



Cisco Wireless IP Phone 8821 and 8821-EX User Guide

First Published: 2016-06-29

Last Modified: 2016-11-23

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
<http://www.cisco.com>
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The following information is for FCC compliance of Class A devices: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense.

The following information is for FCC compliance of Class B devices: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment causes interference to radio or television reception, which can be determined by turning the equipment off and on, users are encouraged to try to correct the interference by using one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications to this product not authorized by Cisco could void the FCC approval and negate your authority to operate the product

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: <http://www.cisco.com/go/trademarks>. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

© 2016 Cisco Systems, Inc. All rights reserved.



CONTENTS

CHAPTER 1

Your Phone 1

The Cisco Wireless IP Phone 8821 and 8821-EX 1

New and Changed Information 3

Changes for Firmware Release 11.0(3) 3

Getting Started 4

Turn On Your Phone 4

Sign In to Your Phone 4

Turn Off Your Phone 5

Lock the Phone Keypad 5

Unlock the Phone Keypad 5

Access Your Voicemail 6

Self Care Portal 6

Speed-Dial Numbers 7

Buttons and Hardware 8

Navigation 12

Phone Screen Features 12

Differences Between Phone Calls and Lines 12

Out-of-Range Alerts 13

Phone Batteries 13

Bluetooth and Your Phone 13

Care of Your Phone 14

Clean the Phone Exterior 14

If You Drop Your Phone in Water 14

Additional Help and Information 15

Cisco One-Year Limited Hardware Warranty Terms 16

Battery Warranty 16

CHAPTER 2

Phone Setup 17

Phone Hardware Installation	17
Install the Phone Battery	17
Phone Battery Charging	19
Spare Battery Charging	20
Prepare the Power Adapter	20
Charge the Battery with the AC Power Supply	21
Charge the Battery with the USB Cable and a USB Port on Your Computer	22
Phone Configuration	23
Add the Phone to the Wi-Fi Network	23

CHAPTER 3**Calls 27**

Access the Phone App	27
Make Calls	28
Make a Call	28
Make an Emergency Call	28
Make a Call with a Headset	28
Make a Call with the Phone Speaker	29
Make a Call with the Desktop Charger Speaker	29
Make a Call with a Phone or Video Address	30
Redial a Number	30
Return a Recent Call	30
Make a Speed Dial Call	31
Dial an International Number	31
Get Notified When a Contact is Available	32
Calls That Require a Billing Code or Authorization Code	32
Secure Calls	32
Answer Calls	32
Answer a Call	33
Answer Call Waiting	33
Decline a Call	33
Ignore a Call	33
Silence Incoming Calls on Your Phone	33
Answer a Coworker's Phone (Call Pickup)	34
Answer a Call Within Your Group (Pickup)	34
Answer a Call From Another Group (Group Pickup)	34

Answer a Call from an Associated Group (Other Pickup)	35
Trace a Suspicious Call	35
Control the Phone Ringer for a Single Incoming Call	35
End a Call	36
Mute Your Audio	36
Hold Calls	37
Put a Call on Hold	37
Answer a Call Left on Hold for Too Long	37
Swap Between Active and Held Calls	37
Call Park	38
Place a Call on Hold with Call Park	38
Retrieve a Call on Hold with Call Park	38
Forward Calls From Your Phone	39
Turn Off Call Forward From Your Phone	39
Transfer a Call to Another Person	39
Conference Calls and Meetings	40
Add Another Person to a Call	40
View and Remove Conference Participants	40
Scheduled Conference Calls (Meet Me)	41
Host a Meet Me Conference	41
Join a Meet Me Conference	41
Intercom Calls	42
Make an Intercom Call	42
Answer an Intercom Call	42
Supervise and Record Calls	43
Set up a Supervised Call	43
Record a Call	43
Prioritized Calls	44
Make a Priority Call	44
Answer a Priority Call	45
Answer a Priority Call While on Another Call	45
Multiple Lines	45
Shared Lines	45
Add Yourself to a Call on a Shared Line (cBarge)	46

CHAPTER 4**Contacts 47**

- Access the Contacts App 47
- Corporate Directory 47
 - Search and Dial a Contact from the Corporate Directory 48
 - Find Contact Information for a Coworker from Your Phone 48
- Personal Directory 48
 - Sign In and Out of a Personal Directory 48
 - Search for a Contact in Your Personal Directory 49
 - Add a New Contact to Your Personal Directory 49
 - Find Contact Information for a Personal Directory Contact from Your Phone 50
 - Edit a Contact in Your Personal Directory 50
 - Call a Contact from Your Personal Directory 50
 - Remove a Contact from Your Personal Directory 51

CHAPTER 5**Recent Calls 53**

- Access the Recents App 53
- New Voicemail Message and Missed Calls Indicators 53
- Missed Calls List 53
 - View Your Missed Calls 54
 - Find Details About a Missed Call 54
 - Return a Missed Call 54
 - Delete a Missed Call Entry 54
 - Clear the Missed Calls List 55
- Recents Calls List 55
 - View Your Recent Calls 55
 - Find Details About a Recent Call 56
 - Return a Recent Call from Recents 56
 - Delete a Call Record 56
 - Clear the Recent Calls List 57

CHAPTER 6**Applications 59**

- Apps and the Application Button 59
- Use the Push to Talk Application 59

CHAPTER 7**Settings 61**

- Access the Settings App **61**
 - Access Phone Settings **61**
 - Make the Phone Vibrate for an Incoming Call **62**
 - Select Where You Hear Ringing **62**
 - Change the Ringtone **62**
 - Adjust the Headset Feedback **63**
 - Turn Off the Keypad Sounds **63**
 - Adjust the Background Noise Filter **63**
 - Adjust the Screen Brightness **63**
 - Change the Font Size **64**
 - Control the LED Indicator Light **64**
 - Change the Screen Display Timeout **65**
 - Change the Wallpaper **65**
 - Automatically Lock the Keypad **65**
 - Date and Time Settings **66**
 - Control the Date and Time Manually **66**
 - Control the Date and Time Automatically **66**
 - Set the Time Zone Automatically **67**
 - Set the Time **67**
 - Set the Date **67**
 - Set Time Zone **68**
 - Use a 12-Hour or 24-Hour Clock **68**
 - Set the Date Format **68**
 - Access Bluetooth Settings **69**
 - Turn On Bluetooth **69**
 - Add a New Bluetooth Headset **70**
 - Connect a Bluetooth Headset **70**
 - Rename a Bluetooth Headset **70**
 - Disconnect a Bluetooth Headset **71**
 - Delete a Bluetooth Headset **71**
 - Access Admin Settings **71**
 - Adjust the Volume During a Call **72**
 - Adjust the Phone Ringer Volume **72**

CHAPTER 8**Accessories 73**

- Supported Accessories 73
- Headsets 74
 - Standard Headsets 74
 - Bluetooth Headsets 74
 - Headset Tips 75
- Cisco Wireless IP Phone 8821 and 8821-EX Desktop Charger 75
 - Set Up the Desktop Charger 76
 - Charge Your Phone with the Desktop Charger 76
 - Charge Your Spare Battery with the Desktop Charger 78
- Cisco Wireless IP Phone 8821 and 8821-EX Multi Charger 78
 - Set Up the Multicharger 79
 - Install the Multicharger Wall Mount Kit 79
 - Charge Your Phone with the Multicharger 81
 - Charge Your Spare Battery with the Multicharger 82
- Secure the Charger with a Cable Lock 82

CHAPTER 9**Troubleshooting 85**

- General Troubleshooting 85
- Find Information About Your Phone 87
- Hardware Diagnostics 87
 - Perform WLAN Diagnostics 87
 - WLAN Diagnostics Fields 88

CHAPTER 10**Product Safety and Security 91**

- Safety and Performance Information 91
 - Safety Guidelines 92
 - Battery Safety Notices 92
 - Hazardous Environments 94
 - Power Outage 94
 - Regulatory Domains 94
 - Health-Care Environments 94
 - External Devices Usage 94
 - Phone Behavior During Times of Network Congestion 95

SAR	95
Compliance Statements	96
Compliance Statements for the European Union	96
CE Marking	96
RF Exposure Statement for the European Union	96
Compliance Statements for the USA	96
SAR Statement	96
RF Exposure Information	96
General RF Exposure Compliance	97
Part 15 Radio Device	98
Canadian Compliance for Cisco Wireless IP Phone 882x Series	98
Canadian RF Exposure Statement	98
Compliance Statements for New Zealand	98
Permit to Connect (PTC) General Warning	98
Use of IP Networks with the PSTN	99
The Use of Voice Compression Through the PSTN	99
Echo Cancellation	99
Compliance Statements for Taiwan	100
DGT Warning Statement for Cisco Wireless IP Phone 882x Series	100
Compliance Statement for Argentina	100
Compliance Statement for Brazil	100
Cisco Product Security Overview	101
Important Online Information	101



Your Phone

- [The Cisco Wireless IP Phone 8821 and 8821-EX, page 1](#)
- [New and Changed Information, page 3](#)
- [Getting Started, page 4](#)
- [Self Care Portal, page 6](#)
- [Buttons and Hardware, page 8](#)
- [Care of Your Phone, page 14](#)
- [Additional Help and Information, page 15](#)

The Cisco Wireless IP Phone 8821 and 8821-EX

The Cisco Wireless IP Phone 8821 and 8821-EX are 802.11 dual-band wireless devices that provide comprehensive voice communications in conjunction with Cisco Unified Communications Manager and with Cisco Aironet and Cisco Meraki access points (APs) in a private business communications network.



Note

The Cisco Wireless IP Phone 8821-EX is not currently supported.

The phones provide voice communication over the same wireless LAN that your computer uses, allowing you to place and receive phone calls, put calls on hold, transfer calls, make conference calls, and so on. Both phones have Ingress Protection 67 (IP67) level protection, which indicates dust-tight equipment that is protected against water (see below).

The Cisco Wireless IP Phone 8821-EX is certified for Potentially Explosive Atmosphere ATEX Class I Zone 2, North America Class I Division 2/Zone 2. The phone is certified for use in potentially explosive (hazardous) environments where flammable gasses, vapors or liquids may be present for a short period of time or under abnormal conditions. The phone has an industry-standard yellow styling that offers fast recognition in emergency situations.

The following figure shows the Cisco Wireless IP Phone 8821 on the left and the Cisco Wireless IP Phone 8821-EX on the right.

Figure 1: Cisco Wireless IP Phone 8821 and 8821-EX



These phones, like other network devices, must be configured and managed. The phones support G.711a, G.711u, G.722, G.729a, G.729ab, iLBC, and iSAC codecs. The phones also support uncompressed wideband (16 bits, 16 kHz) audio.

The phones are hearing aid compatible (HAC) but do not have any TTY features. They have ridges on the sides of the 5 key that is a tactile identifier.

The physical characteristics include:

- Resistance to damage from dropping the phone
- Tolerance of antibacterial and alcohol-based wipes
- Latex- and lead-free
- Shockproof and vibration-proof
- USB On-the-Go (OTG) 2.0 interface
- IP67 protection, which indicates dust-tight equipment that is protected against water (see below)
- Cisco Wireless IP Phone 8821-EX only:
 - Certified for use in Potentially Explosive Atmosphere:
 - ATEX Class I Zone 2
 - CSA Certified for Class I Division 2/Zone 2
 - Industry-standard yellow styling offers fast recognition in emergency situations.

In addition to basic call-handling features, your phone can provide enhanced productivity features that extend your call-handling capabilities.

Depending on the configuration, your phone supports:

- Use of Bluetooth wireless headsets, including certain hands-free call features
- Wireless access to your phone number and the corporate directory
- Access to network data, XML applications, and web-based services
- Online customizing of phone features and services from your Self Care portal

IP67 Information

The Cisco Wireless IP Phone 8821 and 8821-EX are tested under controlled laboratory conditions with a rating of IP67 under IEC standard 60529. Ingress Protection 67 (IP67) level protection indicates dust-tight equipment that is protected against water. Splash, water, and dust resistance are not permanent conditions, and resistance might decrease as a result of normal wear. Users are expected to take care of the phone and should not deliberately expose the device to a hostile environment of dust, splash, or water immersion.

To prevent device damage:

- Don't bathe or swim with the phone.
- Don't expose phone to pressurized water or high velocity water, such as when showering, cleaning, or hand washing.
- Don't use the phone in a sauna or steam room.
- Don't intentionally submerge phone in water.
- Don't operate the phone outside the suggested temperature ranges or in extremely humid, hot, or cold conditions.
- Don't store phones, batteries, and accessories outside the suggested temperature ranges or in extremely humid, hot, or cold conditions.
- Don't drop the phone or subject it to other impacts.
- Don't disassemble the phone; don't remove any screws.
- Don't use harsh cleaning agents like bleach and more to clean phone exterior
- Don't use a broken battery door or a battery door with a broken seal.

Minimize the exposure of your phone to soap, detergent, acids or acidic foods, and any liquids; for example, salt water, soapy water, pool water, perfume, insect repellent, lotions, sun screen, oil, adhesive remover, hair dye, soft drinks, and solvents. For more information, see [Care of Your Phone, on page 14](#).

Related Topics

[Hazardous Environments, on page 94](#)

New and Changed Information

Changes for Firmware Release 11.0(3)

The following table contains the information that was added or changed in this book for this firmware release.

Feature	Updates
Background noise filter	Adjust the Background Noise Filter, on page 63 Headset Tips, on page 75
Power saving enhancements	Phone Batteries, on page 13

Getting Started

You must read [Product Safety and Security, on page 91](#) before you install or charge the battery.

Your phone is powered by a rechargeable Lithium ion battery. Before you can use your phone, you must install the battery in the phone and charge the battery.

Your phone needs to connect to the corporate wireless network and the IP telephony network. Your administrator might set up your new wireless phone, or you might have to set it up.

After the phone is set up, you can use the phone.

Related Topics

[Phone Setup, on page 17](#)

[Phone Batteries, on page 13](#)

Turn On Your Phone

Your phone automatically turns the power off when you are not using it to conserve battery power. You need to turn the phone back on in order to use it.

