



USER GUIDE

Firmware Version: 1.1.x

Last updated on Apr 4, 2025

EXPAND MESH

BLUETOOTH® HEADSET WITH MESH INTERCOM™



The firmware version 1.1.x indicates that this manual is applicable to all firmware updates within the version 1.1 series.

BEFORE GETTING STARTED

Sena Outdoor App

Download the **Sena Outdoor App** from the **Google Play Store** or the **App Store**.



Sena Device Manager

Download the **Sena Device Manager** at [sena.com](https://www.sena.com).

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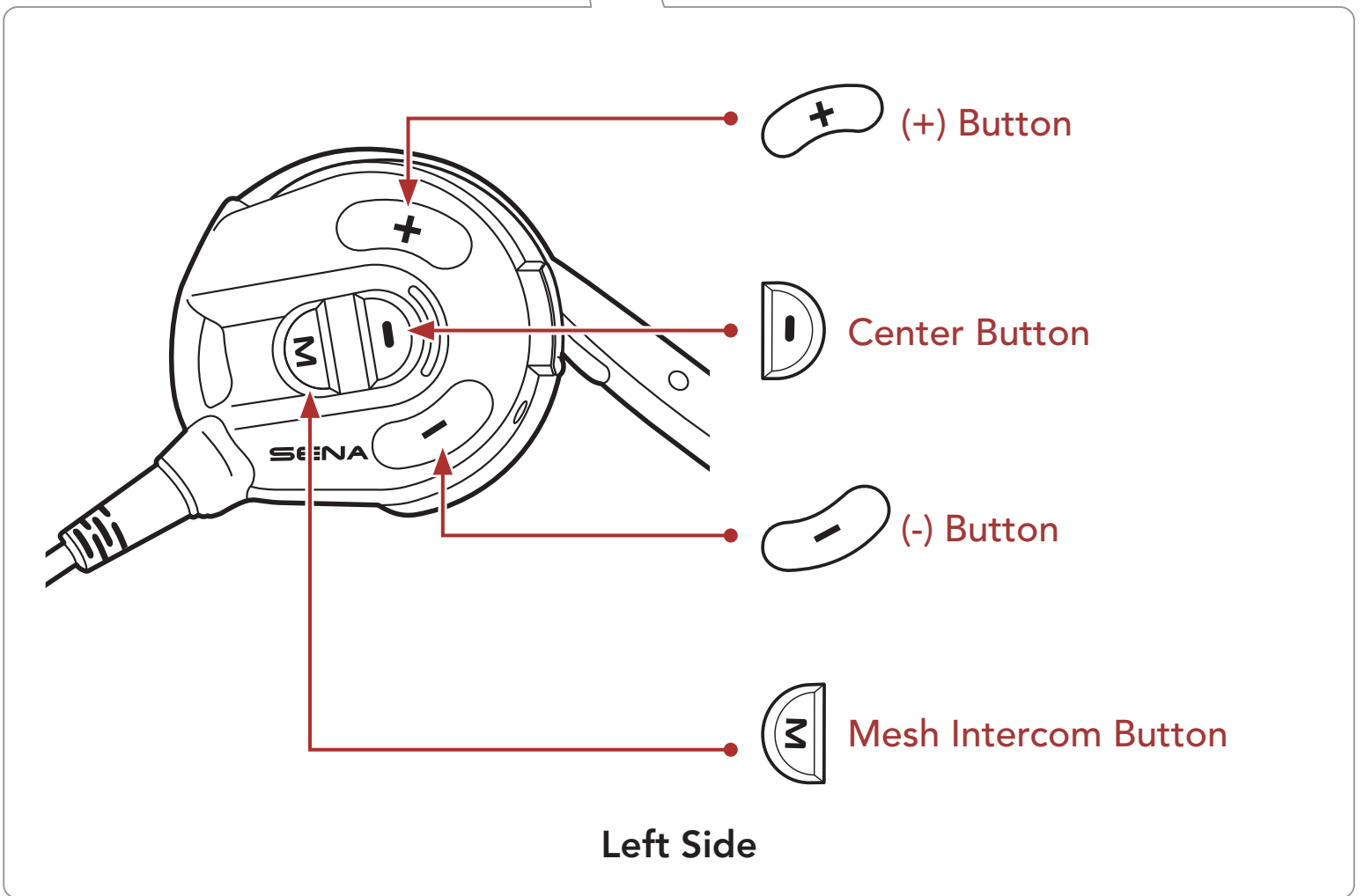
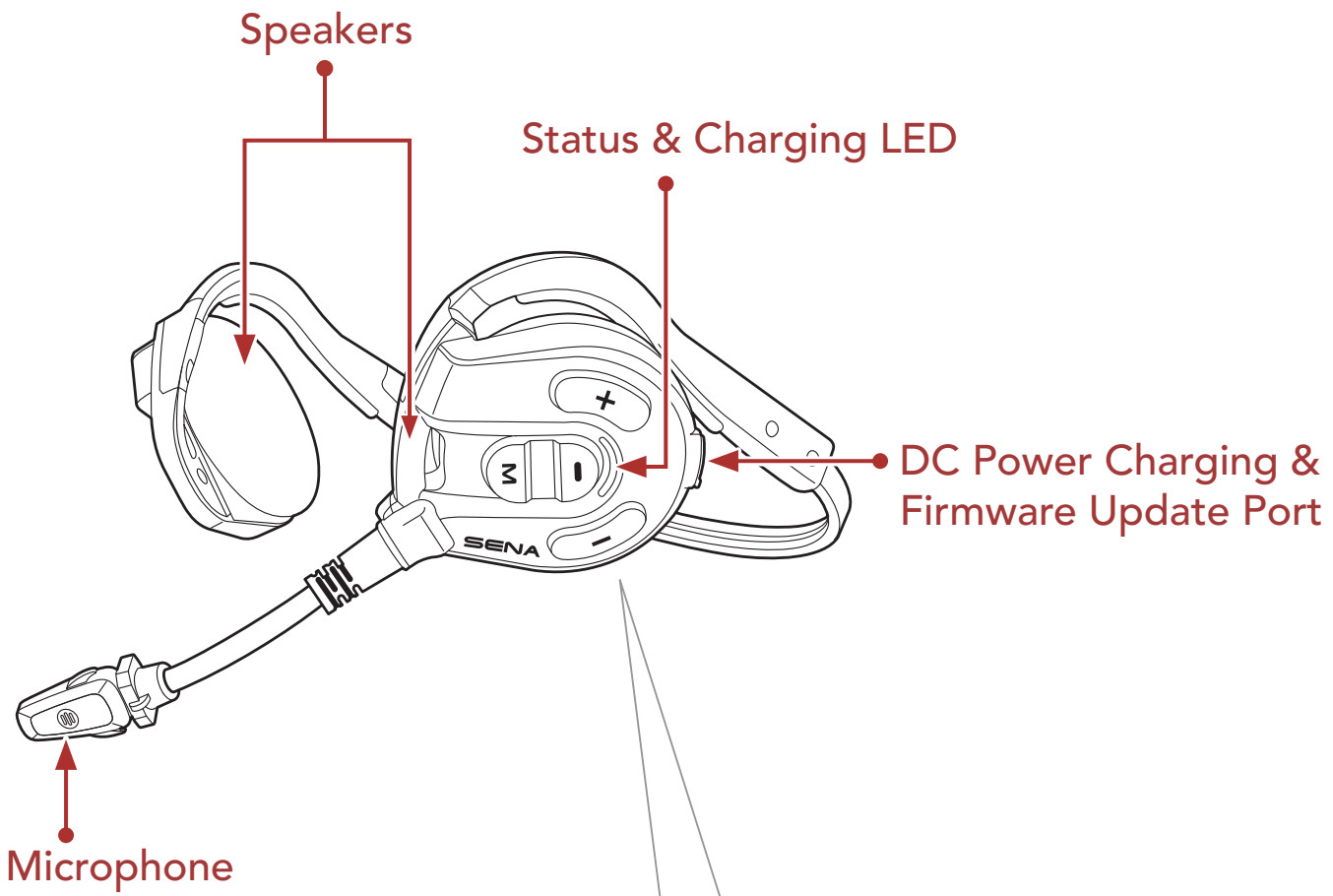
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1. ABOUT THE EXPAND MESH

