BH870 Wireless Bluetooth® Headset
User's Guide

Logitech for Business

Contents

1. Introduction

Thank you for purchasing the BH870 Wireless Bluetooth® Headset. We hope you will enjoy the headset's wide range of features and will find it comfortable to wear and easy to use.

The BH870 Headset provides compact and light-weight construction, touch-panel volume control, fast recharge, wideband audio, and a dual Noise Blackout™ microphone. The headset is compatible with nearly all types of Bluetooth® wireless technology mobile phones, and it provides additional support for advanced Bluetooth wireless technology features, such as call waiting and voice-activated dialing.

The BH870 Headset also includes a USB Bluetooth Adapter and Travel Charger. The USB Bluetooth Adapter plugs into your computer and connects to your headset via a wireless Bluetooth connection, enabling you to use your headset together with softphones running on your PC. The Travel Charger includes compartments for both the headset and USB Bluetooth Adapter, making it easy to take the BH870 Headset with you when you travel.

BH870 Headset Features

- Dual Noise Blackout microphone
- Up to 100m range
- Lightweight (under 18g)
- Fast recharge
- Direct Bluetooth link from headset to mobile phone
- Standard headset Bluetooth profile support, along with a more advanced hands-free profile to provide redial and voice-activated dialing
- Ear-hook wearing style included (with an accessory neckband option available)
- Wideband audio for enhanced audio quality (when also supported by the connected phone)
- Touch-panel volume and mute control
- Intuitive headset control via an adaptive multifunction button for answer/end call, call-waiting control, and other functions
- Status LED
- Voice and audio feedback
- Advanced hearing protection with SafeTone™ noise-exposure protection

USB Bluetooth Adapter Features

- Bluetooth wireless technology connects headset to any PC
- USB connection to your PC
- Softphone support and control
- Wideband audio for better audio quality
- Headset configuration from the PC
- Up to 100m range
- Status LEDs

Travel Charger Features

- Holds the headset and USB Bluetooth Adapter for easy transportation
- Provides a data interface that can be used for upgrading the headset firmware
- Recharges the headset from an AC outlet or a PC's USB port
- Charges the headset from a car cigarette-lighter socket when the car charger is used

2. Important Warnings and Safety Information

2.1 Read the *Important Information Guide*

WARNING! Your headset includes an Important Information Guide. Do not attempt to assemble or use the BH870 Headset before you read this guide. If you did not receive the Important Information Guide, please contact Logitech before continuing.

2.2 Protecting your Hearing with SafeTone™

WARNING! Because a headset is held firmly against your ear, sudden, loud sounds pose a potential hearing risk. Furthermore, the more you use a headset each day, a lower maximum volume is highly recommended to protect you against possible hearing loss. The BH870 Headset provides effective measures to protect you against hearing-loss risks. Please read the section that follows to learn more.

SafeTone™ Has Two Components — PeakStop™ and Intellitone™

- **PeakStop™ Acoustic-Shock Protection**
  The BH870 Headset automatically suppresses sudden loud sounds, thereby protecting your ears from acoustic shock.

- **Intellitone™ Noise-Exposure Protection**
  BH870 Headset offers a choice of four protection levels (all of which include the standard PeakStop protection described above). These features protect your hearing by preventing acoustic shock and limiting the maximum noise exposure from the headset during your workday.

The table below summarizes the protection levels available.

Protection Level	Criteria for Selecting
Level 0	Basic protection against sound spikes [118 dB(A)]; auto volume disabled
Level 1*	Less than 4 hours on telephone/day
Level 2*	4-8 hours on telephone/day
Level 3*	More than 8 hours on telephone/day
Level 4 (TT4)	Recommended Australian protection level (Telstra)

Table 1: Levels of IntelliTone hearing protection

To set the IntelliTone level, use the Jabra Control Center application on your PC. See the Jabra PC Suite online help for details. (See also *5. Installing and Running the Jabra PC Suite* in this guide for more information about the PC software).

Important: Check your local laws or regulations to find out whether a specific protection level is mandated in your area.

* Compliant with Directive 2003/10/EC of the European Parliament and Council of 6 February 2003.

2.3 Care and Maintenance

Protect your headset and accessories as you would any other type of sensitive electronic equipment. If your BH870 Headset requires cleaning, consider the following advice:

- The headset, headband, neckband (an optional accessory), and ear hook can be wiped clean with a dry cloth if needed.
- The cords can be dry-dusted as required.
- The leatherette ear cushion(s) can be cleaned. When cleaning, remove them and wipe with a damp cloth.
- The earbud can be replaced if it becomes dirty or uncomfortable. Two extra, differently shaped earbuds are included with your headset. Otherwise, you can order replacement earbuds from **www.jabra.com** at any time.
- Avoid getting moisture or liquids into any button ports, receptors, or other openings.
- Avoid exposing the product to rain.

2.4 Other Specifications

For complete technical specifications, see *11: Technical Specifications* in this guide.

3.   Product Overview

3.1   BH870 Headset Diagram

1. Multifunction button (answer/end call and other functions)
2. Touch panel for volume (by sliding finger) and mute control (by double-tapping)
3. Dual Noise Blackout microphone
4. Activity and status indicator (multicolor LED)
5. Earbud (with speaker)
6. Mount for ear-hook wearing-style attachment
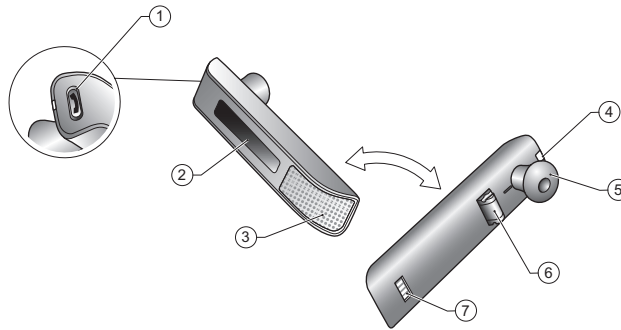7. Recharge and data interface

Figure 1: *BH870 Headset as seen from the outer and inner sides, respectively*

3.2   Travel Charger and USB Bluetooth Adapter Diagrams

1. Headset cradle
2. Power and data port
3. Adapter cradle
4. USB plug
5. LED activity indicators
6. Multifunction button
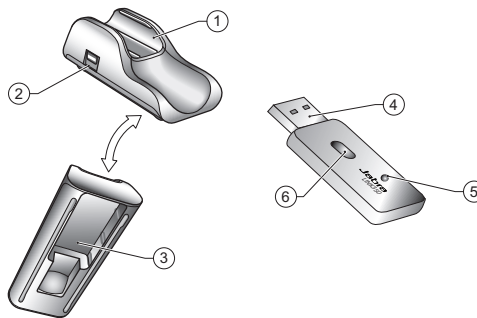
Figure 2: Travel charger (left) and USB Bluetooth Adapter (right)

3.3 Optional Accessories

The following accessories for the BH870 Headset are available separately and are occasionally mentioned in the other chapters of this guide. You may have ordered one or more of these together with your headset. To order these accessories, please visit **www.jabra.com.**

1. Neckband
2. Car charge adapter
3. Replacement ear hooks/replacement earbuds
4. Travel kit (with the Travel Charger, car charger, USB Bluetooth Adapter, AC power adapter, and USB cable)
5. Extra USB Bluetooth Adapter
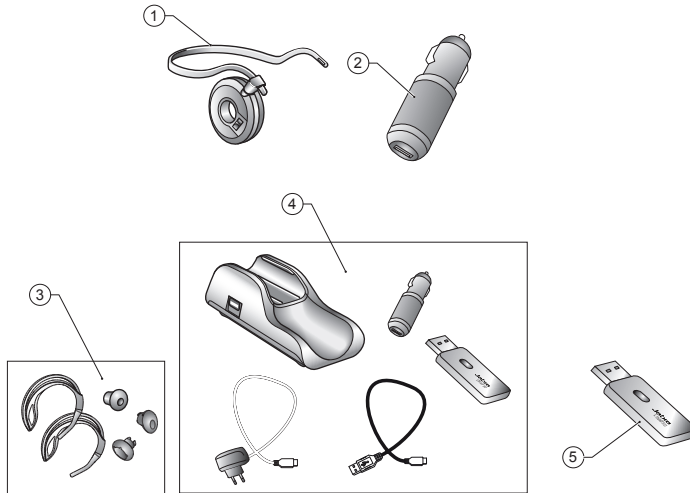
Figure 3: BH870 Headset accessories (available at www.jabra.com)

4. System Setup and Connections

This section explains how to assemble your BH870 Headset and connect it to your other office equipment.

4.1 Charging the Headset

To charge the headset, place it in the Travel Charger. Connect the mini-USB port on the Travel Charger to a power source, as illustrated below. The headset LED will change from red to yellow while charging. It will turn green when the headset is fully charged. If you are using the headset while it is charging, the LED can change to other colors and blink to indicate other events or changes. See *9.4 BH870 Headset Visual Indicators (LED)* in this guide for more information.

