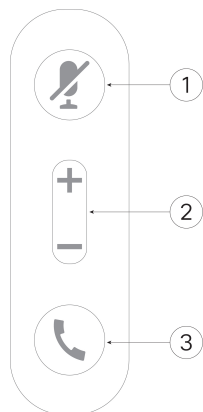
The Cisco Headsets 521 and 522 require Multiplatform Firmware Release 11.2(3) or later version. Upgrade your phones to the latest firmware before using these headsets.

To check your phone model and the firmware version, press **Applications** and select **Status > Product information**. The **Product name** field shows your phone model. The **Software version** field shows the installed load where you can get the firmware version.

Cisco Headset 521 and 522 Buttons and LED


Your controller buttons are used for basic call features.


Figure 1: Cisco Headset 521 and 522 Controller



The following table describes the Cisco Headset 521 and 522 controller buttons.

Table 2: Cisco Headset 521 and 522 Controller Buttons

Number	Name	Description
1	Mute button 	Toggle the microphone on and off.
2	Volume button (+ and -)	Adjust the volume on your headset.

Number	Name	Description
3	Call button 	<p>Use to manage calls:</p> <ul style="list-style-type: none"> • Press once to answer an incoming call. • Press and hold for 2 seconds to end a call. • Press twice to reject an incoming call. • Press once to put an active call on hold. Press again to retrieve a call from hold.

Cisco Headset 561 and 562


The Cisco Headset 560 Series are two wireless headsets that are developed for Cisco products and services. The Cisco Headset 561 features a single earpiece, and offers lightweight comfort. The Cisco Headset 562 features two earpieces for use in a noisy environment or busy office.

The Cisco Headset 560 Series use a headset base to connect with Cisco IP Phones and charge the headsets. The available options for the base are Standard base and Multibase. The Cisco Headset 560 Series with Standard Base support connection with a single source from a phone or a computer. The Cisco Headset 560 Series with Multibase support multiple sources from phones, computers, and Bluetooth-paired devices and provide an easy and intuitive switch among the connected sources.

You can connect the Cisco Headset 560 Series with any of the following:

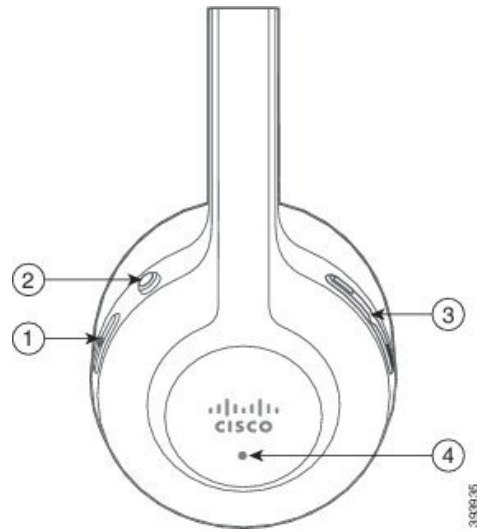
- RJ9 and AUX connector (Y-cable)—Supported on Cisco IP Phones 8811, 8841, 8845, 8851, 8861, and 8865 with multiple platforms.
- USB connector—Supported on Cisco IP Phones 8851, 8861, and 8865 with multiple platforms.

The Cisco Headset 560 Series require Multiplatform Firmware Release 11.2(3) and higher. Upgrade your phones to the latest firmware before using these headsets.

To check your phone model and the firmware version, press **Applications**  and select **Status > Product information**. The **Product name** field shows your phone model. The **Software version** field shows the installed load where you can get the firmware version.


Cisco Headset 561 and 562 Buttons and LED




Your headset buttons are used for basic call features.

Figure 2: Cisco Headset 561 and 562 Headset Buttons

The following table describes the Cisco Headset 561 and 562 Headset buttons.

Table 3: Cisco Headset 561 and 562 Headset Buttons

Number	Name	Description
1	Power and Call button 	<p>Use to power the headset on and off.</p> <p>Press and hold for 4 seconds to power on/off the headset.</p> <p>Incoming and active call management depends upon if you have one call or multiple calls.</p> <p>One call:</p> <ul style="list-style-type: none"> • Press once to answer incoming calls. • Press once to put an active call on hold. Press again to retrieve the call from hold. • Press twice to reject an incoming call. <p>Multiple calls:</p> <ul style="list-style-type: none"> • Press once to put an active call on hold, and to answer a second incoming call. • Press once to put a current call on hold and press again to resume a call. • Press and hold for 2 seconds to end the current call and press again to resume a held call. • Press and hold for 2 seconds to end an active call, and to answer another incoming call. • Press twice to stay on a current call, and to reject a second incoming call.

Number	Name	Description
2	Mute button 	Toggle the microphone on and off. When Mute on the headset is enabled: <ul style="list-style-type: none"> • The Mute  button on the phone lights up. • The Mute  button on the headset base lights up. (For Multibase only)
3	Volume button (+ and -)	Adjust the volume on your headset.
4	LED	Shows the headset status: <ul style="list-style-type: none"> • Blinking red—Incoming call. • Steady red—Active call. • Flashing white every 6 seconds—The headset is paired and idle. • Blinking white—Firmware upgrade is in process or the headset is pairing with the base station.

Charge Cisco Headset 561 and 562

Use the headset base to charge the headset.

Procedure

Place the headset into the socket on the base.

The LEDs on the base station indicate the charging status. When the headset is fully charged, the five LEDs on the base are steady white. If the LEDs don't light up, remove the headset from the base and try again.

Third Party Headsets

Cisco Systems performs internal testing of third-party headsets for use with Cisco IP Phones. But Cisco does not certify or support products from headset or handset vendors.

Headsets connect to your phone using either the USB or the auxiliary port. Depending upon your headset model, you have to adjust your phone's audio settings for the best audio experience, including the headset sidetone setting.

If you have a third-party headset, and you apply a new sidetone setting, then wait one minute and reboot the phone so the setting is stored in flash.

The phone reduces some background noise that a headset microphone detects. You can use a noise canceling headset to further reduce the background noise and improve the overall audio quality.

If you are considering a third-party headset, we recommend the use of good quality external devices; for example, headsets that are screened against unwanted radio frequency (RF) and audio frequency (AF) signals.

Depending on the quality of headsets and their proximity to other devices, such as mobile phones and two-way radios, some audio noise or echo may still occur. Either the remote party or both the remote party and the Cisco IP Phone user may hear an audible hum or buzz. A range of outside sources can cause humming or buzzing sounds; for example, electric lights, electric motors, or large PC monitors.



Note Sometimes, use of a local power cube or power injector may reduce or eliminate hum.

Environmental and hardware inconsistencies in the locations where Cisco IP Phones are deployed mean that no single headset solution is optimal for all environments.

We recommend that customers test headsets in the intended environment to determine performance before making a purchasing decision to deploy on a large scale.

You can use only one headset at a time. The most-recently connected headset is the active headset.

Headset Configuration on Your Phone

Cisco Headset 500 Series Customization

The user can customize the headset's gain or microphone volume, sidetone or feedback settings, and test the microphone. Make sure that the headset is connected to the phone using one of the following connections:

- Cisco Headset 520 Series with the inline USB controller via the USB connector
- Cisco Headset 531 and 532 with the USB adapter via the USB connector
- Cisco Headset 560 Series Standard Base or Multibase with the Y-cable via the AUX and the RJ-9 connectors, or with the USB cable via the USB connector

For information on headset setup, see *Cisco IP Phone 8800 Series Multiplatform Phones User Guide*.

Set the Upgrade Rule for the Cisco Headset

You can upgrade the firmware of a Cisco headset by connecting it to a Cisco IP Phone Multiplatform Phone. Before the user performs the upgrade, you must set the upgrade rule on the phone administration web page. When the headset is connected to the phone, the phone automatically detects the new version of the headset firmware, then prompts the user to perform the upgrade.

The supported connections for the upgrade are:

- Cisco Headset 520 Series: USB cable
- Cisco Headset 560 Series: USB cable and Y-Cable (RJ-9 and AUX connector)
- Cisco Headset 700 Series: USB cable

The headset settings are not erased by a phone reset. The upgrade rule supports HTTP, HTTPS, and TFTP protocols.

The release of the Cisco Headset provides the headset XML file that can be used for the firmware upgrade. If the software version in the file is later than the firmware on the headset, the user is prompted to upgrade the headset on the phone screen. The user can choose to upgrade the headset immediately or postpone it to a later time.

Before you begin

Access the phone administration web page. See [Access the Phone Web Interface](#).

Procedure

Step 1 Select **Voice > Provisioning**.

Step 2 Under the **Cisco Headset Firmware Upgrade** section, find the parameter **Cisco Headset Upgrade Rule**.

Step 3 Specify the TFTP, HTTP, or HTTPS protocol, an IP address of the headset upgrade device, and the name of the headset XML file. Enter the values as a single string in the parameter.

Caution Do not change the headset XML file contents.

For example, `tftp://10.74.51.81/prov/headset/1-6-0-162/ciscoheadsetfirmware.xml`

You can also configure this parameter in the configuration file (cfg.xml):

```
<Cisco_Headset_Upgrade_Rule  
ua="na">tftp://10.74.51.81/prov/headset/1-6-0-162/ciscoheadsetfirmware.xml</Cisco_Headset_Upgrade_Rule>
```

Step 4 Click **Submit All Changes**.

If a new version of the headset firmware is detected, the phone displays an upgrade prompt.

Audio Quality

Beyond physical, mechanical, and technical performance, the audio portion of a headset must sound good to the user and to the party on the far end. Sound quality is subjective, and we cannot guarantee the performance of any third-party headset. However, various headsets from leading headset manufacturers are reported to perform well with Cisco IP Phones.

Cisco doesn't recommend or test any third-party headsets with their products. For information about third-party headset support for Cisco products, go to the manufacturer's web site.

Cisco does test the Cisco headsets with the Cisco IP Phones. For information about Cisco Headsets and Cisco IP Phone support, see <https://www.cisco.com/c/en/us/products/collaboration-endpoints/headsets/index.html>.

Analog Headsets

The phone cannot detect when an analog headset is plugged in. For this reason, the analog headset displays by default in the Accessories window on the phone screen.

