





MOTORCYCLE BLUETOOTH®
COMMUNICATION SYSTEM
WITH MESH INTERCOM™



USER'S GUIDE

Version 1.2.0 ENGLISH

LEGEND:



Tap button/Jog Dial the specified number of times



Press and Hold button/Jog Dial for the specified amount of time







Rotate Jog Dial clockwise (right) or counterclockwise (left).







Rotate while Pressing Jog Dial clockwise (right) or counterclockwise (left).



"Hello"

Audible prompt

TABLE OF CONTENTS

1.	ABOUT THE MOTORCYCLE BLUETOOTH COMMUNICATION SYSTEM WITH MESH INTERCOM TM	7
1.1	Product Details	7
	1.1.1 Headset Main Unit	7
	1.1.2 Universal Clamp Kit	7
1.2	Package Contents	8
2.	INSTALLING THE HEADSET ON YOUR HELMET	9
2.1	Helmet Installation	9
2.2	Using the Glued Surface Mounting Adapter	10
2.3	Switching the Microphone	12
	2.3.1 Wired Boom Microphone	12
	2.3.2 Wired Microphone	13
2.4	Earbuds	13
2.5	External Mesh Intercom Antenna	13
3.	GETTING STARTED	4.4
J.	GETTING STARTED	14
3.1	Button	14
3.1		
3.1	Button	14
3.1	Button Downloadable Sena Software	14 14
3.1 3.2	Button Downloadable Sena Software 3.2.1 Sena 50 Utility App	14 14 14
3.1 3.2 3.3	Button Downloadable Sena Software 3.2.1 Sena 50 Utility App 3.2.2 Sena Device Manager	14 14 14 15
3.1 3.2 3.3 3.4	Button Downloadable Sena Software 3.2.1 Sena 50 Utility App 3.2.2 Sena Device Manager Powering On and Off Charging	14 14 14 15
3.1 3.2 3.3 3.4 3.5	Button Downloadable Sena Software 3.2.1 Sena 50 Utility App 3.2.2 Sena Device Manager Powering On and Off	14 14 15 15
3.1 3.2 3.3 3.4 3.5	Button Downloadable Sena Software 3.2.1 Sena 50 Utility App 3.2.2 Sena Device Manager Powering On and Off Charging Checking the Battery Level	14 14 15 15 15 16
3.1 3.2 3.3 3.4 3.5 3.6	Button Downloadable Sena Software 3.2.1 Sena 50 Utility App 3.2.2 Sena Device Manager Powering On and Off Charging Checking the Battery Level Volume Adjustment PAIRING THE HEADSET WITH OTHER BLUETOOTH DEVICES	14 14 15 15 15 16 16
3.1 3.2 3.3 3.4 3.5 3.6	Button Downloadable Sena Software 3.2.1 Sena 50 Utility App 3.2.2 Sena Device Manager Powering On and Off Charging Checking the Battery Level Volume Adjustment PAIRING THE HEADSET WITH OTHER BLUETOOTH DEVICES Phone Pairing	14 14 15 15 15 16
3.1 3.2 3.3 3.4 3.5 3.6	Button Downloadable Sena Software 3.2.1 Sena 50 Utility App 3.2.2 Sena Device Manager Powering On and Off Charging Checking the Battery Level Volume Adjustment PAIRING THE HEADSET WITH OTHER BLUETOOTH DEVICES	14 14 15 15 15 16 16

4.2	Phone, GPS, and SR10 Phone, GPS, and SR10			
4.3	Advanced Selective Pairing: Hands-Free or A2DP Stereo	19		
	4.3.1 Phone Selective Pairing - Hands-Free Profile	20		
	4.3.2 Media Selective Pairing - A2DP Profile	20		
4.4	GPS Pairing	21		
5.	MOBILE PHONE USAGE	22		
5.1	Making and Answering Calls	22		
5.2	Siri and Google Assistant	22		
5.3	Speed Dialing	23		
	5.3.1 Assigning Speed Dial Presets	23		
	5.3.2 Using Speed Dial Presets	23		
6.	STEREO MUSIC	24		
6.1	Playing Music with Bluetooth Devices	24		
6.2	Playing Music with non-Bluetooth Devices	24		
6.3	Music Sharing	25		
7.	MESH INTERCOM	26		
7.1	What is Mesh Intercom?	26		
	7.1.1 Open Mesh	27		
	7.1.2 Group Mesh	28		
7.2	Starting Mesh Intercom	28		
7.3	Using the Mesh in Open Mesh	28		
	7.3.1 Channel Setting (Default: channel 1)	29		
7.4	Using Mesh in Group Mesh	30		
	7.4.1 Creating a Group Mesh	30		
	7.4.2 Joining an Existing Group Mesh	31		
7.5	Reset Mesh	33		

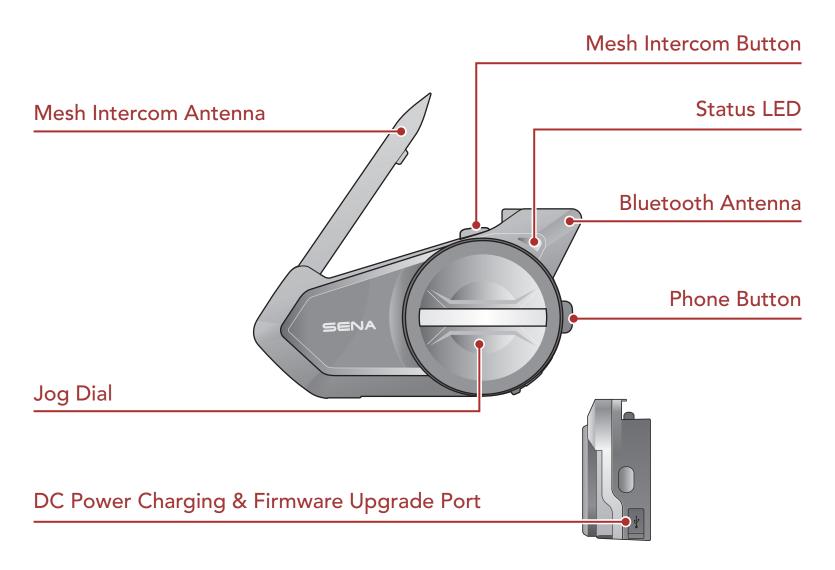
7.6	Toggling Open Mesh/Group Mesh			
7.7	Zenable/Disable Mic (Default: Enable)			
8.	BLUETOOTH INTERCOM	34		
8.1	Intercom Pairing	34		
8.2	Two-Way Intercom			
8.3	Multi-Way Intercom	36		
	8.3.1 Starting a Three-Way Intercom Conference	36		
	8.3.2 Starting a Four-Way Intercom Conference	37		
	8.3.3 Ending Multi-Way Intercom	38		
8.4	Three-Way Conference Phone Call with			
	Intercom Users	38		
8.5	Group Intercom	39		
8.6	Mesh Intercom Conference with Bluetooth			
	Intercom Participant			
8.7	Universal Intercom	42		
8.8	Mesh Intercom Conference with Two-way			
	Universal Intercom Participant	43		
9.	USING THE FM RADIO	44		
9.1	FM Radio On/Off	44		
9.2	Seek and Save Radio Stations			
9.3	Scan and Save Radio Stations	45		
9.4	Temporary Station Preset	46		
9.5	Navigating Preset Stations	46		
9.6	Region Selection	46		
10.	AMBIENT MODE	47		
11.	VOICE COMMAND	48		