When you turn the phone on, you may need to enter a username and password to access the wireless network. After the phone authenticates and registers with the call control system, the main screen displays and you can make or receive calls.

Procedure

Press and hold **Power/End Call**  until the red LED lights.

Sign In to Your Phone

If you see a sign-in screen when you turn the phone on, you must enter your username and password to access the phone functions. You may also need to enter other information, as required by your wireless security requirements. Contact your administrator for assistance.


Procedure

- Step 1** Enter your user ID.
 - Step 2** Enter your password.
-

Turn Off Your Phone

To conserve the battery, turn off the phone when you don't need it to make or receive calls.

Procedure

- Step 1** Press and hold **Power/End Call**  for 4 seconds.
 - Step 2** Press **Power off**.
-

Related Topics

[Change the Screen Display Timeout](#) , on page 65


Lock the Phone Keypad

You can lock the keypad so that you don't press keys by mistake.

Before You Begin

You must be on the home screen.

Procedure

Press and hold **Zero (0)**  until you see the message that the keypad is locked.


Related Topics

[Automatically Lock the Keypad](#), on page 65

Unlock the Phone Keypad

If you lock the keypad, you need to unlock it to use the phone.

Procedure


-
- Step 1** Press **Unlock**.
- Step 2** Press **Zero (0)** .
-

Access Your Voicemail

You can access your voicemail by calling the voicemail system phone number. But, if your administrator has enabled quick access, you can access voicemail with a single button. The button automatically dials the voicemail system for you.

Your voicemail system is separate from the phone. If you need information about the voicemail system phone numbers for internal and external access and other voicemail system information, contact your administrator.

Procedure

-
- Step 1** Press and hold **One (1)**  on the keypad.
- Step 2** Follow the prompts.
-

Self Care Portal

You can customize some phone settings with the Self Care portal web site, which you access from your computer. Your administrator gives you the Self Care portal URL, your user ID, and password.

In the Self Care portal, you can control features, line settings, and phone services for your phone.

- Phone features include speed dial, do not disturb, and your personal address book.
- Line settings affect a specific phone line (directory number) on your phone. Line settings can include call forwarding, visual and audio message indicators, ring patterns, and other line-specific settings.
- Phone services can include special phone features, network data, and web-based information (such as stock quotes and movie listings). You must subscribe to a phone service using the Self Care portal before you access it on your phone.

The following table describes some specific features that you configure using the Self Care portal. For more information, see the Self Care portal documentation for your call control system.

Features	Description
Call forward	You specify the number that will receive calls when call forward is enabled on the phone. You can use the Self Care portal to set up more complicated call forward functions, for example, when your line is busy.

Features	Description
Additional phones	<p>You specify additional phones (your mobile and other phones) that you want to use to make and receive calls with the same directory numbers as your desk phone. You can also define blocked and preferred contacts to restrict or allow calls from certain numbers to be sent to your mobile phone. When you set up additional phones, you can also set up the following features:</p> <ul style="list-style-type: none"> • Single number reach—You specify if the additional phone should ring when someone calls your desk phone. • Mobile calls—If the additional phone is a mobile phone, you can set it up to allow you to transfer mobile calls to your desk phone or desk phone calls to your mobile phone.
Speed dial	<p>You assign phone numbers to speed-dial numbers so that you can quickly call that person.</p>

Speed-Dial Numbers

When you dial a number on your phone, you enter a series of digits. When you set up a speed-dial number, the speed-dial number must contain all the digits you need to make the call. For example, if you need to dial 9 to get an outside line, you put the number 9 and then the number you want to dial.

You can also add other dialed digits to the number. Examples of additional digits include a meeting access code, an extension, a voicemail password, an authorization code, and a billing code.

The dial string can contain the following characters:

- 0 to 9
- pound (#)
- asterisk (*)
- comma (,)—This is the pause character, and gives a 2-second delay in the dialing. You can have several commas in a row. For example, two commas (,,) represent a pause of 4 seconds.

The rules for dial strings are:

- Use the comma to separate the parts of the dial string.
- An authorization code must always precede a billing code in the speed-dial string.
- One comma is required between the authorization code and the billing code in the string.
- A speed-dial label is required for speed dials with authorization codes and additional digits.

Before you configure the speed dial, try to dial the digits manually at least once to ensure that the digit sequence is correct.

**Note**

Your phone does not save the authorization code, billing code, or extra digits from the speed dial in the call history. If you press **Redial** after connecting to a destination using speed dial, the phone prompts you to enter any required authorization code, billing code, or additional digits manually.

Example

To set up a speed-dial number to call a person at a specific extension, and if you need an authorization code and billing code, consider the following requirements:

- You need to dial 9 for an outside line.
- You want to call 5556543.
- You need to input the authorization code 1234.
- You need to input the billing code 9876.
- You must wait for 4 seconds.
- After the call is connected, you must dial the extension 56789#.

In this scenario, the speed dial number is 95556543,1234,9876,,56789#.

Related Topics

[Calls That Require a Billing Code or Authorization Code, on page 32](#)


Buttons and Hardware












Your wireless phone has many buttons and hardware features that you will use regularly. Use the following figure and table to identify the important button and hardware features. The figure shows the Cisco Wireless








IP Phone 8821, but the Cisco Wireless IP Phone 8821-EX is similar in appearance. The table describes the functions of the keys on the phones.

Figure 2: Cisco Wireless IP Phone 8821 Buttons and Hardware



Item	Name or Grouping	Description
1	Indicator light (LED) Headset port	<p>Indicator light—Use the light to identify states:</p> <ul style="list-style-type: none"> • Solid red—the phone is connected to the AC power source and battery is charging. • Solid green—the phone is connected to the AC power source and battery is fully charged. • Fast blinking amber—There is an incoming call. Phone can be charging or fully charged. • Fast blinking green—There is a voice message. When phone is connected to the AC power source, the green light displays longer than when using only the battery. • Slow blinking green (every 2 seconds): The phone is using only battery power. The phone is registered with the wireless network and is within service coverage area.
		<p>Headset port with cover  Remove the protective cover and plug in a headset or ear buds.</p>

Item	Name or Grouping	Description
2	Speaker button	Speaker  Toggle the speaker mode on or off for the phone.
3	Softkey buttons Navigation cluster Call control buttons	<p>Softkeys </p> <ul style="list-style-type: none"> • The More  softkey accesses a list of menus or functions. • The softkey activates the option displayed on the screen. <hr/> <p>Navigation cluster  Navigation ring and Select button</p> <p>Navigation ring (outer ring):</p> <ul style="list-style-type: none"> • Move up, down, left, or right for these home screen apps: <ul style="list-style-type: none"> ◦ Recents  ◦ Contacts  ◦ Apps  ◦ Settings  • Scroll up and down menus to highlight options and to move left and right through phone numbers and text entries. <p>Select  button (center of the cluster):</p> <ul style="list-style-type: none"> • Make a call from the main screen. • Select a menu item, a softkey, a call, or an action. <hr/> <p>Answer/Send  Answer a ringing call or, after dialing a number, place the call.</p> <hr/> <p>Power/End Call  Turn the phone on or off, or end a connected call. When you use menus or when you are in an app, it acts as a shortcut to return to the main screen.</p>

Item	Name or Grouping	Description
4	Keypad	<p>Dial numbers, enter letters, and choose menu items by number.</p> <p>One (1) </p> <ul style="list-style-type: none"> • Enter “1” when you dial a number. • Access voicemail. Press and hold to automatically dial the voicemail system. • Enter these special text characters: / . @ : ; = ? - _ & % <p>Asterisk (*) </p> <ul style="list-style-type: none"> • Before you enter an international phone number, press and hold for a few seconds to add the plus (+) symbol to the phone number. • Enter these special text characters: + * ~ ` < > <p>Zero (0) </p> <ul style="list-style-type: none"> • Enter “0” when you dial a number. • Lock the keypad. • Enter a space or these special text characters: 0 , ! ^ ' " <p>Pound (#) </p> <ul style="list-style-type: none"> • Press to silence the phone ringer. If configured, the phone will vibrate instead. • Enter these special text characters: # \$ £ ¤ () { } []
5	Left Side Buttons	<p>Application  Use with XML applications, such as Push to Talk.</p> <p>Volume </p> <ul style="list-style-type: none"> • When the phone is idle, change the ring volume or turn off the ringer. • When you have an incoming (ringing) call, press the button once to silence the ringer. • During a call, control the speaker volume for the active handset, headset, or speaker. • When the phone is docked in the desktop charger, control the volume of the charger speaker. <p>Mute  Toggle the mute feature on or off.</p>

Navigation

You use the outer ring of the Navigation cluster to scroll through menus. You use the inner **Select** button of the Navigation cluster to select menu items.



Each item in a menu has an index number. You can enter the index number with the keypad to select the menu item.

Phone Screen Features



The phone screen shows information about your phone such as directory number, active call and line status, softkeys, speed dials, and placed calls. The screen is made up of these sections:

- Header section—displays the phone number, Wi-Fi strength, battery charge, and a number of feature icons. The feature icons display when features are active.
- Middle section—displays the home screen with its application (app) icons.
- Footer section—displays the current date and time or softkey labels. Each softkey label indicates the action for the softkey button below the screen.

Differences Between Phone Calls and Lines

We use the terms *lines* and *calls* in very specific ways to explain how to use your phone. Here is an explanation of the differences.

Lines


Each line corresponds to a directory number or intercom number that others can use to call you. Your phone supports up to six lines. To see your phone lines, press **Phone**  to open the line view. You have as many lines as you have directory numbers with phone line icons  in the line view list.

Calls

Each line can support multiple calls, typically up to four calls. Your phone can support up to 24 connected calls, but your system administrator can adjust this number according to your needs. Only one call can be active at any time; other calls are automatically placed on hold.


Here is an example: If you have two lines and each line supports four calls, then you could have up to eight connected calls at one time. Only one of those calls is active and the other seven are held calls.

Out-of-Range Alerts

Your system administrator can configure your phone to send you an audible alert (beep) when you are out of range of the wireless network. When you hear the alert, the  (no signal) icon displays on the phone screen.

When you are out of range of the wireless network, you cannot use the phone for features requiring a wireless network connection, such as making and receiving calls.

If your system administrator enabled the out-of-range alert, depending on the configuration, you might hear a beep only once, or every 10, 30, or 60 seconds until you are back within range of the wireless network.

To reconnect to the wireless network after you hear the alert, move to another location until you see the signal icon  on the phone screen again.

Phone Batteries

Your phone contains a lithium ion battery. The fully charged battery provides the following hours of service:

- Up to 13 hours of talk time
- Up to 240 hours of standby time

Battery life depends on a number of factors including:

- On time—The battery life is reduced when the phone is turned on. Calls, messages, application use, Bluetooth use, and actions like menu navigation use power.
- Scan mode—Your phone can be set up to scan the access points in three different ways (Continuous, Auto, Single AP). If your phone uses Continuous or Auto scan modes, the phone requires more power, which reduces battery talk time.

If you require longer talk times, you will find it useful to have a spare, charged battery.

Bluetooth and Your Phone

You can use a Bluetooth headset with your phone.

Bluetooth connections work best when you're within 3 to 6 feet (1 to 2 meters) from your phone, but you might be able to be as far away as 66 feet (20 meters). The Bluetooth connection can degrade if you have a barrier (wall, door, window), large metal object, or other electronic devices between your phone and the connected device.

To connect a headset to your phone with Bluetooth, you start by pairing the headset with your phone. You can pair up to 5 Bluetooth headsets with the phone. After the headset is paired, the phone connects to the headset when the headset is turned on. The last Bluetooth headset connected with the phone is the headset that the phone uses.

**Note**

The Cisco Wireless IP Phone 8821-EX has not been tested or certified with any accessories for use in Potentially Explosive Atmosphere.

Related Topics

[Bluetooth Headsets](#), on page 74

[Access Bluetooth Settings](#), on page 69

Care of Your Phone

You can clean your phone. Make sure you follow our cleaning instructions.

Clean your phone immediately if it comes in contact with anything that may cause stains, or other damage; for example, dirt or sand, ink, makeup, soap, detergent, acids, acidic foods, or lotions.

If you happen to drop the phone into water, or it gets splashed, you need to dry off the phone using our instructions. See [If You Drop Your Phone in Water](#), on page 14.

Clean the Phone Exterior

You can clean the phone exterior using a dry, lint-free cloth. For the health-care environment, we recommend that you use Caviwipes™ and Saniwipes™ to thoroughly clean the phone. Caviwipes and Saniwipes contain up to 17% isopropanol.

Any cleaning solution containing a higher amount of isopropanol, including pure isopropanol, or an alternative alcohol-based liquid could potentially damage the phone. Do not clean the phone with bleach or other caustic products.

Excessive use of Caviwipes and Saniwipes more than 3 times a day will damage the phone surface coating and will change the appearance of phone.

Clean your phone immediately if it comes in contact with anything that may cause stains, or other damage; for example, dirt or sand, ink, makeup, soap, detergent, acids, acidic foods, or lotions.

**Caution**

Do not use compressed air to clean the openings of the phone. The air can damage the phone and voids the phone warranty.

Procedure

-
- Step 1** Remove the phone from the charger or unplug it from the charging cable.
- Step 2** If the phone is in a protective case, remove the phone from the case.
- Step 3** Wipe the phone and screen with a soft, lint-free cloth.
-

If You Drop Your Phone in Water

If you drop your phone in water, here's what you do:

- *Gently* shake the water off the phone.

- Dry the phone with a soft, dry, lint-free cloth.
- Leave your phone in a dry area with some air flow; for example, a fan blowing *cool* air can be directed onto the phone speaker grill to help the phone dry out.

Here are some things you don't do:

- Don't open the battery door while the phone is wet.
- Don't use compressed air to blow off the water.
- Don't use a hair dryer to dry off the phone.
- Don't put a cotton swab, paper towel, or cloth into the headset jack or inside the battery compartment.
- Don't tap the phone on a hard surface.
- Don't charge a wet phone using the charging cable. You must wait until the phone is completely dry.
- Don't put a wet phone into the desktop charger, or multicharger. You must wait until the phone is completely dry.