Displaying the analog headset as the default allows users to enable wideband for the analog headset.


USB Headsets

Wired and wireless USB headsets are supported. You can connect one USB headset (or the base station for a wireless headset) to either the back USB port (if your phone has this port) or to the side USB port.

Select a USB Headset

You can only plug in one USB headset. If you are using an analog headset, you can switch to your USB headset by using the **Accessories** window of the phone.


Procedure

- Step 1** On your phone, press **Applications** .
 - Step 2** Select **Status**.
 - Step 3** Select **Accessories**.
 - Step 4** Press the Navigation cluster, up or down, to select the USB headset.
-

Stop Using a USB Headset

You can stop using your USB headset and select a different headset in the **Accessories** window of the phone.

Procedure

- Step 1** On your phone, press **Applications** .
 - Step 2** Select **Status**.
 - Step 3** Select **Accessories**.
 - Step 4** Press the Navigation cluster, up or down, to select a different headset.
-

Wireless Headsets

You can use most wireless headsets with your phone. For a list of supported wireless headsets, see http://www.cisco.com/c/en/us/products/unified-communications/uc_endpoints_accessories.html

Refer to your wireless headset documentation for information about connecting the headset and using the features.


Bluetooth Wireless Headsets

For a list of supported headsets, see http://www.cisco.com/c/en/us/products/unified-communications/uc_endpoints_accessories.html.

Bluetooth enables low-bandwidth wireless connections within a range of 30 feet (10 meters). The best performance is in the 3- to 6-foot (1- to 2-meter) range. Bluetooth wireless technology operates in the 2.4 GHz band, which is the same as the 802.11b/g band.

Cisco IP Phones use a shared key authentication and encryption method to connect up to fifty headsets, one at a time. The last connected headset is used as the default. Pairing is typically performed once for each headset.

After a device is paired, the Bluetooth connection is maintained as long as both devices (phone and headset) are enabled and within range of each other. The connection typically reestablishes itself automatically if either of the devices powers down then powers up. However, some headsets require user action to reestablish the connection.

The Bluetooth icon  indicates that Bluetooth is on, regardless of whether a device is connected or not.

Potential interference issues can occur. We recommend that you reduce the proximity of other 802.11b/g devices, Bluetooth devices, microwave ovens, and large metal objects. If possible, configure other 802.11 devices to use the 802.11a channels. Use 802.11a, 802.11n or 802.11ac that operates in the 5 GHz band.

For a Bluetooth wireless headset to work, it does not need to be within direct line-of-sight of the phone. However, some barriers, such as walls or doors, and interference from other electronic devices, can affect the connection.

When headsets are more than 30 feet (10 meters) away from the Cisco IP Phone, Bluetooth drops the connection after a 15- to 20-second timeout. If the paired headset comes back into range of the Cisco IP Phone and the phone is not connected to another Bluetooth headset, the in-range Bluetooth headset automatically reconnects. For certain phone types that operate in power-save modes, the user can wake up the headset by tapping on the operational button to initiate the reconnect.

You must enable the headset and then add it as a phone accessory.

The phone supports various Handsfree Profile features that enable you to use hands-free devices (such as Bluetooth wireless headsets) to perform certain tasks without handling the phone. For example, instead of pressing Redial on the phone, users can redial a number from their Bluetooth wireless headset by following instructions from the headset manufacturer.


These hands-free features apply to Bluetooth wireless headsets that are used with the Cisco IP Phone 8851 and 8861:

- Answer a call
- End a call
- Change the headset volume for a call
- Redial
- Caller ID
- Divert
- Hold and accept
- Release and accept

Hands-free devices may differ as to feature activation. Device manufacturers may also use different terms when referring to a feature.

**Important**

Only one headset type works at any given time. If you use both a Bluetooth headset and an analog headset that are attached to the phone, enabling the Bluetooth headset disables the analog headset. To enable the analog headset, disable the Bluetooth headset. Plugging a USB headset into a phone that has Bluetooth headset enabled disables both the Bluetooth and analog headset. If you unplug the USB headset, you can either enable or disable the Bluetooth headset to use the analog headset.

Users can set their Bluetooth headset as the preferred headset, even when a USB headset is connected to the phone. On the phone, the user selects **Applications**  > **User preferences** > **Audio preferences** > **Preferred audio device** and chooses **Bluetooth** as the preferred audio device.

For information about how to use your Bluetooth wireless headset, see:

- *Cisco IP Phone 8811, 8841, 8851, and 8861 User Guide for Cisco Unified Communications Manager*
- User guides provided with your headset

Cisco IP Phone Key Expansion Module

Cisco IP Phone Key Expansion Module Setup Overview

Figure 3: Key Expansion Module with Single LCD Screen



Figure 4: Cisco IP Phone 8851/8861 Key Expansion Module with Dual Screen



Figure 5: Cisco IP Phone 8865 Key Expansion Module with Dual Screen



The Cisco IP Phone 8800 Key Expansion Module adds extra programmable buttons to the phone. The programmable buttons can be set up as phone speed-dial buttons, or phone feature buttons.

There are 3 expansion modules available:

- Cisco IP Phone 8800 Key Expansion Module—Single LCD screen module, 18 line keys, 2 pages, two-column display only.
- Cisco IP Phone 8851/8861 Key Expansion Module—Dual LCD screen module for audio phones, 14 line keys, 2 pages, one-column display only.
- Cisco IP Phone 8865 Key Expansion Module—Dual LCD screen module for video phones, 14 line keys, 2 pages, one-column display only.



Note The Cisco IP Phone 8851/8861 Key Expansion Module and the Cisco IP Phone 8865 Key Expansion Module require Firmware Release 11.2(3) or later.

You can use more than one expansion module per phone. But each module must be the same type. You cannot mix Cisco IP Phone 8800 Key Expansion Module with a Cisco IP Phone 8851/8861 Key Expansion Module or with a Cisco IP Phone 8865 Key Expansion Module. You cannot mix audio expansion modules with video expansion modules. You also cannot use a video expansion module on an audio phone or an audio expansion module on a video phone.

The following table lists the phones and the number of key expansion modules that each model supports.

Table 4: Cisco IP Phones and Supported Cisco IP Phone 8800 Key Expansion Module

Cisco IP Phone Model	Supported Number of Key Expansion Modules and Buttons
Cisco IP Phone 8851	2; single LCD screen, 18 line keys, two pages, providing 72 buttons
Cisco IP Phone 8861	3; single LCD screen, 18 line keys, two pages, providing 108 buttons
Cisco IP Phone 8865	3; single LCD screen, 18 line keys, two pages, providing 108 buttons,

Table 5: Cisco IP Phones and Supported Cisco IP Phone 8851/8861 Key Expansion Module and Cisco IP Phone 8865 Key Expansion Module

Cisco IP Phone Model	Supported Numbers of Key Expansion Modules and Buttons
Cisco IP Phone 8851	2; dual LCD screen, 14 line keys, two pages, providing 56 buttons
Cisco IP Phone 8861	3; dual LCD screen, 14 line keys, two pages, providing 84 buttons
Cisco IP Phone 8865	3; dual LCD screen, 14 line keys, two pages, providing 84 buttons

Key Expansion Module Power Information

If you use a key expansion module with your IP phone, then Power over Ethernet (PoE) is enough to power your expansion modules. But, your phone must have an IP address in order to charge the expansion module.

A power cube is needed for smartphone or tablet charging when your key expansion module is attached.

A key expansion module uses 48V DC, 5W per module. If you are charging a smartphone or a tablet, note the following:

- Side USB: Up to 500mA/2.5W charging
- Back USB: Fast charging, Supports up to 2.1A/10.5W charging

Table 6: Power-Supply Compatibility for Cisco IP Phone 8800 Key Expansion Module

Configuration	802.3af Power over Ethernet (PoE)	802.3at PoE	Cisco IP Phone Power Cube 4
8851 with 1 key expansion module	Yes	Yes	Yes
8851 with 2 key expansion modules	No	No See the third note below	Yes
8861 with 1 key expansion module	No	Yes	Yes
8861 with 2 key expansion modules	No	Yes See the first note below	Yes
8861 with 3 key expansion modules	No	Yes See the first note below	Yes



Note

- The fast-charging feature on the back USB does not work when more than one key expansion module is attached to a Cisco IP Phone 8861 using 802.3at PoE.
- The fast-charging feature on the back USB doesn't work when more than one key expansion module is attached to a Cisco IP Phone 8861, unless Cisco Universal PoE (UPoE) is used.
- Cisco IP Phone 8851 with 2 key expansion modules works on 802.3at PoE only with v08 or later hardware. You can find the phone version information on the lower back of the phone as part of the TAN and PID label. Version information is also located on the individual phone packaging.

Table 7: Power-Supply Compatibility for Cisco IP Phone 8851/8861 Key Expansion Module and Cisco IP Phone 8865 Key Expansion Module

Configuration	802.3af Power over Ethernet (PoE)	802.3at PoE	Cisco IP Phone Power Cube 4
8851 with 1 key expansion module	Yes	Yes	Yes
8851 with 2 key expansion modules	No	Yes See the third note below	Yes
8861 and 8865 with 1 key expansion module	No	Yes	Yes
8861 and 8865 with 2 key expansion modules	No	Yes See the first note below	Yes
8861 and 8865 with 3 key expansion modules	No	Yes See the first note below	Yes

**Note**

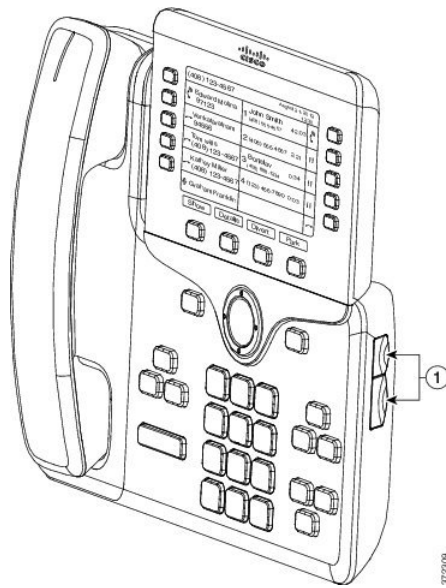
- The fast-charging feature on the back USB does not work when more than one key expansion module is attached to a Cisco IP Phone 8861 and 8865 using 802.3at PoE.
- The fast-charging feature on the back USB doesn't work when more than one key expansion module is attached to a Cisco IP Phone 8861 and 8865, unless Cisco Universal PoE (UPoE) is used.
- Cisco IP Phone 8851 with 2 key expansion modules works on 802.3at PoE only with v08 or later hardware. You can find the phone version information on the lower back of the phone as part of the TAN and PID label. Version information is also located on the individual phone packaging.