12.	FUNCTION PRIORITY AND FIRMWARE UPGRADES				
12.1	1 Function Priority				
12.2	2.2 Firmware Upgrades				
13.	CONF	IGURATION SETTING	52		
13.1	Heads	et Configuration Setting	52		
	13.1.1	Delete All Pairings	53		
	13.1.2	Remote Control Pairing	53		
13.2	Softwa	are Configuration Setting	53		
		Speed Dial	53		
	13.2.2	Channel Setting (Default: channel 1)	53		
	13.2.3	Unit Language	53		
	13.2.4	Audio Equalizer (Default: Off)	54		
	13.2.5	VOX Phone (Default: Enable)	54		
	13.2.6	VOX Intercom (Default: Disable)	54		
	13.2.7	VOX Sensitivity (Default: 3)	54		
	13.2.8	Bluetooth Intercom Audio Multitasking (Default: Disabled)	55		
	13.2.9	Intercom-Audio Overlay Sensitivity (Default: 3)	55		
	13.2.10	Audio Overlay Volume Management (Default: Disable)	55		
	13.2.11	HD Intercom (Default: Enable)	56		
	13.2.12	HD Voice (Default: Enable)	56		
	13.2.13	Smart Volume Control (Default: Disable)	56		
	13.2.14	Sidetone (Default: Disable)	56		
	13.2.15	Voice Prompt (Default: Enable)	57		
	13.2.16	RDS AF Setting (Default: Disable)	57		
	13.2.17	FM Station Guide (Default: Enable)	57		
	13.2.18	Advanced Noise Control™ (Default: Enable)	57		
14.	TROUE	BLESHOOTING	58		
14.1	Fault F	Reset	58		
14.2	14.2 Factory Reset				

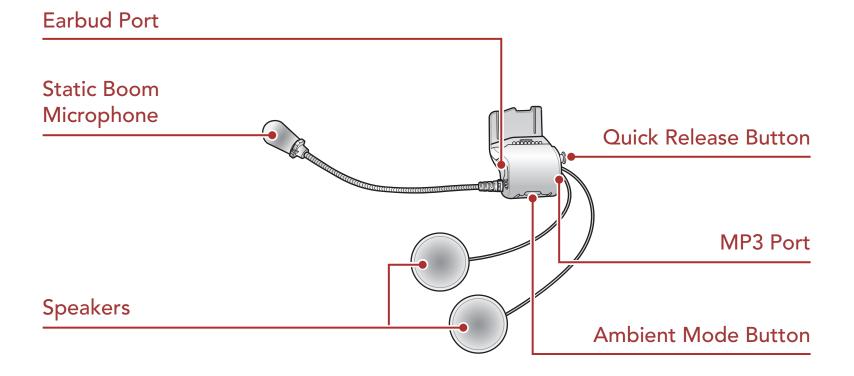
1. ABOUT THE MOTORCYCLE **BLUETOOTH COMMUNICATION** SYSTEM WITH MESH INTERCOMTM

Product Details 1.1

1.1.1 Headset Main Unit



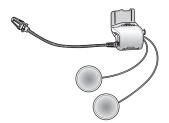
1.1.2 Universal Clamp Kit



1.2 Package Contents



Headset Main Unit



Universal Helmet Clamp



Wired Boom Microphone



Wired Microphone



Hook and Loop Fastener for Boom Microphone



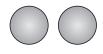
Hook and Loop Fastener for Wired Microphone



Microphone **Sponges**



Glued Surface Mounting Adapter



Speaker Pads



Hook and Loop Fasteners for **Speakers**



Boom Microphone Holder



Hook and Loop Fastener for Holder



2.5 to 3.5 mm Audio Cable





Rubber Pads



Allen Wrench



Speaker Port Cover



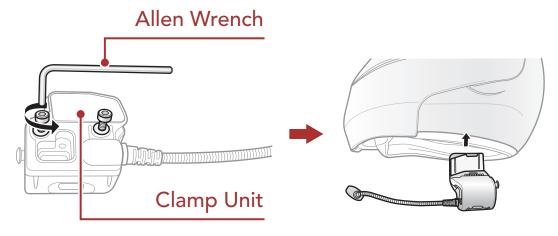
WiFi Adapter

2. INSTALLING THE HEADSET ON YOUR HELMET

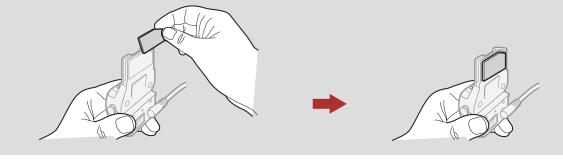
2.1 Helmet Installation

To securely install the headset on the helmet, please follow this procedure.

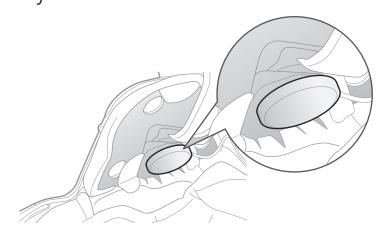
1. Insert the back plate of the clamp unit between the internal padding and the external shell of the helmet, and tighten the two screws.



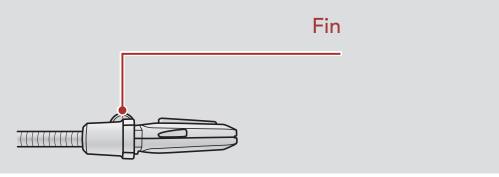
Note: Depending on the size and shape of your helmet, you may need to change the thickness of the rubber pad between the clamp plates using the two extra rubber pads in the box. To increase the overall thickness, attach the thinner one to the original rubber pad or replace the original rubber pad with the thicker one.



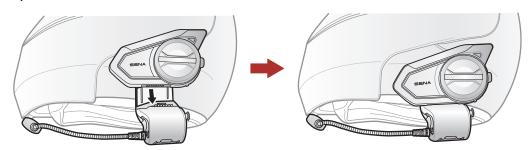
2. Place the helmet speakers along with the hook and loop fasteners, centered to your ear, in the ear pockets of the helmet. If the helmet has deep ear pockets, you can use the speaker pads to place the speakers closer to your ears.



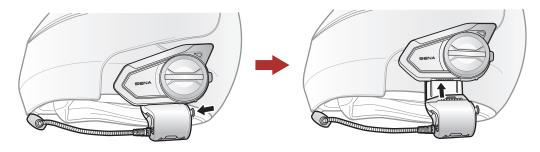
Note: Make sure that the microphone is located properly close to your mouth when you wear the helmet. Adjust the direction of the microphone so that the fin side of the microphone is facing outward, away from your lips.



3. Attach the headset main unit to the clamp unit. Slide the main unit down onto the clamp unit until it clicks firmly into the bottom portion of the clamp unit.



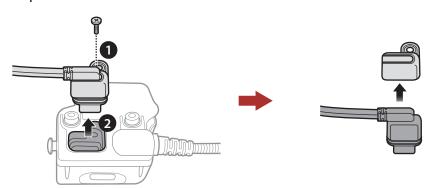
4. To remove the main unit from the clamp unit, press the Quick Release Button to slide it off the clamp unit.



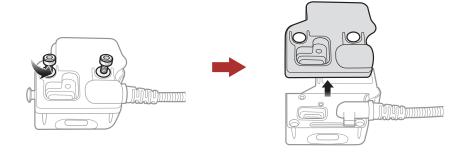
Using the Glued Surface Mounting Adapter

If you have any problem equipping the clamp unit on the helmet for any reason, you may use the glued surface mounting adapter to attach the clamp unit on the external surface of the helmet.

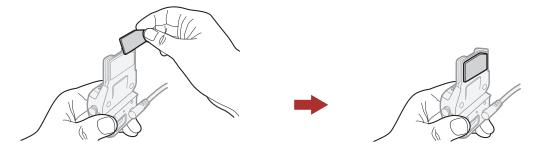
1. Remove the speaker unit.



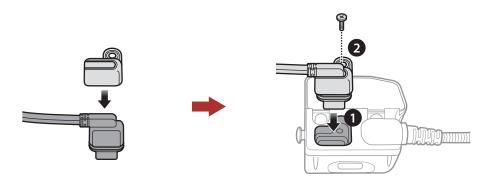
2. Remove the back plate.



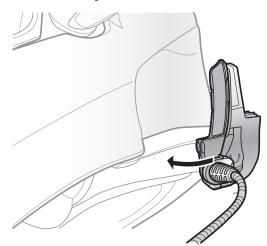
3. Remove the rubber pad and replace it with the thicker rubber pad included in the package.



- 4. Hook on the adapter to the clamp unit then screw in the glued external adapter to the clamp unit.
- 5. Reconnect the speaker cable to the speaker port.



- 6. Locate a proper surface on the helmet to attach the unit then clean the helmet surface location with a moistened towel and allow to dry thoroughly.
- 7. Peel off the cover of the adhesive tape of the adapter and attach the unit on the proper surface of your helmet.