**Caution**

To ensure that the phone does not get water into the battery compartment, make sure that the compartment is tightly closed. See [Install the Phone Battery](#), on page 17.

If the sound is muffled after you dry the phone, there may still be water in the microphone or speaker compartments. Place your phone, speaker-side down, on a dry, lint-free cloth to see if water drips out. If there is still water in the phone, allow the phone to completely dry before you use it.

Additional Help and Information

If you have questions about the functions available on your phone, you should contact your administrator. The Cisco web site (<http://www.cisco.com>) contains more information about the phones and call control systems.

- For quick start guides, accessory guides, and end-user guides in English, follow this link:
<http://www.cisco.com/c/en/us/support/collaboration-endpoints/unified-ip-phone-8800-series/products-user-guide-list.html>
- For guides in languages other than English, follow this link:
<http://www.cisco.com/c/en/us/support/collaboration-endpoints/unified-ip-phone-8800-series/tsd-products-support-translated-end-user-guides-list.html>
- For licensing information, follow this link:
<http://www.cisco.com/c/en/us/support/collaboration-endpoints/unified-ip-phone-8800-series/products-licensing-information-listing.html>

Related Topics

[Troubleshooting](#), on page 85

Cisco One-Year Limited Hardware Warranty Terms

Special terms apply to your hardware warranty and services that you can use during the warranty period.

This warranty does not apply to phone batteries.

Your formal Warranty Statement, including the warranties and license agreements applicable to Cisco software, is available on Cisco.com at the following URL: <http://www.cisco.com/go/hwwarranty>.

Battery Warranty

The warranty period of the battery is 6 months after the manufacturing date.



CHAPTER 2

Phone Setup

- [Phone Hardware Installation, page 17](#)
- [Phone Configuration, page 23](#)

Phone Hardware Installation

Before you can use your phone, you must install and charge the battery. The battery may already be installed in your phone, or you may have to install it yourself.

You must read the safety information in [Product Safety and Security, on page 91](#) before you use, install, or charge the phone.

The battery may already be charged using one of the supported charging methods. If the battery isn't charged, you must charge the battery before you can set up the phone.

Install the Phone Battery

IP67 compliance means that the phone is sealed from dust and water. When the phone leaves the factory, it is completely sealed.

If you need to open the battery compartment, don't open it in a dusty or wet environment.

You should make sure that the battery cover is closed to ensure that dust and water cannot enter the battery compartment.



Note

Dirt, oil, or other products can damage the gasket on the battery compartment cover, resulting in a poor seal. Every time you change the battery, inspect the gasket for damage. If the gasket is damaged, you can order a replacement cover.

**Caution**

Phone life and functions could be compromised if:

- The battery cover is not closed properly
- The rubber gasket on battery cover is poorly maintained
- The rubber gasket on battery cover is damaged
- The phone is dropped on a hard surface on a regular basis

Procedure

Step 1 Remove the cover from the battery compartment.



- a) Push the locking catch to the left to release the cover.
- b) Lift and remove the cover of the battery compartment.

Step 2 Install the battery.



The battery has metal contacts that must connect to the contacts in the phone. The battery also has an arrow. When the battery is correctly inserted, the arrow is visible and points towards the connector on the base of the phone.

- a) Align the battery to the bottom of the battery compartment. Make sure that the metal contacts on the phone and battery face each other.
- b) Press the battery into the battery compartment until it locks in place. Make sure that it is flat in the compartment.

Step 3 Inspect the gasket on the inside of the battery compartment cover and, if necessary, clean it with a cloth dampened with water.

Caution Do not use oil- or alcohol-based cleaners on the gasket. These cleaners will damage the gasket and void the phone warranty.

Step 4 Replace the cover to the battery compartment.



Caution When you close the battery cover, make sure that it is completely closed. Otherwise dust and water can enter the battery compartment.

- a) Align the tabs at the bottom of the cover into the notches on the phone.
- b) Press the cover firmly against the phone until it clicks in place.
- c) Press the center of each side of the cover until it clicks in place.
- d) Check that the cover is flush with the phone.

Phone Battery Charging

You can charge the battery using any of the following options:

- USB cable—You can charge the phone with an AC power adapter or your computer.
- Desktop charger—You can use the phone and charge it at the same time.
- Multicharger—You can charge several phones at the same time.



Warning

Explosion Hazard: Do not charge the phone battery in a potentially explosive atmosphere. Statement 431

The battery takes about 3 hours to charge in the AC power adapter, desktop charger, or multicharger. It takes about 6 hours to charge using the USB cable and your computer.

Related Topics

[Cisco Wireless IP Phone 8821 and 8821-EX Multi Charger, on page 78](#)

[Cisco Wireless IP Phone 8821 and 8821-EX Desktop Charger, on page 75](#)

Spare Battery Charging

If you require longer talk times, you will find it useful to have a spare, charged battery. You can charge a spare battery in the desktop charger or multicharger.

**Warning**

Explosion Hazard: Do not charge the spare battery in a potentially explosive atmosphere. Statement 431

The spare battery takes about 3 hours to charge in the desktop charger or multicharger.

Related Topics

[Cisco Wireless IP Phone 8821 and 8821-EX Multi Charger, on page 78](#)

[Cisco Wireless IP Phone 8821 and 8821-EX Desktop Charger, on page 75](#)

Prepare the Power Adapter

The power adapter for your phone is compact. Before you use the power adapter, you have to unfold the prongs. After you use the adapter, you can fold in the prongs.

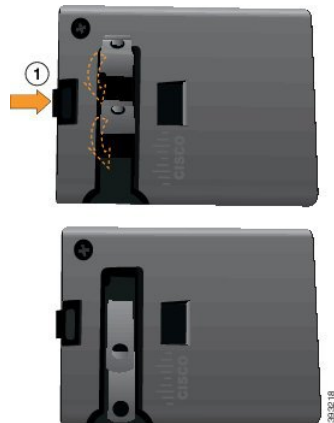
The power adapter for your region may also require an additional clip to allow the adapter to be plugged into the electrical outlet.

Procedure

- Step 1** Catch the edge of a prong with your finger and pull the prong up until it clicks into position.



- Step 2** (Optional) Install the international power clip.
- Step 3** (Optional) Before you close the adapter, remove the international power clip.
- Step 4** (Optional) Hold the lever on the top of the adapter down and press the prongs down to close the adapter.



Charge the Battery with the AC Power Supply

You can charge your phone using an AC power supply. When you use the power supply to charge your phone, the battery can take up to 3 hours to fully charge.

The wide connector on the USB cable connects to the phone using magnets to hold it secure. It has pins that you need to align correctly. If you hold the phone so that the screen is towards you, the battery icon on the connector is visible.



Caution

Do not charge the phone in a hazardous environment.

Do not charge the phone if it is wet.

Before You Begin

You need the USB power cable supplied with your phone.

You need to prepare the power adapter for use as described in [Prepare the Power Adapter](#), on page 20.

Procedure

- Step 1** Plug the USB cable into the bottom of the phone with the pins aligned.
 - Step 2** Plug the USB cable into the power adapter.
 - Step 3** Plug the power adapter into the electrical outlet.
-

Charge the Battery with the USB Cable and a USB Port on Your Computer

You can charge your phone using your computer. When you use the computer to charge your phone, the battery can take up to 6 hours to fully charge.

The wide connector on the USB cable connects to the phone using magnets to hold it secure. It has pins that you need to align correctly. If you hold the phone so that the screen is towards you, the battery icon on the connector is visible.

**Caution**

Do not charge the phone in a hazardous environment.

Do not charge the phone if it is wet.

Procedure

- Step 1** Connect the long connector of the USB cable to the bottom of the phone with the pins aligned.
- Step 2** Plug the other end into the USB port in the computer.
-

Phone Configuration

Phone configuration uses one of these methods:

- Your administrator sets up the phone. When this happens, you don't need to do any configuration. Your administrator may lock your access to the configuration menus.
- You set up the phone for your Wi-Fi network and to connect to the call control system. When this happens, your administrator gives you the information you need to enter in the phone.

Add the Phone to the Wi-Fi Network

When you enter an IP address, scroll to the field, and press **Select**. The field changes from one field into input boxes. You use the keypad to enter the digits and the navigation ring to move between the fields.


After you configure the phone and save the changes, the phone connects to the Cisco Unified Communications Manager. After the connection is made, the phone downloads the configuration file and, if necessary, upgrades the firmware to a new firmware load.

Before You Begin

You need the following information about the Wi-Fi network:

- SSID
- Security type (for example, WEP, EAP)
- PIN or passkey for the selected security type

Procedure

- Step 1** Access the **Settings** app.
- Step 2** Select **Wi-Fi**.
- Step 3** Select a profile.
- Step 4** (Optional) Set a profile name.
- a) Select **Profile name**.
 - b) Use the keypad to enter a new name.
 - The **Back**  softkey deletes the character to the left of the cursor.
 - Use the Navigation ring to move from left to right in the field.

c) Press **More**  and select **Save**.

Step 5 Select **Network configuration > IPv4 setup**.

If your network does not support DHCP, perform these steps.

- a) Select **DHCP** and press **Off**.
- b) Select **IP address** and enter the assigned address of the phone.
- c) Select **Subnet mask** and enter the required subnet mask. For example, 255.255.255.0.
- d) Select **Default router** and enter the IP address of the Default router.
- e) Select **DNS server 1** and enter the IP address of the DNS server.

For all networks,

- a) Select Alternate TFTP and set to **On**.
- b) Select TFTP Server 1 and enter the TFTP IP address for the Cisco Unified Communications Manager.
- c) Press **More** and select **Save**.
- d) In the **Trust list** window, press **More** and select **Erase**.
- e) Select **Back** and then select **Back** again.

Step 6 Select **WLAN configuration**.

Step 7 Select **SSID**.

- a) Use the keypad to enter the SSID of the access point.
- b) Press **More** and select **Save**.

Step 8 Select **Security mode**.

Step 9 Select the type of security that the access point requires.

Step 10 Set the required security fields using the following table:

Security Mode	Configured Field	Description
None	-	When the Security mode is set to None, no other fields are required.
WEP	WEP key	Enter the 40/104 or 64/128 ASCII or Hex WEP key.
PSK	Passphrase	Enter the 8-63 ASCII or 64 Hex Passphrase.
EAP-FAST	User ID	Enter the userid.
PEAP-GTC	Password	Enter the password
PEAP-MSCHAPV2		
EAP-TLS	User certificate	Your administrator will give you the certificate type to select and will arrange for the certificate to be installed on your phone.

Step 11 Select **802.11 mode** and select the required mode.

The mode determines the frequency. If you set the mode to Auto, the phone can use either the 5 GHz or 2.4 GHz frequency, with 5 GHz as the preferred frequency.

Step 12 Select **On call power save** and press **Select** to change the setting.

This field should only be set to Disabled if required for troubleshooting.

Step 13 Press **More** and select **Save**.

Step 14 Press **Power/End Call** .



Calls



- [Access the Phone App, page 27](#)
- [Make Calls, page 28](#)
- [Answer Calls, page 32](#)
- [End a Call, page 36](#)
- [Mute Your Audio, page 36](#)
- [Hold Calls, page 37](#)
- [Forward Calls From Your Phone, page 39](#)
- [Transfer a Call to Another Person, page 39](#)
- [Conference Calls and Meetings, page 40](#)
- [Intercom Calls, page 42](#)
- [Supervise and Record Calls, page 43](#)
- [Prioritized Calls, page 44](#)
- [Multiple Lines, page 45](#)

Access the Phone App

We make it easy for you to make and receive calls with the **Phone** app.

Procedure

Use one of these ways to access the **Phone** app:

- From the home screen, press the **Select** button to select **Phone** .
- Press **Answer/Send**  to make a call or to answer an incoming call.
- Enter a number using the keypad to make a call.


Make Calls

Your Cisco Wireless IP Phone works just like a regular phone. But we make it easier for you to make calls.

Make a Call

You can easily make a call from the home screen or from the Phone app.

Procedure



- Step 1** Enter a phone number.
 - Step 2** Press **Answer/Send** .
-

Make an Emergency Call

You can make an emergency call from your phone, even if you are not signed in. When you start to dial the emergency number, the list of emergency numbers displays although you cannot select the number.

If you try to dial a number that is not in the list of emergency numbers, the phone does not dial the number.

Procedure

- Step 1** If your phone is not turned on, press **Power/End Call**  for 4 seconds to power on the phone.
 - Step 2** Use the keypad to enter your emergency number.
 - Step 3** Press **Answer/Send** .
-


Make a Call with a Headset

You can make a call using a headset. If you disconnect the headset during a call, the phone continues the call on the speakerphone.

Before You Begin

You have a wired or Bluetooth headset connected to the phone.

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** (Optional) Select a line.
 - Step 3** Enter a phone number.
 - Step 4** Press **Answer/Send** .
-




Related Topics

[Headsets](#), on page 74

Make a Call with the Phone Speaker

You can make a call with the speakerphone built into the phone.

Procedure

- Step 1** Press and hold  to activate the speaker.
 - Step 2** Dial the phone number.
 - Step 3** Press **Answer/Send**  to place your call.
 - Step 4** Press and hold  again to turn off speaker mode.
-


Related Topics

[Cisco Wireless IP Phone 8821 and 8821-EX Desktop Charger](#)

Make a Call with the Desktop Charger Speaker

When your phone is in the desktop charger, you automatically use the speakerphone built into the charger. If you remove the phone from the charger when you are on the call, hold the phone to your ear to hear the call.

Procedure



- Step 1** Dial the phone number.
 - Step 2** Press **Answer/Send**  to place your call.
-

Make a Call with a Phone or Video Address

Sometimes, instead of just having someone's phone number, you might also have a phone or video address that you can use to place the call instead.

These addresses might look like an email address, such as `username1@example.com`, or it might contain numbers like `username2@209.165.200.224`.

