



**FHW50X.V2 and UHW50X.V2 headsets  
DECT7, Bluetooth, and Electronic Headsets**

Manual





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## Overview

The Firecom FHW and UHW series Electronic Headsets protect you from dangerous noise while keeping other audio at a comfortable listening level. It protects your hearing without sacrificing your safety or situational awareness. You can hear alarms, music, or even have a face-to-face conversation while still being protected. Simultaneous integration with two-way radios, cell phones, and MP3 players is available via wired and optional Bluetooth inputs. DECT7 models extend conference call like team communication up to 1,600 feet (line of sight). The rugged and comfortable design ensures this headset is ready for tough work environments.

## Model Matrix

|                    | FHW507.V2<br>UHW507.V2 | UHW505.V2<br>FHW505.V2 | UHW503.V2 |
|--------------------|------------------------|------------------------|-----------|
| Boom Microphone    | ✓                      | ✓                      | ✓         |
| Listen Through     | ✓                      | ✓                      | ✗         |
| Wired AUX          | ✓                      | ✓                      | ✓         |
| Radio Transmit     | ✓                      | ✓                      | ✗         |
| Wireless Bluetooth | ✓                      | ✗                      | ✗         |
| Wireless DECT7     | ✓                      | ✓                      | ✓         |

✓ = Included

✗ = Not Available

## Replacement Parts

*Silicone Ruggedizers*

*Earseals*

*Mic Muffs*

*Head Bands and Head Straps*

*Batteries*

*Speaker Covers*

## Accessories (not included)

*Hard Hat Adaptors (FHW)*

*PR Radio Interface* - Connect to any portable two-way-radio and many other devices

*Silicone Ruggedizers* in a variety of colors to meet your team's needs

*Earseals* to enhance comfort

*Worldwide Power Adaptor*

*DC Cigarette Adaptor*

*DC Fuse Assembly*

## Features

### Common Features, All Models

#### Adjustable Volume Control

The Headset has a user adjustable volume control. The Headset will remember the last setting at each power up for convenience.

#### Automatic Loud Noise Suppression

The Headset will limit high impulse sounds, such as gun shots, from being transmitted to the user when using the Stereo Listen Through.

#### Convertible Headband (FHW)

The Headset is user configurable for overhead, behind-head, or hard hat (with hard hat accessory). This gives the user the ability to change the way they use the Headset over time without needing to invest in a new one.

#### Multi-Color Ruggedizers

The ruggedizers offer additional abrasion and impact protection. They are available in many colors (sold separately) to give the user the ability to define teams, roles, or enhance safety.

#### Extreme Environmental Design

The Headset has an IP-66 dust and water egress rating. Even when worn in heavy rain, the Headset will still be useable. Operation has been verified to -22F / -30C for extreme cold weather environments.

### Flexible Charging

An AC adaptor and DC automotive charging cable are included to allow charging in most environments.

### Hearing Protection

The Headset conforms to many hearing protection standards, keeping the user safe from harmful noise.

### In Headset Charging

The Headset has charging circuitry built in allowing it to be charged from multiple sources. These include the supplied AC wall adaptor and multiple DC charging options from a variety of sources including most cars, trucks, and aircraft. Refer to specification for charging voltages and power requirements.

### Light Weight

Through the use of the latest weight saving technologies, Firecom is able to deliver a wireless headset that is lighter than many wired headsets.

### Listen Through Situational Awareness

The Headset has two listen through microphones to give the user stereo situational awareness. The microphones are placed on the forward edge of the headset to give the user the perception of sounds in the front versus from the rear. The listen through has a programmable volume level and limits all sounds the user hears to 82dB.

### Long Battery Life

With over 24 hours of battery life on DECT7 Headsets, and 44 hours of battery life on those without, the Headset works whenever the user needs it.

### Multimode Auto Shutdown

To extend the life of the batteries, the Headset will automatically shut down.

**Bluetooth and DECT7 Wireless Shutdown:** If a DECT wireless connection has been established, the Headset will power down after 5 minutes if the connection is lost.

**Non-Activity Shutdown:** Headsets shut down after 1 hour if not used.

The headset will announce when it is about to shut down. Shutdown may be cancelled by pressing any button.

### Two Stage Low Battery Alert

The Electronic Headset has a two stage low battery alert system to notify the user of a depleted battery before communications are lost.

### USB Programmable

Using its USB port, a Headset can be configured using a Windows PC. Many of the features may be customized and saved. Refer to the Sonetics Headset Software for details.

### User Replaceable Battery

The Electronic Headset uses a replaceable battery. This allows the user to replace the battery at end-of-life and have spares in the field for extended operation times. Only Sonetics batteries should be used.

### Voice Prompts

Voice prompts allows the user to make all adjustments without removing the headset. There is no need to look for lights, text, or knob positions. The voice prompts automatically adjust volume to ensure intelligibility in changing environments.

### Wired Line-in

The wired line-in is used to interface with cell phones and hand held radios. This gives the user more flexibility in their communication needs. The wired connection features a mono input and mono PTT output. See your Sonetics dealer for accessories to match your equipment.

## Common Features, Communication Headsets

### Auto-Leveling Microphone

The Headset automatically detects the voice of the user against noise in the background. This gives the headset an automatic VOX (noise gate or squelch) that needs no adjustment when transitioning from areas of differing noise levels.

### Noise Cancelling Microphone

Noise cancelling microphones remove background noise right at the mic element. This lets listeners hear the person talking and not the background noise.

### Radio PTT

The Headset interfaces with any two-way portable radio using the wired AUX input or wireless DECT connection. When there is a wireless DECT connection, the PTT signal is passed to the wireless DECT7 Wireless Base Station and onto the Digital Intercom. Otherwise, the PTT signal is passed to the wired AUX input.

## Wireless Bluetooth® Technology

Available on the FHW507.V2 and UHW507.V2 headsets.

Bluetooth enabled Wireless Headsets can connect with other wireless Bluetooth enabled devices. This lets you connect an additional audio or communications device. Cell phones, mp3 players, mobile radios, computers, etc. expand your communications potential.

### A2DP Audio Streaming

The Headset features integrated A2DP streaming audio functionality, so you can listen to music or podcasts, and hear turn-by-turn direction information from a GPS application on your phone. You can also use this feature to stream audio from a Bluetooth-enabled computer to the headset.

## Wireless DECT7 Communications

The Sonetics Wireless DECT7 Headsets enable full duplex, conference call like communications to others on the same channel. The Headsets will connect to standalone Sonetics Wireless Base Stations or Sonetics IP-DECT7 wireless systems. A DECT7 network gives up to 1600ft of range (line of sight) from its wireless base, with interference free, digitally encrypted communications.

### Backwards Compatibility

Firecom Wireless Headsets are backwards compatible with Firecom first generation wireless DECT, and DECT6 Wireless Base Stations with minimal loss in functionality.