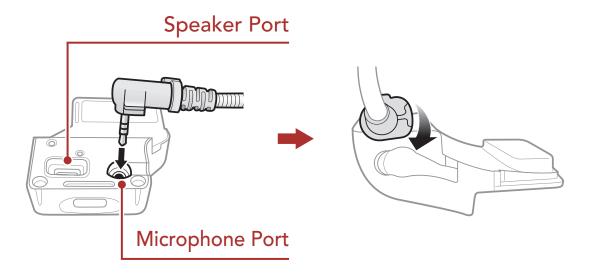


A Caution: Sena recommends using the clamp unit. The glued surface mounting plate is provided for convenience, but is not the recommended mounting method. Sena is not responsible for its use.

2.3 Switching the Microphone

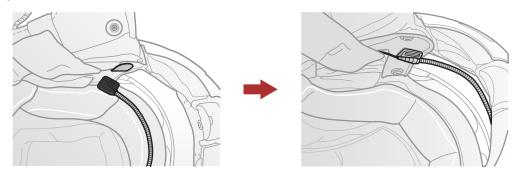
If you want to use a different microphone instead of the static boom microphone, please refer to the following steps.

- 1. Remove the back plate of the clamp unit.
- 2. Connect the microphone according to your helmet type.
- 3. Lock the microphone to the clamp.
- 4. Reattach the back plate to cover the microphone and the speaker port.



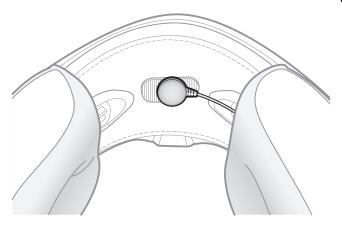
2.3.1 Wired Boom Microphone

When installing the included wired boom microphone, place the hook and loop fastener at the end of the boom microphone between the internal helmet cheek pad and the internal wall of the helmet shell. The boom microphone should be mounted so it is facing close to your mouth when you wear the helmet.



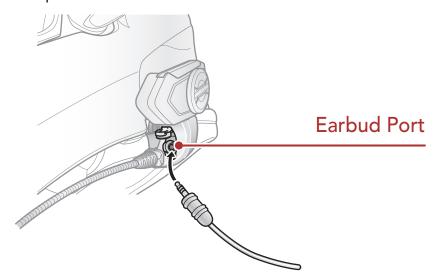
2.3.2 Wired Microphone

In case of the wired microphone, attach the enclosed hook and loop fastener for the wired microphone to the inside of the chin guard for full-face helmets. Place the wired microphone on the hook and loop fastener and connect it to the connector of the clamp unit.



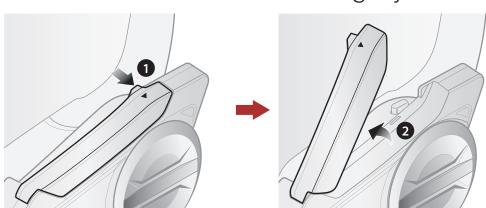
2.4 Earbuds

You can connect your earbuds to the clamp while having the speakers connected to the clamp. The sound of the earbuds will be active while the sound of the outer speakers becomes inactive.



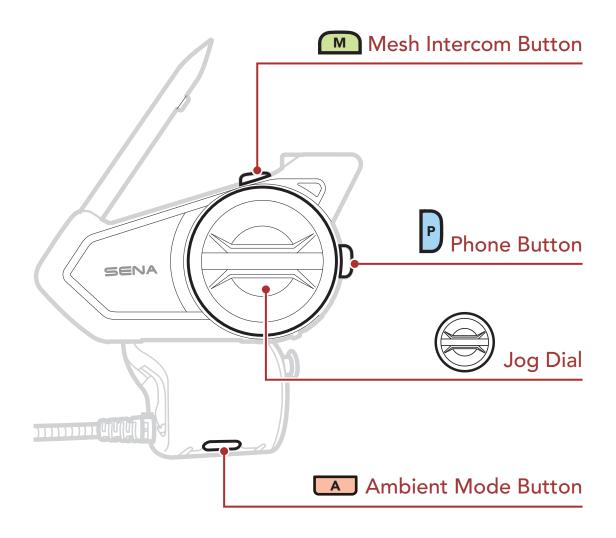
External Mesh Intercom Antenna 2.5

Pull the **Mesh Intercom** Antenna outwards slightly to unfold it.



GETTING STARTED

3.1 **Button**



Downloadable Sena Software

3.2.1 Sena 50 Utility App

By simply pairing your phone with your headset, you can use the Sena 50 Utility App for quicker and easier set up and management.

- App Features: Mesh Intercom, Bluetooth Intercom, Music, Device settings, Quick Start Guide, and User's Guide.
- Download
 - Android: Google Play Store > 'Sena 50 Utility'
 - iOS: App Store > 'Sena 50 Utility'





3.2.2 Sena Device Manager

The Sena Device Manager allows you to upgrade the firmware and configure its settings directly from your PC or Apple computer. Download the Sena Device Manager from sena.com.

Click Here to Visit sena.com

Powering On and Off

Press and hold the Jog Dial and Phone Button at the same time to turn the headset on or off.

Powering On









Powering Off



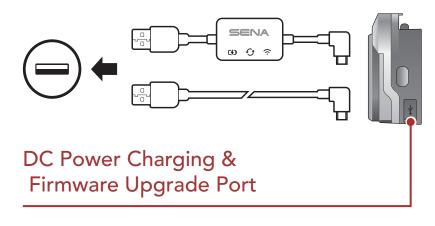






3.4 Charging

Charging the Headset



You can charge the headset by connecting the WiFi Adapter or a USB Power & Data Cable (USB-C).

A USB Power & Data Cable (USB-C) is not included in the package.

The headset will be fully charged in about 1 hour. (The charging time may vary depending on the charging method.)

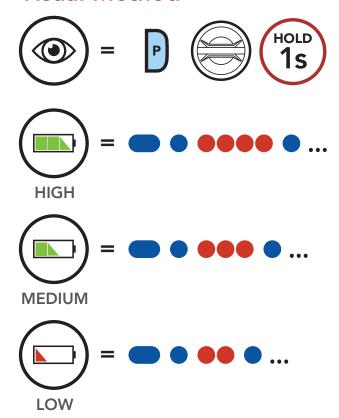
Note:

- The headset includes a Fast Charging feature which allows it to charge quickly over a short period of time. For example, a user can get up to 3.5 hours of Mesh communication or 6 hours of Bluetooth intercom after charging the headset for 20 minutes.
- 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 that Sena accepts.
- The **50S** is compatible with 5 V input USB-charged devices only.

Checking the Battery Level

Instructions are for when powering the headset on.

Visual Method

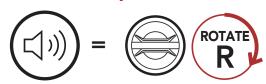


Note: When the battery is low while in use, you will hear a voice prompt saying "Low battery".

3.6 Volume Adjustment

You can raise or lower the volume by rotating the Jog Dial clockwise or counterclockwise. 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



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, GPS, MP3 player or Sena SR10 Two-Way Radio Adapter via Mobile Phone Pairing, Second Mobile Phone Pairing and GPS Pairing. The headset can also be paired with up to three other Sena headsets.

Pairs with up to Three Sena Headsets







Also Pairs with:









Mobile Phone

MP3 Player

GPS Devices

Sena **SR10**

4.1 **Phone Pairing**

There are two ways to pair the phone.

4.1.1 Pairing When the 50S is Turned Off

1. Press and hold the Phone Button and Jog Dial for 3 seconds when the **50S** is turned off.

Phone Pairing







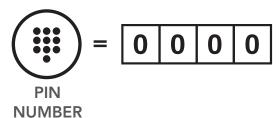


"Phone Pairing"



Alternating blue and red flashing lights indicate device is now discoverable.

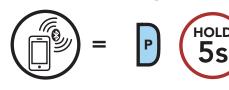
- 2. With your mobile phone in Bluetooth-pairing mode, select Sena 50S in the list of devices detected.
- 3. If your mobile phone asks for a PIN, enter 0000.