Connect a Key Expansion Module to a Cisco IP Phone

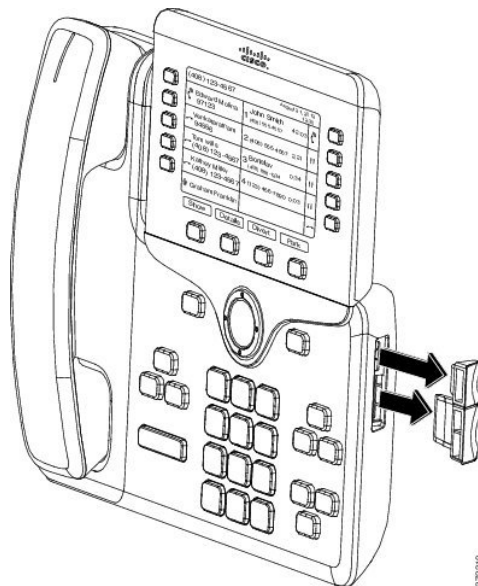
If you want to install more than one key expansion module, you repeat steps 7-9 to connect the other key expansion modules together.

Procedure

-
- Step 1** Unplug the Ethernet cable from the phone.
- Step 2** If installed, remove the footstand from the phone.
- Step 3** Locate the accessory connector covers on the side of the phone.
- This diagram shows the location.



Step 4 Remove the two accessory connector covers, as shown in the diagram.



Caution The slots are designed for the spine connector only. Insertion of other objects will cause permanent damage to the phone.

Step 5 Position the phone so that the front of the phone faces up.

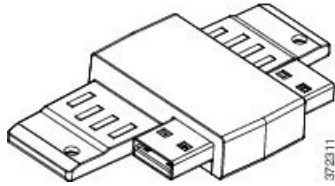
Step 6 Connect one end of the key expansion module spine connector to the accessory connector on the Cisco IP Phone.

a) Align the spine connector with the accessory connector ports.

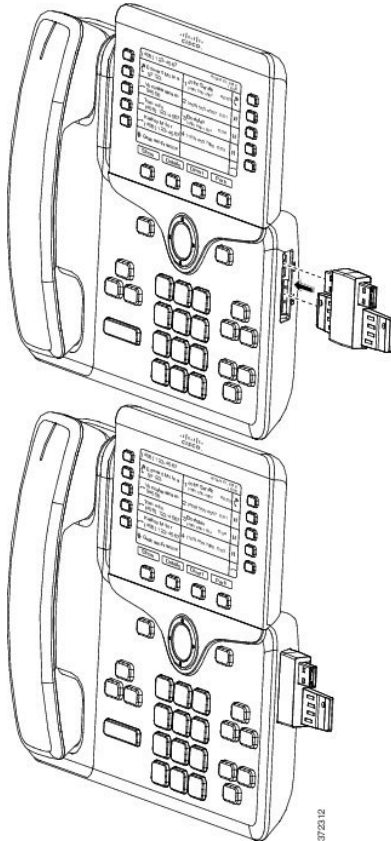
Note Install the connector in the orientation shown in the following diagrams.

b) Firmly press the spine connector into the phone.

This diagram shows the spine connector.



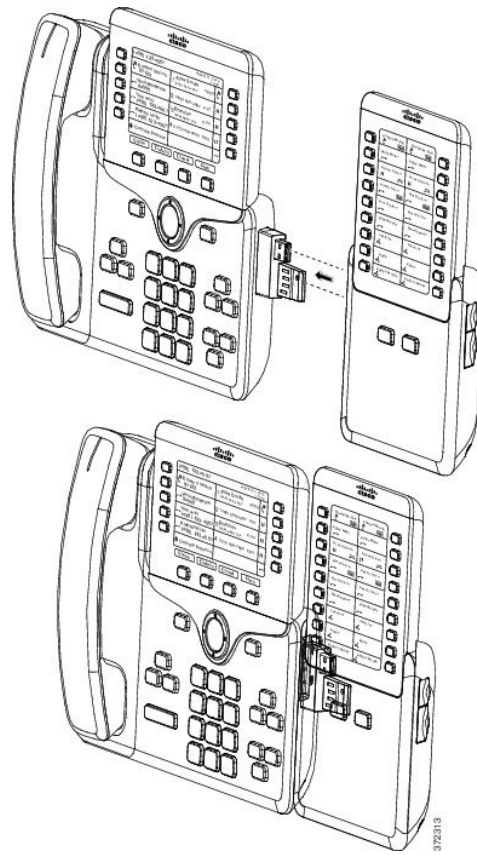
This diagram shows the installation of the spine connector.



Step 7

Connect the other end of the spine connector to the key expansion module as shown in this diagram.

- Align the spine connector with the key expansion module accessory connector ports.
- Firmly press the key expansion module into the spine connector.

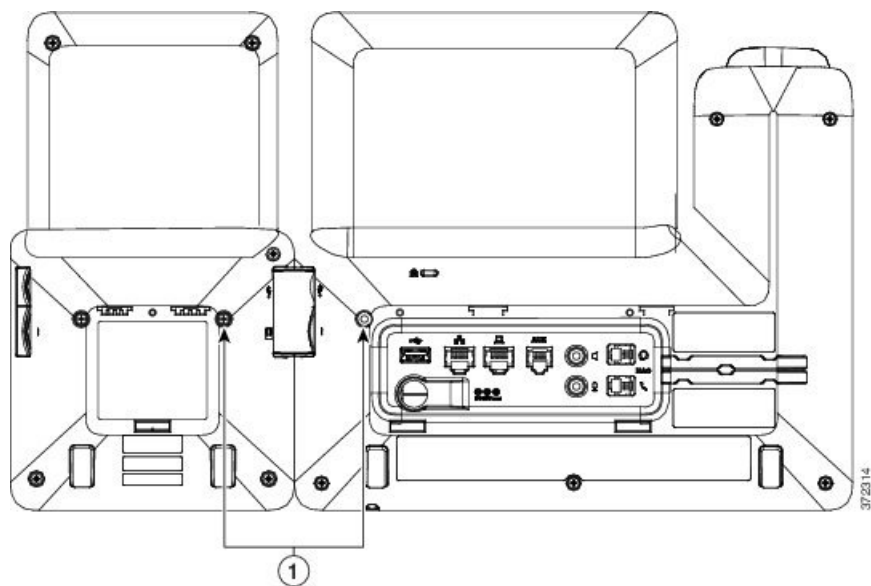


Step 8 (Optional) Use a second key expansion module spine connector to connect the second key expansion module to the first key expansion module.

Step 9 (Optional) Use a third key expansion module spine connector to connect the third key expansion module to the second key expansion module.

Step 10 Use a screwdriver to fasten the screws into the phone.

This step ensures that the phone and key expansion module remain connected at all times. This diagram shows the location of the screw holes on the phone and one key expansion module.



Note Make sure that the screws are fully inserted into the phone and tightened.

If you lose any screws, the phone uses a standard M3 0.5x5.0mm screw.

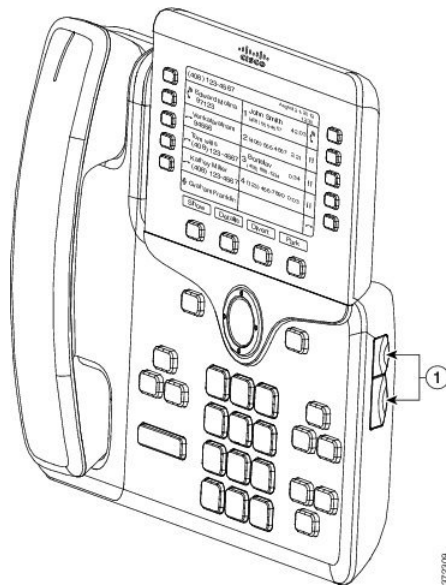
Step 11 (Optional) Install the footstands on the phone and on the key expansion module, and adjust both footstands to rest evenly on the work surface.

Step 12 Plug the Ethernet cable into the phone.

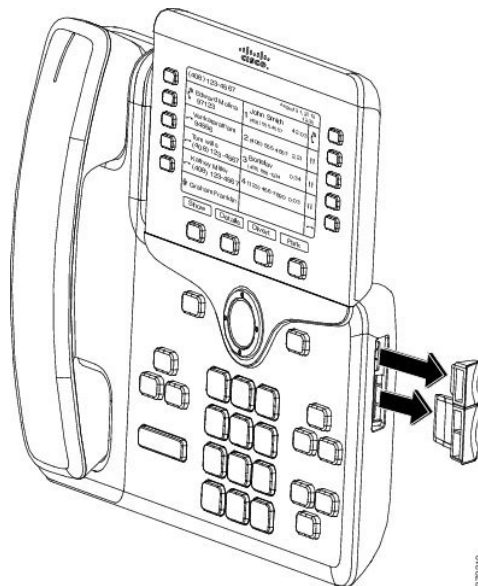
Connect Two or Three Key Expansion Modules to a Cisco IP Phone

Procedure

- Step 1** Unplug the Ethernet cable from the phone.
- Step 2** If installed, remove the footstand from the phone.
- Step 3** Locate the accessory connector covers on the side of the phone.
This diagram shows the location.



Step 4 Remove the two accessory connector covers, as shown in the diagram.



Caution The slots are designed for the spine connector only. Insertion of other objects will cause permanent damage to the phone.

Step 5 Position the phone so that the front of the phone faces up.

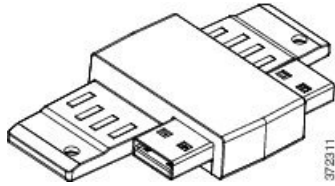
Step 6 Connect one end of the key expansion module spine connector to the accessory connector on the Cisco IP Phone.

a) Align the spine connector with the accessory connector ports.