Note: The charge time from either a PC or car cigarette-lighter socket is much longer than the charge time from an AC power outlet.
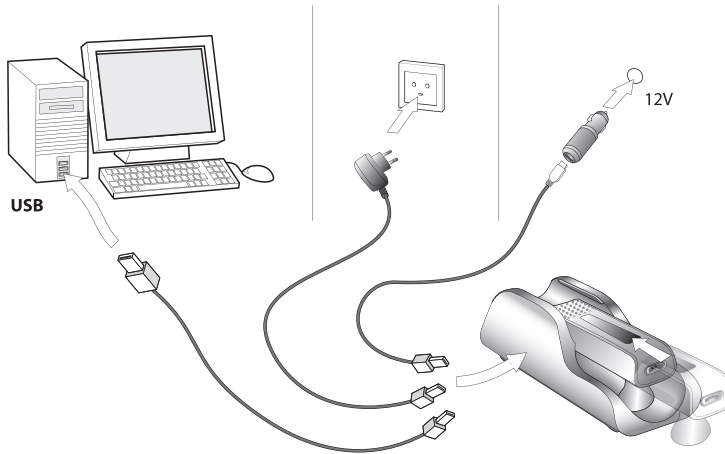
Figure 4: Charging the headset

4.2   Assembling the Headset

You can wear the BH870 headset in any of several wearing styles, including headband, ear hook, and neckband. The ear hook wearing-style attachment and headband are included. The neckband is available separately.
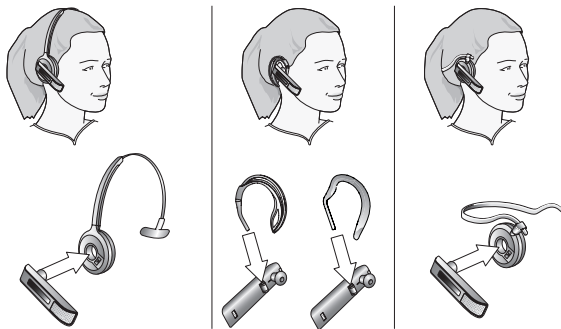
Figure 5: Assembling and wearing the BH870 Headset in various styles

Choose a style and assemble the headset so that it will fit to your preferred ear. See *7.2 Assembling or Changing the Wearing Style* for detailed instructions.

Important: Regardless of which wearing style you choose, adjust the headset so the microphone is positioned as close to your mouth as possible. This will maximize the noise-cancelling effect of the microphone, allowing your voice to come through loud and clear.

Tip: If you use the ear hook, slide the attachment up or down until the headset fits comfortably to your ear.

Remember that two different ear hooks are included. One is very flexible and can be moulded to any angle for an optimal fit.
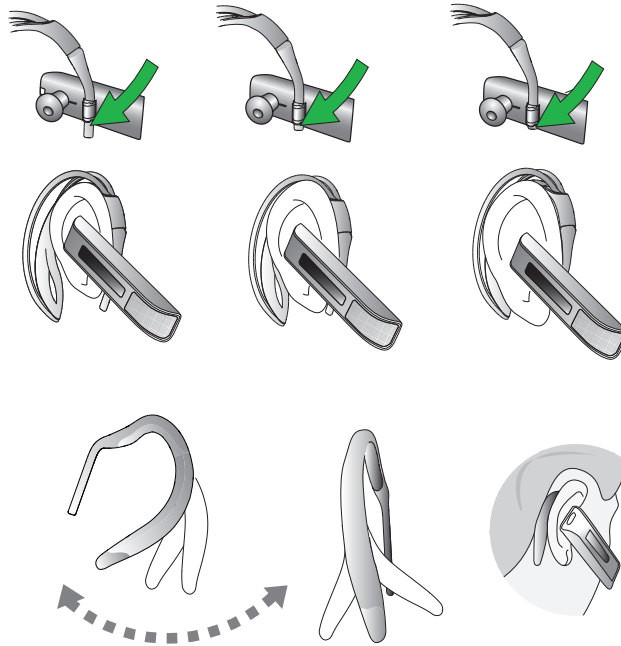
4.3   Pairing the Headset with Your Mobile Phone

To use Bluetooth, you must set up the wireless communication between the BH870 Headset and your mobile phone by *pairing* them. Pair the headset manually at any time using the procedure below.

1. If your headset is currently turned on, turn it off by pressing and holding its multifunction button for about 4 seconds — until its LED gives four quick flashes and then turns off.
2. Put your (powered-off) headset in pairing mode by pressing and holding its multifunction button for about 4 seconds — until its LED lights a constant blue.
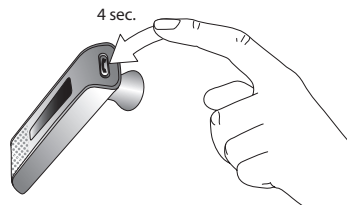
3. Make sure Bluetooth is active on your mobile phone and put your phone into Bluetooth pairing mode. The procedure for doing this varies by mobile phone manufacturer and model. See your mobile phone documentation for details.
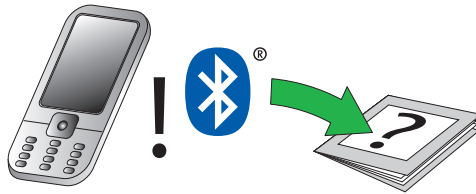
4. Your phone scans for nearby Bluetooth devices that are broadcasting themselves for pairing. Use your phone's controls to identify and select the *Jabra GO 6400* device. Your phone may also ask for the BH870 Headset's pass code. The pass code is **0000** (four zeros).
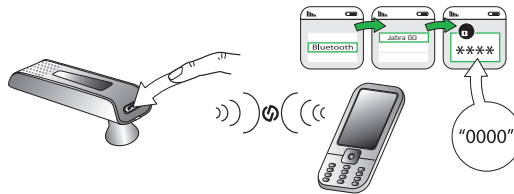
5. Your phone attempts to connect to the BH870 Headset, and then it shows results. If the attempt fails, please try again. If you are still having trouble, please check your mobile phone documentation, or contact Logitech Customer Support.

> **Note:** All communication between the BH870 Headset and a mobile phone are encrypted so others cannot intercept your calls. Establishing this encryption is an important part of the pairing process.
>
> Because two devices are paired, it does not necessarily mean they are connected (which means that the link between them is active). Typically, connection occurs automatically once your mobile phone is paired, but you might need to connect manually using the menu system on your mobile phone (as described in your phone's documentation).

4.4   USB Bluetooth Adapter Setup and Connection

To connect the USB Bluetooth Adapter and set it up for use with your computer and headset, do the following:

1. Plug the USB Bluetooth Adapter into a USB port on your PC. The USB Bluetooth Adapter installs automatically when you plug it in.

   Note: Even though the basic installation is automatic, you need to have installed the Jabra PC Suite software before you can use the adapter with most softphones — though, notably, it is not needed with Microsoft OC. Each softphone type needs a specific driver. The Jabra PC Suite software is also required for downloading new firmware to the adapter.

2. During the first three seconds after you plug in the adapter, an LED on the USB Bluetooth Adapter indicates the current softphone mode. For more information, see *9.4 USB Bluetooth Adapter Visual Indicators*.
   The default softphone mode is Microsoft OC, which means it is optimized for Microsoft OC.
   You can toggle between Microsoft OC and standard softphone modes during these first three seconds by tapping the adapter's multifunction button. For more information, see *9.5 USB Bluetooth Adapter Multifunction Button*. Later, you can change the mode by unplugging the adapter and then plugging it in again.

3. After three seconds, the LED on the USB Bluetooth Adapter indicates the current status of the unit. Do one of the following, depending on the status indicated by the LED:

   - **Constant green light**
     The headset and USB Bluetooth Adapter are already paired and connected **and** the PC's softphone is the current target.
     Go to step 3.

   - **Constant yellow light**
     The headset and USB Bluetooth Adapter are already paired and connected **and** the mobile phone is the current target.
     Go to step 3.

- **Slow-flashing green light**
  The headset and USB Bluetooth Adapter are paired but not (yet) connected. Connection occurs automatically — as long as your headset is switched on and close by. The headset tries to connect periodically and indefinitely. When the light changes to constant green or yellow (see above), your headset is connected.

- **Constant blue light**
  The headset and USB Bluetooth Adapter are not yet paired. The adapter is in pairing mode. This means that you need to pair the headset to the USB Bluetooth Adapter before you connect them. For instructions, see *9.3 Pairing the USB* Bluetooth *Adapter and Headset.*

4. You are now ready to use your headset with your computer. If you have not already done so, install the Jabra PC Suite software, as described in *5. Installing and Running the Jabra PC Suite.* See also the PC Suite online help.
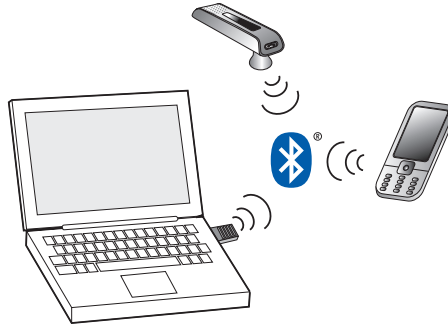

Figure 6: BH870 Headset paired with both a mobile phone and the USB Bluetooth Adapter

5. Installing and Running the Jabra PC Suite

5.1 Jabra PC Suite Features

The Jabra PC Suite is a collection of programs that supports and expands your headset's features. It enables you to do the following:

- Control several types of softphone programs from your headset
- Configure the headset from your PC
- Update the firmware for your headset
- Save and recall headset configuration to/from your PC
- Upgrade your Jabra solution by entering license keys for locked features

5.2 Installing the Jabra PC Suite

Installation instructions and a setup program for the Jabra PC Suite are available online from Logitech. Please go to **www.logitech.com/support/BH870** to download the latest version of the Jabra PC Suite. Double click the downloadable file to begin the installation process.