4.1.2 Pairing When the 50S is Turned On

1. Press and hold the **Phone Button** for **5 seconds** when the **50S** is on.

Phone Pairing



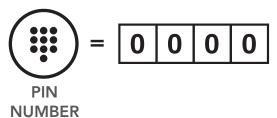


"Phone Pairing"



Alternating blue and red flashing lights indicate device is now discoverable.

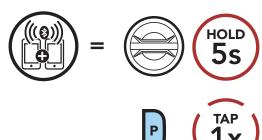
- 2. With your mobile phone in Bluetooth-pairing mode, select Sena 50S in the list of devices detected.
- 3. If your mobile phone asks for a PIN, enter 0000.



4.2 Second Mobile Phone Pairing - Second Mobile Phone, GPS, and SR10

1. Execute Second Mobile Phone Pairing.

Second Mobile Phone Pairing





"Second mobile phone pairing"



- Blue flashing light indicates device is now discoverable.
- 2. With your mobile phone in Bluetooth-pairing mode, select **Sena 50S** in the list of devices detected.
- 3. If your mobile phone asks for a PIN, enter 0000.

Advanced Selective Pairing: Hands-Free or A2DP Stereo

Phone Pairing allows the headset to establish two Bluetooth profiles: Hands-Free or A2DP Stereo. Advanced Selective Pairing allows the headset to separate the profiles to enable connection with two devices.

4.3.1 Phone Selective Pairing - Hands-Free Profile

1. Execute **Phone Selective Pairing**.

Phone Selective Pairing











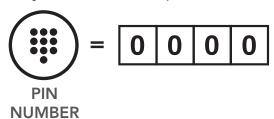




"Phone selective pairing"



- Blue flashing light indicates device is now discoverable.
- 2. With your mobile phone in Bluetooth-pairing mode, select Sena 50S in the list of devices detected.
- 3. If your mobile phone asks for a PIN, enter 0000.



4.3.2 Media Selective Pairing - A2DP Profile

1. Execute Media Selective Pairing.

Media Selective Pairing













"Media selective pairing"



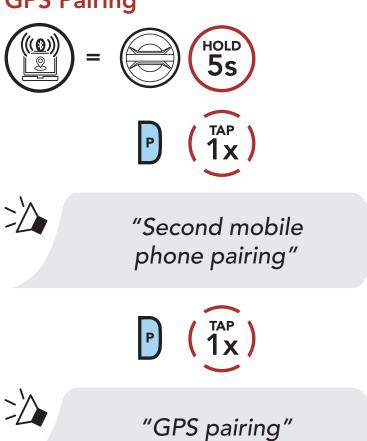
- Red flashing light indicates device is now discoverable.
- 2. With your mobile phone in Bluetooth-pairing mode, select Sena 50S in the list of devices detected.

3. If your mobile phone asks for a PIN, enter 0000.

GPS Pairing

1. Execute **GPS Pairing**.







- 2. With your Bluetooth device on the GPS navigation screen, select Sena 50S in the list of devices detected.
- 3. If your Bluetooth device asks for a PIN, enter 0000.

Note: If you pair your GPS device via GPS Pairing, its instruction will not interrupt your Mesh Intercom conversations, but overlay with them. Bluetooth intercom conversations will be interrupted by GPS instructions.

MOBILE PHONE USAGE

5.1 Making and Answering Calls

Answer a Call



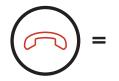








End a Call





















Note: If you have a GPS device connected, you will not hear its voice navigations during a phone call.

5.2 Siri and Google Assistant

The **50S** supports the **Siri** and **Google Assistant** access directly.

You can activate the Siri or Google Assistant using the voice through the headset's microphone, a wake word will be used. This is a word or groups of words such as "Hey Siri" or "Hey Google".

Activate the Siri or Google Assistant Installed on Your Smartphone





"Hey Google" or "Hey Siri"

or





5.3 Speed Dialing

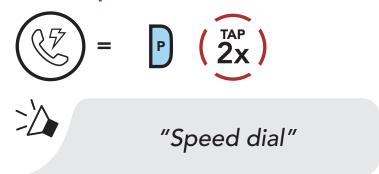
5.3.1 Assigning Speed Dial Presets

Speed Dial Presets could be assigned in the settings menu, accessible through Sena Device Manager or Sena 50 Utility App.

5.3.2 Using Speed Dial Presets

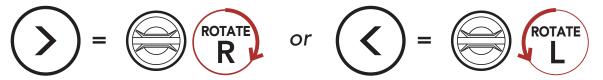
1. Enter into the **Speed Dial** menu.

Enter Speed Dial Mode



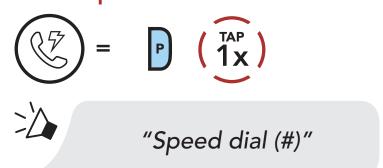
2. Navigate between the **Speed Dial Preset**.

Navigate Forward or Backward through Speed Dial Preset Numbers



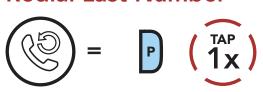
3. Call one of your **Speed Dial Presets**.

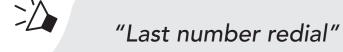
Call a Speed Dial Preset Number



4. Redial the last number called.

Redial Last Number





STEREO MUSIC

Playing Music with Bluetooth Devices 6.1

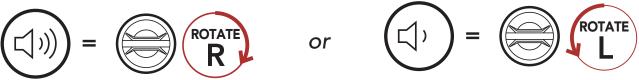
1. Play or pause music.

Play/Pause Music



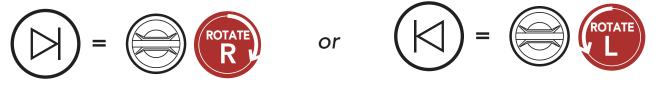
2. Adjust the volume.

Volume Up/Down



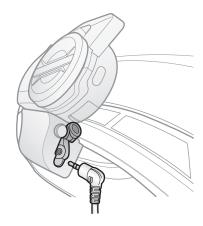
3. Track forward or back.

Track Forward/Backward



Playing Music with non-Bluetooth Devices

You can play music that is stored on non-Bluetooth devices such as MP3 players. To connect your device to the headset, plug the enclosed 2.5 to 3.5 mm audio cable into the AUX ports, both on the headset and on your device.

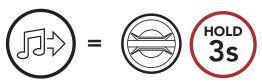


To adjust the volume, rotate the Jog Dial clockwise or counterclockwise. You can also adjust the volume directly on the connected device.

Music Sharing

You can start sharing music with one intercom friend using Bluetooth stereo music during a two-way intercom conversation and one participant of a Mesh. Both you and your intercom friend can remotely control music playback such as track forward and track back. If you start sharing music while Bluetooth intercom and Mesh Intercom are running at the same time, then music shared during Bluetooth intercom will take priority over music shared during Mesh Intercom. The Creator will send a request message to a headset connected during Mesh Intercom and will share music with the first participant that accepts the request.

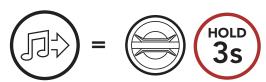
Bluetooth Intercom Music Sharing





"Music sharing on"

Mesh Intercom Music Sharing [Creator]



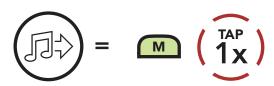


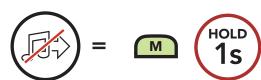
"Music sharing on"

[Participant]



"Would you like to accept music sharing?"





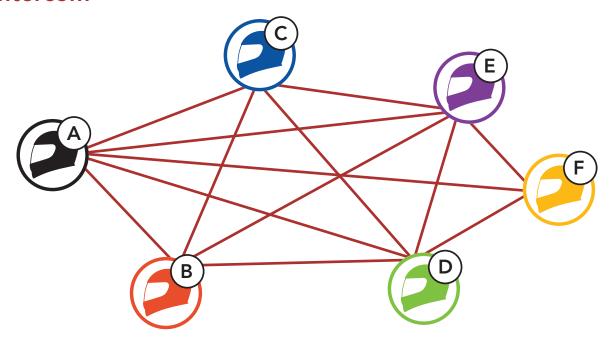
7. MESH INTERCOM

What is Mesh Intercom? 7.1

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

The working distance between each 50S in Mesh Intercom can be up to 2 km (1.2 miles) in open terrain. In open terrain, the **Mesh** can be extended up to 8 km (5 miles) between a minimum of six users. Within the same channel in **Open Mesh[™]** or the same private group in **Group** Mesh™, six users can talk at the same time and enjoy the optimal quality for their conversation.