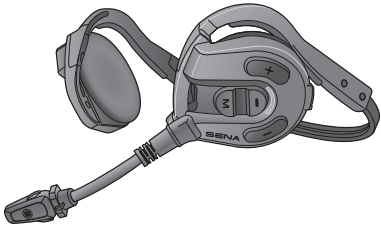
1.1 Key Features

- Mesh Intercom 3.0 - delivers improved sound quality, a more robust connection, and extended talk time
- Dual version Mesh - Mesh 2.0 for backward compatibility
- Audio Multitasking™
- Advanced Noise Control™
- Bluetooth® version 5.2

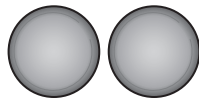
1.2 Product Details



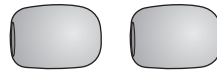
1.3 Package Contents



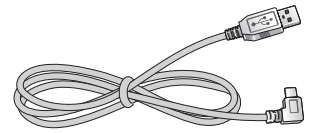
Headset



Speaker Pads

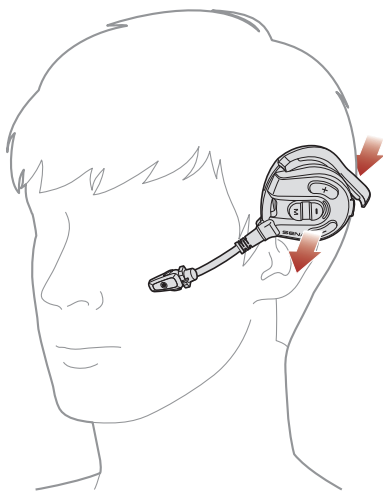


Microphone Sponges

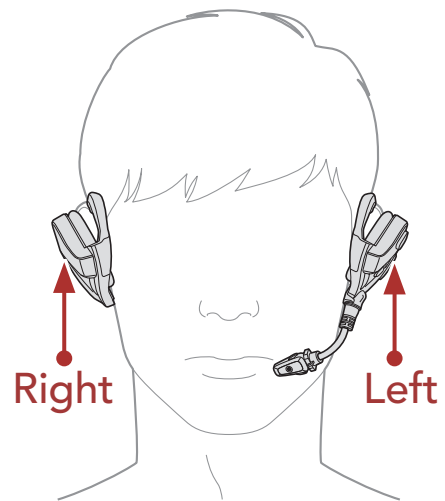


USB-C Charging Cable

1.4 Wearing the Headset



Left Side



Front

1. Check that the speaker with microphone is placed on the left ear.
2. Adjust the microphone to be located at a proper distance from your mouth.

Note: Proper fit on your ear and head is important both for comfort and optimal noise-reduction performance.

2. BASIC OPERATION



Tap button the specified number of times



Press and Hold button for the specified amount of time

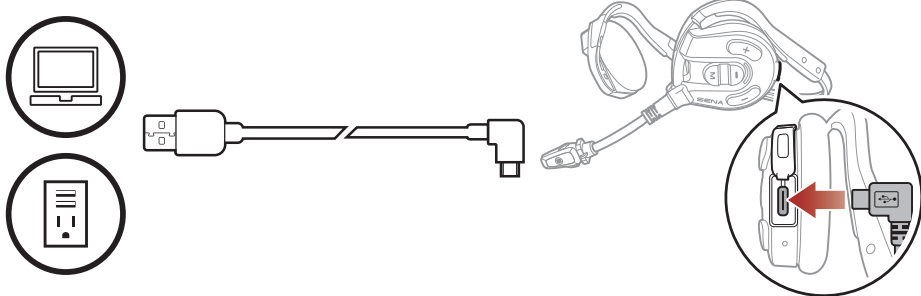


"Hello"

Audible prompt

2.1 Charging

Charging the Headset



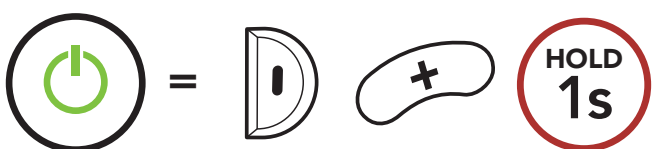
Depending upon the charging method, the headset will be fully charged in about 2.0 hours.

Note:

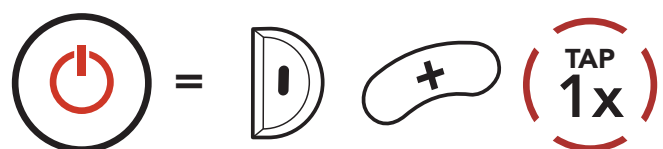
- Please make sure to take off your headset while charging. The headset automatically turns off during charging.
- Any 3rd party USB charger can be used with Sena products if the charger is approved by either the FCC, CE, IC, or other locally approved agencies.
- Use of a non-approved charger may cause fire, explosion, leakage, and other hazards which may also reduce the life time or performance of the battery.