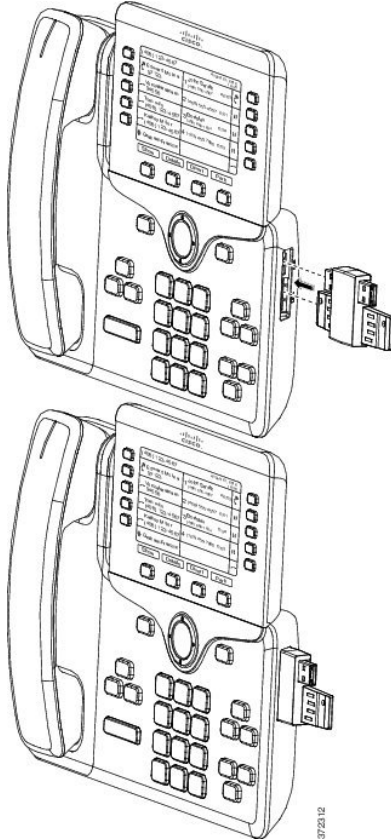
Note Install the connector in the orientation shown in the following diagrams.

b) Firmly press the spine connector into the phone.

This diagram shows the spine connector.



This diagram shows the installation of the spine connector.



Step 7 Connect the other end of the spine connector to the key expansion module as shown in this diagram.

- a) Align the spine connector with the key expansion module accessory connector ports.
- b) Firmly press the key expansion module into the spine connector.

The first key expansion module is now connected to the Cisco IP Phone.

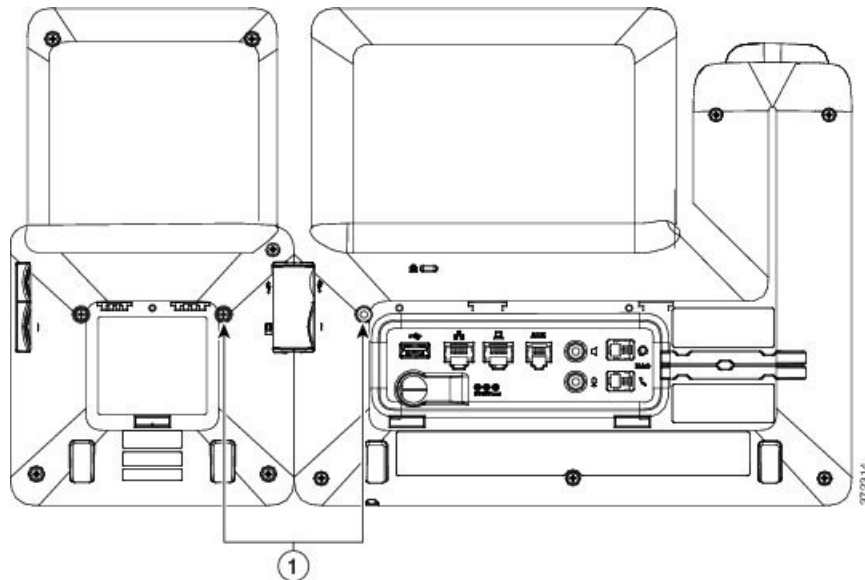
Step 8 Use a second key expansion module spine connector to connect the second key expansion module to the first key expansion module.

Step 9 Use a third key expansion module spine connector to connect the third key expansion module to the second (middle) key expansion module. This figure shows a Cisco IP Phone with three key expansion modules attached.



Step 10 Use a screwdriver to fasten the screws into the phone and into each key expansion module.

This step ensures that the phone and key expansion modules remain connected at all times. This diagram shows the location of the screw holes.



Note Make sure that the screws are fully inserted into the phone and tightened.

Step 11 (Optional) Install the footstands on the phone and on the key expansion modules, and adjust all footstands to rest evenly on the work surface.

Step 12 Plug the Ethernet cable into the phone.

Auto Detection of Key Expansion Modules

You can configure a new phone to auto-detect the maximum number of key expansion modules that it supports. For these phones, the **Number of Units** field shows the maximum number of key expansion modules that the phone supports as the default value. When a user adds key expansion modules to these phones, the module lights up and is enabled automatically. Default value of this field is 2 for Cisco IP Phone 8851 and 3 for Cisco IP Phone 8861. Navigate to **Admin Login > Advanced > Voice > Att Console** to check the value of the **Number of Units** field.

If your user has an older release phone and it is upgraded to the current release, you can change the configuration of the phone so that when the user adds a key expansion module to the phone, it lights up and is enabled automatically.

Configure the Key Expansion Module with the Phone Web Interface

You can add number of supported key expansion modules from the phone web interface.

You can also configure the parameters in the phone configuration file with XML(cfg.xml) code.

Before you begin

Access the phone administration web page. See [Access the Phone Web Interface](#).

Procedure

Step 1 Select **Voice > Att Console**.

Step 2 From the **Number of Units** list, select the number of supported key expansion modules.

You can also configure the parameter in the configuration file (cfg.xml) by entering a string in the following format:

```
<Number_of_Units ua="na">2</Number_of_Units>
```

Default: 0

Step 3 Click **Submit All Changes**.

Access Key Expansion Module Setup


After you install one or more key expansion modules on the phone and configure them in the Configuration Utility page, the phone automatically recognizes the key expansion modules.

When multiple key expansion modules are attached, they are numbered according to the order in which they connect to the phone:

- Key expansion module 1 is the expansion module closest to the phone.
- Key expansion module 2 is the expansion module in the middle.
- Key expansion module 3 is the expansion module farthest to the right.

When the phone automatically recognizes the key expansion modules, you can then choose the **Show Details** softkey for additional information about the selected key expansion module.

Procedure

Step 1 On the phone, press **Applications** .

Step 2 Press **Status > Accessories**.

All properly installed and configured key expansion modules display in the list of accessories.

Allocate a Key Expansion Module Type

You can assign the type of key expansion module that the phone supports:

- BEKEM
- CP-8800-Audio
- CP-8800-Video

You can also configure the parameters in the phone configuration file with XML(cfg.xml) code.

Before you begin

- Access the phone administration web page. See [Access the Phone Web Interface](#).

Procedure

Step 1 Select **Voice > Att Console**.

Step 2 Set the **KEM Type** from BEKEM, CP-8800-Audio, and CP-8800-Video

You can also configure the parameter in the configuration file (cfg.xml) by entering a string in the following format:

```
<KEM_Type ua="na">CP-8800-Video</KEM_Type>
```

Options: BEKEM, CP-8800-Audio, and CP-8800-Video

Default: CP-8800-Video

Step 3 Press **Submit All Changes**.

Allocate a Key Expansion Module Type with the Phone Menu

You can assign the type of key expansion module that the phone supports.

Procedure

Step 1 Press **Applications** .

Step 2 Select **User preferences > Attendant console preferences > KEM type**.

Step 3 Select the key expansion module type.

Step 4 Press **Save**.

Reset the Single LCD Screen Key Expansion Module

If you are having technical difficulties with your Cisco IP Phone 8800 Key Expansion Module, you can reset the module to the factory default settings.

Procedure

- Step 1** Restart the key expansion module by disconnecting the power source, waiting a few seconds, and then reconnecting it.
- Step 2** As the key expansion module powers up, press and hold **Page 1**. As the LCD screen turns white, continue pressing **Page 1** for at least one second.
- Step 3** Release **Page 1**. The LEDs turn red.
- Step 4** Immediately press **Page 2** and continue pressing **Page 2** for at least one second.
- Step 5** Release **Page 2**. The LEDs turn amber.
- Step 6** Press Lines **5, 14, 1, 18, 10, and 9** in sequence.

The LCD screen turns blue. A spinning icon is displayed in the center of the screen.

The key expansion module resets.

Configure a Speed Dial on a Key Expansion Module

You can configure speed dial on a key expansion module line. The user can then press the line key to call a frequently dialed number.

You can also configure the parameters in the phone configuration file with XML(cfg.xml) code.

Before you begin

[Access the Phone Web Interface.](#)

Procedure

- Step 1** Select **Voice > Att Console**.
- Step 2** Select a key expansion module line key on which to enable the speed dial.
- Step 3** Enter a string in this format:

```
fnc=sd;ext=9999@$PROXY;vid=n;nme=xxxx
```

where:

- fnc= sd means function=speed dial
- ext= 9999 is the phone that the line key calls. Replace 9999 with numbers.
- vid=n is the line index of the phone.
- nme= XXXX is the name displayed on the phone for the speed-dial line key. Replace XXXX with a name.

You can also configure the parameter in the configuration file (cfg.xml) by entering a string in the following format:

```
<Unit_n_Key_m>fnc=sd;ext=9999@$PROXY;vid=n;nme=xxxx
```

Step 4 Click **Submit All Changes**.

Add Call Park on a Key Expansion Module Line Key

You can add call park to a Key Expansion Module line key to enable the user to temporarily store calls to the same phone to which the Key Expansion Module is connected or to store calls to a different phone. The user can also unpark the call from the line key.

Before you begin

Access the phone administration web page. See [Access the Phone Web Interface](#).

Procedure

Step 1 Select **Voice > Att Console**.

Step 2 Select a Key Expansion Module line key on which to enable the call park.

Step 3 Enter a string in this format:

For a private line, enter

```
fnc=park;sub=$USER@$PROXY;nme=CallPark-Slot1
```

For a shared line, enter

```
fnc=prk;sub=$USER@$PROXY;nme=Call-Park1;orbit=<DN of primary line>
```

where:

- fnc= prk means function=call park
- sub= 999999 is the phone to which the call parks. Replace 999999 with a numbers.
- nme= XXXX is the name displayed on the phone for the call park line key. Replace XXXX with a name.

You can also configure the line-specific parameter in the configuration file (cfg.xml). Enter a string in the following format:

```
<Unit_1_Key_1_ ua="na">fnc=prk;sub=$USER@$PROXY;nme=CallPark-Slot1</Unit_1_Key_1_>
```

Step 4 Click **Submit All Changes**.

Configure the LCD Brightness for a Key Expansion Module

You can configure the brightness of the LCD display on the key expansion module from the Attendant Console tab.

You can also configure the parameters in the phone configuration file with XML(cfg.xml) code.