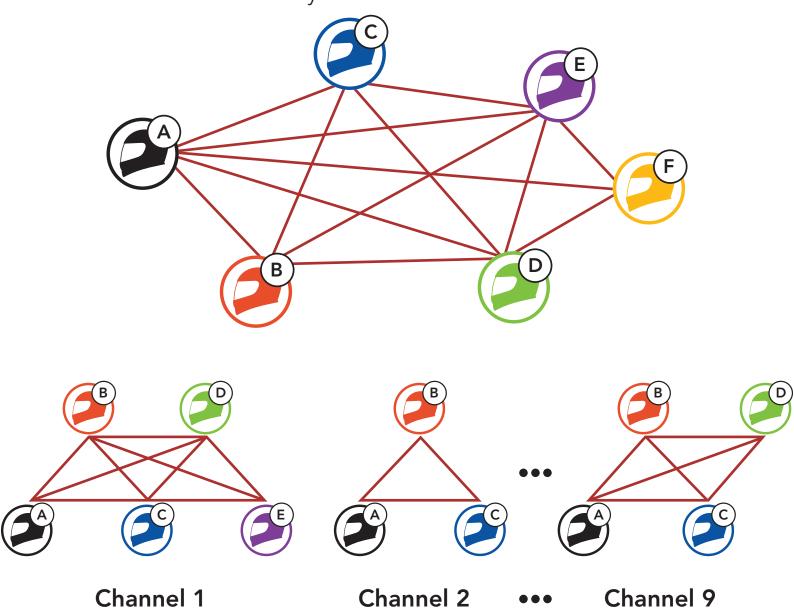
Mesh Intercom



7.1.1 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 (1-9) to use through the headset.

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

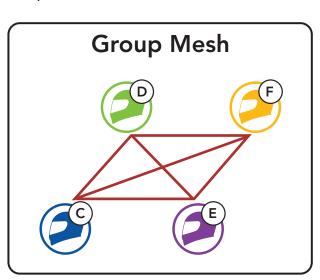


7.1.2 Group Mesh

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.





Starting Mesh Intercom

When **Mesh Intercom** is enabled, the **50S** will automatically connect to nearby 50S users and allow them to talk to each other by pressing the Mesh Intercom Button.

Mesh Intercom On











"Mesh intercom on"

Mesh Intercom Off









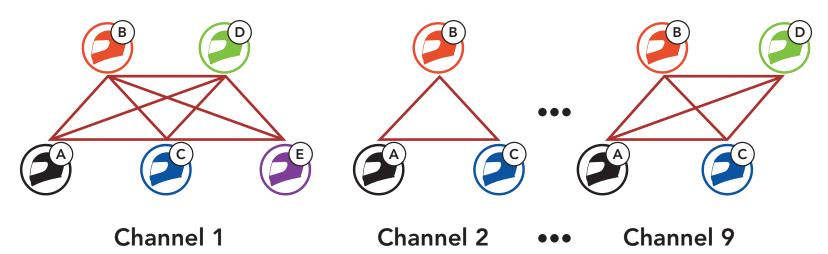
"Mesh intercom off"

Using the Mesh in Open Mesh 7.3

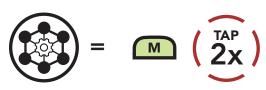
When Mesh Intercom is enabled, the headset will be in Open Mesh (default: channel 1) initially.

7.3.1 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 9.



Enter into the Channel Setting



"Channel setting, 1"



Navigate Between Channels

 $(1 \rightarrow 2 \rightarrow \bullet \bullet \bullet \rightarrow 8 \rightarrow 9 \rightarrow Exit \rightarrow 1 \rightarrow \bullet \bullet \bullet)$

"#"





Save the Channel



"Channel is set, channel #"

Note:

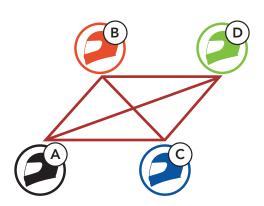
- Channel Setting always starts with channel 1.
- If you do not press any button for approximately 10 seconds in a specific channel, the channel is automatically saved.
- If you want to cancel during Channel Setting, tap the Phone Button.
- The channel will be remembered even if you turn off the **50S**.

Using Mesh in Group Mesh 7.4

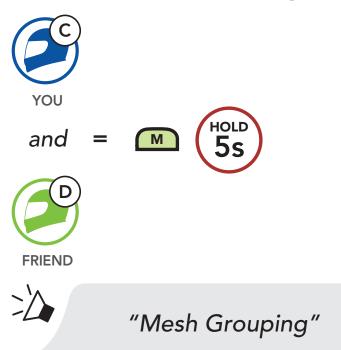
7.4.1 Creating a Group Mesh

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





1. Enter into **Mesh Grouping** to create a **Group Mesh**.



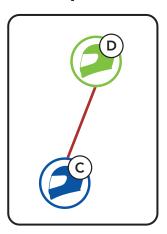
2. The headsets complete **Mesh Grouping** and automatically switch from Open Mesh to Group Mesh.



"Group Mesh"

Open Mesh **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 or Phone Button.

7.4.2 Joining an Existing Group Mesh

One of the members in an Existing Group Mesh can allow new members in Open Mesh to join the Existing Group Mesh.

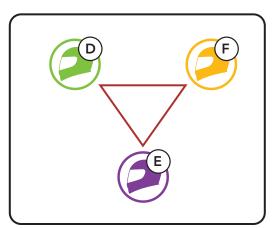
New Members



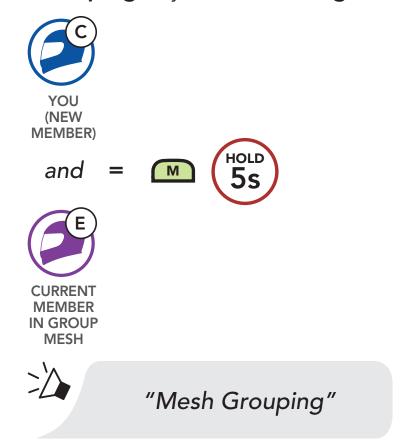




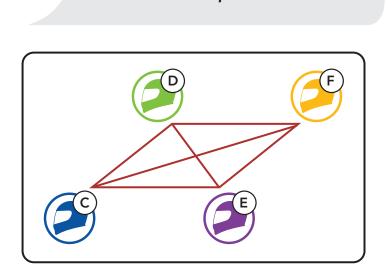
Existing Group Mesh and Current Members



1. One of the current members and a new member enter into Mesh Grouping to join the Existing Group Mesh.



2. The headsets complete **Mesh Grouping**. The new members will hear a voice prompt as their headsets automatically switch from Open Mesh to Group Mesh.

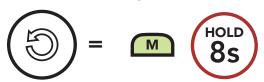


"Group Mesh"

Note: If the Mesh Grouping is not completed within 30 seconds, the current members will hear a low tone double beep and the new member will hear a voice prompt, "Grouping failed".

7.5 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).

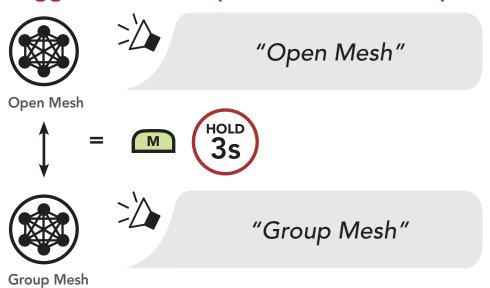


Toggling Open Mesh/Group Mesh 7.6

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

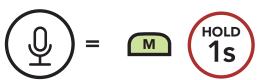


Note: If you have never participated in Group Mesh, you cannot toggle between Open Mesh and Group Mesh. You will hear a voice prompt, "No Group Available".