2.2 Powering On and Off

Powering On



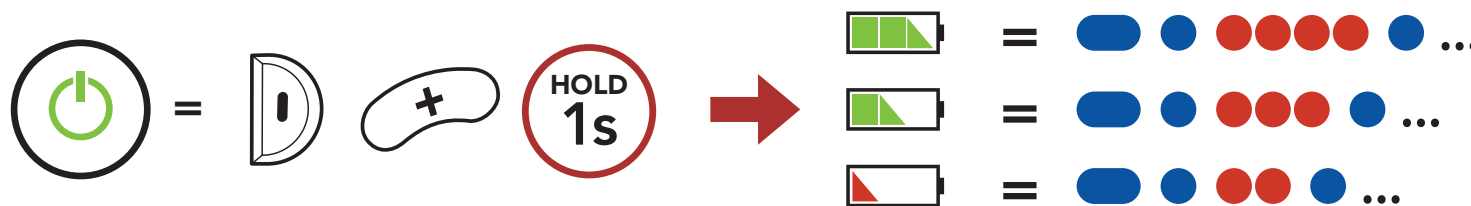
Powering Off



2.3 Checking the Battery Level

Instructions are for when powering the headset on.

Powering On

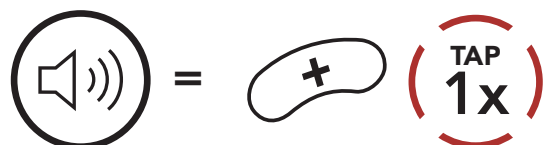


Note: When the battery is low while in use, you will hear a voice prompt saying “**Low battery.**”

2.4 Volume Adjustment

You can raise or lower the volume by tapping the **(+) Button** or the **(-) Button**. Volume is set and maintained independently at different levels for each audio source (i.e., phone, intercom), even when the headset is rebooted.

Volume Up



Volume Down



3. PAIRING THE HEADSET WITH OTHER BLUETOOTH DEVICES

When using the headset with other Bluetooth devices for the first time, they will need to be “paired.” This enables them to recognize and communicate with one another whenever they are within range.

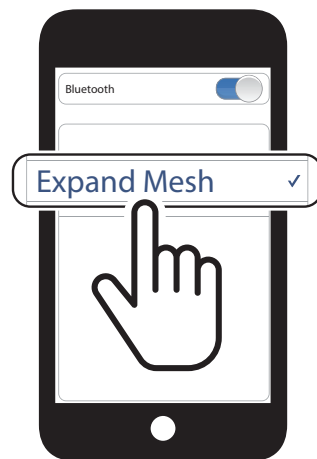
The headset can pair with multiple Bluetooth devices such as a mobile phone or GPS via **Mobile Phone Pairing** and **Second Mobile Phone Pairing**.

3.1 Phone Pairing

1. While the headset is on, press and hold the **Center Button** for **5 seconds**.



2. Select **Expand Mesh** in the list of Bluetooth devices detected.

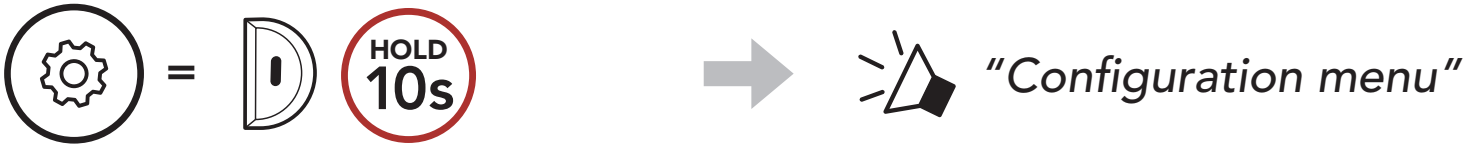


Note:

- When you turn on the Expand Mesh for the first time or reboot it after a factory reset, the Expand Mesh will automatically enter phone pairing mode.
- To cancel phone pairing, press any button.

3.2 Second Mobile Phone Pairing

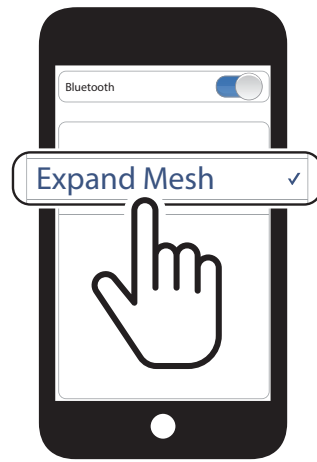
1. Press and hold the **Center Button** for **10 seconds**.



2. Tap the **(+) Button**.



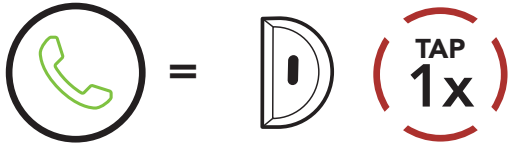
3. Select **Expand Mesh** in the list of Bluetooth devices detected.



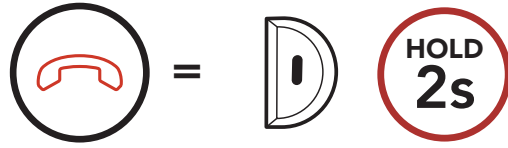
4. MOBILE PHONE USAGE

4.1 Making and Answering Calls

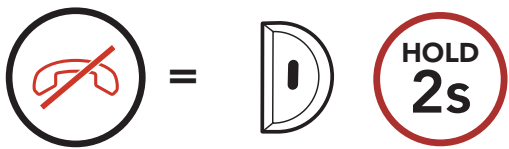
Answer a Call



End a Call



Reject a Call



Call a Voice Assistant



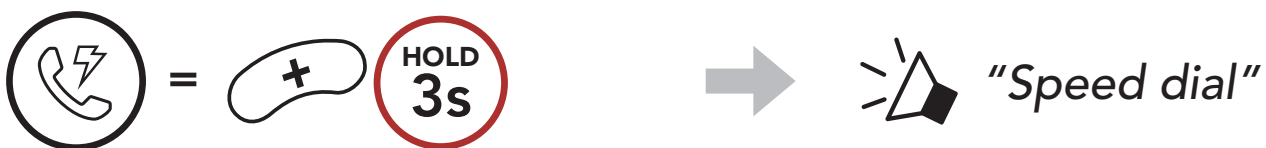
4.2 Speed Dialing

4.2.1 Assigning Speed Dial Presets

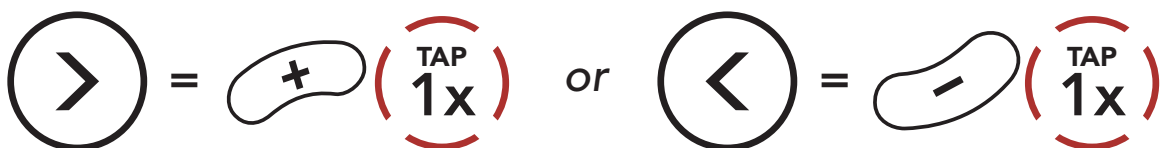
Speed Dial Presets could be assigned through the **Sena Device Manager** or the **Sena Outdoor App**.