### Broadcast Mode

The Headset may be paired into a listen only mode of operation, reducing power consumption considerably. This also allows many more headsets to be connected to a Wireless Base Station simultaneously. Pressing the Radio PTT button allows the headset to momentarily talk on any available slot. A tone will let the user know when they can talk. After talking, there will be a slight delay when other users cannot be heard. Refer to the Wireless Base Station manual for details.

### Dual Dome Antenna Design

Each dome has a separate DECT7 antenna using diversity switching to lock onto the best signal. The user never needs to worry about head position relative to the wireless base. The best possible connection is delivered at all times.

### Radio PTT or Intercom Only Selection

The Headset may be configured to send a transmit signal to radios connected via a DECT7 Wireless Base Station or Intercom. The user can transmit over multiple radios depending on the configuration.

### Out of Range Warning

The user is notified when DECT7 signal is weak, or when it goes out of range.

### Proximity Pairing

To enhance security, the Wireless Base Station will only pair to wireless DECT7 units in close proximity. This adds another layer of protection for users.

### Signal Strength Reporting

The Headset may be placed into a field diagnostic mode to detect signal strength at The Headset. This can be used to optimize placement of Comhubs or Base Stations.

### Wide Band Audio

Wireless DECT7 communications are transmitted in a high definition wide band audio format. This gives better sound quality, greater intelligibility, and improves with voice activated control systems. The Headset can also be used in narrow band if necessary.

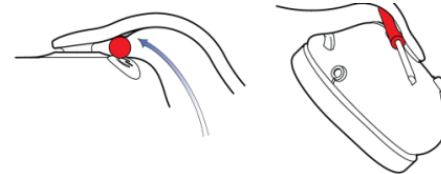
## Configuring the Headset

The Firecom 500 Series Electronic Headset may be set up for use in overhead, under-helmet, or hard hat (sold separately) configurations. Different headbands are attached through a secure snap joint on the side of the ear domes. It keeps the ear dome correctly oriented while providing full freedom of movement, allowing the dome to seat comfortably against the users head.

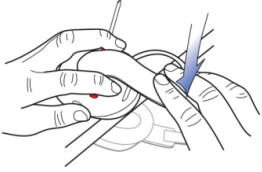
### Headband Removal

Tools Required: Sonetics Screwdriver

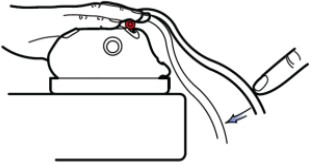
1. Place the handle of your Sonetics Screwdriver between the headband and the dome. Make sure the handle is behind the notch on the inside of the headband.



2. Use one hand to hold the dome on a flat surface



3. Gently push with the headband with the other hand.



4. Route the headband cable through the headband as shown.

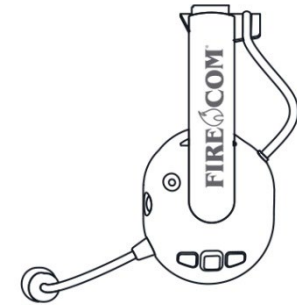


## Headband Installation

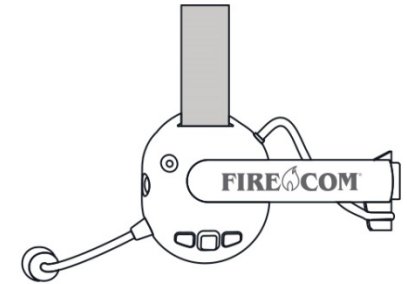
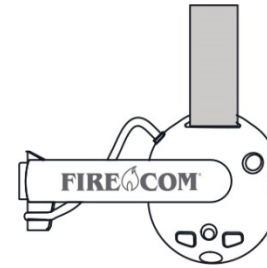
✂ Tools Required: None

1. Align the headband with the domes as shown.

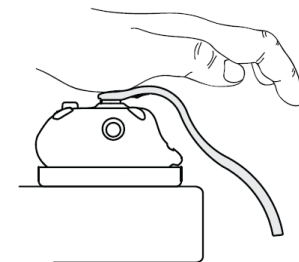
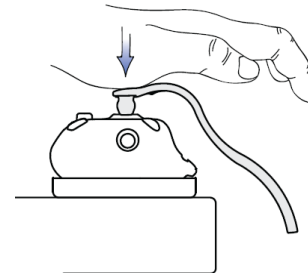
Over  
Head



Behind  
Head



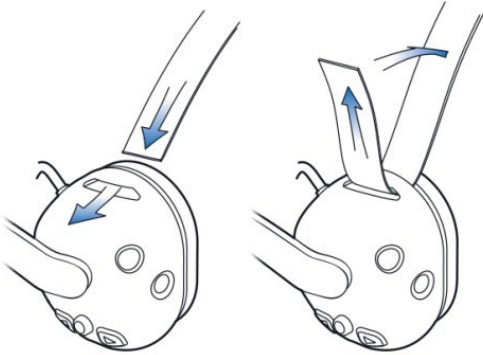
2. Place the Dome onto a flat surface.
3. Press Down on the headband until the ball joint snaps into place.



## Headstrap Installation

✘ Tools Required: None

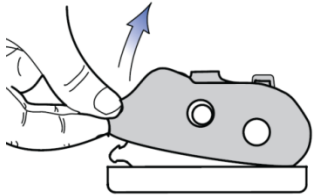
1. Insert the strap at dome opening.
2. Affix the strap using the hook and loop.



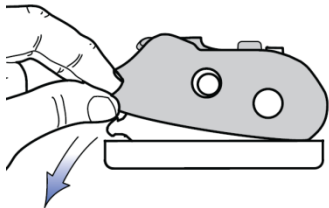
## Replacing the Ruggedizer

✘ Tools Required: None

1. [Remove the headband](#)
2. Peel back the ruggedizer



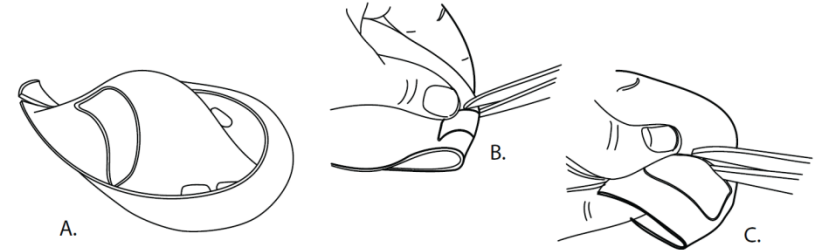
Replace the ruggedizer. Note the left and right.



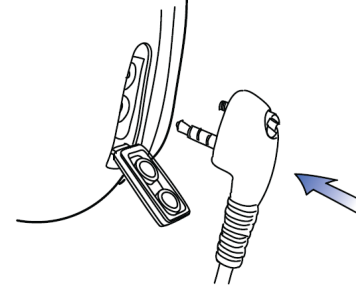
## Connecting a Two-way Radio

✘ Tools Required: Scissors, Firecom screwdriver

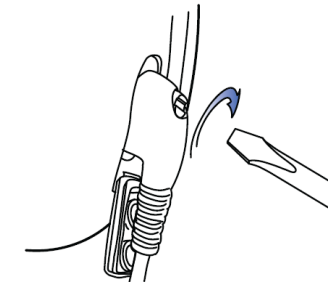
1. [Remove the left dome ruggedizer.](#) (with the microphone boom attached)
2. Cut the along the groove on the underside of the ruggedizer.