Before you begin

Access the phone administration web page. See [Access the Phone Web Interface](#).

Procedure

Step 1 Select **Voice > Att Console**.

Step 2 Set the **Attendant Console LCD Contrast** to a value between 1 and 15.

You can also configure the parameter in the configuration file (cfg.xml) by entering a string in the following format:

```
<Attendant_Console_LCD_Brightness ua="na">12</Attendant_Console_LCD_Brightness>
```

The higher the number, the greater the brightness on the key expansion module screen. The default value is 12. If no value is entered, the LCD brightness level is equal to 1, the dimmest value.

Step 3 Click **Submit All Changes**.

Configure the Busy Lamp Field on a Key Expansion Module

You can configure the busy lamp field on a key expansion module line so that the user can monitor a coworker's availability to receive a call.

Before you begin

Access the phone administration web page. See [Access the Phone Web Interface](#).

Procedure

Step 1 Select **Voice > Att Console**.

Step 2 Select a key expansion module line key.

Step 3 Enter a string in this format:

fnc=blf;sub=xxxx@\$PROXY;usr=8888@\$PROXY.

Where:

- fnc= blf means function=busy lamp field
- sub= the URI to which the SUBSCRIBE message is sent. This name must be identical to the name defined in the List URI: sip: parameter. xxxx is the name that is defined in List URI: sip: parameter. Replace xxxx with the exact defined name. \$PROXY is the server. Replace \$PROXY with the server address or name.
- usr= the BroadSoft user being monitored by BLF with 8888 as the phone being monitored. Replace 8888 with the exact number of the monitored phone. \$PROXY is the server. Replace \$PROXY with the server address or name.

Step 4 (Optional) To enable the busy lamp field to work with both speed dial and call pickup enter a string in the following format:

```
fnc=blf+sd+cp;sub=xxxx@$PROXY;usr=yyyy@$PROXY.
```

Where:

sd= speed dial

cp= call pickup

You can also enable busy lamp field only with call pickup or speed dial. Enter the string in the following format:

```
fnc=blf+cp;sub=xxxx@$PROXY;usr=yyy@$PROXY
```

```
fnc=blf+sd;sub=xxxx@$PROXY;usr=yyy@$PROXY
```

You can also configure the parameter in the configuration file (cfg.xml) by entering a string in the following format:

```
<Unit_1_Key_2_ ua="na">fnc=blf;ext=3252@$PROXY;nme=BLF_3252</Unit_1_Key_2_>
```

Step 5 Click **Submit All Changes**.

Enable the User to Configure Features on Key Expansion Module Line Keys

You can enable the user to configure features on the line keys of the key expansion module. The user can then add any of the configured features to the dedicated line keys. For the supported features, see [Configurable Features on Line Keys](#).

Before you begin

- Access the phone administration web page. See [Access the Phone Web Interface](#).
- Ensure that the line keys of the key expansion module are not in the Inert mode.

Procedure

Step 1 Select **Voice > Att Console**.

Step 2 In the **General** section, configure the **Customizable PLK Options** parameter with the codes of your desired features defined in [Configurable Features on Line Keys](#).

Example: You configure this parameter with `blf;shortcut;dnd;`. The user can call up the feature list with a long-press on a key expansion module line key. The feature list looks like:

1 None

2 BLF presence

4 Menu shortcut

3 Do not disturb

The user can then select a feature or a menu shortcut to add to the line key.

You can also configure this parameter in the configuration file (cfg.xml) with a string in this format:

```
<Customizable_PLK_Options ua="na">blf;shortcut;dnd;</Customizable_PLK_Options>
```

Step 3 Click **Submit All Changes**.

Add a Menu Shortcut to a Key Expansion Module Line Key

You can add a menu shortcut to a line key of the attached key expansion module. Then, the user can press the configured line key to access the menu.

Before you begin

Access the phone administration web page. See [Access the Phone Web Interface](#).

Procedure

Step 1 Select **Voice > Att Console**.

Step 2 Go to the **Unit (*n*)** section, where *n* is unit number of the key expansion module.

Step 3 Configure the **Unit *n* Key *m*** field, where *n* is unit number of the key expansion module, and *m* is the key number.

```
fnc=shortcut;url=userpref;nme=User preferences
```

where:

- **fnc= shortcut** means function=phone menu shortcut.
- **url= userpref** is the menu to open with this line key. It's the **User preferences** menu in this example. For more shortcut mappings, see [Menu Shortcuts Mapping on PLK and PSK](#).
- **nme= XXXX** is the menu shortcut name displayed on the key expansion module screen. If you don't specify a display name, the line key displays the target menu item. In the example, the line key displays **User preferences**.

You can also configure the parameter in the configuration file (cfg.xml) with a string in this format:

```
<Unit_n_Key_m_ ua="na">fnc=shortcut;url=userpref;nme=User preferences</Unit_n_Key_m_>
```

where *n* is the unit number of the key expansion module, and *m* is the key number.

Step 4 Click **Submit All Changes**.

Add an Extended Feature to a Key Expansion Module Line Key

You can add a feature to a line key of the attached key expansion module. Then, the user can press the line key to access the feature. For the supported features, see [Configurable Features on Line Keys](#).

Before you begin

Access the phone administration web page. See [Access the Phone Web Interface](#).

Procedure

-
- Step 1** Select **Voice > Att Console**.
- Step 2** Go to the **Unit (*n*)** section, where *n* is unit number of the key expansion module.
- Step 3** Configure the **Unit *n* Key *m*** field, where *n* is unit number of the key expansion module, and *m* is the key number.
- ```
fnc=dnd
```
- The user can turn on or off Do not disturb mode with the line key. For more feature codes, see [Configurable Features on Line Keys](#).
- You can also configure the parameter in the configuration file (cfg.xml) with a string in this format:
- ```
<Unit_n_Key_m_ua="na">fnc=dnd</Unit_n_Key_m_>
```
- where *n* is the unit number of the key expansion module, and *m* is the key number.
- Step 4** Click **Submit All Changes**.
-

Configure the Voicemail PLK on a Key Expansion Module Button

You can configure the voicemail Programmable Line Key (PLK) on a Key Expansion Module button for the users to monitor a specified voicemail account of a user or a group.

The voicemail PLK can monitor both the voicemail of an extension and the voicemail account of another user or a group. Monitoring the voicemail of another user or a group requires the support from the SIP proxy.

For example, if the users belong to a customer service group. This feature allows the users to monitor both their voicemails and the group's voicemails.

If you configure speed dial for the same button, the users can press the button to make a speed dial to the assigned extension.

Before you begin

One or more expansion modules have been installed on the phone.

Access the phone administration web page. See [Access the Phone Web Interface](#).

Procedure

-
- Step 1** Select **Voice > Att Console**.
- Step 2** Select an expansion module button on which to configure the voicemail PLK.
- Step 3** Enter a string in this format:
- For MWI only:


```
fnc=mwi;sub=group_vm@domain;vid=1;nme=Group;
```
 - For MWI + Speed Dial:


```
fnc=mwi+sd;ext=8000@domain;sub=group_vm@domain;vid=1;nme=Group;
```

- For MWI + speed dial + DTMF:

```
fnc=mwi+sd;ext=8000 ,4085283300#,123456#@domain;sub=group_vm@domain;vid=1;nme=Group;
```

For more information about the string syntax, see [String Syntax for Voicemail PLK](#).

You can also configure this parameter in the phone configuration file (cfg.xml). The parameter is line-specific. Enter a string in this format:

```
<Unit_1_Key_1_ ua="na">fnc=mwi+sd;ext=8000 ,4085283300#,123456#@domain;
sub=group_vm@domain;vid=1;nme=Group;</Unit_1_Key_1_>
```

Step 4 In the **General** section, add `mwi` or `mwi;sd` in the field **Customizable PLK Options**.

Parameter in the configuration file (cfg.xml):

```
<Customizable_PLK_Options ua="na">mwi;sd</Customizable_PLK_Options>
```

After the configuration, users can configure the corresponding features on the expansion module button.

Step 5 Click **Submit All Changes**.

Troubleshoot the Key Expansion Module

Procedure

Step 1 Open a CLI.

Step 2 Enter the following command to enter debug mode:

```
debugsh
```

Step 3 Enter `?` to see all available commands and options.

Step 4 Use the applicable commands and options to find the desired information.

Step 5 To exit debug mode, press **Ctrl-C**.

Key Expansion Module Does Not Go Through the Normal Start Up Process

Problem

When you connect a key expansion module to a phone that is connected to a network port, the key expansion module doesn't start up.

Cause

- Key expansion module type and the attached key expansion module don't match.
- The phone has more than one type of expansion module connected.
- Power over Ethernet (PoE) doesn't meet the required power-supply.
- Connected number of key expansion modules exceed maximum "Number of Units".

Solution

- Change the phone to use the same type of expansion module.
- Check the PoE the phone connected to.
- Check if the unit number is bigger than the “Number of Units”.

Shut Down a Line Key on a Key Expansion Module

You can shut down a line key on a key expansion module by setting the Inert mode for it from the phone web page. When the key expansion module line key is in the Inert mode, it is disabled thoroughly. For example, the key expansion module LED is disabled (including LED behavior), no icon or text displays next to the key expansion module line key, and the key expansion module button is not responsive. In a word, it is completely unavailable.

Before you begin

Access the phone administration web interface. See [Access the Phone Web Interface](#)

Procedure

-
- Step 1** Select **Voice > Att Console**.
- Step 2** Go to the **Unit (n)** section, where *n* is unit number of the key expansion module.
- Step 3** Configure the **Unit *n* Key *m*** field, where *n* is unit number of the key expansion module, and *m* is the key number.
- ```
fnc=inert;
```
- where fnc=inert means function=inert.
- You can also configure the parameter in the configuration file (cfg.xml) with a string in this format:
- ```
<Unit_n_Key_m_ua="na">fnc=inert;</Unit_n_Key_m_>
```
- where *n* is the unit number of the key expansion module, and *m* is the key number.
- Step 4** Click **Submit All Changes**.
-

Wall Mounts

Wall Mount Options

The following wall mount options are available:

- Cisco IP Phone 8800 Series Wall Mount Kit: A nonlockable wall mount kit available for the Cisco IP Phone 8800 Series. This wall kit applies to Cisco IP Phone 8811, 8841, 8851, and 8861. The PID is CP-8800-WMK=.