4.2.2 Using Speed Dial Presets

1. Enter into the **Speed Dial** menu.



2. Navigate forward or backward through **Speed Dial Preset** numbers.



(1) Last number redial

(2) Speed dial 1

(3) Speed dial 2

(4) Speed dial 3

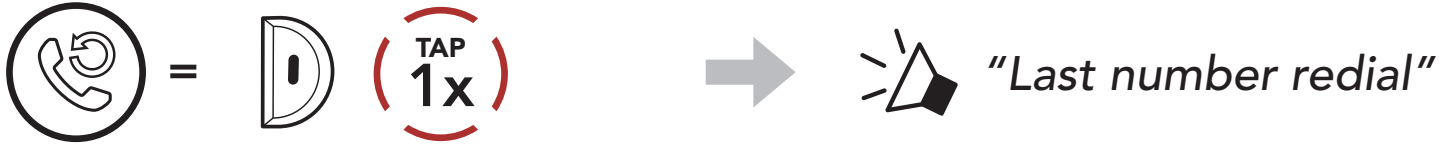
(5) Cancel

3. Call one of your **Speed Dial Presets** numbers.



4. Redial the last number called.

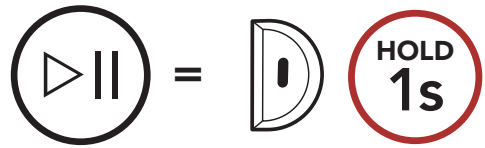
Redial Last Number



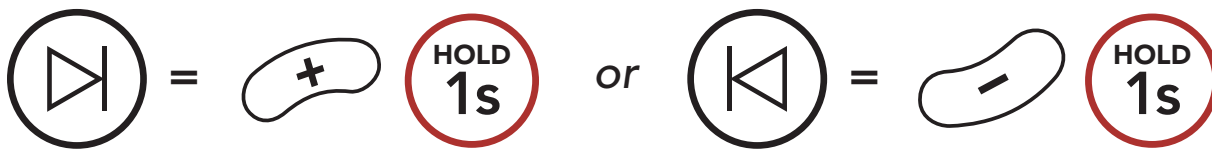
5. STEREO MUSIC

5.1 Playing Music with Bluetooth Devices

Play/Pause Music



Track Forward/Backward



6. MESH INTERCOM

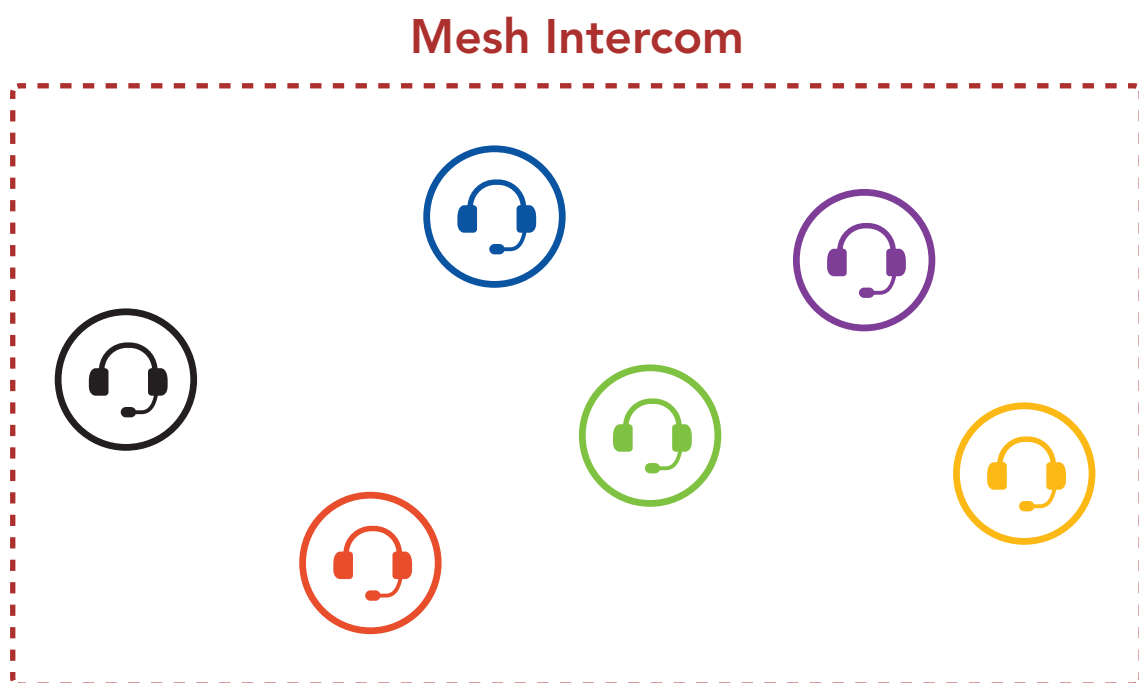
6.1 What is Mesh Intercom?

Mesh Intercom is a dynamic communication system created by Sena that provides instant and effortless communication without a pre-grouping process. **Mesh Intercom** allows users to connect and communicate with nearby users without the need to pair each headset together.

The working distance between each **Expand Mesh** in **Mesh Intercom** can be up to 0.2 mi (0.4 km) in open terrain. In open terrain, the **Mesh** can be extended up to 1 mi (1.6 km) between a minimum of six users.