3. [Replace the ruggedizer.](#)
4. Open the Radio Cover and plug in the Firecom PR Radio Adaptor.



5. Screw the adaptor into place.



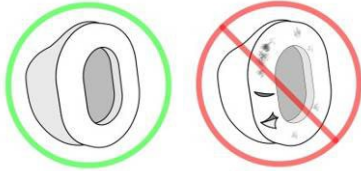
6. Connect the Sonetics PR Radio Adaptor to the Radio.

## Fitting

Proper fitment is required to achieve the rated hearing protection levels.

### Overhead Fitment

1. Inspect



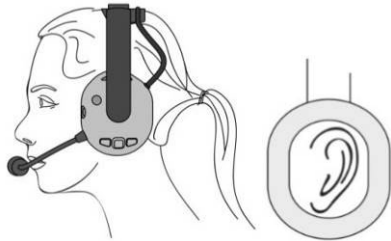
Ensure no damage to the earseals or the Headset

2. Expand



Open headband to full width

3. Place



Place cups over ears, without sitting on any part of the ear

Position microphone no more than 1/8" from lips

4. Adjust



Adjust headband to sit gently on top of your head

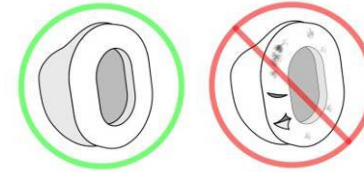
5. Seal



Test seal by pressing against your head and listening for a change in sound level

## Behind Head Fitment

1. Inspect



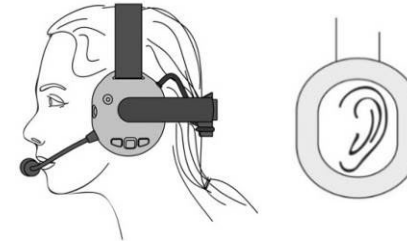
Ensure no damage to the earseals or the Headset

2. Expand



Open headband to full width

3. Place



Place cups over ears, without sitting on any part of the ear

Position microphone no more than 1/8" from lips

4. Adjust



Adjust headband to sit gently behind your head (UHW headsets are fixed)

5. Seal



Test seal by pressing against your head and listening for a change in sound level

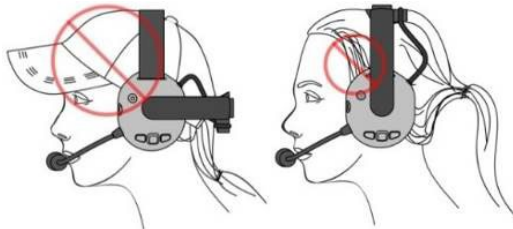
## Fitment Warnings

### Improper Placement and Adjustment



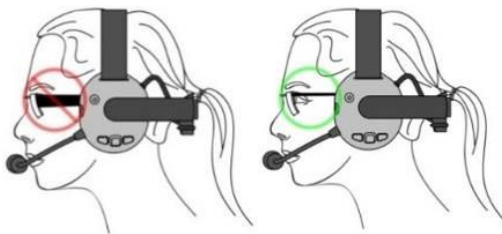
### Obstructions

Ensure headwear and hair does not cause gap in the earseal.



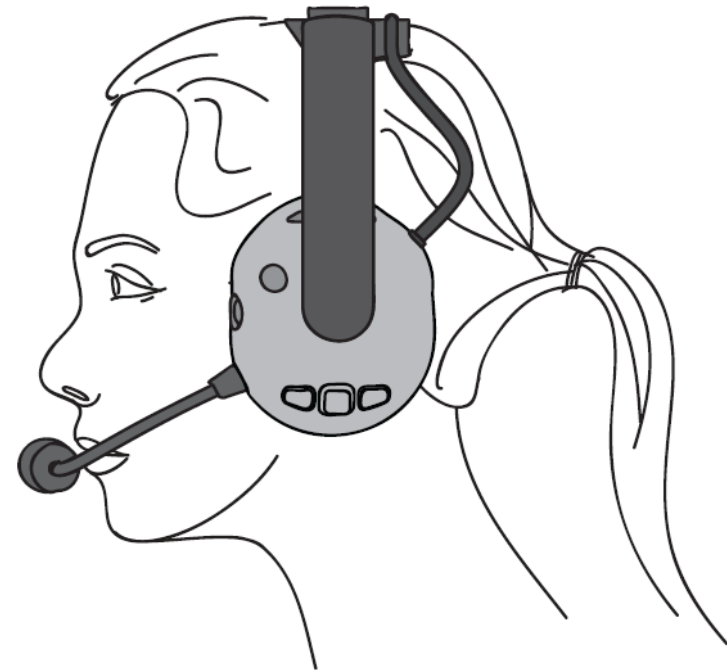
### Glasses

Ensure Glasses do not cause a gap in the earseal.



## Microphone Placement

To optimize speech, a noise cancelling microphone is used. This type of microphone is designed to enhance sounds from very close, while reducing sounds from afar. Ensure proper placement for best results.





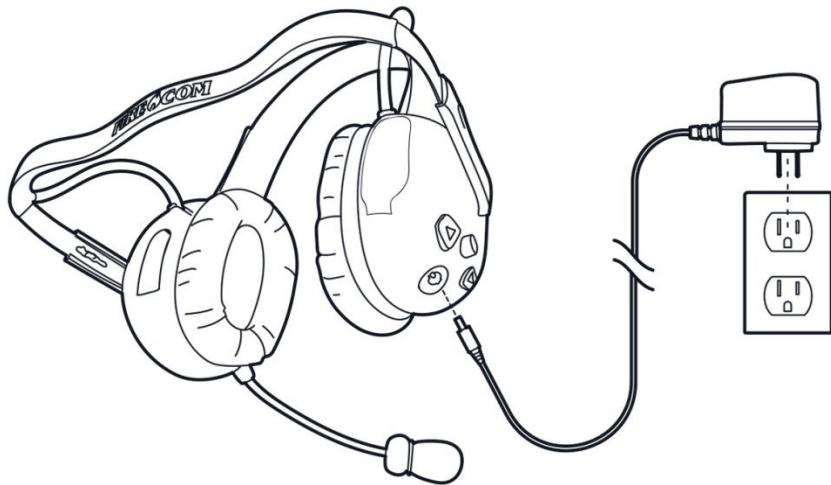
## Charging

The Firecom Electronic Headsets use a barrel charging jack with the connections shown below.



### Wall Adapter Charging

Only charge the Headset using the supplied 12VDC regulated wall adapter.