5.3 Jabra PC Suite Documentation

All programs of the Jabra PC Suite include complete online help. Where appropriate, this guide refers to settings and features provided by the Jabra PC Suite, but please see the online help for complete details about all software features.

5.4 Firmware Updates

Firmware is software that runs inside many types of electronic devices, including the BH870 Headset. Sometimes firmware updates are released that can improve performance and/or add new functionality to your headset.

The Logitech BH870 solution contains two devices that can be firmware updated independently, the USB Bluetooth Adapter and the Logitech BH870 Headset.

To update the firmware of your Logitech BH870 solution, you need to update the firmware in two steps: first you update the USB Bluetooth Adapter firmware, and then you update the Logitech BH870 Headset firmware via the Travel Charger.

Note: It is important that you update both the USB Bluetooth Adapter firmware and the Logitech Bluetooth Headset firmware using the same firmware file (a Zip archive) to ensure that the two devices are using compatible firmware versions.

Checking for Firmware Updates

You can visit **www.logitech.com/support/BH870** directly to find out whether firmware updates are available.

Applying Firmware Updates

To update the firmware in the USB Bluetooth Adapter, follow these steps:

1. Plug the USB Bluetooth Adapter into a USB port directly on your PC.

2. Start the Jabra Firmware Updater by clicking on the Windows Start menu and selecting **All Programs > Jabra > Jabra PC Suite > Jabra Firmware Updater**. The wizard launches.

3. On the first page of the firmware update wizard, select **Jabra LINK 350** in the drop-down list provided. Mark the checkbox **Check for firmware updates on Jabra web servers** if you want the Firmware Updater to check for and download the latest firmware. If you already have a firmware file you wish to use, clear this box. Then click **Next** and complete the remaining steps in the wizard.

4. When the USB Bluetooth Adapter firmware has been updated, unplug it from your PC and continue with an update of the headset firmware.

To update the firmware in the Logitech BH870 Headset, do the following:

1. Insert the headset into the Travel Charger and plug the USB cable from the Travel Charger into a USB port directly on your PC.

2. Bring the headset into firmware update mode by double-tapping the multifunction button on the headset (two quick taps with less than half a second between them) and make sure the LED on the headset turns pink.

3. After the headset has been switched to firmware update mode, you may see a **Found new hardware Wizard** if you are running Windows® XP. Complete the wizard using the default selections to install the driver required for a firmware update.

4. Start the Jabra Firmware Updater by clicking on the Windows Start menu and selecting **All Programs > Jabra > Jabra PC Suite > Jabra Firmware Updater**. The wizard launches.

5. On the first page of the firmware update wizard, select **Jabra GO 6400** in the drop-down list provided. If the headset does not appear in the list, verify that the headset is in firmware update mode (the LED is flashing pink) and click the **Refresh** button. Mark the box **Check for firmware updates on Jabra web servers** to fetch the latest firmware, or unmark it to use the local firmware file you used for updating your USB Bluetooth Adapter.

6. When you have selected **Jabra GO 6400**, click **Next**.

7. On page two of the wizard, you must either download the firmware from the web, or manually point out the firmware file on your computer. It is important that you use the same firmware version for your Logitech BH870 Headset as you used for the USB Bluetooth Adapter to ensure compatibility between the headset and adapter firmware.

8. Click **Next** and complete the remaining steps in the wizard.

Note: While a device is in firmware update mode, it is not visible in the Jabra Control Center or listed in the device service window.

5.5   Central Administration and Mass Deployment

If you are an IT manager of an organization that is rolling out a large number of BH870 Headsets, you might wish to use the Jabra Control Center, which is part of the Jabra PC Suite.

The Jabra Control Center lets you save a device's complete configuration to a file on disk and load it into the same, or a similar device at a later point in time. This feature enables you to make a snapshot or backup of your device's current configuration. You can use a configuration file to restore your device's configuration at a later time if you wish to revert to a previous snapshot, or if you need to clone your settings to a new device.

For mass deployment, you can save a copy of configuration settings from one device on a PC and quickly apply this configuration to new devices when you connect them to the administrator PC.

The ability to clone the configuration of one device to other similar devices is useful for mass deployment of many devices in an organization. This means that an administrator only needs to go manually through the setup of a single device and save its configuration to a file. This master configuration file can then be loaded into all devices that are deployed in the organization.

Access to a device from the Jabra Control Center can be password protected, ensuring that only authorized users can change settings. Select **Options** > **Set Password** to do this. Once password protected, the entire device configuration, e.g. IntelliTone settings and softphone settings, is protected in the Jabra Control Center.

6. Daily Use — Calling, Answering, and Hanging Up

6.1 Headset Controls and Indicators

The Multifunction Button

This button is located near the back of the BH870 Headset. Through a combination of taps, double-taps, short presses, and long presses, you will be able to execute all of the most-needed functions, including answering a call, hanging up, switching between held calls, and more. See *6.1 Headset Controls and Signals* in this guide for more information.

Headset Visual and Audio Indicators

The BH870 Headset provides status messages using both lights and audio signals. For example, the LED lights various colors to indicate battery level, incoming calls, on/off operations, etc. Audio signals tell you when you have pressed a button, selected a new target phone, or changed the volume; in-ear ring tones are also provided. See *6.1 Headset Controls and Signals* in this guide for more information.

6.2 The Target Phone Concept

The target phone is the phone to which the audio link for your (outgoing) call is activated when you tap the multifunction button (MFB) on the headset. You can select a different target phone by pressing the headset multifunction button.

The effect of activating the audio link to an idle target phone varies depending on the gesture you use on the headset multifunction button, on your set-up, and on the features supported by your phone. For mobile phones you can activate voice-activated dialing or redial. For softphones you can open the audio link and (for some softphones) redial.

If you initiate an outgoing call from a mobile- or softphone, the audio link opens automatically when the phone goes off-hook. This phone-initiated outgoing call does not affect your choice of a target phone.

For incoming calls on phones with ring detection — as is the case with mobile phones and most softphones — activating the headset multifunction button accepts the call. When the incoming call ends, the target phone returns to the selected target phone before the incoming call.

For phones where ring detection is not possible, you have to change the target phone manually before you can accept the call. In this case, when the call ends the target phone is the phone for which you accepted the call.

For maximum convenience, set the target phone to the phone which you are most likely to use for outgoing calls.

6.3 How to Make a Call

Standard Mobile Phone Dialing

To place a call through your mobile phone, dial the number, and then press the call button on the mobile. On most phones, the audio link from the mobile phone to your headset opens automatically.

Figure 7: To make a call on your mobile phone, dial while wearing the headset

> **Note:** Some mobile phones may work differently and/or require you to configure them to work as described above. Please see your mobile phone documentation for complete details about how to use it with a Bluetooth headset.

Voice-activated Mobile Phone Dialing

This feature requires that your mobile phone supports the hands-free Bluetooth wireless technology profile. See your mobile phone's documentation for details about how to set up voice-activated dialing and whether this feature is supported by Bluetooth.

Figure 8: To use voice-activated dialing, tap the multifunction button and speak the appropriate voice tag

To use voice-activated dialing with a mobile phone that supports it, do the following:

1. If necessary set the mobile phone as the current target for your headset (see also *Section 6.2 The Target Phone Concept*).

2. Tap the headset's multifunction button. You will then hear the voice-dialing prompt generated by your mobile phone. Speak the trigger for the number you want and allow the phone to dial.

> **Tip:** Your voice tags may work better if you record them using the BH870 Headset rather than your phone's built-in microphone. This ensures that the sound the phone "hears" coming from the BH870 Headset when dialing will be the closest possible match to the recorded voice tag.

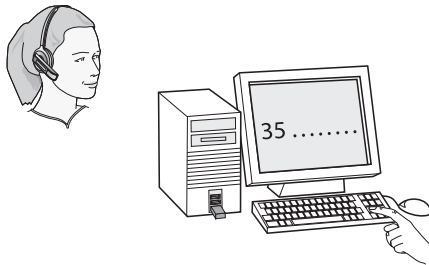**Calling through a Softphone**

Figure 9: To make a call on your softphone, simply dial while wearing the headset

To place a call through your softphone, dial the number or choose a contact using your softphone program. The audio connection to your headset will activate automatically as soon as your recipient's phone begins ringing.

> **Note:** If you are using an unsupported softphone, you need to manually open a PC audio communication link from your softphone to your headset before dialing. You can do this in the Jabra Control Center. (See the PC Suite online help for details. See also *5. Installing and Running the Jabra PC Suite*.)
>
> The BH870 Headset includes call handling (e.g., ringtone detection, accept call, and hang up) for supported softphones only. For unsupported softphones, see the headset as a standard sound card.

6.4   How to Answer a Call

To answer a call from any connected phone, do the following:

1. You will hear a ringtone from the ringing phone and/or headset. The ringtone played in the headset normally also indicates which phone is ringing (see *7.5 Headset Controls and Signals*). The headset will usually switch the target phone to the one that is ringing.