Enable/Disable Mic (Default: Enable) 7.7

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

Enable/Disable the Microphone

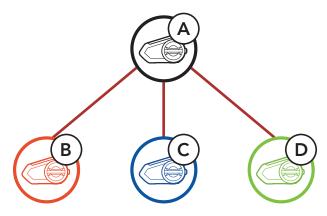


8. **BLUETOOTH INTERCOM**

Intercom Pairing 8.1

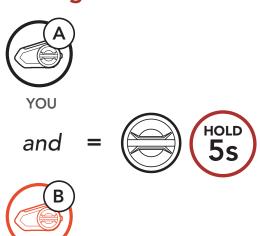
Up to three people can communicate via intercom with the headset simply by pairing their headsets.

Pairing with Intercom Friends



1. Press and hold the Jog Dials of two headsets for 5 seconds until you hear a voice prompt, "Intercom pairing".

Pairing Headset A with Headset B





"Intercom pairing"



Red flashing light indicates device is now discoverable.



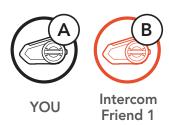
The **50S** will automatically pair with a Sena headset.



Flashing blue LED confirms intercoms are paired.

2. Repeat step 1 to pair with Intercom Friends C & D.

Last-Come, First-Served









YOU

Intercom

Intercom Friend 1 Friend 2









8.2

YOU

Friend 1

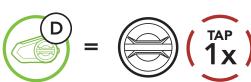
Friend 2

Two-Way Intercom

You can start or end an intercom conversation with an Intercom Friend by tapping the Jog Dial.

1. Tap once for Intercom **Friend 1**.

Start/End with Intercom Friend 1



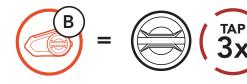
2. Tap twice for Intercom Friend 2.

Start/End with Intercom Friend 2



3. Tap three times for Intercom **Friend 3**.

Start/End with Intercom Friend 3



8.3 Multi-Way Intercom

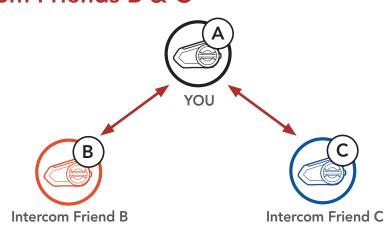
Multi-Way Intercom enables conference-call-style conversations with up to three Intercom Friends at the same time. While Multi-Way Intercom is in progress, mobile phone connection is temporarily disconnected. However, as soon as Multi-Way Intercom terminates, the mobile phone connection will be reestablished.

8.3.1 Starting a Three-Way Intercom Conference

You (A) can have a Three-Way Intercom Conference with two other Intercom Friends (B & C) by establishing two intercom connections simultaneously.

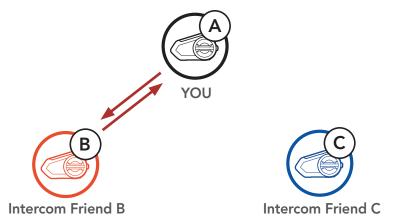
1. Pair your headset (A) with those of two other Intercom Friends (B & C).

Pair with Intercom Friends B & C



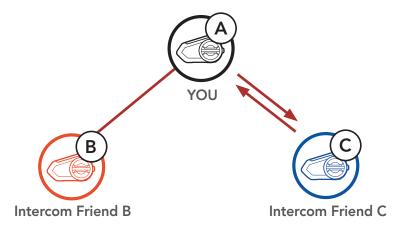
2. Start an intercom conversation with one of the two friends in your intercom group. For example, **you** (A) may start an intercom conversation with the **Intercom Friend** (B). Or, **Intercom Friend** (B) may start an intercom call with **you** (A).

Starting an Intercom Conversation with Intercom Friend B



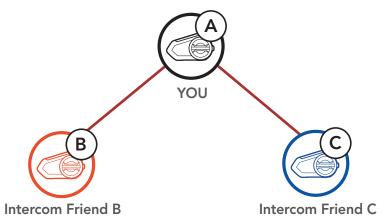
3. Then, you (A) can call the second Intercom Friend (C), or the second Intercom Friend (C) may join the intercom by making an intercom call to you (A).

Starting an Intercom Conversation with Intercom Friend C



4. Now you (A) and two Intercom Friends (B & C) are having a Three-Way Intercom Conference.

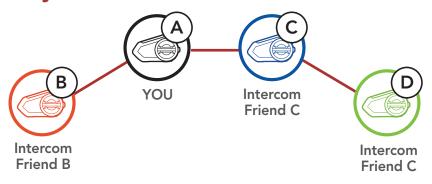
Three-Way Intercom



8.3.2 Starting a Four-Way Intercom Conference

With three Intercom Friends connected, a new participant (D) can make it a Four-Way Intercom Conference by making an intercom call to either (B) or (C).

Starting a Four-Way Intercom



8.3.3 Ending Multi-Way Intercom

- 1. Press and hold the **Jog Dial** for **1 second** until you hear a beep to terminate all intercom connections.
- 2. Tap the **Jog Dial** to disconnect from your first **Intercom Friend**. Double tap the **Jog Dial** to disconnect from your second **Intercom Friend**.

8.4 Three-Way Conference Phone Call with Intercom Users

You can have a **Three-Way Conference Phone Call** by adding an **Intercom Friend** to the mobile phone conversation.

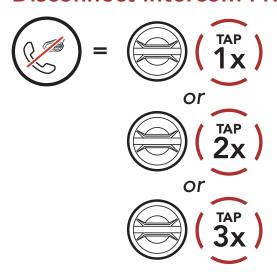
1. During a mobile phone call, tap the **Jog Dial once, twice or, three times** to invite one of your **Intercom Friends** to the conversation.

Invite an Intercom Friend into Phone Conference

$$= \bigcirc (\overbrace{1x}^{TAP})$$
or
$$\overbrace{2x}^{TAP}$$
or
$$\overbrace{3x}^{TAP}$$

2. To disconnect the intercom during a conference phone call, tap the **Jog Dial once, twice or three times**.

Disconnect Intercom Friend from Conference



3. To disconnect the mobile phone call during a conference phone call, tap the Phone Button.

End Phone Call from Conference



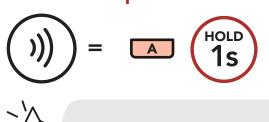
Note: When you have an incoming intercom call during a mobile phone call, you will hear high tone double beeps.

8.5 **Group Intercom**

Group Intercom allows you to instantly create a Multi-Way Conference **Intercom** with three of the most recently paired headsets.

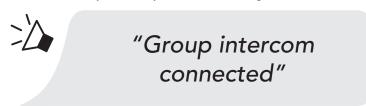
- 1. Go through intercom pairing with up to three headsets you want to have **Group Intercom** with.
- 2. Press and hold the **Ambient Mode Button** for **1 second** to begin Group Intercom. The LED will flash green and you will hear a voice prompt, "Group intercom".

Start Group Intercom



"Group intercom"

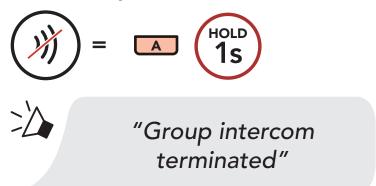
3. When all of the headsets are connected together, everyone will hear a voice prompt, "Group intercom connected."





4. To terminate **Group Intercom**, press and hold the **Ambient Mode** Button for 1 second during Group Intercom. You will hear a voice prompt, "Group intercom terminated".

End Group Intercom

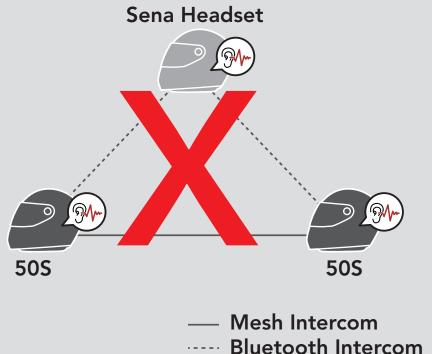


Mesh Intercom Conference with Bluetooth 8.6 **Intercom Participant**

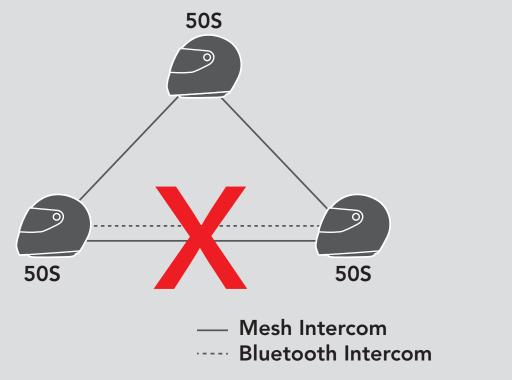
Users can use the existing Bluetooth intercom and Mesh Intercom function at the same time. In this case, it is recommended to communicate with other Sena headsets via Bluetooth intercom connection and use **Mesh Intercom** between **50S** headsets. A user who is in Open Mesh or Group Mesh when using Mesh Intercom is able to include up to 3 of their Bluetooth intercom friends. You can start a Two-Way Intercom conversation with one of your three Intercom Friends to include them in the Mesh.