**⚠ WARNING: Using unregulated wall adapters will damage the Headset and void the warranty.**



4hr

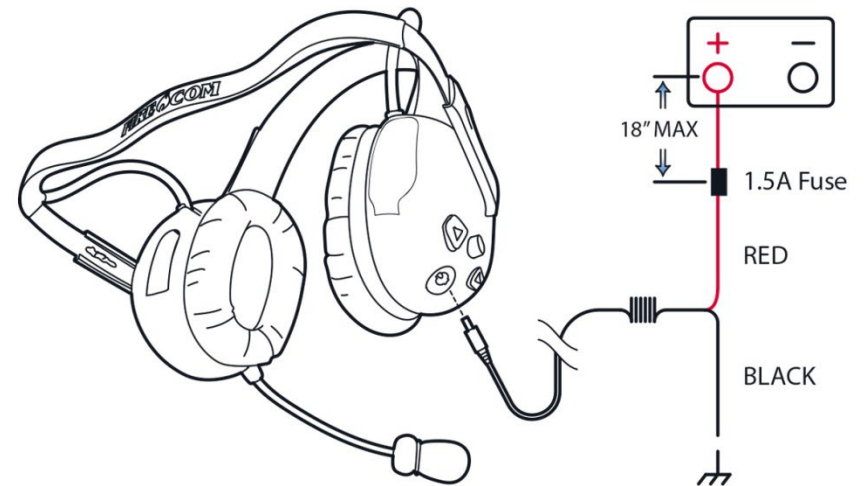


24hr

### Vehicle Charging

Connect the **RED** wire to +12VDC and the **BLACK** wire to battery chassis ground.

Install the fuse no further than 18" from the battery.



**⚠ WARNING: Only replace fuse with the same type, 1.5A AGU.**  
**⚠ WARNING: Voltages exceeding the Headset charging specification will damage the Headset. Verify the Headset voltage specification to the vehicle battery and charging system specifications.**

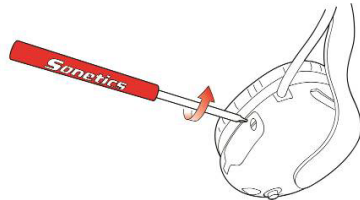
## Battery Replacement

Firecom Electronic Headsets use a Lithium Ion battery. Firecom batteries are the only batteries that have been tested and verified to operate correctly with the Headset. Use only Firecom approved batteries (Firecom part #320-0015-00). Use of batteries from other sources will void your warranty.

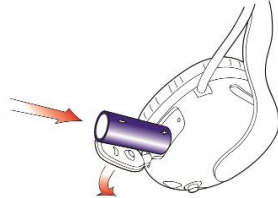
**⚠ WARNING: Use only Sonetics approved batteries.**

✂ Tools Required: Sonetics Screwdriver (Flat Head Screwdriver)

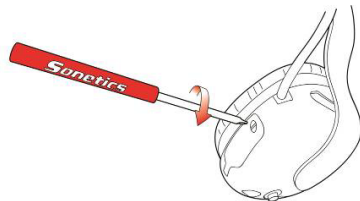
1. Pull back the right ruggedizer if the Headset has one installed.
2. Open the battery door on the right dome using the screwdriver.



3. Remove the battery, and recycle or discard per local laws. Refer to [Rechargeable Battery Information](#).
4. Insert the replacement battery, positive end first.



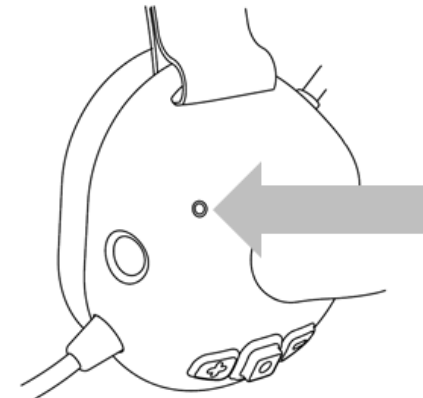
5. Close the battery door and tighten the screw.



6. Replace the ruggedizer if installed.

## LED Indications

The Firecom Electronic Headset uses a multicolor LED indicator to give additional information on the status of the Headset. The table below describes the behavior while charging or in use (not all functions are available on all models).

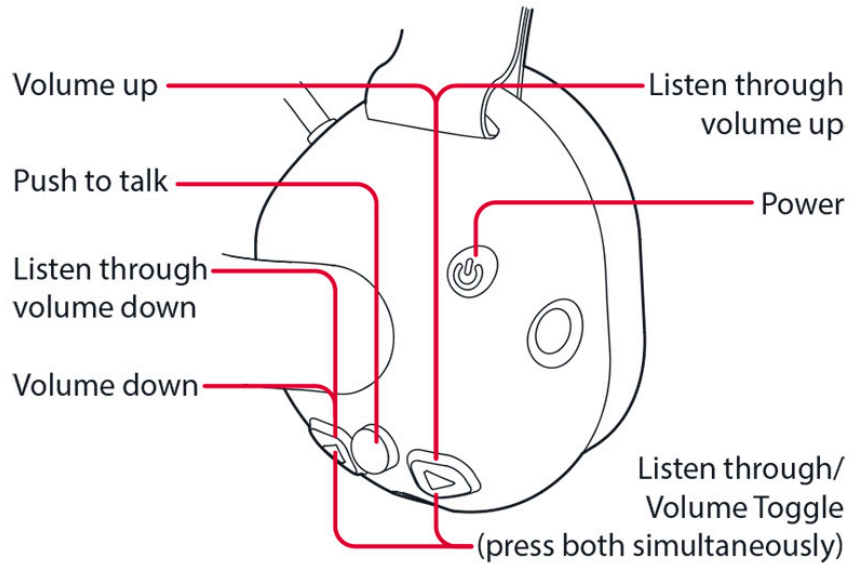


| Charging           | Non-Charging   | Function  |
|--------------------|--|---|
|                    | Red Flash<br>● ● ● ●   | Headset On  |
|                    | Blue Flash<br>● ● ● ●  | Bluetooth® Connection Established and in progress   |
|                    | Red/Green<br>● ● ● ●   | Headset in DECT pairing mode  |
|                    | Green Flash<br>● ● ● ●   | DECT Connection Established and in progress   |
|                    | Blue/Green<br>● ● ● ● ● ● ● ●  | Both Bluetooth and DECT connections Established and in progress   |
|                    | Flash<br>● ● ● ●<br>Led color will vary<br>Depending on<br>connection type | Battery Level<br>● ● ● ● = Battery >75%<br>● ● ● = Battery 50-75%<br>● ● = Battery 25-50%<br>● = Battery <25% |
| <u>Red Solid</u>   |  | Charging  |
| <u>Green Solid</u> |  | Fully Charged   |