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** (Optional) Select a line.
 - Step 3** Press **More**  and select **ABC**, and you'll be able to enter text using the keypad.
 - Step 4** Press a number on the keypad to see the available options, and then press the number again to move through the choices.
For example, press the number **1** three times to enter the **@** symbol.
 - Step 5** Press **Answer/Send** .
-

Redial a Number

You can call the most recently dialed phone number from the **Phone** app.


Procedure

- Step 1** Access the **Phone** app.
 - Step 2** (Optional) Select a line.
 - Step 3** Press **Redial**.
-

Return a Recent Call

You can return a recent call with the Recents list in the **Phone** app.

Procedure


- Step 1** Access the **Phone** app.
 - Step 2** Select a line.
 - Step 3** Select an entry from your Recents list.
 - Step 4** Press **Answer/Send** .
-

Make a Speed Dial Call

Before You Begin

Your administrator must set up a Speed Dial line for you.

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** Select a **Speed dial**  line.
-


Dial an International Number

You can dial international calls when you prefix the phone number with a plus (+) sign.

Before You Begin

You must be in the Phone app window.

Procedure

- Step 1** Press and hold **star** (*) for at least 1 second.
The plus (+) sign is displayed as the first digit in the phone number. If you are off-hook, you hear that the dial tone changes when the + signs is displayed.
 - Step 2** Dial the number.
 - Step 3** Press **Answer/Send** .
-

Get Notified When a Contact is Available

If you call someone and their line is busy or they do not answer, you can be notified with a message and a special ringtone when they are available.

Procedure

- Step 1** Press **Call back**.
 - Step 2** Press **Exit**.
 - Step 3** When you see the message that the person is available or hear the special ring tone, press **Call**.
-

Calls That Require a Billing Code or Authorization Code

Your administrator may require that you enter a billing code or authorization code (or both codes) after you dial a phone number. The billing code, called a Client Matter Code, is used for accounting or billing purposes. The authorization code, called a Forced Authorization Code, controls access to certain phone numbers.

When a billing code is required, the phone displays `Enter Client Matter Code`, the dialed number changes to “*****”, and you hear a special tone.

When an authorization code is required, the phone displays `Enter Authorization Code`, the dialed number changes to “*****”, and you hear a special tone. For security reasons, the phone displays a “*” instead of the number entered.

When both a billing code and an authorization code are required, you are prompted for the authorization code first. Then you are prompted for the billing code.

Related Topics

[Speed-Dial Numbers](#), on page 7

Secure Calls

Your administrator can take steps to protect your calls from tampering by people outside your company. When you see a lock icon displayed on your phone during a call, your phone call is secure. Depending upon how your phone is configured, you may have to sign in before you call somebody or hear a security tone played over your handset.

Answer Calls

Your Cisco Wireless IP Phone works just like a regular phone. But we make it easier for you to answer calls.

Answer a Call


Procedure

Press **Answer** or **Answer/Send** .

Answer Call Waiting

When you have an incoming call while you are on an active call, you hear a single beep. You can answer the new call and automatically hold the active call.

Procedure

-
- Step 1** Press **Answer** or **Answer/Send** .
- Step 2** (Optional) If you have more than one call waiting, select an incoming call.
-

Decline a Call

When you get an incoming call that you don't want to answer, you can decline the call, which sends the call to voicemail.

Procedure

Press **Decline** or **Power/End Call** .

Ignore a Call

When you get an incoming call that you don't want to answer, you can ignore the call. The call shows up in your call list.

Procedure

Press the **Up** or **Down** arrow on the Navigation cluster.

Silence Incoming Calls on Your Phone

If you're busy and don't want to be disturbed, you can silence incoming calls. If you do this, the phone won't ring, but you will see a visual alert. So, you can still choose to answer the call. If you don't answer the call, the call goes to your voicemail instead.

Procedure

Choose one of these options:

- From the Self Care portal, turn on **Do Not Disturb**.
- From your phone,
 - 1 Access the **Phone** app.
 - 2 (Optional) Select a line
 - 3 Press **More** **☰** and select **Do not disturb**

Related Topics

[Control the Phone Ringer for a Single Incoming Call](#), on page 35

Answer a Coworker's Phone (Call Pickup)

If you share call handling tasks with your coworkers, you can answer a call that is ringing on a coworker's phone. First, your administrator has to assign you to at least one call group.

Answer a Call Within Your Group (Pickup)

You can answer a call that rings on another phone within your call pickup group. If multiple calls are available for pickup, you'll answer the call that has been ringing for the longest time.


Procedure

- Step 1** Access the **Phone** app.
- Step 2** Press **More** **☰** and select **Pickup**.
- Step 3** Press **Answer**.
-

Answer a Call From Another Group (Group Pickup)

Group Pickup allows you to answer a call on a phone that is outside your call pickup group. You can use the group pickup number to pick up the call, or you can use the number of the phone line that is ringing.


Procedure

- Step 1** Access the **Phone** app.
 - Step 2** (Optional) Select a line.
 - Step 3** Press **More**  and select **Group pickup**.
 - Step 4** Enter the group pickup number or enter the number of the phone line with the call that you want to pick up .
 - Step 5** Press **More** and select **Call**.
 - Step 6** Press **Answer**.
-

Answer a Call from an Associated Group (Other Pickup)

You can pick up a call ringing on a phone in another call group.


Procedure

- Step 1** Access the **Phone** app.
 - Step 2** (Optional) Select a line.
 - Step 3** Press **More**  and select **Other pickup**.
 - Step 4** Press **Answer**.
-

Trace a Suspicious Call

If you receive unwanted or harassing calls, use malicious call identification (MCID) to alert your administrator. Your phone sends a silent notification message to your administrator with information about the call.

Procedure



- Step 1** Press **More**  and select **Report caller**.
 - Step 2** End the call.
-

Control the Phone Ringer for a Single Incoming Call

You can silence the phone ringer for an individual call.

Procedure

Do one of the following actions:

- Press **Volume**  down.
- Press **Pound (#)**  for 2 seconds to turn the ringer off or on.

Related Topics

[Adjust the Phone Ringer Volume, on page 72](#)

[Make the Phone Vibrate for an Incoming Call, on page 62](#)

[Select Where You Hear Ringing, on page 62](#)

[Silence Incoming Calls on Your Phone, on page 33](#)


End a Call


Procedure

Do one of the following actions:


- From the **Phone** app, press **More**  and select **End call**.
- Press **Power/End Call** .

Mute Your Audio

You can mute the phone so that you can hear the other caller but they cannot hear you. The **Mute**  button is located below the **Volume** key on the side of the phone.

When your phone is in the desktop charger, you mute the desktop charger speaker with the **Mute**  button on the lower right corner of the charger.

Procedure

-
- Step 1** Press **Mute** .
- Step 2** Press **Mute** again to turn mute off.
-

Hold Calls

You can put an active call on hold and then resume the call when you're ready.

Put a Call on Hold

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** Press **Hold**.
-

Answer a Call Left on Hold for Too Long

You can be notified when a call is left on hold. The notification is similar to an incoming call notification and includes these cues:

- Single ring, repeating at intervals
- Flashing message indicator on the handset
- Visual notification on the phone screen

Procedure

Press **Answer** to resume the held call.

Swap Between Active and Held Calls

When you are on a call, you can access a held call. The phone places the original call on hold.

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** Press the right Navigation key.
 - Step 3** Select the held call.
 - Step 4** Press **Resume**.
-

Call Park

You can use your phone to park (temporarily store) a call. You can then retrieve the call from another phone (such as a phone at a coworker's desk or in a conference room).

If the call remains parked for too long, you receive an alert tone. You can answer the call or retrieve it from another phone. If you do not answer the call within a certain length of time, it is routed to another destination (such as voicemail), as set by your administrator.

Place a Call on Hold with Call Park


You can park an active call that you answered on your phone and then use another phone in the call control system to retrieve the call.

You can park only one call at the call park number.

Before You Begin

Your call must be active.

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** Press **More**  and select **Park**.
The phone displays the call park extension.
-

Retrieve a Call on Hold with Call Park

You can pick up a parked call from anywhere in your network.

Before You Begin

You need the call park extension.

Procedure


- Step 1** Access the **Phone** app.
 - Step 2** (Optional) Select a line.
 - Step 3** Dial the call park extension.
-

Forward Calls From Your Phone


You can forward calls from any line on your phone to another number. Call forward is phone-line specific. If a call reaches you on a line where call forwarding is not enabled, the call rings as usual.

There are two ways of forwarding your calls:

- Forward all calls
- Forward calls in special situations, such as when the phone is busy or there is no answer.


Verify that your calls are forwarded by looking for the **Forward all**  icon in the line label.

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** (Optional) Select a line.
 - Step 3** Press **More**  and select **Forward all**.
 - Step 4** Enter the number to receive the calls or select an entry from your Recents call list.
-

Turn Off Call Forward From Your Phone

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** (Optional) Select the forwarded line.
 - Step 3** Press **More**  and select **Forward off**.
-

Transfer a Call to Another Person

When you transfer a call, you can stay on the original call until the other person answers. This gives you an opportunity to talk privately with the other person before removing yourself from the call. If you don't want to talk, then transfer the call without waiting for the other person to answer.

Procedure

- Step 1** Access the **Phone** app.
- Step 2** Press **More** **☰** and select **Transfer**.
- Step 3** Enter the number to call or select an entry from your recent calls.
- Step 4** Press **Transfer**.
-

Conference Calls and Meetings

You can talk with several people in a single call. You can dial another person and add them to the call. If you have multiple phone lines, you can join two calls across two lines.

When you add more than one person to a conference call, wait a few seconds between adding participants.

As the conference host, you can remove individual participants from the conference. The conference ends when all participants hang up.

Add Another Person to a Call

You can add another person to an active call to create a conference.

Procedure

- Step 1** Access the **Phone** app.
- Step 2** Press **More** **☰** and select **Conference**.
- Step 3** Do one of these actions.
- Dial a number and wait for the person to answer.
 - Select an entry from your Recents list and wait for the person to answer.
 - Select another held call on the same line.
 - Press the right Navigation key, select a line, and select a held call on that line.
- Step 4** Press **Merge**.
-


View and Remove Conference Participants

When you are in a conference call, you can view the conference participants. If you are the conference owner, you can remove a participant from the conference. The screen displays a star (*) beside the conference owner.

Before You Begin

You are in an active conference call.

Procedure

- Step 1** Press **More**  and select **Details**.
 - Step 2** (Optional) Select **Update** to refresh the participant list.
 - Step 3** (Optional) Select a participant and press **Remove**.
-

Scheduled Conference Calls (Meet Me)

You can host or join a conference call at a scheduled time.


The conference call does not start until the host dials in and ends when all participants hang up. The conference does not automatically end when the host hangs up.

Host a Meet Me Conference

Before You Begin

Get a meet me phone number from your administrator, and distribute the number to the conference participants.


Procedure

- Step 1** Access the **Phone** app.
 - Step 2** Press **More**  and select **Meet me**.
 - Step 3** Enter the meet me number.
 - Step 4** Enter the host password for the meeting.
-

Join a Meet Me Conference

You cannot join a meet me conference until the conference hosts dials in. If you hear a busy tone, the host has not dialed into the conference. Hang up and try your call again.

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** Press **More**  and select **Meet me**.
 - Step 3** Enter the meet me number.
-

Intercom Calls

You can place and receive one-way calls using an intercom line.


When you place an intercom call, the recipient's phone answers the call automatically with mute activated (whisper mode). Your message is broadcast through the recipient's speakerphone, headset, or handset, if one of these devices is active.

After receiving the intercom call, the recipient can start two-way audio (connected mode) to allow for further conversation.

Make an Intercom Call

When you place an intercom call, your phone enters whisper mode until the recipient accepts the intercom call. In whisper mode, the other person can hear you, but you can't hear them. If you are on an active call, that call is placed on hold.

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** Select **Intercom**  line.
 - Step 3** Dial the target intercom number.
-

Answer an Intercom Call

You can answer an intercom call to talk to the other person.

Before You Begin

You receive a message on your phone screen, and an audible alert. Your phone answers the intercom call in whisper mode.

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** Select the intercom call.
-

Supervise and Record Calls

You can supervise and record a call. But you must have a minimum of three people on a line: the person calling, the chaperone, and the person called.

The chaperone answers a call, creates a conference call, and monitors and records the conversation.

The chaperone performs the following tasks:

- Record the call.
- Conference in the first participant only; Other participants add people as needed.
- End the call.

The conference ends when the chaperone hangs up the call.


Set up a Supervised Call

When you have a call to chaperone, the incoming call indicates that the call requires supervision.

Before You Begin

You must be part of the chaperone hunt group.

Procedure

- Step 1** Press **More**  and select **Conference**.
 - Step 2** Dial the person to add to the call.
 - Step 3** After the person answers, press **Merge**.
-

Record a Call

You can record a call. You might hear a notification tone as you record the call. The recording stops when you press the **Stop recording** softkey or end the call.

Procedure

- Step 1** Press **Record**.
 - Step 2** Press **Stop recording** when the recording can be stopped.
-

Prioritized Calls

In your job, you might need to handle urgent or critical situations using your phone. You can identify calls as being very important, and thus have a higher priority than normal calls. The priorities range from level 1 (low) to level 5 (high). This system of priorities is called Multilevel Precedence and Preemption (MLPP).






Your administrator sets up the priorities that you can use and determines if you need special sign-in information.

When a high-priority call rings on your phone, you see the priority level on the phone screen. If you are on a call when a high-priority call comes to your phone, the high-priority call preempts the current call and you hear a special preemption ringtone. You should hang up from your current call to answer the high-priority call.

When you are on a high-priority call, the priority of the call does not change when you:

- Put the call on hold
- Transfer the call
- Add the call to a three-way conference
- Answer the call using call pickup



Table 1: Multilevel Precedence and Preemption Priority Levels

MLPP icon	Priority Level
	Level 1—Priority call
	Level 2—Medium priority (Immediate) call
	Level 3—High priority (Flash) call
	Level 4—Flash Override
	Level 5—Executive Override

Make a Priority Call

To make a priority call, you might need to sign in with your special credentials. You have three chances to enter these credentials, and you're notified if you've entered them incorrectly.