Note:

- The audio quality will be reduced if a **50S** connects to 2 or more Bluetooth intercom friends while in **Open Mesh** or **Group Mesh** when using **Mesh Intercom**.
- If a closed loop is created, as shown below, each user will experience severe noise issues. Sena recommends that a closed loop not be created.



• If Bluetooth intercom is accidentally turned on during Mesh Intercom communication between 50S headsets, as shown below, you will hear a voice prompt, "Mesh intercom disabled, Bluetooth intercom connected" every 1 minute. If you turn off the Bluetooth Intercom or turn off the Mesh Intercom, the voice prompt will no longer come out.

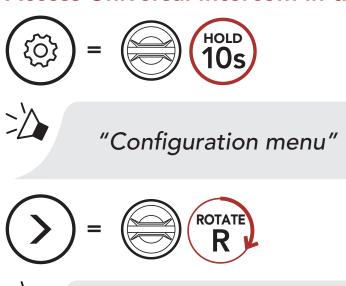


8.7 Universal Intercom

Universal Intercom allows you to have intercom conversations with users of non-Sena Bluetooth headsets. You can pair your headset with only one non-Sena headset at a time. The intercom distance depends on the performance of the Bluetooth headset to which it is connected. When a non-Sena Bluetooth headset is paired with the Sena headset, if another Bluetooth device is paired via **Second Mobile Phone Pairing**, it will be disconnected.

1. Execute Universal Intercom in the Headset Configuration Menu.

Access Universal Intercom in the Configuration Menu

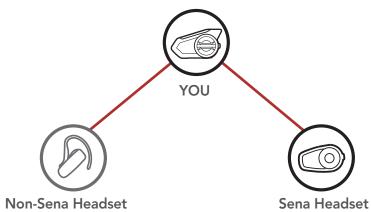




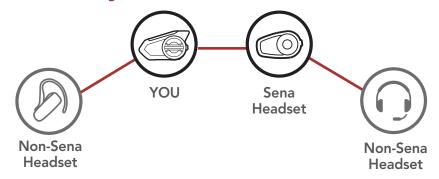


- 2. Put the non-Sena Bluetooth headset in Pairing Mode. The headset will automatically pair with a non-Sena Bluetooth headset.
- 3. You can have **Two-Way Intercom** or **Multi-Way Intercom** communication with up to three **Intercom Friends** using non-Sena headsets by following the procedures described below.

Example of a Three-Way Universal Intercom



Example of a Four-Way Universal Intercom



Note: Some non-Sena headsets may not support Multi-Way Universal Intercom.

Mesh Intercom Conference with Two-way Universal 8.8 **Intercom Participant**

Users can use the existing Two-way Universal Intercom and Mesh **Intercom** function at the same time. In this case, it is recommended to communicate with non-Sena headset via Two-way Universal Intercom connection and use Mesh Intercom between 50S headsets.

A user who is in **Open Mesh** or **Group Mesh** when using **Mesh** Intercom is able to include one Universal Intercom friend. You can start a Two-way Universal Intercom conversation with your Universal Intercom Friend to include it in the Mesh.

USING THE FM RADIO

9.1 FM Radio On/Off

FM Radio On











"FM on"

FM Radio Off









"FM off"

9.2 Seek and Save Radio Stations

The "Seek" feature searches for radio stations.

1. Search for radio stations.

Seek Stations Forward

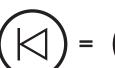








Seek Stations Backward







2. Save the current station.

Enter Preset Selection Mode











"Preset (#)"

3. Navigate through the preset numbers that you want to store.

Navigate Forward/Backward Through Preset Stations















4. Save the station in the preset number you choose or delete the station from memory.

Save Station to the **Preset Number**



Delete Station from Memory



Scan and Save Radio Stations

The "Scan" function automatically searches for radio stations, starting with the current station's frequency, then up from there.

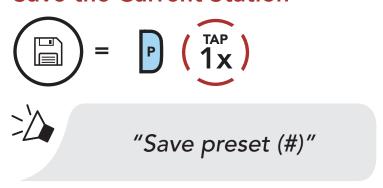
1. Scan for stations.

Start Scanning

$$\bigcirc = \bigcirc (\underbrace{2x}^{TAP})$$

- 2. The Sena tuner pauses at each station it finds for 8 seconds before moving to the next.
- 3. Save the current station. The station will be saved as the next preset number.

Save the Current Station



4. Stop scanning.

Stop scanning



Temporary Station Preset 9.4

The **Temporary Preset** feature automatically finds and saves the nearest 10 radio stations without changing your existing preset stations.

1. Automatically find and save 10 stations.

Temporary Stations



2. The temporary preset stations will be cleared when the headset reboots.

9.5 **Navigating Preset Stations**

Using the methods above, up to 10 radio stations can be stored. You can navigate through the saved stations.

Navigate through Preset Stations



Note: You can use the Sena Device Manager or the Sena 50 Utility **App** to save the preset stations.

Region Selection 9.6

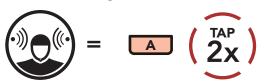
You can select the proper FM frequency range for your location from the Sena Device Manager or the Sena 50 Utility App. Using the region setting, you can optimize the seek function to avoid unnecessary frequency ranges.

Region	Frequency range	Step
Worldwide	76.0 ~ 108.0 MHz	± 100 kHz
North America, South America and Australia	87.5 ~ 107.9 MHz	± 200 kHz
Asia and Europe	87.5 ~ 108.0 MHz	± 100 kHz
Japan	76.0 ~ 95.0 MHz	± 100 kHz

10. AMBIENT MODE

You can hear the ambient sound outside of your helmet by activating the Ambient Mode.

Start/Stop Ambient Mode



Note: The Ambient Mode has higher priority than mobile phone, so you cannot listen to music, or have an intercom conversation if the Ambient Mode is activated.

11. VOICE COMMAND

The **Voice Command** of the headset allows you to operate certain operations by simply using your voice. You can control the headset completely handsfree using the voice recognition. Multi-language Voice Command supports **English**, **French**, **German**, **Spanish**, **Italian**, **Chinese**, **Japanese**, and **Russian**.

Speak a Voice Command List

Mode Status	Function	Voice Command
Standby/ Bluetooth Intercom/Mesh Intercom/FM Radio/Music	Check battery	"Hey Sena, Check Battery"
	Volume Up	"Hey Sena, Volume Up"
	Volume Down	"Hey Sena, Volume Down"
	Phone Pairing	"Hey Sena, Phone Pairing"
	Bluetooth Intercom Pairing	"Hey Sena, Pairing Intercom"
	Start/End each Bluetooth Intercom	"Hey Sena, Intercom [one, two, three]"
Standby/ Bluetooth Intercom/FM Radio/Music	Turn on Mesh Intercom	"Hey Sena, Mesh On"
Mesh Intercom	Turn off Mesh Intercom	"Hey Sena, Mesh Off"
	Mesh Grouping	"Hey Sena, Mesh Grouping"
	Switch to Open Mesh	"Hey Sena, Open Mesh"
	Switch to Group Mesh	"Hey Sena, Group Mesh"
	End the Bluetooth intercom and Mesh intercom	"Hey Sena, End intercom"
Standby/ Bluetooth Intercom/Mesh Intercom	Play Music	"Hey Sena, Play Music"
Standby/ Intercom/Mesh Intercom/Music	Turn on FM radio	"Hey Sena, FM Radio On"

Mode Status	Function	Voice Command
Music/FM Radio	FM - Next PresetMusic - Next Track	"Hey Sena, Next"
	FM - Previous PresetMusic - Previous Track	"Hey Sena, Previous"
Music	Pause Music	"Hey Sena, Stop Music"
FM Radio	Turn off FM Radio	"Hey Sena, FM Radio Off"
Answer an Incoming Call		"Answer"
Ignore an Incoming Call		"Ignore"

Note:

- You can set a language to another language by using the Unit Language feature on the Sena 50 Utility App.
- If you set a language that does not support voice commands, the voice command will works only with English commands.
- You can see the another language's voice command list on the Sena 50 Utility App.
- Voice command performance may vary based on the environmental conditions including riding speed, helmet type and ambient noise. To improve the performance, minimize wind noise on the microphone by using a large microphone sponge and closing the visor.