Users can communicate in two modes:

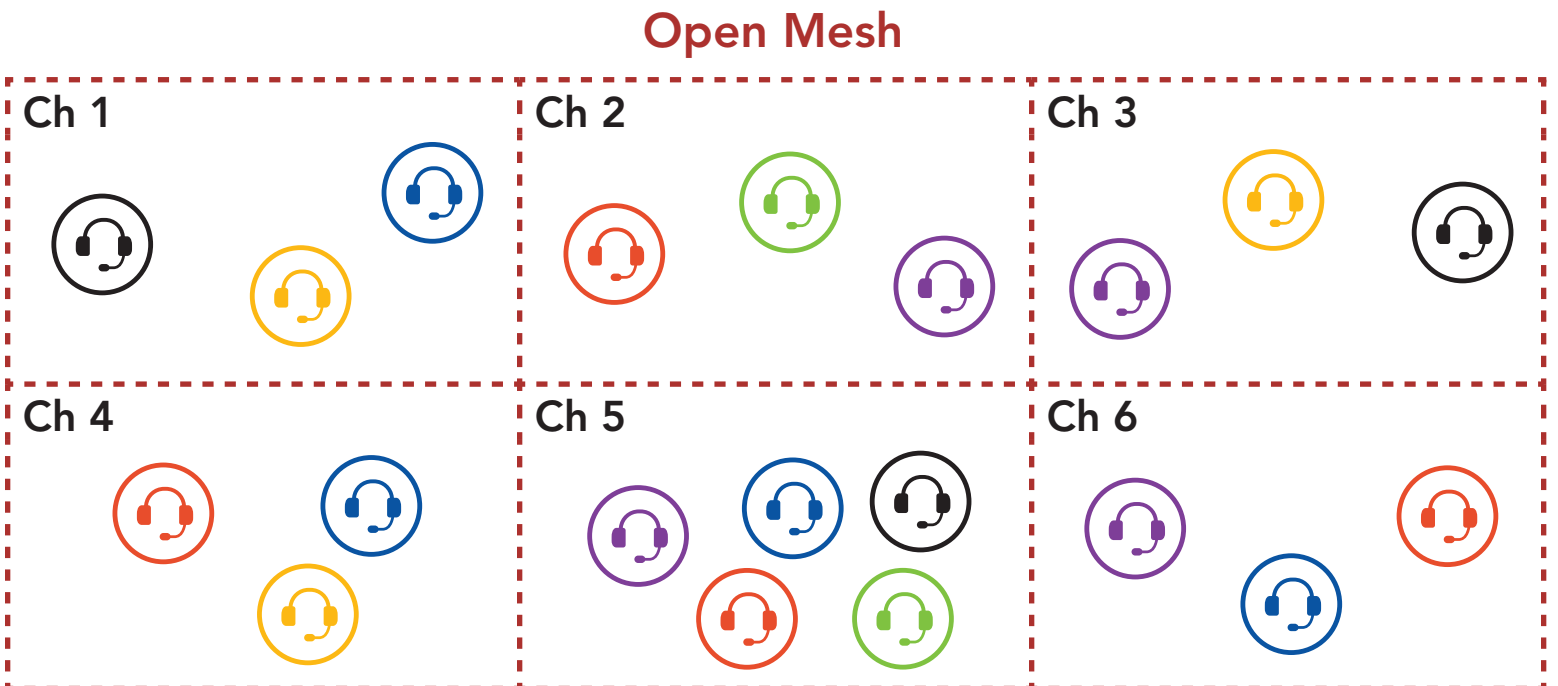
- Open Mesh™ for open group intercom conversations.
- Group Mesh™ for private group intercom conversations.



6.1.1 Open Mesh

Open Mesh is an open group intercom function. Users can freely communicate with each other in the same **Open Mesh** channel and select which channel (1-6) to use through the headset.

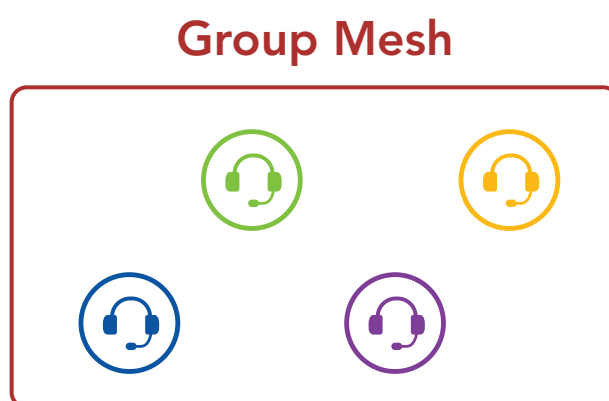
It can connect with a virtually unlimited number of users in each channel.



6.1.2 Group Mesh

Group Mesh is a closed group intercom function that allows users to join, leave, or rejoin a group intercom conversation without pairing each headset. Users can freely communicate with each other in the same private group in **Group Mesh**.

For closed intercom conversations using **Mesh Intercom**, a **Group Mesh** needs to be created by the users. When users create a private group in **Group Mesh** by **Mesh Grouping**, the headset automatically switches from **Open Mesh** to **Group Mesh**. Up to 24 users can all be connected in each private group.



6.2 Mesh Version Switch

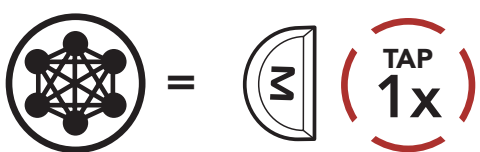
Switch to Mesh 2.0 for Backward Compatibility

Mesh 3.0 is the latest Mesh Intercom technology, but to communicate with legacy products using Mesh 2.0, please switch to Mesh 2.0 using the **Sena Outdoor App**.

6.3 Starting Mesh Intercom

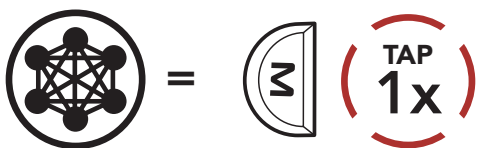
When **Mesh Intercom** is enabled, the **Expand Mesh** will automatically connect to nearby **Expand Mesh** users and allow them to talk to each other.

Mesh Intercom On



Blinking 
 "Mesh intercom on,
 Open Mesh,
 channel 1"

Mesh Intercom Off



 "Mesh intercom off"

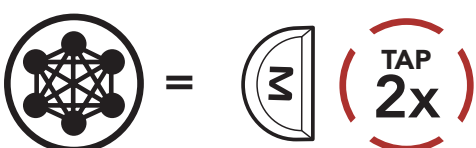
6.4 Using the Mesh in Open Mesh

When **Mesh Intercom** is enabled, the headset will be in **Open Mesh (default: channel 1)** initially.

6.4.1 Channel Setting (Default: channel 1)

If the **Open Mesh** communication experiences interference because other groups are also using **channel 1 (default)**, change the channel. You can select from channels 1 to 6.