Procedure

- Step 1** Access the **Phone** app.
 - Step 2** Press **More**  and select **Prec level**.
 - Step 3** Select a priority level.
 - Step 4** Enter the phone number.
 - Step 5** Press **Answer/Send** .
-

Answer a Priority Call

If you hear a special ring that's faster than usual, you are receiving a priority call.

Procedure

Press **Answer**.

Answer a Priority Call While on Another Call

If you hear a continuous tone that interrupts your call, you or your coworker are receiving a priority call. Hang up immediately and let the higher priority call go to the intended person.

Procedure

- Step 1** Press **End call**.
 - Step 2** Press **Answer**.
-

Multiple Lines

If you share phone numbers with other people, you could have multiple lines on your phone. When you have multiple lines, you have more calling features available to you.

Shared Lines

You can share the same phone number with one or more of your coworkers. For example, as an administrative assistant, you might be responsible for screening calls for the person that you support.


When you share a phone number, you can use that phone line just like you would any other line, but you should be aware of a few special characteristics about shared lines:

- The shared phone number appears on all phones that share the number.
- If your coworker answers a call on the shared line, the shared line icon displays in red on your phone.
- If you put a call on hold, your shared line icon is white. But your coworker sees the line in red.

Add Yourself to a Call on a Shared Line (cBarge)

You or your coworker can join a call on a shared line without creating a conference call.

Procedure

- Step 1** Select a shared line that is in use.
- Step 2** Press **More**  and select **cBarge**.
- Step 3** Press **Yes**.
-



Contacts

- [Access the Contacts App, page 47](#)
- [Corporate Directory, page 47](#)
- [Personal Directory, page 48](#)

Access the Contacts App

You can access the **Contacts** app from the home screen. The **Contacts** app gives you access to the following directories and lists:

- Corporate directory—a directory of the people in your company
- Personal directory—a directory of your personal contacts. The directory is stored in the call control system and you can access your personal directory from other phones in your phone network.

Procedure


From the home screen, press the left arrow of the navigation cluster to select **Contacts**.

Corporate Directory

You can look up a coworker's number from your phone, which makes it easier to give them a call. Your administrator sets up and maintains the directory.


Search and Dial a Contact from the Corporate Directory

Procedure

- Step 1** Access the **Contacts** app.
 - Step 2** Select **Corporate directory**.
 - Step 3** Enter the search criteria
 - Step 4** Press **More**  and select **Search**.
 - Step 5** Press **More** and select **Call**.
-

Find Contact Information for a Coworker from Your Phone

Procedure

- Step 1** Access the **Contacts** app.
 - Step 2** Select **Corporate directory**.
 - Step 3** Enter the search criteria
 - Step 4** Press **More**  and select **Search**.
 - Step 5** Press **More** and select **Details**.
-

Personal Directory

Use the personal directory to store the contact information for friends, family, or coworkers. You can add your own contacts to the personal directory.


You can set up your personal directory from your phone or from the Self Care portal.

Sign In and Out of a Personal Directory

Before You Begin

Before you can sign in to your personal directory, you need your user ID and PIN. Contact your administrator if you don't know this information.

Procedure

- Step 1** Access the **Contacts** app.
 - Step 2** Select **Personal directory**.
 - Step 3** Enter your user ID and PIN.
 - Step 4** Press **More**  and select **Log in**.
 - Step 5** Press **More** and select **Log out** to sign out of your personal directory.
-

Search for a Contact in Your Personal Directory


Procedure

- Step 1** Access the **Contacts** app.
 - Step 2** Select **Personal directory**.
 - Step 3** Enter the search criteria.
 - Step 4** (Optional) Select an entry and press **Details**.
-

Add a New Contact to Your Personal Directory


You can add a contact to your Personal Directory.

Procedure

- Step 1** Access the **Contacts** app.
 - Step 2** Select **Personal Directory**.
 - Step 3** Press **More**  and select **Add new**.
 - Step 4** Enter the contact information.
 - Step 5** Press **More** and select **Save**.
-


Find Contact Information for a Personal Directory Contact from Your Phone

Procedure

- Step 1** Access the **Contacts** app.
 - Step 2** Select **Personal Directory**.
 - Step 3** Select a contact.
 - Step 4** Press **Details**.
 - Step 5** Press **More**  and select **Details**.
-


Edit a Contact in Your Personal Directory

Procedure

- Step 1** Access the **Contacts** app.
 - Step 2** Select **Personal Directory**.
 - Step 3** Select a contact.
 - Step 4** Press **Details**.
 - Step 5** Press **More**  and select **Edit contact**.
-


Call a Contact from Your Personal Directory

Procedure

- Step 1** Access the **Contacts** app.
 - Step 2** Select **Personal Directory**.
 - Step 3** Select a contact.
 - Step 4** Press **Details**.
 - Step 5** Press **More**  and select **Call**.
-

Remove a Contact from Your Personal Directory

Procedure

- Step 1** Access the **Contacts** app.
 - Step 2** Select **Personal directory**.
 - Step 3** Search for a contact.
 - Step 4** Press **More**  and select **Delete**.
-




Recent Calls

- [Access the Recents App, page 53](#)
- [New Voicemail Message and Missed Calls Indicators, page 53](#)
- [Missed Calls List, page 53](#)
- [Recents Calls List, page 55](#)

Access the Recents App

You can access the Recents app from the home screen. From the Recents app, you can see your voicemail messages, missed calls, and recent calls.

Procedure

From the home screen, press the up arrow of the navigation cluster to select **Recents** .

New Voicemail Message and Missed Calls Indicators

In the home screen, you can see that you have new voicemail or missed calls. The red box on the **Recents** icon on the home screen shows the number of missed calls.

In the Recents list, you can see the number of missed calls.

When you have an unheard voicemail message, you could also hear a stutter tone played when you access a phone line. This stutter tone is line-specific. You only hear it when using a line that has voice messages.

Missed Calls List

You use the Missed Calls lists to see the 150 most recent individual calls and call groups. If your phone has multiple lines, your administrator can set up the Missed Calls list so that calls on all lines are in one list.

Calls in the Missed Calls list are grouped together if they are from the same number and are consecutive.


View Your Missed Calls

Procedure

- Step 1** Access the **Recents** app.
 - Step 2** Select **Missed calls**.
 - Step 3** Select a phone line or **All missed**.
-


Find Details About a Missed Call

Procedure

- Step 1** Access the **Recents** app.
 - Step 2** Select **Missed calls**.
 - Step 3** Select a line or **All missed**.
 - Step 4** Select a missed call entry.
 - Step 5** Press **More**  and select **Details**.
-

Return a Missed Call


Procedure

- Step 1** Access the **Recents** app.
 - Step 2** Select **Missed calls**.
 - Step 3** Select a line or **All missed**.
 - Step 4** Select a missed call entry.
 - Step 5** Press **More**  and select **Call**.
-

Delete a Missed Call Entry

You can delete an entry from your Missed Call list.


Procedure

- Step 1** Access the **Recents** app.
 - Step 2** Select **Missed calls**.
 - Step 3** Select a line or **All missed**.
 - Step 4** Select a missed call entry.
 - Step 5** Press **More**  and select **Delete**.
 - Step 6** Press **Delete** to confirm the deletion.
-

Clear the Missed Calls List

You can delete all entries from your Missed Call list.

Procedure

- Step 1** Access the **Recents** app.
 - Step 2** Select **Missed calls**.
 - Step 3** Select a line or **All missed**.
 - Step 4** Press **More**  and select **Clear list**.
 - Step 5** Press **Clear** to confirm the deletion.
-

Recents Calls List

You use the Recents lists to see the 150 most recent individual calls and call groups. If your phone has multiple lines, your administrator can set up the Recents list so that calls on all lines are in one list.

Calls in the Recents list are grouped together if they are to and from the same number and are consecutive.


View Your Recent Calls

Procedure

- Step 1** Access the **Recents** app.
 - Step 2** Select **Recents**.
 - Step 3** Select a line or **All recents**.
-


Find Details About a Recent Call

Procedure

- Step 1** Access the **Recents** app.
 - Step 2** Select **Recents**.
 - Step 3** Select a line or **All recents**.
 - Step 4** Select a call entry.
 - Step 5** Press **More**  and select **Details**.
-

Return a Recent Call from Recents


Procedure

- Step 1** Access the **Recents** app.
 - Step 2** Select **Recents**.
 - Step 3** Select a line or **All recents**.
 - Step 4** Select a call entry.
 - Step 5** Press **More**  and select **Call**.
-

Delete a Call Record

You can delete an individual call from your Recent Calls list.


Procedure

- Step 1** Access the **Recents** app.
 - Step 2** Select **Recents**.
 - Step 3** Select a line or **All recents**.
 - Step 4** Select an entry.
 - Step 5** Press **More**  and select **Delete**.
 - Step 6** Press **Delete** to confirm the deletion.
-

Clear the Recent Calls List

You can clear all the entries from your Recent Calls list.

Procedure

- Step 1** Access the **Recents** app.
 - Step 2** Select **Recents**.
 - Step 3** Select a line or **All recents**.
 - Step 4** Press **More**  and select **Clear List**.
 - Step 5** Press **Clear** to confirm the deletion.
-


Clear the Recent Calls List




Applications

- [Apps and the Application Button](#), page 59
- [Use the Push to Talk Application](#), page 59

Apps and the Application Button

You can use the **Apps**  app to access special services on the phone.

You can use the **Application**  button to start applications such as Push to Talk or other services on your phone. The **Application** button is located on the left side of the phone.

Depending on how your administrator sets up the button, you may be able to use it from the main screen only, or you may use it from any menu or service, or even when the phone is locked.

The button can also be configured to start an application immediately after you press it or only after you hold it for several seconds.

For more information, contact your administrator.

Use the Push to Talk Application

You can use the Push to Talk service to communicate (similar to a two-way radio) with members of your organization. Your administrator must set up the Push to Talk service, and then you must subscribe to the service in the Self Care portal.




Note


Your system administrator provides detailed information about how to use your Push to Talk service.

Push to Talk uses the same audio path as your phone ringer. If the audio path is for the phone to ring, when you use Push to Talk and you plug in your headset, the audio moves to the headset.

Procedure

Step 1 From the home screen, select **Apps** .

Step 2 Select **Push to Talk**.

- Use **Application**  to start and end a transmission depending on how your service is configured.
 - Use **Talk** and **Stop** to send and receive audio.
-



Settings


- [Access the Settings App, page 61](#)
- [Adjust the Volume During a Call, page 72](#)
- [Adjust the Phone Ringer Volume, page 72](#)

Access the Settings App

You use the **Settings** app to set up, manage, and customize your phone.

Menu entries that are gray mean that your administrator has restricted access to the menu.

Procedure

From the home screen, press the down arrow of the navigation cluster to select **Settings** .

Related Topics

[Find Information About Your Phone, on page 87](#)

[Get Notified Before You Join a Call on a Shared Line](#)

Access Phone Settings

You can customize your phone from the **Phone settings** menu.

Procedure

Step 1 Access the **Settings** app.

Step 2 Select **Phone settings**.

Make the Phone Vibrate for an Incoming Call

You can set your phone to vibrate when you have an incoming call. The vibration can be set differently based on whether you have the phone ringer turned off or on.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Sounds > Vibrate**
 - Step 3** Select **Vibrate on ring** and press **On** to set the phone to vibrate when the phone rings. Or, press **Off** so that the phone does not vibrate when the phone rings.
 - Step 4** Select **Vibrate on silent** and press **On** to set the phone to vibrate when the ringer is turned on. Or, press **Off** so that the phone does not vibrate when the ringer is turned on.
-

Select Where You Hear Ringing

When you have an incoming call, you can set up your phone to play the ringtone on your headset or on the speaker.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Sounds > Ringer/PTT output**
 - Step 3** Select the option required.
 - Step 4** Press **Select**.
-

Change the Ringtone

You can change the sound that you hear for incoming calls and you can set a different ringtone for each phone line.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Sounds > Ringtone**
 - Step 3** (Optional) Select a line.
 - Step 4** Highlight a ringtone.
 - Step 5** Press **Play** to hear the ringtone.
 - Step 6** Press **Select** to use the ringtone.
-

Adjust the Headset Feedback

When you use a headset, you might hear your own voice in the earpiece, which is called headset sidetone or headset feedback. You can control the amount of headset sidetone on your phone.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Sounds > Headset sidetone**
 - Step 3** Select one of the options.
-

Turn Off the Keypad Sounds

You can turn off the sounds on the keypad so that you don't hear sounds when you press a button.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Sounds > Keypad tone**
 - Step 3** Press **On** to turn the tones on or press **Off** to turn the tones off.
-

Adjust the Background Noise Filter

You can adjust the sensitivity of the phone microphone to filter out background noise so that the other person on your call can hear you better.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Sounds > Background noise filter**
 - Step 3** Select one of these settings: **Off, Low, Medium, High**.
The default is **Off**.
-

Adjust the Screen Brightness

You can adjust the brightness of the phone display.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Display > Brightness**
 - Step 3** Use the arrow keys of the Navigation cluster to adjust the brightness.
 - Step 4** Press **Save**.
-

Change the Font Size

You can adjust the font size used on the phone screen. If you set the font size smaller, more text displays on the screen. If you set the font size larger, less text displays on the screen.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Display > Font size**
 - Step 3** Select the setting required.
-

Control the LED Indicator Light

Your phone has an LED indicator light at the top. When the light is enabled, it indicates the status of the phone:

- Solid red—the phone is connected to the AC power source and battery is charging.
- Solid green—the phone is connected to the AC power source and battery is fully charged.
- Fast blinking amber—There is an incoming call. Phone can be charging or fully charged.
- Fast blinking green—There is a voice message. When phone is connected to the AC power source, the green light displays longer than when using only the battery.
- Slow blinking green (every 2 seconds): The phone is using the battery. The phone is registered with the wireless network and is within service coverage area.