2. Tap the multifunction button on the BH870 Headset. You can also answer a call using the native controls of your mobile phone or softphone. If you are using an unsupported softphone, you must always use the softphone's native interface to answer a call.
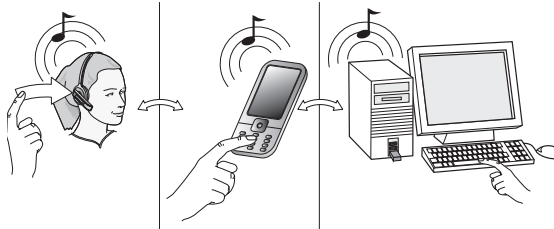

Figure 10: Answering a call

> **Note:** If you are using an unsupported softphone, you need to manually open a PC audio communication link from your softphone to your headset before answering. You can do this in Jabra Control Center. (See the PC Suite online help for details. See also *5. Installing and Running the Jabra PC Suite*).

6.5   Hanging Up

To terminate a call when no calls are on hold, tap the headset multifunction button. You can also terminate a call using the native controls of your mobile phone or softphone. If you are using an unsupported softphone,
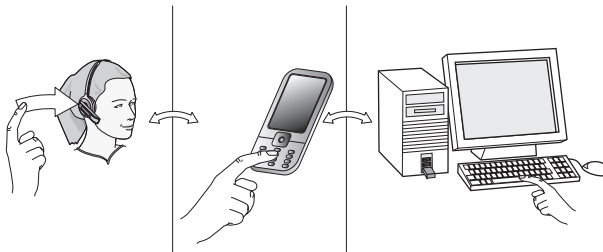you must always use the softphone's native interface to hang up.

Figure 11: Hanging up

6.6   Controlling the Speaker Volume and Microphone

The headset features a touch panel that is similar to the touch pad included with many laptop computers.
Use it to adjust the volume you hear in your headset and to mute/unmute the microphone.

- Slide your finger up the touch panel (away from your mouth) to increase the volume.
- Slide your finger down the touch panel to decrease the volume.
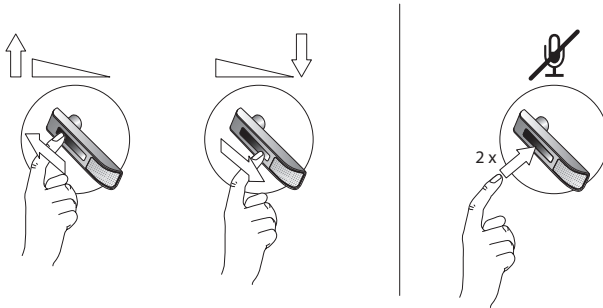- Double-tap on the touch panel to mute or unmute the microphone.

Figure 12: Using the volume strip and mute control

> **Note:** Unique double-tones in the headset indicate that you have reached maximum or minimum volume. See also *Headset Signal Tones* in this guide.
>
> A unique double-tone indicates that microphone muting is active. This signal repeats occasionally until you unmute the microphone. If you end the call while the microphone is muted, it is automatically umuted the next time you place or answer a call.

6.7   Switching between Your Phone and Headset

It is possible to enable or disable the headset without interrupting your current call. The procedure is intuitive but slightly different depending on which type of phone you are using, as outlined below.

- For mobile phones, the procedure for switching to and from the headset varies by phone model. Please see your mobile phone documentation for details.
- For softphones, your headset is likely to be your only option, but if other audio devices are connected to your PC, you may be able to switch to them by changing the audio preferences for Windows and/or your softphone program.

6.8   Last Number Redial

Your headset is able to send a redial command to the current target phone. This feature requires that the target phone supports the redial command. Check your phones' documentation for details.

To use last-number redial with a phone that supports it, do the following:

1. If necessary, set the appropriate phone as the current target for your headset (see also *6.2 The Target Phone Concept*).
2. Double-tap the headset's multifunction button. The headset sends the redial command to the selected target phone and opens the audio link.

6.9   Managing Call Collisions and Call Waiting

Call collision and call waiting both refer to situations in which you are already on the phone when another call comes in.

Call Collision

This occurs when you are talking on one phone and a call comes in on a different phone that is also connected to your headset. Two different phones compete for access to your headset.

Managing Call Collision

Call collision can be managed from the UI of the phone receiving the call.

If the incoming call is *accepted* on the phone UI, it is routed to the headset, and the current call is put on audio-hold. The call put on hold is shown on the touchscreen and is marked with a yellow handset to indicate activity on a phone whose audio is not currently routed to the headset.

If the incoming call is *rejected* on the phone UI (assuming this is supported by the phone), the current call continues.

Note: You cannot manage call collision from the headset — though a double-tone sounds in the headset to indicate the incoming call — but you have the option to resolve the collision by ending the current active call. To do this, tap the headset multifunction button. The current call ends and a ringtone from the phone with the new call sounds in the headset. Tap again to answer the call in the usual way.

Call Waiting

Call waiting lets you place a current call temporarily on hold to answer another incoming call *on the same phone*. This feature is available for selected softphones and mobile phones only.

Managing Call Waiting

Call waiting is provided by your phone company or softphone program, which means that it is largely external to the base or headset. However, you are able to manage call waiting using your headset multifunction button and/or touchscreen for the following types of phones:

- Mobile phones with call-waiting features and full support for the hands-free Bluetooth wireless technology profile; support also depends on your network operator and subscription type
- Softphones that support call waiting

If you are using an unsupported soft- or mobile phone, you must use your phone's native interface to manage its call-waiting features.

When call waiting is triggered by a new incoming call, the following occurs:

- A call waiting tone generated by the phone system sounds in your headset.
- Call waiting control is enabled for the headset multifunction button.

Do the following to manage the call waiting features from your headset:

- To hold the current call and switch to an incoming or held call, press the headset's multifunction for about 2 seconds.
- To end the current call and switch to an incoming or held call, tap the multifunction button.
- To reject the incoming call and remain on the current call, double-tap the multifunction button.

Note: The above gestures may not work with all softphones and mobile phones. See your phone's documentation for more information about call waiting. You can always use your phone's native interface to control call waiting if remote control is not working for you.

6.10 Listening to Music

Note: In order to listen to music, you must have a softphone enabled. This sets up the USB audio connection from the PC to the headset.

To listen to music from your PC, use the Jabra Control Center and/or its icon in the Windows notification area to activate the audio link from the PC to the BH870 Headset. Provided no other phone lines are active, your headset will then begin to play all of the sounds generated by your PC, including music from your media player.

Alternatively, you can use the Jabra PC Suite to set the audio link to open automatically when sound is detected on the USB interface. See the Jabra PC Suite online help for details.

To listen to music from a mobile phone, use the controls provided by your phone as described in its user manual.

Also note the following:

- Music sounds best when you use wideband audio, when possible. See *7.10 Narrowband vs. Wideband Audio*.
- If you are using a supported media player and softphone on your PC, the Jabra softphone driver will automatically pause the music when a call comes in. However, you must manually restart the music.

6.11 Using Microsoft® Office Communicator with Your Headset

Microsoft Office Communicator communicates directly with attached USB devices and does not require a dedicated driver to work with your headset. For the same reason, you do not need to install or run the Jabra PC Suite in order to send commands from your headset to the softphone. However, you will still use the Jabra PC Suite whenever you want to configure your headset using the Jabra Control Center.

The BH870 Headset is optimized for Office Communicator. It should automatically be recognized and configured for Office Communicator as soon as you plug the headset into your computer.

After connecting your headset to your computer, run the Jabra Control Center. Check to see if the Control Center offers settings for the Office Communicator and the Jabra softphone drivers as the default target for the button on your headset. If you use Office Communicator as your primary softphone, select "Office Communicator" in the Jabra Control Center. Note that the settings provided by the Jabra Control Center vary depending on which headset is connected to your computer.

You are able to control the following features of Office Communicator using your standard headset controls:

- Notification of incoming calls
- Acceptance of incoming call
- Call termination
- Microphone muting

The headset controls for invoking each of the above features of your softphone work in the same way as they do for your mobile phone.

7.   The BH870 Headset

This section provides in-depth details about the BH870 Headset. See also *3. Product Overview* in this guide for detailed diagrams.

7.1   How to Wear the Headset

You can wear the BH870 Headset in a variety of styles, each of which can be worn on either the left or right ear, as illustrated below.
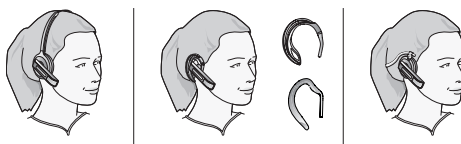

Figure 13: Wearing the BH870 Headset in various styles

Important: Regardless of which wearing style you choose, adjust the headset so the microphone is positioned as close to your mouth as possible. This will maximize the noise-cancelling effect of the microphone, allowing your voice to come through loud and clear.

7.2   Assembling or Changing the Wearing Style

The BH870 Headset uses a modular system that enables you to adapt your headset to a variety of wearing styles. You can change your wearing style at any time.