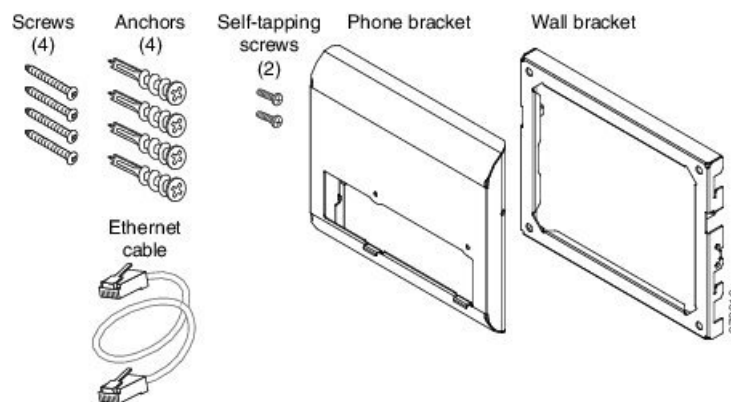
- Cisco IP Phone 8800 Series Wall Mount Kit with Single KEM: The kit is installed on the Cisco IP Phone 8851, and 8861 with one attached Cisco IP Phone 8800 Key Expansion Module. The PID is CP-8800-BEKEM-WMK=

Non-Lockable Wall Mount Components

This section describes how to install the Cisco IP Phone 8800 Series Wall Mount Kit.

The following figure shows the components of the Cisco IP Phone 8800 Series Wall Mount Kit.

Figure 6: Components

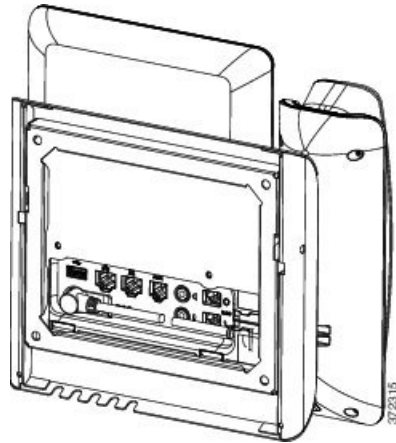


The package contains the following items:

- One phone bracket
- One wall bracket
- Four #8-18 x 1.25-inch Phillips-head screws with four anchors
- Two K30x8mm self-tapping screws
- One 6-inch Ethernet cable

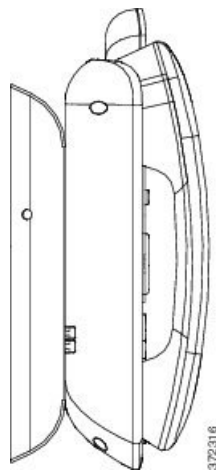
The following figure shows the wall mount kit installed on the phone.

Figure 7: Back view of Wall Mount Kit Installed on Phone



The following figure shows the phone with the wall mount kit from the side.

Figure 8: Side View of Wall Mount Kit Installed on Phone



Install the Non-Lockable Wall Mount Kit for Phone

The wall mount kit can be mounted on most surfaces, including concrete, brick, and similar hard surfaces. To mount the kit on concrete, brick, or similar hard surfaces, you must provide the appropriate screws and anchors for your wall surface.

Before you begin

You need these tools to install the bracket:

- #1 and #2 Phillips-head screwdrivers
- Level
- Pencil

You must also install an Ethernet jack for the telephone in the desired location if an Ethernet jack does not currently exist. This jack must be wired appropriately for an Ethernet connection. You cannot use a regular telephone jack.

Procedure

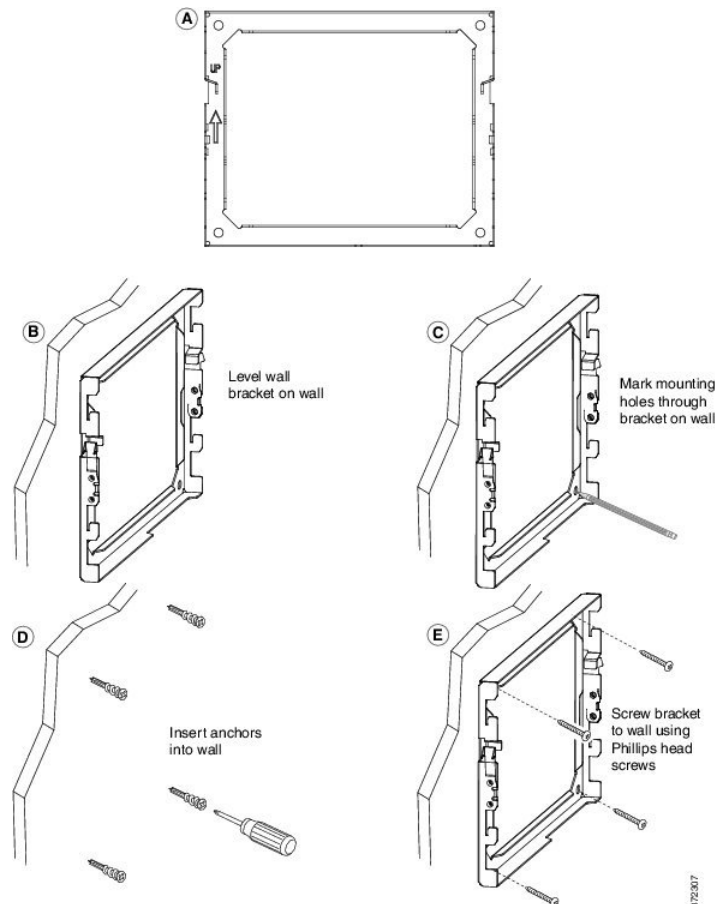
Step 1 Mount the wall bracket in the desired location. You can install the bracket over an Ethernet jack, or you can run the Ethernet network cable to a nearby jack.

Note If the jack is to be placed behind the phone, the Ethernet jack must be flush to the wall or recessed.

- Hold the bracket on the wall, placing it so that the arrow on the back of the bracket is pointing up.
- Use the level to ensure that the bracket is level and use a pencil to mark the screw holes.
- Using a #2 Phillips-head screwdriver, carefully center the anchor over the pencil mark and press the anchor into the wall.
- Screw the anchor clockwise into the wall until it is seated flush.
- Use the included screws and a #2 Phillips-head screwdriver to attach the bracket to the wall.

Figure 9: Bracket Installation

The following figure shows the bracket installation steps.

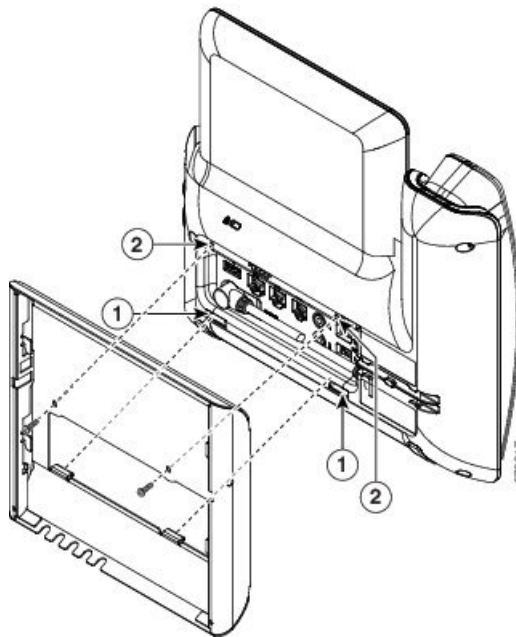


Step 2 Attach the phone bracket to the IP Phone.

- a) Detach power cord, and any other attached cords from the base of the phone, except the handset cord (and headset cord, if there is a headset).
- b) Attach the phone bracket by inserting the tabs into the mounting tabs on the back of the phone. The phone ports should be accessible through the holes in the bracket.
- c) Secure the phone bracket to the IP phone with the self-tapping screws, using the #1 Phillips-head screwdriver.
- d) Reattach the cords and seat them in the clips that are incorporated into the phone body.

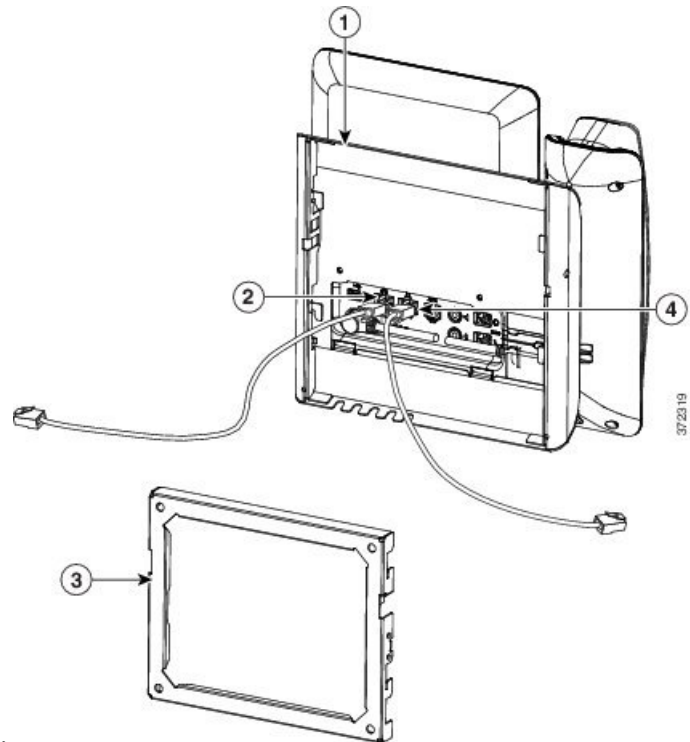
Figure 10: Attach Phone Bracket

The following figure shows how the bracket attaches to the phone.



Step 3 Attach the cables to the phone:

- a) Attach the Ethernet cable to the 10/100/1000 SW network port and wall jack.
- b) (Optional) If you are connecting a network device (such as a computer) to the phone, attach the cable to the 10/100/1000 Computer (PC access) port.
- c) (Optional) If you are using an external power supply, plug the power cord into the phone and dress the cord by clipping it into the clips that are incorporated into the phone body next to the PC port.
- d) (Optional) If the cables terminate inside the wall bracket, connect the cables to the jacks.