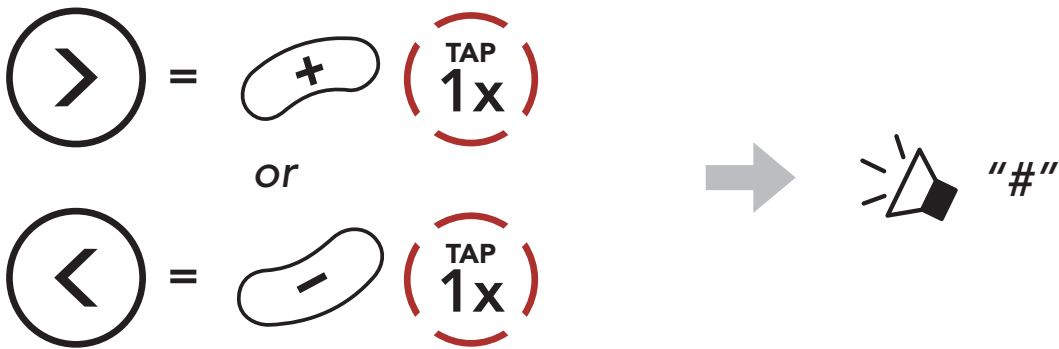
1. Double tap the **Mesh Intercom Button**.



 "Channel setting, 1"

2. Navigate between channels.

(1 → 2 → ●●● → 6 → Exit → 1 → ●●●)



3. Save the channel.



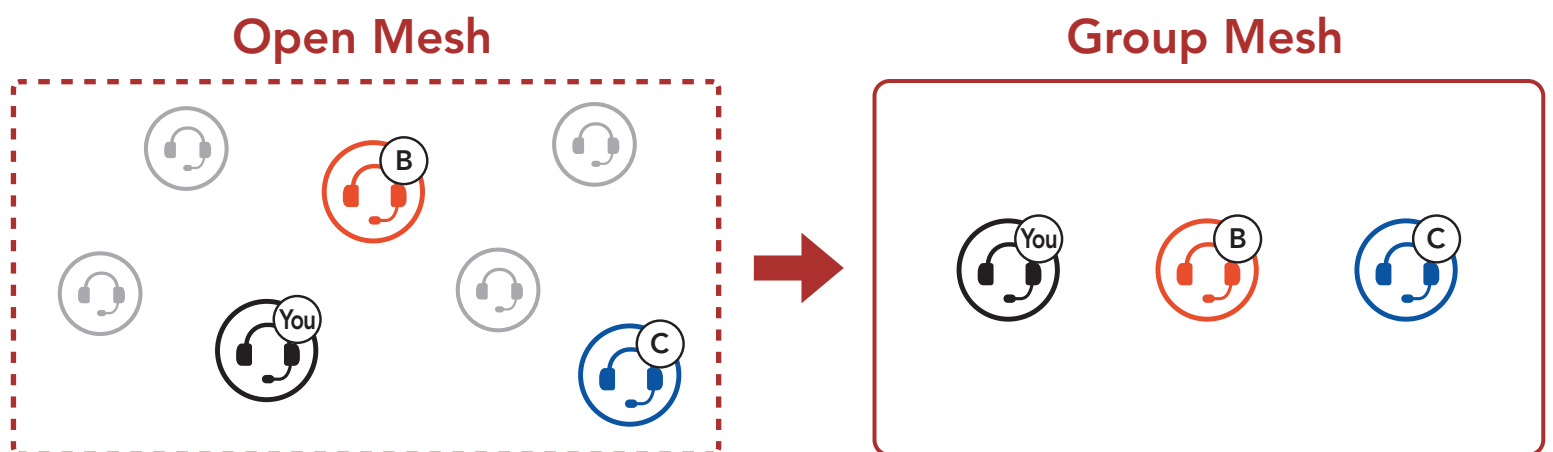
Note:

- **Channel Setting** always starts with channel 1.
- If you do not press any button for approximately **10 seconds** in a specific channel, the channel is automatically saved.
- The channel will be remembered even if you turn off the **Expand Mesh**.
- You can use the **Sena Outdoor App** to change the channel.

6.5 Using Mesh in Group Mesh

6.5.1 Creating a Group Mesh

Creating a **Group Mesh** requires **two or more Open Mesh users**.



1. To enter **Mesh Grouping** to create a **Group Mesh**, press and hold the **Mesh Intercom Button** for **5 seconds** on the **users (You, B, and C)** headsets.



2. When **Mesh Grouping** is completed, the **users (You, B and C)** will hear a voice prompt on their headset as **Open Mesh** switches to **Group Mesh**.

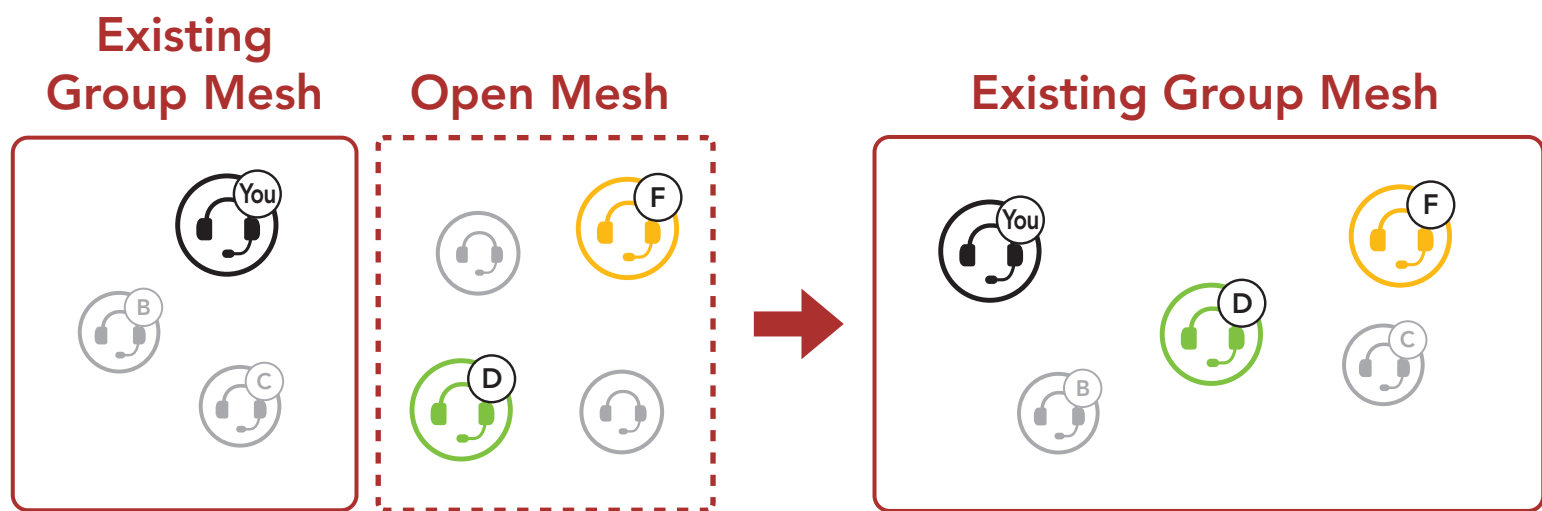


Note:

- If the **Mesh Grouping** is not completed within **30 seconds**, users will hear a voice prompt, **"Grouping failed."**
- If you want to cancel during the **Mesh Grouping**, tap the **Mesh Intercom Button**.