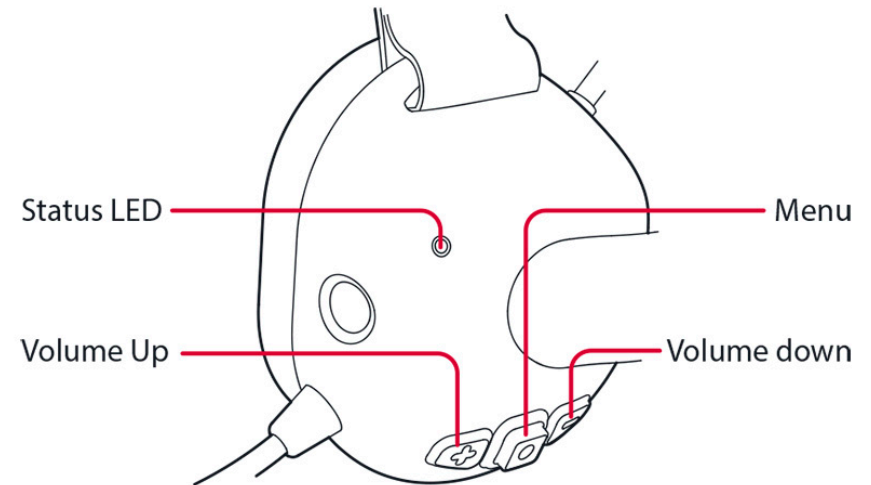
# Settings & Operation

## Buttons


### Right Side




### Left Side







### Turn On

Press and briefly hold the power  button. You will hear a welcome message and the status LED will begin to flash periodically.



### Turn Off



Press and briefly hold the power  button. You will hear a power down message and the status LED will turn off.

### Adjusting the Main Volume

You can use either the plus  and minus  buttons on the left side of the Headset, or the forward  and back  arrow buttons on the right side of the Headset to adjust the Main Volume.

### Adjusting the Listen Through Volume

Press both the  and  buttons on the right-hand side of the Headset to toggle between the Main Volume and Listen Through volume. A voice prompt will tell you which is active.

When Listen Through is active, press the arrow buttons ( or ) on the right side of the Headset to adjust the Listen Through volume setting.

## Advanced Menu

The Advanced Menu is to set-up and configure the Headset for use. Caution must be taken with these adjustments, as they change the operational characteristics of the Headset. When in the menu system, all functions except PTT and Power are locked out.

### To Enter the Advanced Menu

1. Turn the headset off.
2. Simultaneously press and hold the forward ►, back ◀, and Power 🔌 buttons until you hear “*Advanced Menu*”.

### To Adjust Advanced Menu settings

1. Enter the Advanced Menu.
2. Repeatedly press the menu □ button until you hear your setting.
3. Press either the plus + or minus – to cycle through the options.

### To Exit the Advanced Menu

1. Press the forward ►, PTT ○, or back ◀ button or wait 30 seconds to automatically exit.

## Radio & Intercom Function

Sets the function of the PTT and Intercom.

**Radio Transmit:** For Radio PTT, when the Headset has a DECT connection, the PTT will activate only the DECT Radio wireless connection. When the Headset does not have a DECT connection, the PTT will activate the AUX Radio wired connection.

**Intercom:** This configures how the PTT and Noise Gate interact with each other while a person is talking with their local wireless team. If you can hear yourself through the side tone, others can hear you.

| Factory Setting  | Options:   |
|--|--|
| <b>“Radio VOX”:<br/>Radio Transmit on PTT ○,<br/>Hands Free Intercom</b> | <ul style="list-style-type: none"><li>• “<i>Radio VOX</i>”: Radio Transmit on PTT ○, Hands Free Intercom</li><li>• “<i>Radio PTT</i>”: Radio Transmit on PTT ○, Push to Talk Intercom</li><li>• “<i>Intercom VOX</i>”: Hands Free Intercom only</li><li>• “<i>Intercom PTT</i>”: ○ Push to Talk Intercom only</li><li>• “<i>Intercom Toggle</i>”: ○ Toggle to Talk Intercom only</li></ul> |

## Version Number (“Version 1”)

Indicates what firmware version your headset is running.

## DECT Bandwidth (“DECT Wide”)

| Factory Setting      | Options:   |
|----------------------|--|
| “ <i>DECT Wide</i> ” | <ul style="list-style-type: none"><li>• “<i>DECT Wide</i>” – Better sound quality.</li><li>• “<i>DECT Narrow</i>” – Better resistance to interference.</li></ul> |

## “Radio On” or “Radio Off”

Enabling this setting makes the headset read out RSSI (Received Signal Strength Indicator) numbers that tell you how strong the connection to The Base Station or Comhub is. This can be used to improve system installations.

## Mic Sensitivity

The Mic sensitivity may be configured into multiple modes of operation to tailor to the user's application.

- To turn on the microphone always use "Mic ON". This disables the Mic noise gate completely. A whisper will be heard by all.
- "Mic Auto" settings are automatic noise gates with increasing sensitivities.
- "Mic XX" settings are for stable SPL environments of increasing volume.
- Firecom 30XXR and 10 series intercoms require specific Mic Sensitivity settings for correct operation. "Firecom 4", "Firecom 5", and "Firecom 6", are tailored specifically to work with these Legacy Intercoms. Use with other mic sensitivity settings will result in poor audio quality and clipped communications.
- When the user presses the Radio PTT, any noise gate will be removed.


| Factory Setting | Options:  |
|-----------------|---|
| "Mic Auto 1"    | <ul style="list-style-type: none"><li>• "Mic On" (No Noise Gate)</li><li>• "Mic Auto 1" (Highest Sensitivity Automatic Noise Gate)</li><li>• "Mic Auto 2"</li><li>• "Mic Auto 3" (Lowest Sensitivity Automatic Noise Gate)</li><li>• "Mic 80" (Noise Gate set to 80dB Environment)</li><li>• "Mic 90" (Noise Gate set to 90dB Environment)</li><li>• "Mic 95" (Noise Gate set to 95dB Environment)</li><li>• "Mic 100" (Noise Gate set to 100dB Environment)</li><li>• "Mic 110" (Noise Gate set to 110dB Environment)</li><li>• "Firecom 4" (Legacy Setting)</li><li>• "Firecom 5" (Legacy Setting)</li><li>• "Firecom 6" (Legacy Setting)</li></ul> |

## Wireless Bluetooth®

### To create a new Bluetooth pairing

1. Turn off the Headset, then turn on the Headset.
2. The Headset will enter Bluetooth pairing mode for 10 minutes.
3. Enter connectivity options on your Bluetooth device and search for new devices. Once the search is complete select Sonetics-HS##. If prompted for a password, enter four zeros (0000).

### To answer or hang up a call

Quickly press and release the menu  button.








## Wireless DECT7

DECT7 headsets can use the Sonetics DECT, DECT6, DECT7 and IP-DECT7 wireless bases for communication. Protected regional frequencies in each region ensure interference free operation.

### Pairing a DECT7 Headset

DECT7 Wireless Headsets use a semi-permanent link to a DECT7 Base Station or IP-DECT7 system. No additional steps are required once a Headset has been paired. Each time thereafter, the Headset will remember the Wireless Base Station and automatically reconnect.