If you don't want this indication, you can turn the light off.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > LED coverage indicator**
 - Step 3** Press **Off** to turn off the indicator or press **On** to turn on the indicator.
-

Change the Screen Display Timeout

You can set up your phone to turn off the screen after a specific period of inactivity. When you turn off the screen, the phone uses less battery power.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Display > Sleep**.
 - Step 3** Select the time setting required.
-

Related Topics

[Turn Off Your Phone, on page 5](#)

Change the Wallpaper

You can change the wallpaper (background) for your phone. But, you must be careful that the wallpaper you select. You should avoid wallpapers that will not clearly show white text.

The following wallpapers are *not* suitable for the phone:

- Whale tail
- Green leaves
- Beach scene
- Wheat field

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Display > Wallpaper**
 - Step 3** Select a wallpaper.
 - Step 4** Press **Preview** to view the wallpaper.
 - Step 5** Press **Save**.
-

Automatically Lock the Keypad

You can set the keypad to automatically lock. If you set the phone to automatically lock the keypad, the keypad locks when the phone screen turns off.

Procedure

- Step 1** Access the **Settings** app.
- Step 2** Select **Phone settings > Keypad > Auto lock**
- Step 3** Press **On**.
-

Related Topics

[Lock the Phone Keypad, on page 5](#)

Date and Time Settings

You can manage some of the date and time settings on your phone. Typically, the phone automatically sets the date, time, and time zone using the information from the call control system. But, you may need to override the automatic settings.

Control the Date and Time Manually

When the phone date and time is controlled manually, you can change the following settings:

- Automatic time zone
- Time
- Date
- Time zone
- 12- or 24-hour date format
- Date format

Procedure

- Step 1** Access the **Settings** app.
- Step 2** Select **Phone settings > Date and Time**
- Step 3** Select **Automatic date and time**.
- Step 4** Press **Off**.
-

Control the Date and Time Automatically

When the phone date and time is controlled automatically, you can change the following settings:

- Automatic time zone

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Date and Time**
 - Step 3** Select **Automatic date and time**.
 - Step 4** Press **On**.
-

Set the Time Zone Automatically

You can set up your phone to automatically or manually set the time zone. When the Automatic time zone field is set to On, you cannot change the time zone that your phone uses. When the Automatic time zone field is set to Off, you can set the time zone that your phone uses.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Date and Time > Automatic time zone**
 - Step 3** Press **Off** to enable you to set the time zone manually.
 - Step 4** Press **Set**.
-

Set the Time

If your phone date and time is manually controlled, you can set the time.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Date and Time > Time**
 - Step 3** Enter the time using the keypad. Use the right and left navigation keys to move between the fields.
 - Step 4** Press **Set**.
-

Set the Date

If your phone date and time is manually controlled, you can set the date.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Date and Time > Date**
 - Step 3** Enter the date using the keypad. Use the right and left navigation keys to move between the fields.
 - Step 4** Press **Set**.
-

Set Time Zone

You can set the time zone.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Date and Time > Time zone**
 - Step 3** Select the correct time zone.
 - Step 4** Press **Set**.
-

Use a 12-Hour or 24-Hour Clock

If your phone date and time is manually controlled, you can change the time display.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Date and Time**
 - Step 3** Select **Use 24-hour format**.
 - Step 4** Press **Off** for 12-hour format or press **On** for 24-hour format.
-

Set the Date Format

If your phone date and time is manually controlled, you can set your phone to display the date in one of the preset formats.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone settings > Date and Time > Date format**
 - Step 3** Select the required format.
 - Step 4** Press **Set**.
-

Access Bluetooth Settings

You can connect Bluetooth headsets and Bluetooth speakers to your phone. The phone does not support other Bluetooth devices. Before you can use a Bluetooth headset or speaker, you need to set up your phone for Bluetooth.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Bluetooth**.
-

Related Topics

- [Bluetooth Headsets, on page 74](#)
- [Bluetooth and Your Phone, on page 13](#)

Turn On Bluetooth

Before you can use Bluetooth, you must turn on the ability for the phone to use Bluetooth.



Note When you use Bluetooth, your phone battery has less talk time.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Bluetooth > Bluetooth**.
 - Step 3** Press **On**.
-

Add a New Bluetooth Headset

You can add up to 5 Bluetooth headsets.

Before You Begin

Bluetooth must be turned on.

Procedure

- Step 1** Make sure that the Bluetooth headset is discoverable.
 - Step 2** Access the **Settings** app.
 - Step 3** Select **Bluetooth**.
 - Step 4** Select **Add Bluetooth device**.
The phone searches for any Bluetooth devices in range. This scan can take a couple of minutes.
 - Step 5** Select a device from the list and press **Pair**.
 - Step 6** (Optional) Enter the passkey for the device.
-


Connect a Bluetooth Headset

After you pair and connect a Bluetooth headset to your phone, the headset automatically connects when it is turned on and close to your phone. Only one Bluetooth headset can be connected to the phone. But, if you have two Bluetooth headsets turned on, the phone uses the most recently connected headset. You can change which headset the phone uses.

Before You Begin

Bluetooth must be turned on and the headset needs to be already added to the Bluetooth device list.


Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Bluetooth**.
 - Step 3** Select a device from the list.
 - Step 4** Press **More**  and select **Connect**.
-

Rename a Bluetooth Headset

If you have several entries in your Bluetooth device list that are identical, you can rename the entries to be more meaningful.


Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Bluetooth**.
 - Step 3** Select a device from the list.
 - Step 4** Press **More**  and select **Rename**.
 - Step 5** Use the keypad to enter a name.
-

Disconnect a Bluetooth Headset

If you have a Bluetooth headset connected to your phone and want to use it with your mobile phone or computer, you can disconnect the Bluetooth headset. The headset remains in the list of Bluetooth devices and you can reconnect it.


Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Bluetooth**.
 - Step 3** Select a device from the list.
 - Step 4** Press **More**  and select **Disconnect**.
-

Delete a Bluetooth Headset

When you do not want a Bluetooth headset in the list of devices available, you can delete it.

Procedure

- Step 1** Access the **Settings** app.
 - Step 2** Select **Bluetooth**.
 - Step 3** Select a device from the list.
 - Step 4** Press **More**  and select **Delete**.
-

Access Admin Settings

Your administrator may restrict access to this menu. For information about this menu, see the *Cisco Cisco Wireless IP Phone 8821 and 8821EX Administration Guide for Cisco Unified Communications Manager*.

Procedure

-
- Step 1** Access the **Settings** app.
- Step 2** Select **Admin settings**.
-

Adjust the Volume During a Call

If the sound in your handset, headset, or speakerphone is too loud or too soft, you can change the volume while you are listening to the other person. When you change the volume during a call, the change only affects the speaker you're using at the time. For example, if you adjust the volume while you're using a headset, the handset volume doesn't change.

Procedure

Press **Volume** up and down to adjust the volume while you are on a call.

Adjust the Phone Ringer Volume

If your phone ringer is too loud or too soft when you have an incoming call, you can change the ringer volume. When you change the ringer volume, it does not affect the volume of the sound that you hear when you are on a call.

Procedure

Press **Volume** up and down to adjust the ringer volume when the phone rings.



Accessories

- [Supported Accessories, page 73](#)
- [Headsets, page 74](#)
- [Cisco Wireless IP Phone 8821 and 8821-EX Desktop Charger, page 75](#)
- [Cisco Wireless IP Phone 8821 and 8821-EX Multi Charger, page 78](#)
- [Secure the Charger with a Cable Lock, page 82](#)

Supported Accessories

You can use a number of accessories with your phone.

- Headsets:
 - Standard headsets that use a 3.5 mm jack
 - Bluetooth headsets
- Desktop charger
- Multicharger



Note

The Cisco Wireless IP Phone 8821-EX has not been tested or certified with any accessories for use in Potentially Explosive Atmosphere.

The phones can only connect to Bluetooth headsets and speakers. They do not support any other type of Bluetooth device.

For more information on accessories, see the *Cisco Wireless IP Phone 882x Series Accessory Guide*, located here: <http://www.cisco.com/c/en/us/support/collaboration-endpoints/unified-ip-phone-8800-series/products-user-guide-list.html>.

Headsets

You can use wired and Bluetooth headsets with your phone. For information about the supported headsets, see the *Cisco Wireless IP Phone 882x Series Accessory Guide*.

Although we perform some internal testing of third-party wired and Bluetooth wireless headsets for use with the Cisco Wireless IP Phone 8821 and 8821-EX, we do not certify or support products from headset or handset vendors. Because of the inherent environmental and hardware inconsistencies in the locations where phones are deployed, there is not a single “best” solution that is optimal for all environments. We recommend that customers test the headsets that work best in their environment before deploying a large number of units in their network.



Note The Cisco Wireless IP Phone 8821-EX has not been tested for wired and Bluetooth headsets in hazardous locations.

We recommend the use of good quality external devices, like headsets that are screened against unwanted radio frequency (RF) and audio frequency (AF) signals. Depending on the quality of these devices and their proximity to other devices such as cell phones and two-way radios, some audio noise may still occur.

The primary reason that a particular headset would be inappropriate for the phone is the potential for an audible hum. This hum can be heard by either the remote party or by both the remote party and you, the phone user. Some potential humming or buzzing sounds can be caused by a range of outside sources, for example, electric lights, electric motors, or large PC monitors. In some instances, the mechanics or electronics of various headsets can cause remote parties to hear an echo of their own voice when they speak to phone users.

Related Topics

[Make a Call with a Headset](#), on page 28

Standard Headsets

You can use a wired headset with your phone. The headset requires a 3.5 mm, 3-band, 4-connector plug.

If you plug a headset into the phone during an active call, the audio path automatically changes to the headset.

Bluetooth Headsets

You can use a Bluetooth headset with your phone. When you use a Bluetooth wireless headsets, the headset usually increases battery power consumption on your phone and may result in reducing battery life.

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

Related Topics

[Access Bluetooth Settings](#), on page 69

[Bluetooth and Your Phone](#), on page 13

Headset Tips

If your headset has a control button, you can use the headset to listen (headphone mode) and the phone microphone to pick up your voice. Just press the control button when you plug the phone headset in. If you use this mode, the phone microphone automatically filters the background noise.

Related Topics

[Adjust the Background Noise Filter, on page 63](#)

Cisco Wireless IP Phone 8821 and 8821-EX Desktop Charger

You can use the Cisco Wireless IP Phone 8821 and 8821-EX Desktop Charger to charge your phone and spare phone battery. The charger works on AC power or from a charged spare phone battery. It can be secured with a standard laptop cable lock.

Figure 3: Cisco Wireless IP Phone 8821 and Cisco Wireless IP Phone 8821 and 8821-EX Desktop Charger



If your phone has a protective case, you don't need to remove the case before you charge the phone in the desktop charger. You adapt the charger to fit the phone.

You can use a USB to Ethernet adapter (dongle) to connect the desktop charger to the Ethernet for only automatic Wi-Fi profile provisioning and certificate enrollment purposes. You cannot use the dongle to make voice calls over the Ethernet. For more information on the USB port, see the *Cisco Wireless IP Phone 8821 and 8821-EX Administration Guide*.



Caution

Do not use chargers or handsfree mode in a Potentially Explosive Atmosphere.

Do not charge the phone if it is wet.

Built-in Speakerphone

The charger includes a speakerphone that you can use while the phone is docked. Use the phone volume buttons to control the speakerphone volume, and the **Mute** button on the charger itself. When the speakerphone is muted, the **Mute** button lights red.

Phone Charging Indications

When you put the phone into the charger, the phone indicates that the battery is charging with the red LED on the top of the phone. If the phone is turned on when you put it into the charger, you see a message on the screen. If the phone is turned off or the battery is too weak, you see an icon displayed on the screen.

Spare Battery Charging Indications

You can charge a spare battery with the additional charging port behind the main phone charging port. When you put a spare battery into the charger, the Battery LED (to the right of the phone) lights to show the charging status:

- Red—The spare battery is charging.
- Green—The spare battery is fully charged.

Related Topics

[Make a Call with the Phone Speaker, on page 29](#)

Set Up the Desktop Charger

You should place the desktop charger on a stable work surface.

Before You Begin

You need the cable that is provided with the charger. This cable has a plug on one end and a USB connector on the other end.

You need the power adapter that comes with the phone.

Procedure

-
- Step 1** Plug the plug end of the cable into the desktop charger.
 - Step 2** Plug the USB end of the cable into the power adapter and plug the power adapter into the electrical outlet.
-

Charge Your Phone with the Desktop Charger

You can tell when your phone is charging in the charger when the phone LED lights red and a message or icon displays on the phone screen. When the battery is fully charged, the LED turns off. Your phone can take up to 3 hours to recharge.

If your phone has a protective case, you don't need to remove the case before you charge the phone in the desktop charger. You adapt the charger to fit the phone.

When you put the phone into the charger, make sure that you align the charging pins on the bottom of the phone with the connector in the charger. When the phone is correctly placed in the charger, it is held in place with magnets. If the LED does not light, then the alignment is not correct.



- Caution** Do not charge the phone in a hazardous environment.
- Do not charge the phone if it is wet.

Procedure

- Step 1** (Optional) Turn the charger so that the back is facing you, put three fingers about 3/4 of the way into the cup, press in, and lift. The cup should slide out.



Note You might need to use two hands to remove the cup the first time.

- Step 2** Place your phone in the charging slot with the screen facing towards you. If your phone is in a case, press the phone into the charging slot to ensure that the phone connects with the contacts. Make sure that the LED on the phone lights red. If the LED does not light up, remove the phone and reinsert it into the charger.

If your phone is in a case, the phone and case will tilt out because of the case.

- Step 3** When you remove the phone from the charger, tilt the phone forward and lift it up to disconnect the connector from the magnets.



- Step 4** (Optional) Slide the charging cup into the charger. Make sure that the cup is flush with the front and top of the charger.



Charge Your Spare Battery with the Desktop Charger

You can charge a spare battery in the desktop charger. The battery can take up to 3 hours to charge.



Caution Do not charge the battery in a hazardous environment.

When the battery is charging, the spare battery LED on the charger lights red. When the battery is charged, the spare battery LED on the charger lights green.