Attaching the Ear Hook for either Ear

To attach the ear hook or change the ear on which you wear it, do the following:

1. Remove the current wearing-style attachment, if any.
2. The ear hook attachment fits into a hole that passes all the way through the hinge-like mount on the inner side of the headset. Push the pin of the ear hook down into the top or bottom side of this hole, depending on which ear you wish to wear it on.
3. Slide the attachment up or down in its fitting until the headset fits comfortably to your ear.
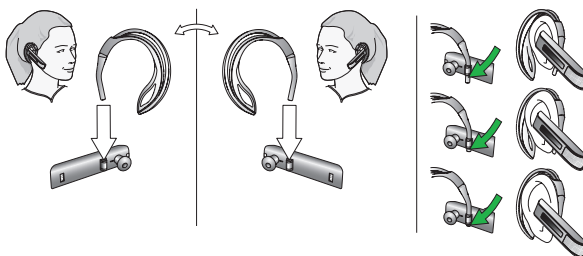

Figure 14: Attaching the ear hook

Attaching a Head- or Neckband (Optional)

To attach a head- or neckband, do the following:

1. Remove the current wearing-style attachment, if any.
2. Align the earbud and headset fitting with the matching holes on the head- or neckband, and press until it clicks into place.
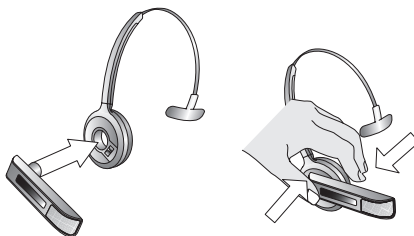3. Put on the headset and rotate the microphone until it is as close as possible to your mouth.

Figure 15: Attaching the headset to a head- or neckband

Removing a Wearing-style Attachment

To remove a wearing-style attachment, perform the opposite procedure used to attach it.

7.3   Replacing the Earbud

After extensive use, the earbud of the BH870 Headset may become worn, dirty, or uncomfortable. The headset includes two extra, differently-shaped earbuds. Otherwise, you can order additional replacements from **www.jabra.com** at any time.

To remove the earbud, hold the headset with the earbud facing you and twist the earbud gently anti-clockwise until it comes free. Then align the replacement earbud onto the same fitting and gently press it down until it clicks into place (do not rotate).

7.4   Using the BH870 Headset with Other Bluetooth Devices

Pairing the Headset with a Mobile Phone

The BH870 Headset is based on Bluetooth wireless technology and can therefore be used with any mobile phone that supports Bluetooth. You must set up the wireless communication between the two devices by *pairing* them. See *4.3 Pairing the Headset with Your Mobile Phone* for complete instructions.

Pairing the Headset with the USB Bluetooth Adapter

To pair the headset to the USB Bluetooth Adapter connected to your computer, place both units in pairing mode while they are close to each other. They will find each other automatically, and then pair and connect to each other as needed. See *9.3 Pairing the USB* Bluetooth *Adapter and Headset* for complete details.

Managing Bluetooth Connections

Once you have paired the headset with a mobile phone and the USB Bluetooth Adapter, the headset usually manages its Bluetooth connections automatically.

However, if the headset and mobile phone are paired, turned on, and in range but fail to connect automatically, you can try to connect them manually using the menu system on your mobile phone, as described in your phone's documentation.

You can drop the connection from the headset to your mobile phone (for example, because you would like to connect your mobile phone to another device) in a similar way. See also *7.12 Managing Bluetooth Connections and the Pairing Table*.

7.5   Headset Controls and Signals

The BH870 Headset features a collection of controls and indicators that enable you to manage and monitor your calls. These controls and indicators include the following:

1. **Multifunction Button**
   This button is located near the back of the headset. Through a combination of taps, double-taps, short presses, and long presses, you will be able to execute all of the most-needed functions, including answering a call, hanging up, switching between held calls, and more.

2. **Touch Panel**
   This touch-sensitive panel is similar to the touch pad included with many laptop computers. It enables you to adjust the speaker volume and mute/unmute the microphone.

Tip: If you use the ear hook, slide the attachment up or down until the headset fits comfortably to your ear.

Remember that two different ear hooks are included. One is very flexible and can be moulded to any angle for an optimal fit.

3. Audio Signal Tones
The headset generates several types of soft signal tones to let you know when you have an incoming call, muted call, call on hold, low battery, or another type of event. It also responds each time you use the multifunction button.

4. Headset Visual Indicator
A multicolor LED lets others see when you are on the phone, and it also gives feedback for certain types of events, such as low battery, incoming call, etc.
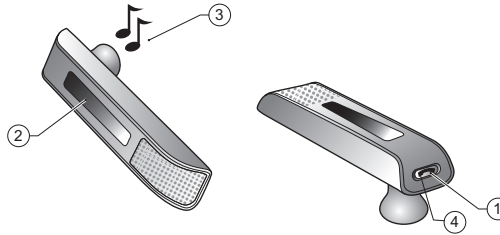

Figure 16: BH870 Headset controls and indicators

The Multifunction Button

The table below summarizes the various gestures recognized by the multifunction button. The terms listed in the table are often used in this guide when describing how to use the headset.

Gesture Name	How to Make It
Tap	Tap and release instantly (not longer than 0.8 seconds).
Double tap	Two quick taps (less than half a second between them).
Press	Press and hold the button for 1 - 3 seconds.
Long press	Press and hold the button for 3 - 5 seconds.

Table 2: Gestures for using the headset multifunction button

The precise effect of each type of gesture depends on what you are currently doing (e.g., if you are already on a call, which phone is the current target, etc.). The table below summarizes all of the control possibilities presented by the multifunction button.

Function	Tap	Double-Tap	Press (hold 1-3 sec)	Long Press (hold 3-5 sec)
Answer incoming call	✓			
Connect to the current target phone (e.g., go to dial tone; voice-activated dialing)	✓			
Enable voice-activated dialing (when target is a cell phone that supports this feature)	✓			
End current call (and activate held or incoming call, if any)	✓			

Function	Tap	Double-Tap	Press (hold 1-3 sec)	Long Press (hold 3-5 sec)
Call the last number dialed on current target phone (supported softphones and mobile phones only)		✓		
Reject incoming call (when already on a call)		✓		
Switch target phone (when no call is active)			✓	
Power-on headset (when power is off)			✓	
Reject incoming call (when no call is active)			✓	
Hold current call and switch to held or incoming call (supported softphones and mobile phones only)			✓	
Power-off headset (when power is on)				✓
Activate Bluetooth pairing mode (when power is off)				✓

Table 3: All multifunction button commands

The Touch Panel

The headset features a touch panel that is similar to the touch pad included with many laptop computers. Use it to adjust the volume you hear in your headset and to mute/unmute the microphone.

- Slide your finger up the touch panel (away from your mouth) to increase the volume.
- Slide your finger down the touch panel to decrease the volume.
- Double-tap on the touch panel to mute or unmute the microphone.

See also *6.6 Controlling the Speaker Volume and Microphone*.

Headset Signal Tones

The headset uses a variety of soft tones to alert you to events, such as an incoming call, multifunction button presses, volume changes, and more. These tones enable you to keep track of what is going on while you are wearing the headset.

State or Event	Tone Description	Sample (lick to play)
Power on	A 3-note melody ending on a high note	
Power off	A 3-note melody ending on a medium-low note	
Button tap	A quick medium tone	
Button double-tap	Two button-tap tones	
Button press	The button-tap tone followed by a longer tone	
Maximum volume reached	Two short, high notes	
Minimum volume reached	Two short, low notes	

State or Event	Tone Description	Sample (lick to play)
Mic mute	A quick medium tone, rest, and quick low tone; repeats occasionally	
Incoming softphone call	A very fast, medium-pitch melody	
Incoming mobile phone call	A very fast, low-pitch melody	
Incoming call on another phone while on call (call collision)	Two short tones, played in quick succession, that repeat every time the ring signal is received by the base	
Incoming call on the same phone while on call (call waiting)	Generated by the phone system	
Target changed to softphone	A slow, medium melody; or a human voice announcing "softphone" in English	
Target changed to mobile phone	A slow, deep melody; or a human voice announcing "mobile phone" in English	
Call ended	A quick melody ending on a low note	
Battery low	Two very quick, low tones; repeats occasionally	
Calls on hold via call waiting	Two slow medium-pitch notes, a long rest, and then two more; repeats occasionally	
Pairing succeeded	Three slow tones ending on a medium-high note	
Error (such as pairing failed)	Three quick tones followed by a lower long tone	

Table 4: Headset signal tones and their meanings

Choosing Voice or Tones for Target Indicators

The headset is capable of playing either a tone or a human voice when you change the target phone, thus telling you what the new target is. The human voice is always in English, regardless of your other language settings.
By default, the human voice will be played. However, if you do not like hearing the English voice, you can switch to using tones.

To change this setting, use the Jabra Control Center program of the Jabra PC Suite running on your PC. See the online help for complete details.

Headset Visual Indicators (LED)

The headset includes a multicolor LED, which indicates the state of the headset, as outlined in the table below. During charging, the headset shows the charging progress in combination with the table's various visual indicators, as follows:

- Less than 10% battery capacity: state LED indication (see table below) is shown interspersed with a constant red light
- Between 10% and 100% battery capacity: state LED indication is shown interspersed with a constant yellow light
- Fully charged: state LED indication is shown interspersed with a constant green light

Headset State	Led When Battery Level Is Good	Led When Battery Level Is Low
Idle (powered on, but not connectable, pairing, ringing, call active, or audio link)	Blue 200ms Off 4800ms Repeats for 60 seconds	Same as for good battery level
Connectable	Green 300ms Off 300ms Green 300ms Off 300ms Green 300ms Off 1500ms Repeats for 60 seconds	Red 100ms Off 500ms Red 100ms Off 500ms Red 100ms Off 1700ms Repeats indefinitely
Call active or audio link open	Blue 100ms Off 300ms Blue 100ms Off 2000ms Repeats indefinitely	Red 100ms Off 300ms Red 100ms Off 2000ms Repeats indefinitely
Ringing	Blue 100ms Off 300ms Blue 100ms Off 1000ms Repeats indefinitely	Red 100ms Off 300ms Red 100ms Off 1000ms Repeats indefinitely
Power being turned on	Green 100ms Off 100ms Repeats for a total of 3 times	Same as for good battery level
Power being turned off	Off 100ms Repeats for a total of 3 times	Same as for good battery level
Pairing	Constant blue	Constant red
Pairing succeeded	Blue 200ms Off 400ms Repeats for a total of 5 times	Red 100ms Off 300ms Repeats for a total of 5 times
Charging	Constant yellow	Constant red

Headset State	Led When Battery Level Is Good	Led When Battery Level Is Low
Fully charged in cradle	Constant green	N/A

Table 5: Headset visual signals and their meanings

7.6 Battery Indicators and Recharge

Battery indicators

The headset indicates the current headset battery level, as follows:

- The headset LED indicates, among other things, its battery and charging status; see the table above for details.
- While the battery is low, you will hear an audio signal (two quick, low tones) every minute or so in the headset.