6.5.2 Joining an Existing Group Mesh

One of the current users in an **Existing Group Mesh** can allow **new users (one or more)** in **Open Mesh** to join the **Existing Group Mesh**.



1. To enter **Mesh Grouping** to join the **Existing Group Mesh**, press and hold the **Mesh Intercom Button** for **5 seconds** on the headsets of **one (You) of the current users** in the **Existing Group Mesh** and the **new users (D and F)** in **Open Mesh**.



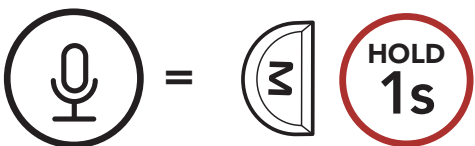
2. When **Mesh Grouping** is completed, the **new users (D and F)** will hear a voice prompt on their headset as **Open Mesh** switches to **Group Mesh**.



Note: If the **Mesh Grouping** is not completed within **30 seconds**, the current user (You) will hear low-toned double beeps and the new users (D and F) will hear a voice prompt, **"Grouping failed."**

6.6 Enable/Disable Mic (Default: Enable)

Users can enable/disable the microphone when communicating in a **Mesh Intercom**.

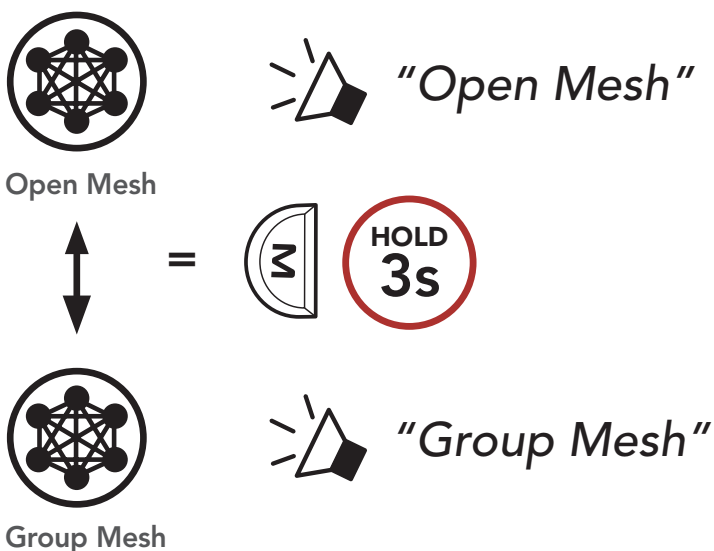


6.7 Toggling Open Mesh/Group Mesh

Users are able to toggle between **Open Mesh** and **Group Mesh** without resetting the **Mesh**. This allows users to keep the **Group Mesh Network** connection information while in **Open Mesh**.

Users can toggle to **Group Mesh** to communicate with participants from the stored **Group Mesh Network** connection information.

Toggle Between Open Mesh and Group Mesh

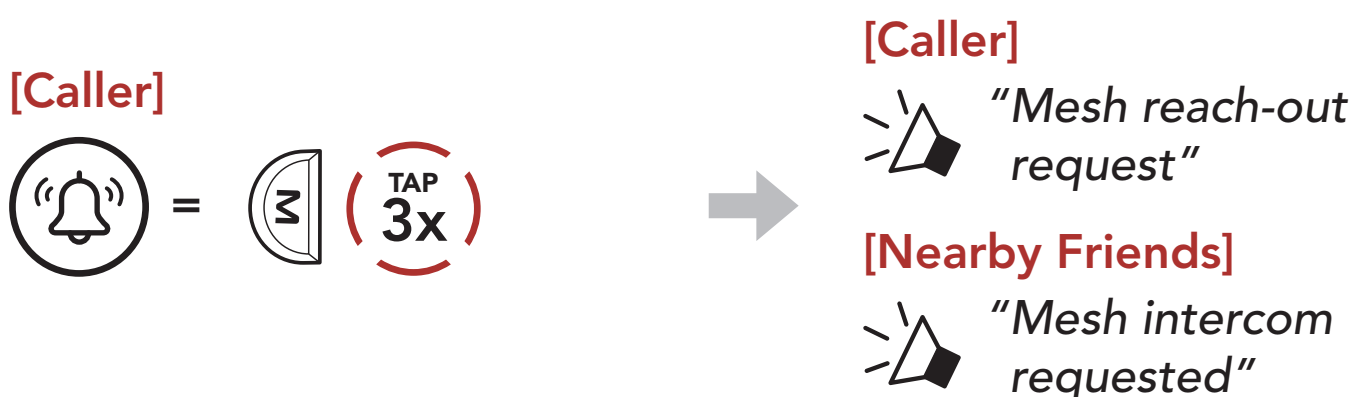


Note: If you have never participated in **Group Mesh**, you cannot toggle between **Open Mesh** and **Group Mesh**. You will hear a voice prompt, **"No group available."**

6.8 Mesh Reach-Out Request

You (caller) can send a request message to turn on the Mesh Intercom to nearby* friends who have it turned off.

1. If you want to send or receive a request message, you need to enable **Mesh Reach-Out** on the **Sena Outdoor App**. Please refer to **Section 9.2: "Software Configuration Setting."**
2. While your headset's Mesh Intercom is on, you (caller) send a request message using the **headset's Button** or the **Sena Outdoor App**.



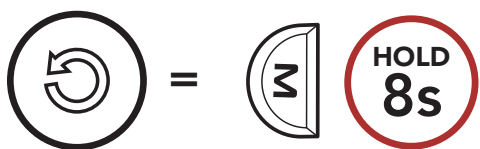
3. Friends who receive the request message need to manually turn on their Mesh Intercom using the **headset's Button** or the **Sena Outdoor App**.

Note:

- *: Up to 109 yds (100 m) in open terrain
- To use the **Mesh Reach-Out Request** function, **you (caller) who sends a request message and the friends who receive the request message must update the headset to the latest firmware version and the app to the latest version.**

6.9 Reset Mesh

If a headset in an **Open Mesh** or **Group Mesh** resets the **Mesh**, it will automatically return to **Open Mesh (default: channel 1)**.



7. MESH AUDIO MULTITASKING (ALWAYS ON)

Audio Multitasking allows you to have an intercom conversation while simultaneously listening to music.

The overlaid audio is played in the background with reduced volume whenever there is an intercom conversation and will return to normal volume once the conversation is finished.