### To Create a New DECT Pairing

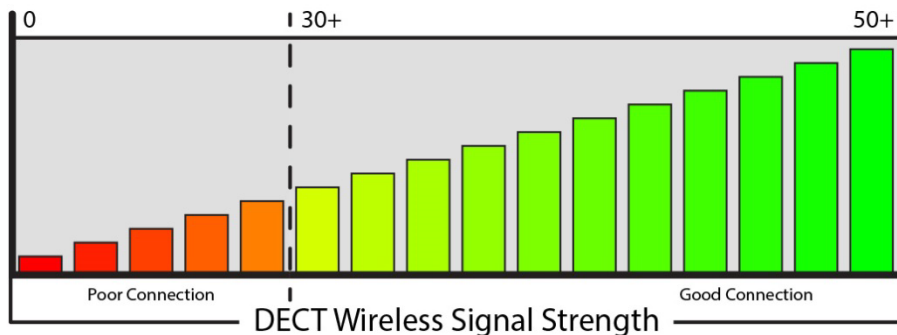
1. Turn off the Headset.
2. Put the Wireless Base Station into Pairing Mode.
3. Hold down the PTT  and power  buttons to turn on the Headset.
4. Keep holding the PTT  and Power  buttons until the LED begins to flash Red/Green .
5. Release the PTT  button.
6. If successful, the LED will begin to flash Green .
7. If not, repeat all steps.

To erase a DECT pairing, follow the pairing sequence above without putting the Wireless Base Station into pairing mode.

## DECT Signal Strength

### To use signal strength reporting

1. Make sure your headset has a DECT wireless connection.
2. Enter the Advanced Menu
3. Use the menu button to scroll through settings until you hear "Radio Off".
4. Use the + or minus - buttons to change the setting to "Radio On".
5. If the headset has a DECT connection, it will announce the signal strength every 10 seconds. If no DECT connection is present, there will be no announcement.



6. To exit, cycle power on the headset.

## Quick Launch

Most menu items are available directly via a series of buttons. Two buttons in the same row requires both buttons to be pressed.

| Action                                    | Button |   |       |   |      |      |      |
|---|--------|---|-------|---|------|------|------|
|   | ⏻      | - | □     | + | ◀    | ○    | ▶    |
| Power On/Off                              | Long   |   |       |   |      |      |      |
| Volume Up                                 |        |   |       | ● |      |      |      |
| Volume Down                               |        | ● |       |   |      |      |      |
| Volume Up                                 |        |   |       |   |      |      | ●    |
| Volume Down                               |        |   |       |   | ●    |      |      |
| Radio PTT                                 |        |   | ●     |   |      |      |      |
| Radio PTT                                 |        |   |       |   |      | ●    |      |
| Main Volume / Listen Through Toggle       |        |   |       |   | ●    |      | ●    |
| Listen Through Up                         |        |   |       |   |      |      | ●    |
| Listen Through Down                       |        |   |       |   | ●    |      |      |
| Bluetooth Answer / Hang-Up                |        |   | Short |   |      |      |      |
| Advanced Menu (available at startup only) | Long   |   |       |   | Long |      | Long |
| DECT Pairing                              | Long   |   |       |   |      | Long |      |

● = Press & Release

Short = Short Press & Release, <3 seconds

Long = Long Press, >3 seconds

## Wired Line-In Set Up (Direct-Wire)

The wired line-in is used to interface your handheld portable radio. The wired connection features a mono input and mono PTT output allowing for radio transmit capability from your headset over your two-way radio frequency via the PTT button.

### To Set Up:

1. Refer to the Sonetics PR Cable Radio Interface Guide to identify the correct PR Cable needed to interface your two-way radio into your Sonetics headset located here:  
<https://www.soneticscorp.com/radio-interface-guide/>  
**Note:** Cables are specific depending on your make and model of two-way radio
2. Complete the steps for "Connecting a Two-Way Radio" on page 5 in this user manual.

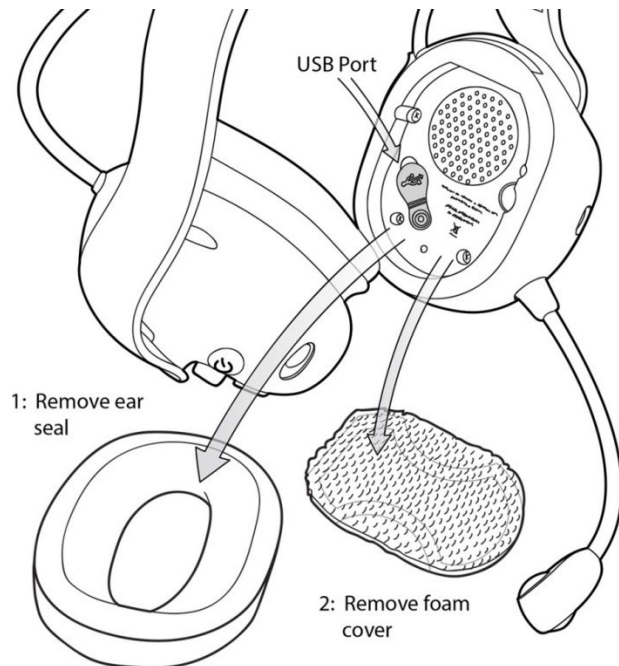
3. In the Sonetics Configurator Software tool, you need to turn OFF the "Auto Shutdown" feature. To do this:
  - a. Plug in your Firecom Headset via the USB cable and use the "Find Device" button to recognize your headset.
  - b. Click on the "Customize Device" button
  - c. In the "Auto Shutdown" row, click the "Disable" button
  - d. Finally, click the yellow "Write Menus" button to program the headset. You are all set.

**NOTE:** Turning the "Auto Shutdown" feature to "Disable" is required when using the Firecom models XXX505 and XXX507 as a Direct Wire headset. Doing this will prevent the headset from automatically powering OFF after 5 minutes if the headset does not register a DECT signal.

## PC Programming

All 500 Series Headsets have a USB port located inside the left dome. A Windows PC with the Sonetics Configurator software installed is required to adjust headset features. Refer to the software for additional information.

## Locating the USB Port



## Installation of Sonetics Configurator Software for Windows

1. Go to [firecom.com/support](http://firecom.com/support).
2. Download and Install the software for the Headset.
3. Plug in the USB cable from the Headset to the computer.
4. Open the software.
5. Follow the directions of the configurator software.

## Care and Maintenance

- Regularly inspect your ear seals and mic muff for wear. Replace as needed. If your headset sustains significant damage (holes or cracks in the ear domes, or headband, etc.), the Headset should be immediately repaired or replaced.
- Clean the Headset and ear seals with a mild soap and water mixture only. The foam mic muff may be removed and cleaned using a mild detergent, or replaced by ordering from Firecom.