Recharging the Headset

To recharge your headset battery, place the headset into its Travel Charger and connect the charger to power.
See also *4.1 Charging the Headset*.

7.7 Power Save Mode

You can choose to put the headset into power save mode. The means that the headset saves power at the expense of a slightly reduced range.

You can enable/disable power save mode from the base touchscreen (Advanced Settings menu) and the Jabra Control Center. Power save mode is disabled by default.

In some circumstances, you can use power save mode to improve sound quality if the sound becomes distorted. This can happen, for example, with an active call and a call on audio-hold. To do this, enable power save mode, and then close and re-open the audio link.

You can also enable power save mode if you want to use a larger number of headsets within a given area.

See *7.11 High-capacity BH870 Headset Installations* for more on density and *7.8. Staying within Range* for more information about range.

Power save mode uses the Bluetooth Enhanced Data Rate (EDR) feature.

7.8 Staying within Range

The BH870 Headset supports the following maximum ranges:

- Up to 100m when talking through the USB Bluetooth Adapter
- Up to 25m when talking over Bluetooth wireless technology Class 2 (most) mobile phones

In practice, you will probably find the range to be somewhat shorter due to physical obstructions and electromagnetic interference. Also, if your headset is in power save mode, the range is slightly reduced.

The sound in your headset will slowly deteriorate as you move farther from its Bluetooth partner; move back into range to restore sound quality. All sound will stop if you move all the way out of range.

If you are talking through the USB Bluetooth Adapter, your call will be kept open for up to 120 seconds after you go out of range and then disconnected. If you are talking trough a mobile phone, your call will probably be disconnected the moment you walk out of range.

After moving out of range, the headset will try to reconnect to the lost device periodically. The headset will try to reconnect every 15 seconds, up to five times, and then every 15 minutes for 5 hours. After that, it gives up to save power.

Usually, when you turn off a connected Bluetooth device while the headset is turned on, the headset will react in the same way, as if you had simply walked out of range, as described above.

> **Tip:** For optimal performance with a Bluetooth Class 2 mobile phone, wear the headset and your mobile phone on the same side of your body or within line of sight of each other. In general you will get better performance when there are no obstructions between the headset and your mobile phone.

7.9 Microphone Noise Blackout™

The BH870 Headset features an advanced, two-microphone Noise Blackout™ system that will help ensure that your voice will be clear and easy to understand — even when you are sitting in a crowded office or other noisy environments. It works by using a pair of directional microphones: one facing towards your mouth and one facing away. These two signals are combined inside the headset, which subtracts the room-noise signal from the voice signal, leaving only your voice behind when it is sent to your phone. This system works best when the headset's microphone is placed as close as possible to your mouth.

7.10 Narrowband vs. Wideband Audio

The BH870 Headset supports both wideband and narrowband audio, but uses narrowband by default. In particular you should consider using wideband if you listen to music from your PC.

> **Note:** Wideband audio is only supported between the BH870 Headset and base for softphones or for streaming music from a PC. Wideband audio may slightly reduce the range of your headset.

You are able to configure narrowband/wideband operation for each PC and softphone using the Jabra PC Suite. See the Jabra PC Suite online help for details.

7.11 High-capacity BH870 Headset Installations

Bluetooth uses low-power radio technology for wireless transmission. All radio technologies are subject to interference from other products using radio technologies commonly used in offices.

Therefore, under certain conditions you might experience some performance degradation if you install many headsets in one location or if there is interference from other radio technologies. For Bluetooth, those performance degradations are typically the result of interference from other Bluetooth products including other BH870 Headsets and from Wi-Fi networks. Performance issues manifest themselves as audible clicks and pops, but will seldom prevent headset operation.

The following guidelines will help you plan a high-capacity installation to minimize interference and to ensure an optimal audio performance, a high-quality audio based on a signal-to-noise consideration:

- If you install fewer than 25 headsets in one area, you are advised to separate headset bases so that they are at least 1 – 2m apart.
- If you install more than 25 headsets in one area, you should observe the following assumptions (valid for Bluetooth technology class 1 operation):
  - # For 26 – 81 Bluetooth headsets in one area, ensure on average $4m^2$ – $16m^2$ per headset (2m – 4m base-to-base separation).
  - # For 82 – 169 Bluetooth headsets, ensure on average $16m^2$ – $25m^2$ per headset (4m – 5m base-to-base separation).
  - # Above 169 Bluetooth headsets, ensure minimum $25m^2$ per headset (minimum 5m base-to-base separation).
- These assumptions are conservative because they assume users are on call 100% of the time. In many cases, 50% is a better assumption, even for some contact centers, while typical office planning assumes a 10-15% call time. This reduced on-call time has an impact on planning. If the users are on call less than 50% of time, use the following guidelines:
  - # 26 – 81 headsets: $2m^2$ – $8m^2$ area, 1.4m – 2.8m separation
  - # 82 or more headsets: $12m^2$ area, 3.5m separation
- Using the headset's power save mode is recommended for a high-capacity installations.

The area referred to above depends on the building layout. It could be an open space office, or a set of collocated offices separated by lightweight walls. Offices far apart, say >100m apart, or shielded by heavy concrete walls, should not be considered as one area. The above planning figures are valid if most users are near their bases (<3m distance). If most users are >5m away from their bases, you should roughly double the recommended area.

In all cases, you should check whether a Wi-Fi network (in particular an **802.1 b**, **g**, or **n** network) is used. If Wi-Fi is heavily used, you may need to reduce the number of headsets to ensure satisfactory Wi-Fi performance. Using more than 20 Bluetooth headsets with a 100% call time in an area where Wi-Fi is heavily used needs a proof-of-concept installation.

Practical customer cases indicate that Bluetooth headsets scale very well in high capacity deployments.

7.12 Managing Bluetooth Connections and the Pairing Table

Making and Changing Connections

The headset is able to maintain up to two connections (typically to a mobile phone and USB Bluetooth Adapter). If you want to connect to a third device that is already paired with the headset, turn off the headset and the unit you wish to disconnect. And then turn on the new unit to which you wish to connect and turn the headset back on.

Another way to change the connection is to pair or re-pair manually the headset with any device not currently connected. (It does not matter if they are already in one another's pairing tables). See also *7.4 Using the Headset with Other* Bluetooth *Devices*.

Clearing the Bluetooth Pairing Table

When you pair two Bluetooth devices, each device adds the other to its own internal pairing table, thereby enabling both devices to connect to one another and to use encrypted communication. The BH870 Headset is able to hold up to 8 devices in its pairing table. If you add a ninth device, the headset automatically removes the device in the table that has not been used for the longest period of time in order to make room for the new device being added.

You can also clear the entire pairing table manually. To do so, use the Jabra PC Suite. See *5. Installing and Running the Jabra PC Suite* for more information.

After clearing the pairing table you must re-pair the headset to each relevant device. See *7.4 Using the Headset with Other* Bluetooth *Devices* for details.

8.   Using the Travel Charger

The USB Bluetooth Adapter and Travel Charger are included with the BH870 Headset. They are also available as accessories. This section explains how to use the Travel Charger. See also *3. Product Overview* for detailed diagrams.

8.1   Storing the Headset and USB Bluetooth Adapter

The Travel Charger includes compartments for storing the headset on one side and the USB Bluetooth Adapter on the other. These compartments make travelling easier with the BH870 Headset and recharging more convenient.
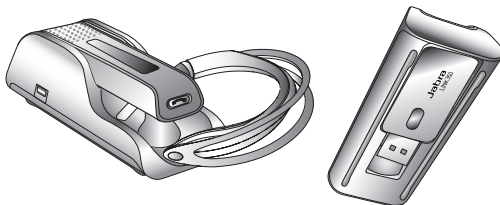
Figure 17: The BH870 Headset and USB Bluetooth Adapter placed in the Travel Charger
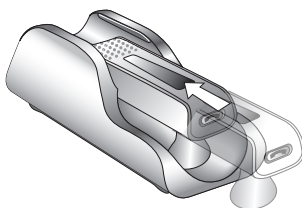
8.2   Charging the Headset with the Travel Charger

To charge the headset, insert the headset into the Travel Charger and connect the mini-USB port on the Travel Charger to a power source. See *4.1 Charging the Headset* for details.