Procedure

-
- Step 1** Hold the battery so that the Cisco label faces you, and the arrows on the battery point down.
- Step 2** Place the spare battery in the slot behind the phone cradle and press down firmly.
-

Cisco Wireless IP Phone 8821 and 8821-EX Multi Charger

You can charge up to six phones and six spare batteries at the same time with the Cisco Wireless IP Phone 8821 and 8821-EX Multi Charger. If your phone is in a protective case, you can charge it without removing the case.



You can place the multicharger on a work surface or mount it on a wall with the wall mount kit. You can also secure the multicharger with a standard laptop cable lock.

The LED beside the battery slot shows the charging status. When the battery is charging, the LED lights red. When the battery is charged, the LED lights green.

Battery slot LEDs can take several minutes to indicate that the battery is fully charged. If you move a fully-charged battery to another slot, the LED might initially light red before it turns green.

**Caution**

Do not use chargers in a Potentially Explosive Atmosphere.

Do not charge the phone if it is wet.

Set Up the Multicharger

The power jack is on the right side of the multicharger.

Procedure

-
- Step 1** Plug the jack end of the power cord into the multicharger.
 - Step 2** Plug the other end of the power cord into the power adapter.
 - Step 3** Plug the power adapter into the electrical outlet.
 - Step 4** Place the multicharger on a stable work surface.
-

Install the Multicharger Wall Mount Kit

The wall mount kit comes with the following components:

- bracket

- package with 5 screws and 5 self-tapping wall anchors

Before You Begin

You need the following tools:

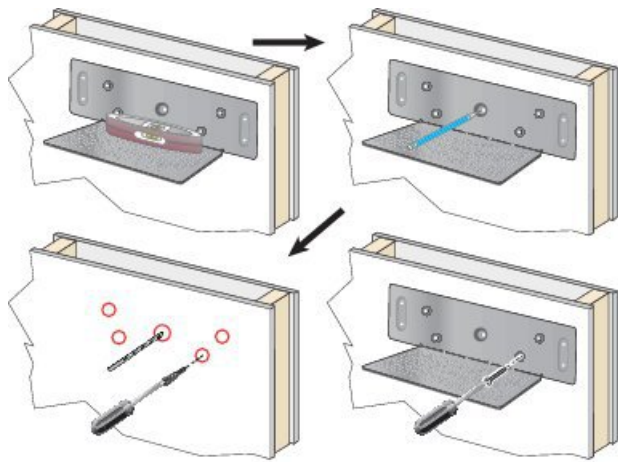
- Drill and a 0.25 inch drill bit
- Pencil
- Level
- Philips #1 and #2 screwdrivers

You need the power cable and power adapter.

Procedure

Step 1 Determine the location for the bracket. The bottom right corner of the bracket must be less than 50 inches (127 cm) from an electrical outlet.

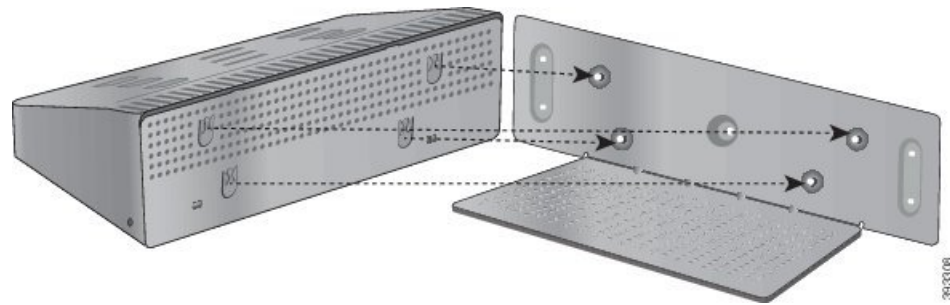
Step 2 Mount the wall bracket.



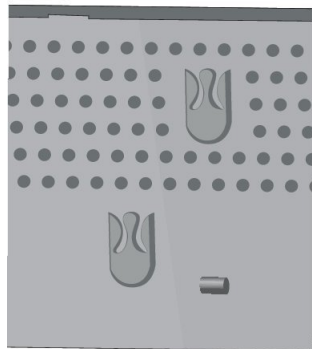
- Hold the bracket on the wall, as shown in the diagram.
- Use the level to ensure that the bracket is level and use a pencil to mark the screw holes.
- Install the anchors, using the drill and drill bit.
- Screw the bracket to the wall.

Step 3 Locate the post holders in the multicharger.

Step 4 Hold the multicharger so that the post holders are in front of the posts on the bracket, press the multicharger towards the wall, and then push the multicharger down so that the posts seat into the holder.



Here is a close-up of the post holder.



- Step 5** Plug the jack end of the power cord into the multicharger.
- Step 6** Plug the other end of the power cord into the power adapter.
- Step 7** Plug the power adapter into the electrical outlet.

Charge Your Phone with the Multicharger

You can tell when your phone is charging in the multicharger when the LED beside the phone lights red. When the battery is fully charged, the LED turns off. Your phone can take up to 3 hours to recharge.

If your phone has a protective case, you don't need to remove the case before you charge the phone in the multicharger. You adapt the multicharger to fit the phone.

When you put the phone into the multicharger, make sure that you align the charging pins on the bottom of the phone with the connector in the multicharger. If the LED does not light, then the alignment is not correct.



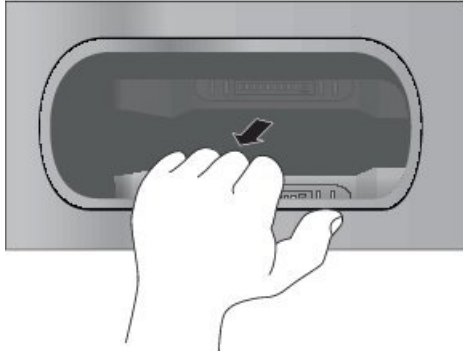
Caution

Do not charge the phone in a hazardous environment.

Do not charge the phone if it is wet.

Procedure

- Step 1** (Optional) Reach into the cup with three fingers, locate the slots on the inside of the cup, and use the slots to pull the cup out.



- Step 2** Place your phone in the empty charging slot. If your phone is in a case, press the phone into the charging slot to ensure that the phone connects with the contacts. Make sure that the LED on the phone lights red. If the LED does not light up, remove the phone and reinsert it into the multicharger.
- Step 3** (Optional) Slide the charging cup into the multicharger and press the cup into place so that the cup is flush with the top of the multicharger.

Charge Your Spare Battery with the Multicharger

You can charge a spare battery in the multicharger. The battery can take up to 3 hours to charge.



Caution Do not charge the battery in a hazardous environment.

When the battery is charging, the Battery LED beside the battery lights red. When the battery is charged, the Battery LED lights green.

Procedure

Place the battery in an empty spare battery slot, aligning the battery contacts with the charger connector. If the Battery LED does not light red, remove the battery and reinsert it into the battery slot.

Secure the Charger with a Cable Lock

You can secure your desktop charger or multicharger with a laptop cable lock that is 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 charger and release the locking button.
 - Step 6** Lock the cable lock.
-

Secure the Charger with a Cable Lock




Troubleshooting

- [General Troubleshooting](#), page 85
- [Find Information About Your Phone](#), page 87
- [Hardware Diagnostics](#), page 87

General Troubleshooting

You can troubleshoot some general problems with your phone. If your problem is not discussed below, contact your administrator.

Symptom	Explanation
You cannot complete a call	One or more of the following factors might apply: <ul style="list-style-type: none">• Your phone is out of the wireless network access point service area. Note When roaming with your phone, a green blinking light indicates that the phone is still within the wireless service coverage area.• You must log in to the Extension Mobility service.• You must enter a client matter code or forced authorization code after you dial a number.• Your phone has time-of-day restrictions that prevent you from using some features during certain hours of the day.

Symptom	Explanation
The main screen is not active	<p>One of these messages appears on the status line:</p> <ul style="list-style-type: none"> • Network busy: Not enough available bandwidth exists in wireless network to complete this call. Try again later. • Leaving service area: Phone is out of range of its associated access point and wireless network. • Locating network services: Phone is searching for a wireless network access point. • Authentication failed: Authentication server did not accept the security credentials. • Configuring IP: Phone is waiting for DHCP to assign an IP address.
The Settings menu is unresponsive	Your administrator might have disabled access to the Settings app on your phone.
Conference fails	Conference requires multiple selected calls. Be sure that you have selected at least one call in addition to the active call, which is selected automatically. Conference also requires the selected calls to be on the same line. If necessary, transfer calls to one line before joining them.
The softkey that you want to use does not appear	<p>One or more of the following factors might apply:</p> <ul style="list-style-type: none"> • You must press More  to reveal additional functions. • You must change the line state (for example, place a call or have a connected call). • Your phone is not configured to support the feature associated with that softkey.
Barge fails and results in a fast busy tone	<p>One or more of the following factors might apply:</p> <ul style="list-style-type: none"> • You cannot barge an encrypted call if the phone you are using is not configured for encryption. When your barge attempt fails for this reason, your phone plays a fast busy tone. • You cannot barge a call on another Cisco Wireless IP Phone.
You are disconnected from a call that you joined using Barge	You are disconnected from a call that you joined using Barge if the call is put on hold, transferred, or turned into a conference call.
Call back fails	The other party might have call forwarding enabled.

Symptom	Explanation
The phone shows an error message when you attempt to set up Call Forward All	Your phone may reject your attempt to set up Call Forward All directly on the phone if the target number that you enter would create a Call Forward All loop or would exceed the maximum number of links permitted in a Call Forward All chain (also known as a maximum hop count).

Find Information About Your Phone

Your administrator may ask for information about your phone. This information uniquely identifies the phone for troubleshooting purposes. The information in the menu is read-only. For more information about the menu, see the *Cisco Cisco Wireless IP Phone 8821 and 8821EX Administration Guide for Cisco Unified Communications Manager*.

Procedure

-
- Step 1** Access the **Settings** app.
 - Step 2** Select **Phone information**.
-

Hardware Diagnostics

You can run some diagnostic tests on your phone.

Perform WLAN Diagnostics

You can check the Wi-Fi connection for your phone. The phone lists the access points in order, from the strongest signal to the weakest or offline access point. You can then view details of the wireless access point.

Procedure

-
- Step 1** Access the **Settings** app.
 - Step 2** Select **Admin settings > Diagnostics > WLAN**.
 - Step 3** Press **Continue**.
 - Step 4** Scroll to an access point and press **Select** to see detailed information about the access point.
-

WLAN Diagnostics Fields

The following table describes the fields in the WLAN Diagnostics screen.

Field	Description
AP name	Name of the access point (AP) to which the phone is associated
BSSID	The access point radio MAC address
SSID	The Service Set Identifier (SSID) that the phone uses
Frequency	The frequency that the phone uses
Current channel	The channel that the phone uses
Last RSSI	Last Received Signal Strength Indicator (RSSI) that the phone received.
Beacon interval	Number of time units between beacons. A time unit is 1.024 milliseconds.
Capability	802.11 capabilities
Basic rates	Data rates required by the AP at which the station must be capable of operating.
Optional rates	Data rates supported by the AP that are optional for the station to operate at.
Supported HT MCS	802.11n data rates
Supported VHT (rx) rates	802.11ac receive data rates
Supported VHT (tx) rates	802.11ac transmit data rates
DTIM period	Delivery Traffic Indication Map (DTIM) information
Country code	A two-digit country code. Country information might not be displayed if the country information element (IE) is not present in the beacon.
Channels	List of supported channels (from the country IE).
Power constraint	802.11h power constraint offset in dB
Power limit	Dynamic Transmit Power Control (DTCP) value advertised by the access point.

Field	Description
Channel utilization	Percentage of time, normalized to 255, in which the AP sensed the medium was busy, as indicated by the physical or virtual carrier sense (CS) mechanism.
Station count	Total number of spanning tree algorithms (STAs) currently associated with this BSS.
Admission capacity	An unsigned integer that specifies the remaining amount of medium time available through explicit admission control, in units of 32 microseconds per second.
WMM supported	Support for Wi-Fi Multimedia Extensions.
UAPSD supported	Unscheduled Automatic Power Save Delivery (UAPSD) is supported by the AP. May only be available if WMM is supported. This feature is critical to talk time and achieving maximum call density on the wireless IP phone.
Proxy ARP	CCX-compliant AP supports responding to IP ARP requests on behalf of the associated station. This feature is critical to standby time on the wireless IP phone.
CCX version	Version of CCX if the AP is CCX compliant.
<p>AC: Best effort, AC: Background, AC: Video, and AC: Audio</p> <ul style="list-style-type: none"> • Admission control • AIFSN • ECWMin • ECWMax • TXOPLimit 	<p>Information for each Access Category (AC). There is one set of data for best effort, background, video, and audio.</p> <ul style="list-style-type: none"> • Admission control—If yes, admission control must be used prior to transmission using the access parameters specific for this AC. • AIFSN—Number of slots after an SIFS duration a non-AP STA should defer before invoking a backoff or starting a transmission. • ECWMin—Encodes value of CWmin in an exponent form to provide the minimum amount of time in a random backoff. • ECWMax—Encodes value of CWmax in an exponent form to provide the maximum amount of time in a random backoff. • TXOPLimit—Interval of time in which a particular quality of service (QoS) station has the right to initiate



Product Safety and Security

- [Safety and Performance Information, page 91](#)
- [Compliance Statements, page 96](#)
- [Cisco Product Security Overview, page 101](#)
- [Important Online Information, page 101](#)

Safety and Performance Information

Read the following safety notices before installing or using your wireless IP phone.