The **Audio Multitasking** can be configured through the **Intercom-Audio Overlay Sensitivity** and the **Audio Overlay Volume Management settings**.

The **Intercom-Audio Overlay Sensitivity** and the **Audio Overlay Volume Management settings** can be found in the **Software Configuration Setting**, accessible through the **Sena Device Manager** or the **Sena Outdoor App**.

8. FIRMWARE UPDATE

You can update firmware using the **Sena Device Manager**.

The **USB-C Charging Cable** must be connected to your PC to update firmware using the **Sena Device Manager**.

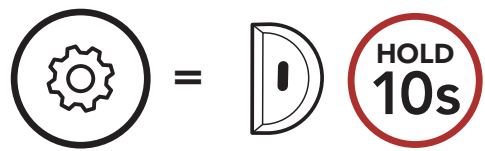
Please visit **sena.com** to download the **Sena Device Manager**.

[Click Here to Visit sena.com](#)

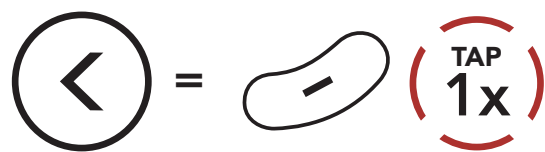
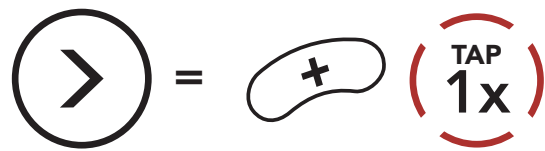
9. CONFIGURATION SETTING

9.1 Headset Configuration Menu

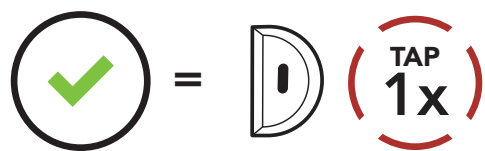
Access the Configuration Menu



Navigate Between Menu Options



Execute Menu Options



Headset Configuration Menu

Voice Configuration Menu	Tap the Center Button
Second Mobile Phone Pairing	None
Factory Reset	Execute
Exit	Execute

9.2 Software Configuration Setting

You can change the settings of the headset through the **Sena Device Manager** or the **Sena Outdoor App**.

9.2.1 Language

You can select the device language. The selected language is maintained even when the headset is rebooted.

9.2.2 Mesh Reach-Out (Default: Disable)

When the **Mesh Reach-Out** is enabled, a Mesh Reach-Out request message can be sent or received. If the **Mesh Reach-Out** is disabled, a Mesh Reach-Out request message cannot be sent or received.

9.2.3 VOX Phone (Default: Enable)

If this feature is enabled, you can answer incoming calls by voice. When you hear a ringtone for an incoming call, you can answer the phone by saying a word such as **"Hello"** loudly or by blowing air into the microphone. **VOX Phone** is temporarily disabled if you are connected to intercom. If this feature is disabled, you have to tap the **Center Button** to answer an incoming call.

9.2.4 VOX Sensitivity (Default: 3)

Vox Sensitivity can adjust the sensitivity of Vox Phone. **Level 5** is the highest sensitivity setting and **level 1** is the lowest.

9.2.5 Intercom-Audio Overlay Sensitivity (Default: 3)

The music will be lowered to play in the background if you talk over the intercom while the overlaid audio is playing. You can adjust the intercom sensitivity to activate this background audio mode. **Level 1** has the lowest sensitivity and **level 5** has the highest sensitivity.

Note: If your voice is not louder than the sensitivity of the selected level, the overlaid audio will not be lowered.

9.2.6 Audio Overlay Volume Management (Default: Disable)

The music overlaid audio reduces in volume whenever there is an ongoing intercom conversation. If **Audio Overlay Volume Management** is enabled, the volume level of the overlaid audio will not be reduced during an intercom conversation.

9.2.7 Voice Prompt (Default: Enable)

You can disable **Voice Prompts** by software configuration settings, but the following voice prompts are always on.

- Headset configuration settings menu, battery level indicator, speed dial

9.2.8 Advanced Noise Control (Always On)

The background noise is reduced during an intercom conversation.

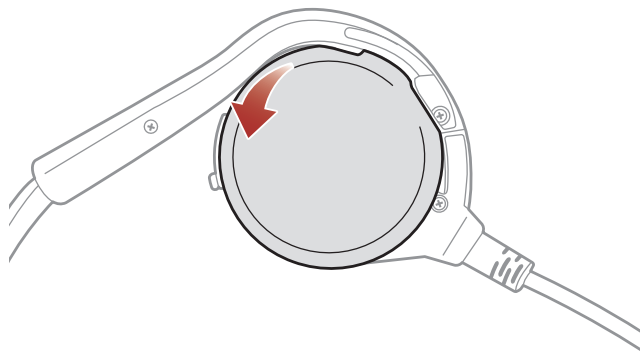
10. TROUBLESHOOTING

Please visit [sena.com](https://www.sena.com) for more troubleshooting information.

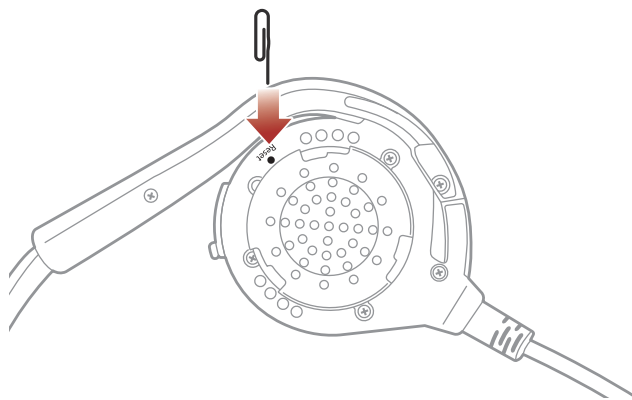
10.1 Fault Reset

When the Sena **Expand Mesh** is not working properly or is faulty for any reason, you may reset it by pushing the **Pinhole Fault Reset Button** at the back of the headset main unit.

1. Rotate the speaker pad of the left headset counter-clockwise to detach it.



2. Insert a paper clip into the hole and tap the **Pinhole Fault Reset Button** for a second using light pressure. The Sena **Expand Mesh** will be switched off, and you have to turn the system back on and try again.



Note: Fault Reset will not restore the headset to factory default settings.

10.2 Factory Reset

To erase all of your settings and start fresh, the headset can be restored to factory default settings using the **Factory Reset** feature.

1.  =   →  "Configuration menu"
2.  =   →  "Factory reset"
3.  =   →  "Headset reset, good-bye"



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