8.3   Communicating with a PC

You can use the programs of the Jabra PC Suite to make headset settings and to update the headset firmware while the headset is docked in its Travel Charger and connected to the PC via a USB cable. The headset battery is charged while it is connected in this way, but more slowly than if you connected the charger to an AC outlet. (Though you can also update the headset's configuration wirelessly via the USB Bluetooth Adapter, you can only update the firmware when it is physically connected via the USB cable and Travel Charger.) See also *5. Installing and Running the Jabra PC Suite* for more information about configuring your headset from your PC and updating its firmware.

9.   The USB Bluetooth Adapter

The USB Bluetooth Adapter and Travel Charger are included with the BH870 Headset. They are available as accessories. This section explains how to use the USB Bluetooth Adapter. See also *3. Product Overview* for detailed diagrams.

9.1   USB Bluetooth Adapter Diagram

1. Activity indicators (LEDs)

2. USB plug

3. Multifunction button
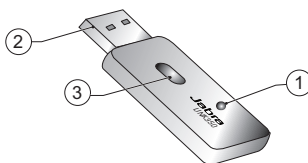
Figure 18: USB Bluetooth Adapter

9.2   Purpose of the USB Bluetooth Adapter

The USB Bluetooth Adapter connects to your computer and communicates with your headset via Bluetooth wireless technology. It provides the following features:

- Basic Bluetooth wireless technology connection
- Softphone control
- Wideband audio
- Headset configuration

Though it is also possible to pair your headset with any standard Bluetooth device — including Bluetooth PC cards — this type of pairing provides only the basic connection (the first point listed above), and you may also experience compatibility issues. Softphone-control, wideband audio and headset-configuration features require the USB Bluetooth Adapter.

9.3   Pairing the USB Bluetooth Adapter and Headset

The headset and USB Bluetooth Adapter are already paired from the factory. The procedure given below is only necessary if pairing is lost.

To pair your Jabra GO headset and USB Bluetooth Adapter, do the following:

1. Attach the USB Bluetooth Adapter to your PC, and turn on the PC. (See also *4.4 USB Bluetooth Adapter Setup and Connections)*.

2. Put the USB Bluetooth Adapter in pairing mode by pressing and holding its multifunction button for about
2 seconds — until its blue pairing LED turns on and stays lit.

3. If your headset is currently turned on, turn it off by pressing and holding on its multifunction button for about 4 seconds — until its LED gives three quick red flashes and then turns off.

4. Put your (powered-off) headset in pairing mode by pressing and holding its multifunction button for about 4 seconds — until its LED lights a constant blue.

5. Place the headset close to the USB Bluetooth Adapter and wait for a few seconds. When pairing is successful, you will see the following indicators:

   - **On the adapter:** the LED flashes blue quickly 5 times and turns off.
   - **On the headset:** the LED flashes blue 5 times and then turns off.

6. Your headset and USB Bluetooth Adapter are now paired and connected.
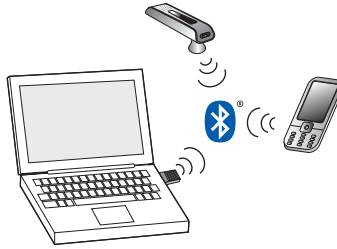
Figure 19: BH870 Headset paired with both a mobile phone and the USB Bluetooth Adapter

9.4   USB Bluetooth Adapter Visual Indicators

The USB Bluetooth Adapter includes a pair of closely spaced LEDs, which light in various colors and patterns to indicate the status of the adapter and its connections. These are summarized in the table below.

Adapter Status	LED Signal
Microsoft OC softphone mode is selected in the adapter	Flashing red
Standard softphone mode is selected in the adapter	Double-flashing red
Connected and ready for use, softphone is current target	Constant green
Connected and ready for use, mobile phone is current target	Constant yellow
Paired but not connected	Slow-flashing green
Pairing mode	Constant blue
Pairing succeeded	Quintuple (5x) blue flash (displays once)
On a call or audio streaming	Moderate blue flash
Ringing	Triple blue flash
Muted	Constant red

Table 6: Visual signals of the USB Bluetooth Adapter and their meanings

9.5   USB Bluetooth Adapter Multifunction Button

The USB Bluetooth Adapter includes a single button, which you can use for many purposes depending on which state the adapter is in (e.g., waiting, active, or call-on-hold) and the type of gesture you use on the button (i.e., tap or press). Its functions and use are similar to the multifunction button on the headset.

The button recognizes the following types of gestures:

- **Tap:** A short, instantly released tap (not longer than 0.8 seconds).
- **Press:** Press and hold the button for 1 - 3 seconds.

The table below summarizes all of the control possibilities presented by the multifunction button (MFB).

Function	Tap	Press (hold 1-3 sec)
Toggle between MS OC softphone mode and standard softphone mode (only during the first three seconds after you plug in the adapter)	✓	
Enter pairing mode (when not in pairing mode)		✓
Cancel pairing (when already in pairing mode)		✓

Table 7: Control possibilities presented by the multifunction button

10. FAQs and Troubleshooting

Q Why Won't My Headset Pair with My Mobile Phone?

A Please check the following:

- Make sure the headset is charged and is in pairing mode. If the headset is already turned on, use the multifunction button to turn it off by pressing and holding the button for 4 seconds. Next, turn the headset back on in pairing mode by pressing and holding the multifunction button for 4 seconds. In pairing mode, the headset LED should be a constant blue color. If it is red, that means the headset needs charging.
- Make sure Bluetooth is active on your mobile phone, and put it into Bluetooth pairing mode. The procedure for doing this varies according to brand and model. See your mobile phone documentation for details.
- Remember the headset identifies itself as *Jabra GO 6400*. You need to find and select this name on your phone. You might also be prompted to enter the pass code **0000** (four zeros) to accept pairing.

If you are still having trouble, see *4.3 Pairing the Headset with Your Mobile Phone* in this guide for more information.

Q Why won't my headset pair with the USB Bluetooth Adapter?

A Please check the following:

- Make sure the headset is charged and in pairing mode.
- Make sure the adapter is in pairing mode. With the adapter attached to the PC, press and hold the multifunction button for 2 seconds to put the headset in pairing mode. The headset LED should be a constant blue color.

If you are still having trouble, see *4.4 Pairing the USB Bluetooth Adapter and Headset* in this guide for more information.

Q Why doesn't my computer detect the USB Bluetooth Adapter?

A Try connecting your USB Bluetooth Adapter to another USB port on the PC. Please note that it must be a direct connection with no USB hub in between.

Q Why doesn't my headset work with my softphone/mobile phone?

A Please check the following:

- Make sure the headset is charged. The LED is a constant green when the headset is fully charged.
- Make sure you are within range of the USB Bluetooth Adapter or mobile phone. See the question on range below.
- The adapter/mobile phone and the headset may no longer be paired. See the questions on pairing these devices above.

Q I cannot hear anything in my headset when using my mobile phone.

A Try the following:

- Make sure the two devices have been paired and are in range.
- Increase the speaker volume on the headset by sliding your finger along the touch-sensitive panel on the side of the headset.

Q My headband, earhook, or neckband is broken. How do I get another one?

A Visit **www.jabra.com** and place an order.

Q I hear a low noise in the headset when there is silence at the other end?

A Your headset is probably using one of the highest volume settings. Decrease the speaker volume on the headset by sliding your finger down the touch-sensitive panel on the side of the headset.

Q I can't hear sound or listen to music from my PC in my headset.

A Please check the following:

- Make sure the USB Bluetooth Adapter is selected as the current audio device both in the Windows sound control panel and in the application you are using.

- Make sure the audio link to the PC is open (e.g., by right-clicking on the Jabra Device Service icon in the Windows notification area on your PC).

- Make sure softphone is enabled in the Jabra PC Suite.

Q Does Wi-Fi interfere with the BH870 Headset if I have them in the same place?

A No, the BH870 Headset uses adaptive frequency hopping, thereby avoiding channels that are blocked by Wi-Fi. To ensure good sound quality, only the free channels are used.

Q Is it possible to listen in on calls with the headset?

A The risk of unauthorized access to communication via a Bluetooth headset is very limited. The headset uses 128-bit encryption.

Q What is the range of the headset?

A The headset supports the following maximum ranges:

- 100m when talking through the USB Bluetooth Adapter (softphone)*

- 25m when talking on (most) mobile phones**

In practice you may find the range to be somewhat shorter due to physical obstructions and electromagnetic interference. Also, if your headset is in power save mode, the range is slightly reduced. The sound in your headset will slowly deteriorate as you move farther from the softphone or mobile phone. Move back into range and sound quality is restored. If you move all the way out of range while talking, you will lose all sound.

Q What is the talk time of the headset?

A Up to 6 hours. Talk time depends on the device with which the headset is connected.

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*   Range varies according to the environment in which the headset is used.