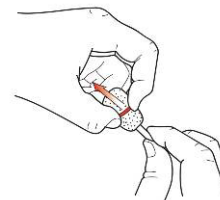
**⚠ WARNING: Do not store the Headset in high temperature environments or direct sunlight.**

## Mic Muff Replacement

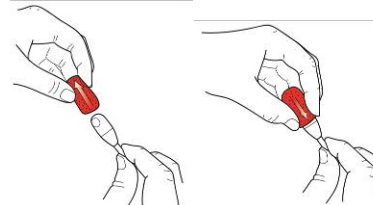
Replace the mic muff every 3 months for optimal performance.

To replace the Mic Muff:

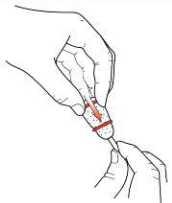
1. Remove the old mic muff and o-ring holding it in place.



2. Slide the new mic muff over the microphone.



- Slide the o-ring over the mic muff to hold it in place on the microphone as shown.



## Ear Seal Replacement

Replace the ear seals every 6 months for optimal performance and to maintain the headset NRR.

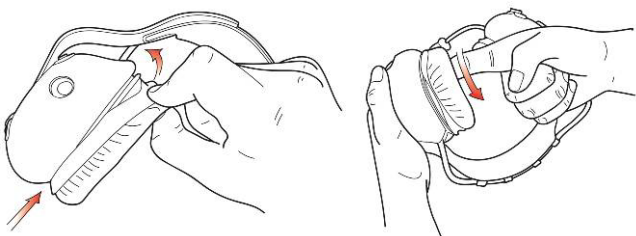
**⚠ WARNING: Worn ear seals will degrade the Headsets ability to reduce noise and protect the users hearing.**

To replace the ear seals:

- Remove the old ear seal by pulling on the edge and peeling it over the lip of the ear dome.



- Starting at the bottom, place the new ear seal on the dome. Pull over the lip of the ear dome using your finger. Do not use any sharp tool as it may damage the ear seal and reduce hearing protection.



## Troubleshooting

If you are experiencing symptoms not covered here, or are having difficulty troubleshooting, call us or visit our website. We're here to help.

### Service Contact:

Phone: 800-527-0555

[service@firecom.com](mailto:service@firecom.com)

### General Connection Issues

- Verify the Headset is turned on.
- Verify the battery is charged and within its useable life.

### Wired Auxiliary

- Verify the connection to the 2-way radio.
- Verify the programming in the radio.
- Verify the PR adaptor to the make and model of the radio.
- Verify the headset radio settings.

### Wireless Bluetooth

**Disconnects, intermittent connectivity, or difficulty finding, pairing, or connecting.**

- Verify your device and Headset model are Bluetooth compatible.
- Check that you are in range of the Bluetooth accessory with which you are trying to pair your device.
- Turn on Bluetooth on your device.
- Turn on discoverable mode on your device.
- Make sure no previously paired devices are turned on.
- Cycle the power on the Headset and/or the device being connected to.
- On your device, find the Headset in the list. If your device says Not Connected, tap the name of your Headset to attempt to connect it.
- Fully charge both Headset and the device.
- Delete the Headset from your device and create a new pairing.
- Update your device to the latest Bluetooth firmware.

### Wireless DECT

**Disconnects, intermittent connectivity, or difficulty finding, pairing, or connecting.**

- Verify the Headset is a Wireless DECT model.
- Check that you are in range of the DECT Wireless Base Station.
- Verify the Wireless Base Station and the Headset are in pairing mode.

4. The Firecom DECT7 Wireless Headset will only pair with other Firecom DECT7 Wireless Base Stations.
5. Cycle the power on the Headset and/or the Wireless Base Station.
6. Fully charge both the Headset and the Wireless Base Station (if applicable).
7. Check location of the Wireless Base Station and external antenna location. The Wireless Base Station should not be installed inside metal enclosures or any other location closer than 4 inches to a metal object or surface.

#### No audio communication and/or PTT from or to the base.

1. Ensure that power is turned on to the Wireless Headset and it is connected.
2. Ensure that the modular communication cable is connected between the Wireless Base Station and Intercom.
3. Check the modular communication cable between the Wireless Base Station and Intercom for continuity.
4. Ensure correct polarity of the modular plug on both ends of the modular cable.
5. Verify the Headset radio settings.

#### Poor quality audio, low or distorted received or transmitted audio.

1. Verify the 'talk' text is facing the user's mouth on the microphone and located within 1/8" of the user's mouth.
2. Make sure that the volume level is properly adjusted on the Intercom. For Digital Intercoms, set the volume level as high as possible on the Intercom without causing distorted audio on the Headset, and then adjust the volume control on the Headset for comfortable listening.
3. Ensure that the proper Wireless Base Station model for your Intercom is used.
4. Poor quality audio can be caused by a defective Headset. Confirm operation with a Headset known to be functioning properly.

#### Audible interference from portable and mobile radios.

The wireless system is tested and proven to be immune to interferences from portable and mobile communication equipment operated anywhere in the frequency spectrum from 30MHz to 18GHz. However, care should be taken with installation of communication cables between the Intercom and the Wireless Base Station. These cables should be routed away from portable and mobile radios and antenna cabling in order to prevent RF interference from such devices.

*If a problem persists contact Firecom Service for additional help.*

## Glossary

### Wireless Base Station

Wireless DECT7 base unit through which Wireless DECT7 Headsets pair and link for voice communications.

### Bluetooth

Wireless standard in the 2.4GHz wireless range.

### dBA

A-Weighted SPL (Sound Pressure Level) unit of measure.

### DECT

Digital Enhanced Cordless Telecommunications. A wireless standard in the 1.9GHz wireless range.

### DECT7

DECT7 has all of the benefits of DECT with wider audio bandwidth and added features such as multiple channels and broadcast mode.

### Link(ing)

When a paired device re-connects to a paired device.

### Pair(ing)

To create a semi-permanent wireless connection to a Base Station

### PTT

Push to Talk. Typically used to describe radio transmitting.

### SPL

Sound Pressure Level. Measurement of sound loudness. Measured in dBA.