Figure 11: Attach Cables

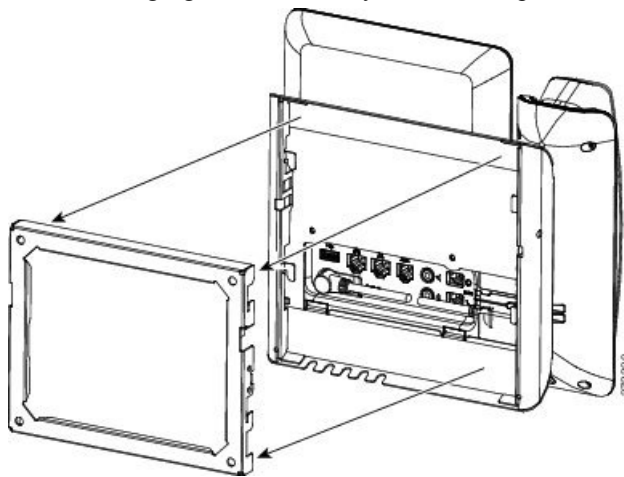
The following figure shows the cables.

Step 4 Attach the phone to the wall bracket by inserting the tabs on the top of the wall bracket into the slots on the phone bracket.

For cables that terminate outside of the brackets, use the cable-access openings in the bottom of the bracket to position the power cord and any other cable that does not terminate in the wall behind the bracket. The phone and wall bracket openings together form circular openings with room for one cable per opening.

Figure 12: Attach Phone to Wall Bracket

The following figure shows how you attach the phone to the wall bracket.

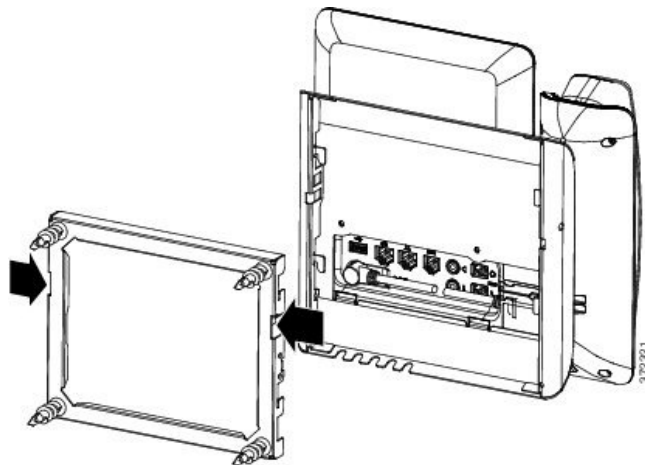


- Step 5** Press the phone firmly into the wall bracket and slide the phone down. The tabs in the bracket click into position.
- Step 6** Proceed to [Adjust the Handset Rest, on page 46](#).
-

Remove the Phone from the Non-Lockable Wall Mount

The wall bracket has two tabs that lock the kit together. Use the following illustration to locate the tabs.

Figure 13: Tab Location

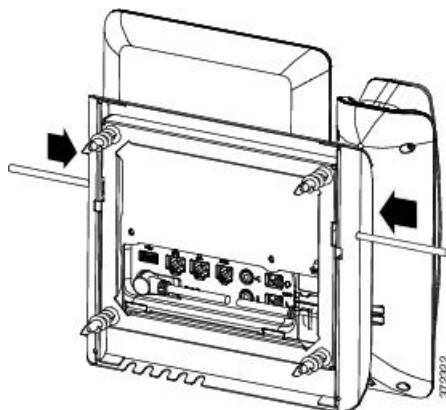


Before you begin

Obtain two Phillips head screwdrivers or other similar devices that have a diameter of 5 millimeters or 3/16ths of an inch.

Procedure

- Step 1** Insert a screw driver or other device into the left and right holes in the phone mounting plate. Insert to a depth of about 3/4 of an inch or 2 centimeters.
- Step 2** Press firmly inwards to disengage the tabs.

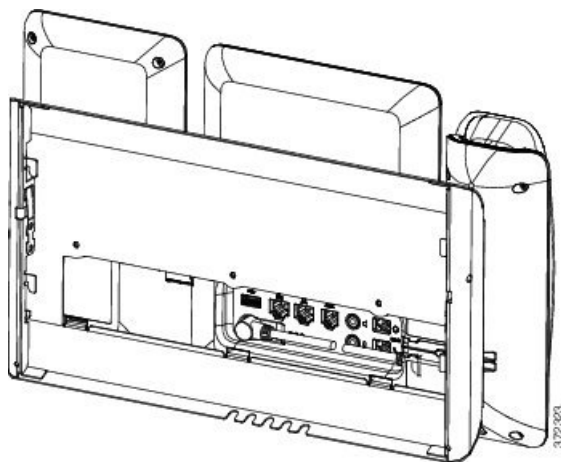
Figure 14: Disengage Tabs

Step 3 Lift the phone to release it from the wall bracket. Pull the phone toward you.

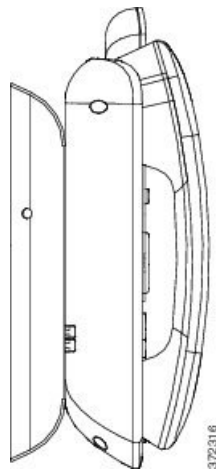
Non-Lockable Wall Mount Components for Phone with Key Expansion Module

This section describes how to install the Cisco IP Phone 8800 Series Wall Mount Kit with Single KEM on a phone when the phone is connected to a Key Expansion Module.

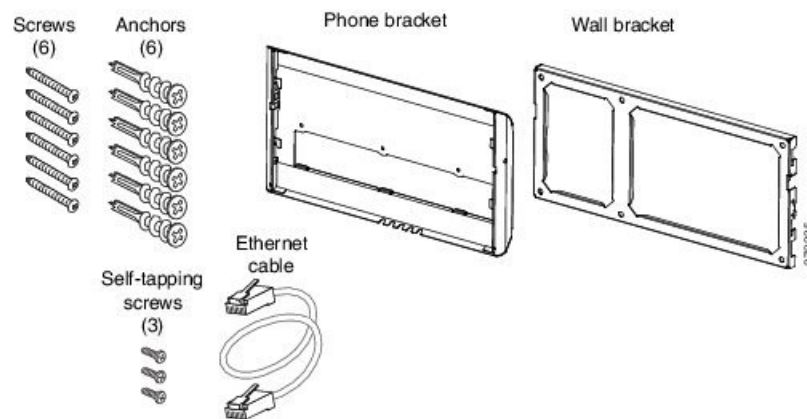
The following figure shows the wall mount kit installed on the phone.



The following figure shows the phone with the wall mount kit from the side.



The following figure shows the components of the Cisco IP Phone 8800 Series Wall Mount Kit with Single KEM.



The package contains the following items:

- One phone bracket
- One wall bracket
- Six #8-18 x 1.25-inch Phillips-head screws with six anchors
- Three K30x8mm self-tapping screws
- One 6-inch Ethernet cable

Install Non-Lockable Wall Mount Kit for Phone with Key Expansion Module

The wall mount kit can be mounted on most surfaces, including concrete, brick, and similar hard surfaces. To mount the kit on concrete, brick, or similar hard surfaces, you must provide the appropriate screws and anchors for your wall surface.

Before you begin

You need these tools to install the bracket:

- #1 and #2 Phillips-head screwdrivers
- Level
- Pencil

You must also install an Ethernet jack for the telephone in the desired location if an Ethernet jack does not currently exist. This jack must be wired appropriately for an Ethernet connection. You cannot use a regular telephone jack.

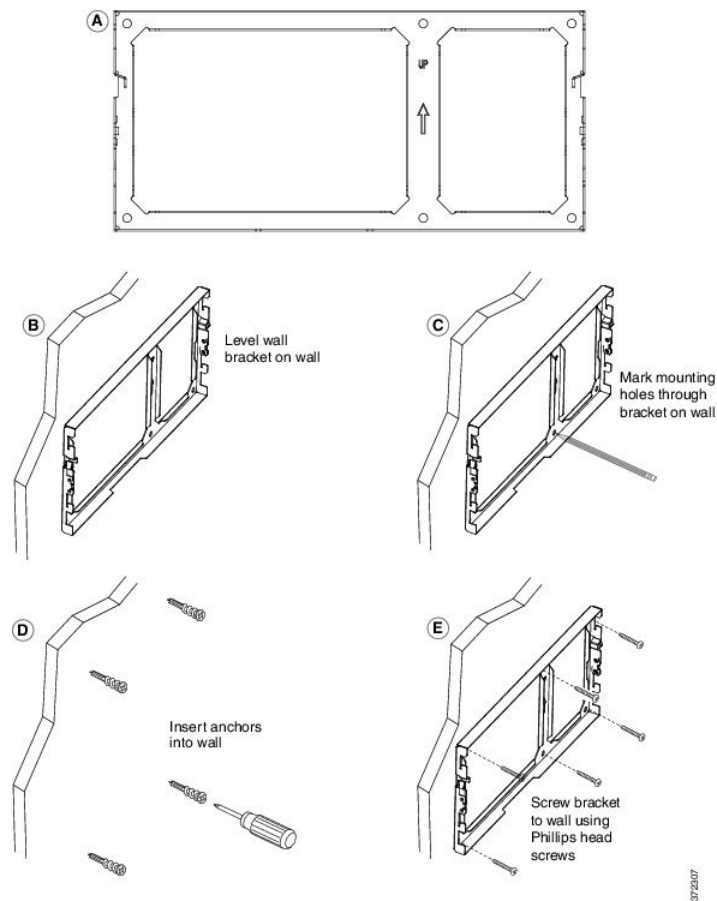
Procedure

Step 1

Mount the wall bracket in the desired location. You can install the bracket over an Ethernet jack, or you can run the Ethernet network cable to a nearby jack.