**   Range depends on the device with which the headset is connected.

11. Technical Specifications

11.1 Headset

Wearing styles:
Ear hook, headband, neckband (available as an accessory)

Dimensions:
18mm x 76mm x 22.5mm

Weight:
<18 g

Operating environment:
-10˚C to +60˚C (when charging: 0˚C to +45˚C); Up to 95% RH non-condensing

Call control:
Multifunction button supporting answer call, end call, voice-activated dialing, reject call, redial, and swap held calls; docking operations can also answer and end calls

Volume control and microphone mute:
Controlled via touch-panel on headset

Visual indicator:
Multicolor LED indicates call status, battery level, pairing status, and other events

Audio indicators:

Tones to indicate incoming calls, low battery, volume level, microphone muting, and other events; target phone can be indicated by English voice tag or target-specific melody

Bluetooth version:
BT 2.1

Bluetooth range:
Up to 100m when paired with a Bluetooth wireless technology Class 1 device; up to 25m when paired with a Bluetooth wireless technology Class 2 device

Bluetooth profiles:
Headset (HSP 1.1), hands-free (HFP 1.5), device identification (DIP 1.3)

Bluetooth pairing table:
Up to 8 trusted devices

Simultaneous Bluetooth connections:
Up to 2

Microphone:
Dual Noise Blackout™ microphones

Sound quality:
DSP noise reduction; echo cancellation; tone control; narrowband and wideband audio (selectable per phone type)

Firmware update:
Downloadable from PC

Recharge:
While docked in the Travel Charger and connected to a wall socket; PC (via USB) or car socket

PC-based configuration:
All settings can be stored and loaded from a PC for backup and mass deployment

11.2   Headset Hearing Protection

The headset can be configured to provide any of several levels of protection, depending on how long you use the headset each day. A specific setting may be required in some jurisdictions. See also *2.2 Protecting Your Hearing with SafeTone™*.

All four IntelliTone™ levels above zero meet and exceed de facto global protection levels and are compliant with NIOSH standards and EU health and safety codes of 85 dB(A). These are also compliant with Directive 2003/10/EC of the European Parliament and Council of 6 February 2003.

The TT4 protection level is compliant with pertinent Australian recommendation.

11.3   Headset Battery

Battery type:
Lithium Ion

Battery capacity:
125 mAh, nominal

Battery talk time:
Up to 6 h at -10˚C to +60˚C

Battery lifetime:
Minimum 500 charge cycles (over 3 years when used for 8 hours a day)

Battery standby time:
At least 100h at -10˚C to +60˚C

Battery charge time:
- Charging from AC power adapter; from 0 to 80% of full capacity in 25 minutes
- Charging from car charger; from 0 to 80% of full capacity in 25 minutes, provided the charger has USB fast charge termination
- Charging from a PC's USB port; from 0 to 80% of full capacity in 60 mins. In this case, the charge current is limited to 100mA

Shelf life:
Holds a charge for at least 6 months in the off state before recharge is required

Replacement:
Battery cannot be replaced

11.4   Materials and Allergies

The headband attachment is made of stainless steel and does not have a nickel-coated surface. Nickel release from the headband is 0.02 µg/cm^2/week, which is well below the 0.50 µg/cm^2/week limit established by EU Directive 94/27/EF. The stainless steel alloy was tested for nickel release in accordance with the European standard EN 1811:1998.

Other wearing-style attachments are made of plastic and contain no known allergens.

The leatherette ear cushions do not contain vinyl.

The products contain no natural rubber, nickel, or chrome that can come into contact with users' skin.

11.5 USB Bluetooth Adapter

Dimensions:
18.5mm x 53mm x 7.7mm

Operating environment:
-10˚C to +60˚C; Up to 95% RH non-condensing

PC connection:
Standard USB

Bluetooth version:
BT 2.1, Class 1

Bluetooth range:
Up to 100m when paired with a Bluetooth wireless technology Class 1 device; up to 25m when paired with a Class 2 device

Bluetooth profiles:
Headset (HSP 1.1), hands-free (HFP 1.5), device identification (DIP 1.3)

Bluetooth pairing table:
Up to 8 trusted devices

Simultaneous *Bluetooth* connections:
Up to 2

***Bluetooth*® audio bandwidth:**
Narrowband or wideband

Firmware update:
Downloadable from PC

Multifunction button:
Bluetooth pairing, Bluetooth connections and some call management

Visual indicators:
Multicolor LEDs indicate pairing status, connection status, on-call status, and other details

PC-based configuration:
All settings can be stored and loaded from a PC for backup and mass deployment

Softphone support:
Full call handling for Skype™, Cisco® IP Communicator, Microsoft Office Communicator; others see headset as a standard sound card; support for additional softphones may be added via driver updates for the PC

11.6 Travel Charger

Dimensions:
34mm x 83.5mm x 26.5mm

Storage compartments:
Holds both the BH870 Headset and USB Bluetooth Adapter

Capacity:
5V / 500 mA

Power and data port:
Mini USB

Connectivity:
- AC power socket, using supplied AC power adapter
- PC USB port, using supplied mini USB-to-USB cable
- Car cigarette-lighter socket, using car charge adapter (optional accessory)

11.7 Product Disposal

Please dispose of the headset according to local regulations and recycle when possible. Do not dispose as household waste. Do not dispose of the headset in a fire as the battery may explode. Batteries may also explode if damaged.

11.8 Certifications and Safety Approvals

CE

This product is CE marked according to the provisions of the R & TTE Directive (99/5/EC). Hereby, Logitech declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. For further information, please consult **www.logitech.com/support/BH870**.

Within the EU, this device is intended for use in Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, The Netherlands, United Kingdom, and within EFTA in Iceland, Norway and Switzerland.

FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Users are not permitted to make changes or modify the device in any way. Changes or modifications not expressly approved by Jabra will void the user's authority to operate the equipment.

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 this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by 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.

Industry Canada

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. The term "IC:" before the certification/registration number only signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

Patents and design registration pending international

12. Glossary

Bluetooth
An open wireless protocol for exchanging data over short distances from fixed and mobile devices, such as mobile phones and headsets. It is primarily designed for low power consumption, with a short range (power-class-dependent: 1 meter, 10 meters, and 100 meters) based on low-cost transceiver microchips in each device. Bluetooth wireless technology makes it possible for these devices to communicate with each other when they are in range. Because the devices use a radio (broadcast) communications system, they do not have to be in line of sight of each other.

DECT
(Digital Enhanced Cordless Telecommunications). DECT is an ETSI standard for digital portable phones (cordless home telephones), commonly used for domestic or corporate purposes. DECT can also be used for wireless broadband data transfers.

Dongle
A small piece of hardware that connects to a computer, typically portable like a USB pen. Although earlier use of dongles was to authenticate a piece of software, the word dongle is now widely used to refer to a broadband wireless adapter. Dongle is another term for USB Bluetooth Adapter.

Dual microphones
Dual microphones increase the amount of captured sound data, enabling the device to more intelligently filter the background noise. DSP technology then uses the microphones to determine the direction of the sound or noise based on the sound delay between the two microphones, making it possible to filter out unwanted noise. The DSP also uses the dual microphone system to significantly reduce stationary noise. To eliminate the "tinny" effect, sound emanating from the mouth is enhanced and transmitted while all other sound is classified as noise and is filtered out.

DSP
Digital Signal Processing.

Firmware
The software that is embedded in a hardware device, for example the BH870 Headset or base.

Hookswitch
The control mechanism that answers and hangs up a call on a telephone. When you place the handset in the telephone cradle, it depresses the switch hook's button and hangs up (puts the phone "on hook").

Jabra® PC Suite
A collection of PC programs that enable you to configure your device, update its firmware, and control supported softphones using the buttons on your headset. The Jabra PC Suite also includes drivers for various softphones on the market.

Narrowband audio
Narrowband refers to a situation in radio communications where the bandwidth of the message does not significantly exceed the channel's coherence bandwidth. It is a common misconception that narrowband refers to a channel which occupies only a "small" amount of space on the radio spectrum. Narrowband can also be used with the audio spectrum to describe sounds that occupy a narrow range of frequencies. In telephony, narrowband is usually considered to cover frequencies 300–3400 Hz.

Noise Blackout™
Developed by GN Netcom engineers, Noise Blackout™ applies a directional principle to noise cancellation, reducing only surrounding noise and not distorting the user's voice. The technology uses dual microphones to capture sound, intelligently filtering background noise only. Other noise cancellation headsets cancel noise by cutting away audio frequency and reducing sound quality. Used together with advanced DSP technology and Peakstop™ (audio shock protection) that monitors incoming audio volume, sound is balanced to filter out background noise, leaving both sides of the call with a natural sounding voice quality.

Pairing
Creates a unique and encrypted link between two Bluetooth devices and enables them to communicate with each other. Bluetooth devices will not communicate if they have not been paired.

Softphone
A piece of software for making telephone calls over the Internet using a general purpose computer, rather than using dedicated hardware. Often a softphone is designed to behave like a traditional telephone, sometimes appearing as an image of a phone, with a display panel and buttons with which the user can interact.
A softphone is usually used with a headset connected to the sound card of the PC, or with a USB phone.

Softphone driver
Establishes a control link between a softphone and your headset so you can answer and end, mute and un-mute, and hold and resume calls using the buttons on your headset. The actual call control functions available from your headset depend on the capabilities of the softphone and the headset model.

USB Bluetooth Adapter
Sometimes also called a dongle. A PC must have a Bluetooth adapter in order to communicate with other Bluetooth devices. While some desktop computers and most recent laptops come with a built-in Bluetooth adapter, others require an external one. Bluetooth wireless technology allows multiple devices to communicate with a computer over a single adapter.

Wideband audio
Sometimes also called HD Audio, this is an audio technology used in telephony. It extends the frequency range of sound travelling over telephone lines, resulting in higher quality voice transmission. The range of the human voice extends from 80 hertz to 14,000 hertz. Traditional, or narrowband telephone calls, limit audio frequencies to the range of 300 to 3400 hertz. Wideband audio eliminates the majority of bandwidth limitations and transmits in the range of 30 hertz to 7000 hertz or higher.

Logitech

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