# Specifications

## Headset

### Weights

**Over Head:** 15.8oz / 448g | 17.8oz / 504g with Ruggedizers  
**Behind Head:** 16.2oz / 458g | 18.1oz / 514g with Ruggedizers

### Power

**Battery:** 3.7V rechargeable lithium ion  
**Battery Life:** >24 hours @ 25C  
**Protection:** Over voltage, under voltage, over current and over temperature protection  
**AC Charge source:** Supplied 12VDC, 500mA wall charger  
**DC Charge source:** 5VDC to 15VDC, 1.5A minimum  
**Charge Time:** <4 hours for fully discharged battery

### Environmental

**Operating temperature:** -22°F to 140°F / -30°C to 60°C  
**Storage temperature:** -4°F to 122°F / -20°C to 50°C  
**Charging Temperature:** 32°F to 113°F / 0°C to 45°C  
**IP-Rating:** IP66

## Regulatory

### FCC

**FCC ID FHW507.V2:** V9N950350000  
**FCC ID UHW507.V2:** V9N950350000  
**FCC ID FHW505.V2:** V9N950350000  
**FCC ID UHW505.V2:** V9N950350000  
**FCC ID UHW503.V2:** V9N950350000  
**FCC Part 15:** All Models

### Industry Canada

**IC UPN FHW507.V2:** 7895A-950350000  
**IC UPN UHW507.V2:** 7895A-950350000  
**IC UPN FHW505.V2:** 7895A-950350000  
**IC UPN UHW505.V2:** 7895A-950350000  
**IC UPN UHW503.V2:** 7895A-950350000

### ISO

**Conducted Transients:** 7637-2  
**Quality Management System Control:** ISO 9001:2008

### MIL SPEC

**Chemical Exposure:** Intermittent Exposure MIL-STD 810 Method 504: Isopropyl alcohol, [Formula 409®](#), [WD-40®](#), [Windex®](#), Bleach/Water (1:1), Mineral oil, Synthetic Sweat, Jet A Fuel, Kerosene, Gasoline, Deicing (Ethylene or Propylene Glycol mixtures), Potassium-Acetate based solution, Ansolite.  
  
*Not Approved for exposure to [Skydrol®](#).*

**Humidity:** MIL-STD 810F and 810G  
**Temperature Shock:** MIL-STD 810F and 810G

### NFPA

**NFPA1500:** This device meets requirements

### NRR

**Behind Head NRR Rating:** 24dB  
**Over Head NRR Rating:** 24dB

### SAE

**Conducted Immunity:** J1113-11  
**Electrostatic Discharge:** J1113-13  
**Radiated Emissions:** CISPR 25  
**Radiated Immunity:** ISO 11452-2  
**Salt Spray:** J1455, Sec. 4.3  
**Vibration:** J1455 Sec. 4.9

### UL

**UL1642** Standard for Lithium Batteries

### UN

**UN38.3** UN Transportation Testing for Lithium Batteries

## Bluetooth® Specifications

|                              |  |
|------------------------------|--|
| <b>Class:</b>                | Class 3 Device                               |
| <b>Frequency Bandwidth:</b>  | 2400 MHz to 2485 MHz                         |
| <b>Maximum Output Power:</b> | 0.0 dBi (peak)                               |
| <b>Range:</b>                | Up to Bluetooth standard 33 feet (10 meters) |
| <b>Version:</b>              | Bluetooth 3.0 with secure simple pairing     |

## DECT Specifications

### Common DECT Specifications

|                            |   |
|----------------------------|---|
| <b>Carrier Spacing:</b>    | 1.724 MHz   |
| <b>Time Slots:</b>         | 2 x 12 (up and down stream)   |
| <b>Channel Allocation:</b> | Dynamic   |
| <b>Encryption:</b>         | DECT Standard Cipher with 35-bit initialization vector  |
| <b>Audio Bandwidth:</b>    | 300 Hz to 3.4 kHz, Narrow Band, G.726 compression<br>50 Hz to 7 kHz, Wide Band, G.722 compression |

### Region 1 Specific Specifications

|                               |   |
|-------------------------------|---|
| <b>Authorized for use in:</b> | Canada, USA                                       |
| <b>Frequency Bandwidth:</b>   | 1921.536 MHz to 1928.448 MHz                      |
| <b>Number of Carriers:</b>    | 5   |
| <b>Total Time Slots:</b>      | 60 in G.726(narrow band) / 30 in G.722(wide band) |
| <b>Average Output Power:</b>  | 4 mW  |
| <b>Maximum Output Power:</b>  | 100 mW  |
| <b>Range (line of sight):</b> | 1600 feet maximum                                 |

## Firecom Standard Limited Warranty

Firecom, a division of Sonetics Corporation, (“Firecom”) warrants to the original purchaser of its products that products will be free from defects in materials and workmanship under normal and proper use for the period of **two years** from date of purchase.

Firecom will repair or replace, at its option, any products showing factory defects during this warranty period, subject to the following provisions and obligations:

1. This warranty applies only to a new product sold through authorized channels of distribution.
2. All work under warranty must be performed by Firecom.
3. All returned products must be shipped to our address, freight prepaid and Firecom will return products to customer via ground freight. Any expedite fees or additional freight charges will be charged to customer.
4. Any attempt to repair, service, or alter the product in any way voids this warranty.
5. This warranty does not apply in the event of accident, abuse, misuse, liquid contact, improper installation, unauthorized repair, tampering, modification, fire, earthquake, or damage from other external sources – including damage caused by user-replaceable parts.
6. This warranty does not apply: (a) to consumable parts such as batteries, ear seals, intercom bags, cables, external power supplies, parts listed as accessories to a system, or other parts designed to diminish in function over time unless a failure is due to a defect in materials or workmanship; (b) to cosmetic damage or to defects caused by normal wear and tear or aging of the product; (c) to damage caused by use with non-Firecom products; (d) to damage caused by operating the product outside the permitted or intended uses or environments described by Firecom; (e) to damage caused by service performed by anyone who is not a representative of Firecom or an Firecom Authorized Service Provider; (f) to a product or part that has been modified

without the written permission of Firecom; (g) if any Firecom serial number has been removed or defaced.

7. This warranty does not extend to any other equipment, apparatus, vehicle, aircraft, or watercraft to which this product may be attached or connected.

**THE FOREGOING IS YOUR SOLE REMEDY FOR FAILURE IN SERVICE OR DEFECTS. SONETICS CORPORATION SHALL NOT BE LIABLE UNDER THIS OR ANY IMPLIED WARRANTY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, NOR FOR ANY INSTALLATION OR REMOVAL COSTS OR OTHER SERVICE FEES. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY OR FITNESS OF USE, WHICH ARE HEREBY EXCLUDED. TO THE EXTENT THAT THIS EXCLUSION IS NOT LEGALLY ENFORCEABLE, THE DURATION OF SUCH IMPLIED WARRANTIES SHALL BE LIMITED TO TWO YEARS FROM DATE OF PURCHASE. NO SUIT FOR BREACH OF EXPRESS OR IMPLIED WARRANTY MAY BE BROUGHT AFTER TWO YEARS FROM DATE OF PURCHASE.**

Subject to the terms and limitations of this Firecom Standard Limited Warranty, this warranty covers any new covered product found to be defective within the applicable warranty period. Firecom reserves the right to examine the alleged defective covered product to determine whether this Firecom Standard Limited Warranty is applicable, and final determination of warranty coverage lies solely with Firecom. If Firecom determines that warranty coverage applies, Firecom reserves the right to either repair or replace a covered product or any part thereof, as determined by Firecom in its sole discretion. If the product has been subjected to conditions which exclude coverage under the warranty, customer will be so advised. Customer may then authorize paid repair service or other disposition of the product. Notwithstanding any other provision of this warranty, if you sell or otherwise transfer ownership of your covered product, this Firecom Standard Limited Warranty shall automatically terminate.

Scan code to view  
regulatory information  
or visit [firecom.com/fcc](https://firecom.com/fcc).



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