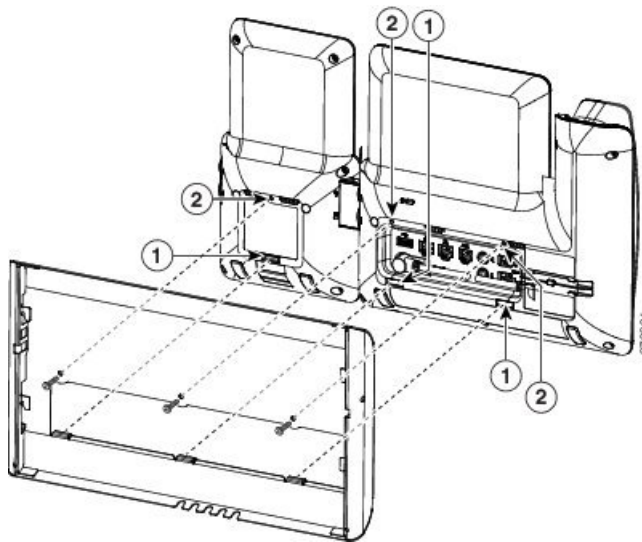
Note If the jack is to be placed behind the phone, the Ethernet jack must be flush to the wall or recessed.

- a) Hold the bracket on the wall. See the following figure for the orientation of the wall bracket.
- b) Use the level to ensure that the bracket is level and use a pencil to mark the screw holes.
- c) Using a #2 Phillips-head screwdriver, carefully center the anchor over the pencil mark and press the anchor into the wall.
- d) Screw the anchor clockwise into the wall until it is seated flush.
- e) Use the included screws and a #2 Phillips-head screwdriver to attach the bracket to the wall.



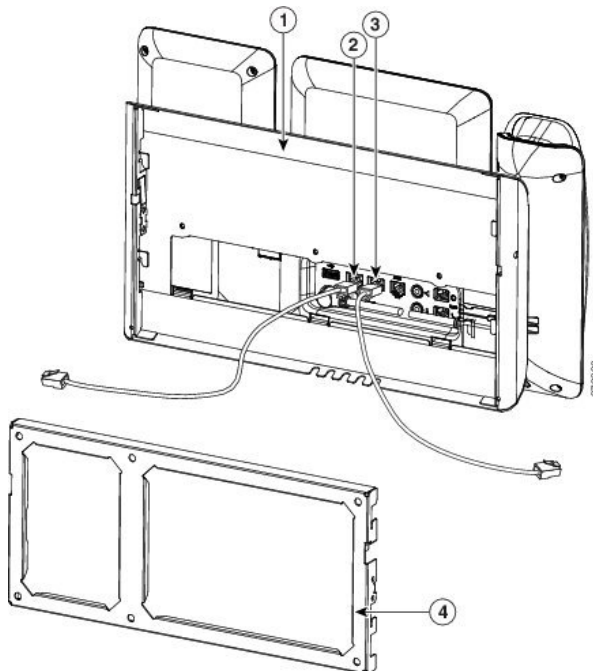
Step 2 Attach the phone bracket to the IP phone and key expansion assembly.

- Detach power cord, and any other attached cords from the base of the phone, except the handset cord (and headset cord, if there is a headset).
- Attach the phone bracket by inserting the tabs into the mounting tabs on the back of the phone. The phone ports should be accessible through the holes in the bracket.
- Secure the phone bracket to the IP phone with the self-tapping screws using a #1 Philips-head screwdriver.
- Reattach the cords and seat them in the clips that are incorporated into the phone body.

**Step 3**

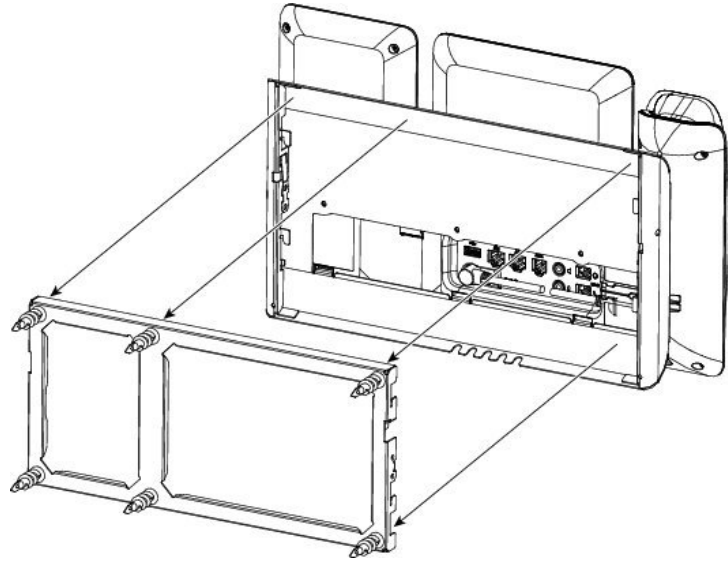
Attach the cords.

- a) Attach the Ethernet cable to the 10/100/1000 SW network port and wall jack.
- b) (Optional) If you are connecting a network device (such as a computer) to the phone, attach the cable to the 10/100/1000 Computer (PC access) port.
- c) (Optional) If you are using an external power supply, plug the power cord into the phone and dress the cord by clipping it into the clips that are incorporated into the phone body next to the PC port.
- d) (Optional) If the cables terminate inside the wall bracket, connect the cables to the jacks.

**Step 4**

Attach the phone to the wall bracket by inserting the tabs on the top of the phone bracket into the slots on the wall bracket.

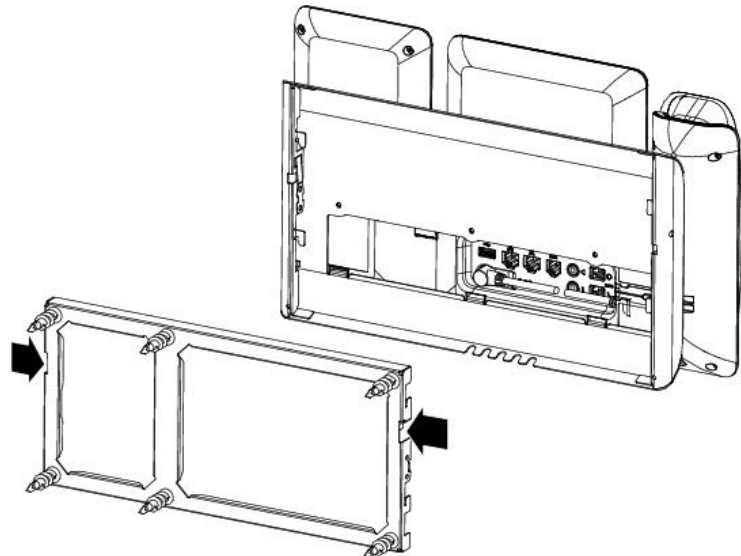
For cables that terminate outside of the bracket, use the cable-access openings in the bottom of the bracket to position the power cord and any other cable that does not terminate in the wall behind the bracket. The phone and wall bracket openings together form circular openings with room for one cable per opening.



Step 5 Proceed to [Adjust the Handset Rest](#), on page 46.

Remove the Phone and Key Expansion Module from the Non-Lockable Wall Mount

The wall bracket has two tabs that lock the kit together. Use the following illustration to locate the tabs.



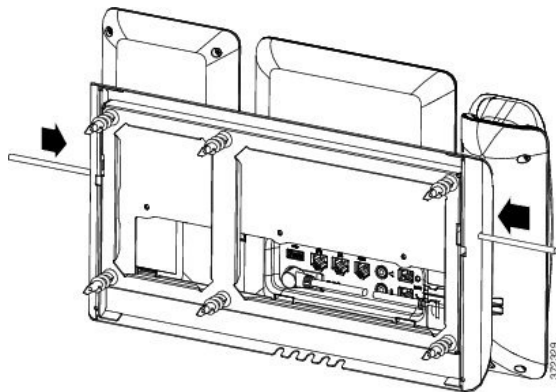
Before you begin

Obtain two Phillips head screwdrivers or other similar devices that have a diameter of 5 millimeters or 3/16ths of an inch.

Procedure

Step 1 Insert a screw driver or other device into the left and right holes in the phone mounting plate. Insert to a depth of about 3/4 of an inch or 2 centimeters.

Step 2 Press firmly inwards to disengage the tabs.

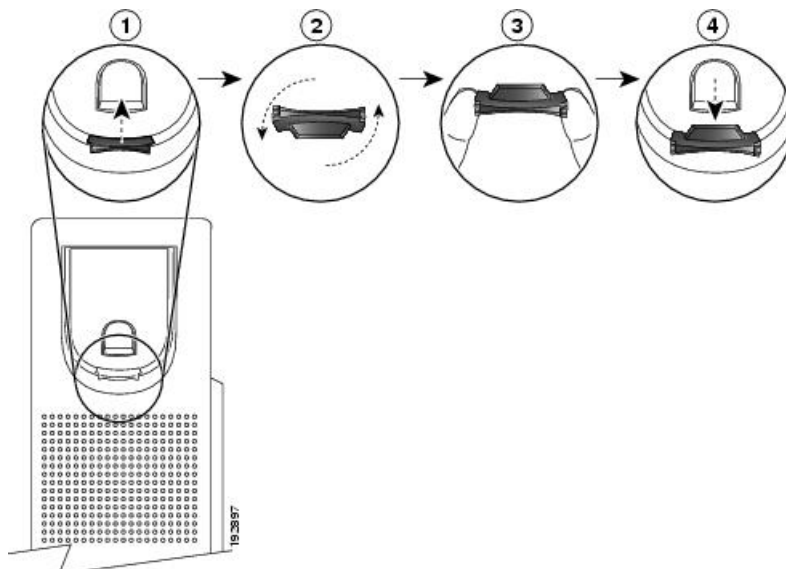


Step 3 Lift the phone to release it from the wall bracket. Pull the phone toward you.

Adjust the Handset Rest

If your phone is wall-mounted or if the handset slips out of the cradle too easily, you may need to adjust the handset rest to ensure that the receiver does not slip out of the cradle.

Figure 15: Adjust the Handset Rest



Procedure

- Step 1** Remove the handset from the cradle and pull the plastic tab from the handset rest.
- Step 2** Rotate the tab 180 degrees.
- Step 3** Hold the tab between two fingers, with the corner notches facing you.
- Step 4** Line up the tab with the slot in the cradle and press the tab evenly into the slot. An extension protrudes from the top of the rotated tab.
- Step 5** Return the handset to the handset rest.
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