Warning

IMPORTANT SAFETY INSTRUCTIONS

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

SAVE THESE INSTRUCTIONS

To see translations of the warnings that appear in this publication, refer to the statement number in the *Regulatory Compliance and Safety Information—Cisco Wireless IP Phone 882x Series* at the following URL: http://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/cuipph/882x/english/RCSI/RCSI-0266-book.pdf



Warning

Read the installation instructions before using, installing, or connecting the system to the power source. Statement 1004



Warning

Voice over IP (VoIP) service and the emergency calling service do not function if power fails or is disrupted. After power is restored, you might have to reset or reconfigure equipment to regain access to VoIP and the emergency calling service. In the USA, this emergency number is 911. You need to be aware of the emergency number in your country. Statement 361

**Warning**

Ultimate disposal of this product should be handled according to all national laws and regulations. Statement 1040

**Warning**

The plug-socket combination must be accessible at all times because it serves as the main disconnecting device. Statement 1019

Safety Guidelines

The following are safety guidelines for using the Cisco Wireless IP Phone 882x Series in specific environments:

- Do not use this product as the primary communications tool in healthcare environments, as it may use an unregulated frequency band that is susceptible to interference from other devices or equipment.
- The use of wireless devices in hospitals is restricted to the limits set forth by each hospital.
- The use of wireless devices in hazardous locations is limited to the constraints posed by the safety directors of such environments.
- The use of wireless devices on airplanes is governed by the Federal Aviation Administration (FAA).

Battery Safety Notices

These battery safety notices apply to the batteries that are approved for the Cisco Wireless IP Phone 8821 and 8821-EX.

**Warning**

There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. Statement 1015

**Warning**

Do not touch or bridge the metal contacts on the battery. Unintentional discharge of the batteries can cause serious burns. Statement 341

**Warning**

Explosion Hazard: Do not charge the phone battery in a potentially explosive environment. Statement 431

**Caution**

- Do not dispose of the battery pack in fire or water. The battery may explode if placed in a fire.
- Do not disassemble, crush, puncture, or incinerate the battery pack.
- Handle a damaged or leaking battery with extreme care. If you come in contact with the electrolyte, wash the exposed area with soap and water. If the electrolyte has come in contact with the eye, flush the eye with water for 15 minutes and seek medical attention.
- Do not charge the battery pack if the ambient temperature exceeds 104 degrees Fahrenheit (40 degrees Celsius).
- Do not expose the battery pack to high storage temperatures (above 140 degrees Fahrenheit, 60 degrees Celsius).
- When discarding a battery pack, contact your local waste disposal provider regarding local restrictions on the disposal or recycling of batteries.

To obtain a battery, contact your local dealer. Use only the batteries that have a Cisco part number.

Battery

CP-BATT-8821=

Use only the Cisco power supply that is compatible with your phone. To order your power supply, contact your local dealer and refer to the list of Cisco part numbers.

Argentina

CP-PWR-8821-AR=

Australia

CP-PWR-8821-AU=

Brazil

CP-PWR-8821-BZ=

Europe

CP-PWR-8821-CE=

Korea

CP-PWR-8821-KR=

Japan

CP-PWR-8821-JP=

Switzerland

CP-PWR-8821-SW=

North America

CP-PWR-8821-NA=

United Kingdom

CP-PWR-8821-UK=

**Note**

The battery and power supply are not provided with your phone. To order the battery and power supply, contact your local dealer.

Hazardous Environments

The Cisco Wireless IP Phone 8821-EX is ATEX Class I Zone 2 and CSA Class I Division 2/Zone 2 certified equipment. This means the phone can be operated in an area in which an explosive gas atmosphere is not likely to occur in normal operation and if it does occur, is likely to do so only infrequently and will exist for a short period only.

**Note**

The Cisco Wireless IP Phone 8821-EX is not currently supported.

**Warning**

Explosion Hazard: Do not charge the phone battery in a potentially explosive atmosphere. Statement 431

Power Outage

The ability to access emergency service through the phone depends on the wireless access point being powered. If there is an interruption in the power supply, Service and Emergency Calling Service dialing will not function until power is restored. In the case of a power failure or disruption, you may need to reset or reconfigure equipment before using the Service or Emergency Calling Service dialing.

Regulatory Domains

The radio frequency (RF) for this phone is configured for a specific regulatory domain. If you use this phone outside of the specific regulatory domain, the phone will not function properly, and you might violate local regulations.

Health-Care Environments

This product is not a medical device and uses an unlicensed frequency band that is susceptible to interference from other devices or equipment.

External Devices Usage

The following information applies when you use external devices with the wireless phone.

Cisco recommends the use of good quality external devices (such as headsets) that are shielded against unwanted radio frequency (RF) and audio frequency (AF) signals.

Depending on the quality of these devices and their proximity to other devices such as mobile phones or two-way radios, some audio noise may still occur. In these cases, Cisco recommends that you take one or more of the following actions:

- Move the external device away from the source of the RF or AF signals.
- Route the external device cables away from the source of the RF or AF signals.
- Use shielded cables for the external device, or use cables with a better shield and connector.
- Shorten the length of the external device cable.
- Apply ferrites or other such devices on the cables for the external device.

Cisco cannot guarantee the performance of the system because Cisco has no control over the quality of external devices, cables, and connectors. The system will perform adequately when suitable devices are attached using good quality cables and connectors.



Caution


In European Union countries, use only external headsets that are fully compliant with the EMC Directive [89/336/EC].

Phone Behavior During Times of Network Congestion

Anything that degrades network performance can affect Cisco IP Phone voice and video quality, and in some cases, can cause a call to drop. Sources of network degradation can include, but are not limited to, the following activities:

- Administrative tasks, such as an internal port scan or security scan
- Attacks that occur on your network, such as a Denial of Service attack

SAR

	<p>This product's SAR value meets applicable national SAR limits of 1.6W/kg. The specific values can be found in the product datasheet.</p> <p>When carrying the product or using it while worn on your body, either use an approved accessory such as a holster or otherwise maintain a distance of 5 cm from the body to ensure compliance with RF exposure requirements. Note that the product may be transmitting even if you are not making a phone call.</p>
---	--

Compliance Statements

Compliance Statements for the European Union

CE Marking

For the Cisco Wireless IP Phone 882x Series, the following CE mark and class-2 identifier are affixed to the equipment and packaging:



RF Exposure Statement for the European Union

This device has been evaluated and found compliant in accordance with EU EMF Directive 1999/519/EC.

Compliance Statements for the USA

SAR Statement

The Cisco Wireless IP Phone 882x Series handsets have been tested for body-worn Specific Absorption Rate (SAR) compliance using the specific belt-clip/holster configuration provided with the handset. The FCC has established the detailed body-worn SAR requirements and has established that these requirements have been met with the specific belt-clip/holster provided with the handset. Other belt-clip/holsters or similar accessories that have not been tested may not comply and therefore should be avoided.

RF Exposure Information

The radio module has been evaluated under FCC Bulletin OET 65C (01-01) and found to be compliant to the requirements as set forth in 47 CFR Sections 2.1091, 2.1093, and 15.247 (b) (4) addressing RF Exposure from radio frequency devices. This model meets the applicable government requirements for exposure to radio frequency waves.

This wireless phone contains a radio transceiver. The radio transceiver and antenna have been designed to meet the RF emission requirements for human exposure as specified by the FCC as well as by other agencies from other countries. These guidelines were developed by the industry based on guidance from the World Health Organization (WHO). These industry standards have been developed to include additional safety margins to ensure that the user is exposed to the least amount of RF radiation.

The radio transceiver uses a non ionization type of radiation as opposed to an ionized radiation such as an X-Ray wave.

The exposure standard for these devices references a unit of measure known as SAR. The limit as set by the FCC is 1.6W/kg. The tests for this emission level is done in an independent laboratory who employs test methods and operating positions reviewed by the FCC and other agencies.

Before the phone was placed on the market, the product was tested and certified in accordance with the FCC regulations to verify that the product did not exceed the FCC SAR requirements.

Additional information on SAR and RF Exposure can be obtained off the FCC website at: <http://www.fcc.gov/oet/rfsafety>

There is no conclusive proof that these mobile phones are or are not a health risk. The FDA and numerous researchers are continuing studies of RF radiation and health issues. Additional information on this subject can be obtained from the FDA web site at: <http://www.fda.gov>

A recent Swedish study concluded that there is no link between the RF energy emitted from mobile phones and cancer. For more information, refer to the article written by John Boice and Joseph McLaughlin entitled "Epidemiological Studies of Cellular Telephones and Cancer Risk."

The Cisco Wireless IP Phone 882x Series operates at power levels that are 5 to 6 times lower than most standard cellular, Personal Communications Service (PCS), or Global System for Mobile Communication (GSM) phones. This lower power coupled with a lower transmitter duty cycle reduces the user's exposure to the RF fields.

There are several suggested methods to reduce exposure for the user. Among those include:

- 1 Using a hands-free handset to increase the distance between the antenna and the head of the user.
- 2 Orienting the antenna away from the user.

Additional information can be obtained from the following documentation:

- Cisco Systems Spread Spectrum Radios and RF Safety white paper at the following location: http://www.cisco.com/warp/public/cc/pd/witc/ao340ap/prodlit/rfhr_wi.htm
- FCC Bulletin 56: Questions and Answers about Biological Effects and Potential Hazards of Radio Frequency Electromagnetic Fields
- FCC Bulletin 65: Evaluating Compliance with the FCC guidelines for Human Exposure to Radio Frequency Electromagnetic Fields
- FCC Bulletin 65C (01-01): Evaluating Compliance with the FCC guidelines for Human Exposure to Radio Frequency Electromagnetic Fields: Additional Information for Evaluating Compliance for Mobile and Portable Devices with FCC limits for Human Exposure to Radio Frequency Emission

Additional information can also be obtained from the following organizations:

- World Health Organization International Commission on Non-Ionizing Radiation Protection at www.who.int/emf
- United Kingdom, National Radiological Protection Board at www.nrpb.org.uk
- Cellular Telecommunications Association at www.wow-com.com

General RF Exposure Compliance

This device has been evaluated and found compliant to the ICNIRP (International Committee on Non-Ionizing Radiation Protection) limits for Human Exposure of RF Exposure.

Part 15 Radio Device

**Caution**

The Part 15 radio device operates on a non-interference basis with other devices operating at this frequency. Any changes or modification to said product not expressly approved by Cisco, including the use of non-Cisco antennas, could void the user's authority to operate this device.

Canadian Compliance for Cisco Wireless IP Phone 882x Series

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Avis de Conformité Canadien

Ce dispositif est conforme aux normes CNR exemptes de licence d'Industrie Canada. Le fonctionnement de ce dispositif est autorisé sous réserve des deux conditions suivantes : (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

Canadian RF Exposure Statement

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must be at least 20 cm from the user and must not be collocated or operated in conjunction with any other antenna or transmitter.

Déclaration d'exposition aux RF canadienne

Cet appareil est conforme aux limites d'exposition aux rayonnements définies pour un environnement non contrôlé. Les utilisateurs finaux doivent suivre les instructions de fonctionnement spécifiques pour satisfaire la conformité aux expositions RF. Cet émetteur doit être d'au moins 20 cm de l'utilisateur et ne doit pas être co-implantés ou exploités conjointement avec une autre antenne ou émetteur.

Compliance Statements for New Zealand

Permit to Connect (PTC) General Warning

The grant of a Telepermit for any item of terminal equipment indicates only that Telecom has accepted that the item complies with minimum conditions for connection to its network. It indicates no endorsement of the product by Telecom, nor does it provide any sort of warranty. Above all, it provides no assurance that any item will work correctly in all respects with another item of Telepermitted equipment of a different make or model, nor does it imply that any product is compatible with all of Telecom's network services.

Use of IP Networks with the PSTN

Internet Protocol (IP) by its nature introduces delay into speech signals as each data packet is formulated and addressed. Telecom Access Standards recommends that suppliers, designers and installers using this technology for calls to or from the PSTN refer to ITU E Model requirements in the design of their networks. The overall aim is to minimise delay, distortion and other transmission impairments, particularly for those calls involving cellular and international networks, which already suffer extensive delay.

The Use of Voice Compression Through the PSTN

Because of the extensive delay already experienced when calling cellular and international networks, some of which is already caused by their use of voice compression technologies. Telecom Access Standards will only approve G711 voice technology for use on the PSTN. G711 is an 'instantaneous speech-encoding technique' whereas G729 and all its variants are considered 'near instantaneous' introducing additional delay into the speech signal.

Echo Cancellation

Echo cancellers are not normally required in the Telecom PSTN because geographic delays are acceptable where CPE return loss is maintained within Telepermit limits. However, those private networks making use of Voice-over-IP (VoIP) technology are required to provide echo cancellation for all voice calls. The combined effect of audio/VoIP conversion delay and IP routing delay can cause the echo cancellation time of 64 mS to be required.

Compliance Statements for Taiwan

DGT Warning Statement for Cisco Wireless IP Phone 882x Series

避免電波干擾，本器材禁止於室外使用5.25-5.35 赫赫頻帶

低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

低功率射頻電機技術規範

4.7 無線資訊傳輸設備

4.7.5 在5.25-5.35赫赫頻帶內操作之無線資訊傳輸設備，限於室內使用。

4.7.6 無線資訊傳輸設備須忍受合法通信之干擾且不得干擾合法通信；如造成干擾，應立即停用，俟無干擾之虞，始得繼續使用。

4.7.7 無線資訊傳輸設備的製造廠商應確保頻率穩定性，如依製造廠商使用手冊上所述正常操作，發射的信號應維持於操作頻帶中。

187048

Compliance Statement for Argentina

Advertencia

No utilizar una fuente de alimentación con características distintas a las expresadas ya que podría ser peligroso.

Compliance Statement for Brazil

This equipment is a secondary type device, that is, it is not protected against harmful interference, even if the interference is caused by a device of the same type, and it also cannot cause any interference to primary type devices.

Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

For more information, go to this URL: <http://www.anatel.gov.br>

Cisco Product Security Overview

This product contains cryptographic features and is subject to U.S. and local country laws that govern import, export, transfer, and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute, or use encryption. Importers, exporters, distributors, and users are responsible for compliance with U.S. and local country laws. By using this product, you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

Further information regarding U.S. export regulations can be found at <http://www.bis.doc.gov/policiesandregulations/ear/index.htm>.

Important Online Information

End User License Agreement

The End User License Agreement (EULA) is located here: <http://www.cisco.com/go/eula>

Regulatory Compliance and Safety Information

Regulatory Compliance and Safety Information (RCSI) is located here: http://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/cuipph/882x/english/RCSI/RCSI-0266-book.pdf