12. FUNCTION PRIORITY AND FIRMWARE UPGRADES

12.1 **Function Priority**

The headset prioritizes connected devices in the following order:

Ambient Mode (highest)

Mobile phone

Voice command mode

Mesh Intercom/Bluetooth Intercom

Music sharing via Bluetooth stereo

FM radio

Stereo music by audio cable

(lowest) Bluetooth stereo music

A lower-priority function gets interrupted by a higher-priority function. For example, stereo music will be interrupted by an Intercom Conversation; an Intercom Conversation will be interrupted by an incoming mobile phone call.

12.2 Firmware Upgrades

The headset supports firmware upgrades. There are two ways to upgrade firmware.

1. Using the WiFi Adapter

You can upgrade firmware using the WiFi Adapter.

You can automatically install any available firmware updates to your headset via your wireless network.

Please refer to the WiFi Adapter Quick Start Guide included in the package.

2. Using the Sena Device Manager

You can upgrade firmware using the Sena Device Manager.

The USB Power & Data Cable (USB-C) must be connected to your PC to upgrade firmware using the Sena Device Manager.

Note:

- A USB Power & Data Cable (USB-C) is not included in the package.
- Do not connect the WiFi Adapter to your PC to use the Sena Device Manager.

Please visit **sena.com** to check for the latest software downloads.

Click Here to Visit sena.com

13. CONFIGURATION SETTING

Headset Configuration Setting 13.1

Access the Configuration Menu



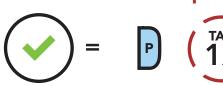


Navigate Between Menu Options





Execute Menu Options



Headset Configuration Menu

Voice Configuration Menu	Tap the Phone Button
Delete All Pairings	Execute
Remote Control Pairing	Execute
Universal Intercom Pairing	Execute
Exit	Execute

Delete All Pairings 13.1.1

Delete All Bluetooth Pairing Information stored in the Bluetooth system.

13.1.2 Remote Control Pairing

You can remotely control the headset using Sena Remote Control devices (sold separately).

- 1. Turn on the headset and the Remote Control device.
- 2. Execute **Remote Control Pairing**.
- 3. Enter pairing mode in the Remote Control device. The headset will automatically connect with the Remote Control device in pairing mode.

13.2 **Software Configuration Setting**

You can change the settings of the headset through the Sena Device Manager or the Sena 50 Utility App.

Speed Dial 13.2.1

Assign phone numbers for speed dialing to make a phone call quickly.

13.2.2 Channel Setting (Default: channel 1)

If the Open Mesh communication experiences interference because other groups are also using the channel 1 (default), change the channel. You can select one of 1 to 9 channels.

13.2.3 Unit Language

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

13.2.4 Audio Equalizer (Default: Off)

You can use the **Audio Equalizer** to increase/decrease the decibel level of different frequency ranges of audio.

Balance will adjust all of the frequency ranges to be the same volume level (0 dB). **Bass Boost** will increase the bass range of audio (20 Hz - 250 Hz). **Mid Boost** will increase the mid range of audio (250 Hz - 4 kHz). **Treble Boost** will increase the high range of audio (4 kHz - 20 kHz).

13.2.5 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 Jog Dial or the Phone Button to answer an incoming call.

13.2.6 VOX Intercom (Default: Disable)

If **VOX Intercom** is enabled, you can initiate an intercom conversation with the last connected intercom friend by voice. When you want to start intercom, say a word such as "**Hello**" loudly or blow air into the microphone. If you start an intercom conversation by voice, the intercom terminates automatically when you and your intercom friend remain silent for 20 seconds. However, if you manually start an intercom conversation by tapping the **Jog Dial**, you have to terminate the intercom conversation manually. However, if you start the intercom by voice and end it manually by tapping the **Jog Dial**, you will not be able to start intercom by voice temporarily. In this case, you have to tap the **Jog Dial** to restart the intercom. This is to prevent repeated unintentional intercom connections by strong wind noise. After rebooting the headset, you can start the intercom by voice again.

13.2.7 VOX Sensitivity (Default: 3)

VOX sensitivity can be adjusted depending on your riding environment. **Level 5** is the highest sensitivity setting and **level 1** is the lowest.

13.2.8 Bluetooth Intercom Audio Multitasking (Default: Disabled)

Audio Multitasking (Bluetooth Intercom Audio Multitasking and Mesh Intercom Audio Multitasking) allows you to have an intercom conversation while simultaneously listening to music, FM radio, or GPS instructions. 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 **Mesh Intercom Audio Multitasking** feature is always **on**.

Note:

- For **Bluetooth Intercom Audio Multitasking** to work properly, you need to power the headset off and on. **Please restart the headset**.
- Bluetooth Intercom Audio Multitasking will be activated during two-way intercom conversations with a headset that also supports this feature.
- Some GPS devices may not support this feature.
- The Audio Multitasking feature can be configured through the Intercom-Audio Overlay Sensitivity and the Audio Overlay Volume Management settings.

13.2.9 Intercom-Audio Overlay Sensitivity (Default: 3)

The music, FM radio and GPS volume 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.

13.2.10 Audio Overlay Volume Management (Default: Disable)

The music, FM radio and GPS 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.

13.2.11 HD Intercom (Default: Enable)

HD Intercom enhances the two-way intercom audio from normal quality to HD quality. **HD Intercom** will become temporarily disabled when you enter into a multi-way intercom. If this feature is disabled, the two-way intercom audio will change to normal quality.

Note:

- The intercom distance of **HD Intercom** is relatively shorter than that of normal intercom.
- HD Intercom will become disabled temporarily when Bluetooth Intercom Audio Multitasking is enabled.

13.2.12 HD Voice (Default: Enable)

HD Voice allows you to communicate in high-definition during phone calls. This feature increases the quality so that the audio will be crisp and clear during phone call conversations.

If this feature is enabled, incoming phone calls will interrupt intercom conversations and audio from the SR10 will not be heard during intercom conversations. Three-Way Conference Phone Call with Intercom Participant will not be available if **HD Voice** is enabled.

Note:

- Refer to the manufacturer of your Bluetooth device that will be connected to the headset to see if it supports **HD Voice**.
- HD Voice is active only when Bluetooth Intercom Audio Multitasking is disabled.

13.2.13 Smart Volume Control (Default: Disable)

Enabling **Smart Volume Control** automatically changes the level of the speaker volume based on the level of the environment noise. You can enable it by setting the sensitivity to **low**, **medium** or **high**.

13.2.14 Sidetone (Default: Disable)

Sidetone is audible feedback of your own voice. It helps you to naturally speak at the correct level according to varying helmet noise conditions. If this feature is enabled, you can hear what you are speaking during an intercom conversation or a phone call.

13.2.15 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, FM radio functions

13.2.16 RDS AF Setting (Default: Disable)

Radio Data System (RDS) Alternative Frequency (AF) Setting allows a receiver to re-tune to the second frequency location when the first signal becomes too weak. With RDS AF enabled on the receiver, a radio station with more than one frequency can be used.

13.2.17 FM Station Guide (Default: Enable)

When **FM Station Guide** is enabled, FM station frequencies are given by voice prompts as you select preset stations. When **FM Station Guide** is disabled, the voice prompts on FM station frequencies will not be given as you select preset stations.

13.2.18 Advanced Noise Control™ (Default: Enable)

When **Advanced Noise Control** is enabled, the background noise is reduced during an intercom conversation. When it is disabled, the background noise is mixed with your voice during intercom.

TROUBLESHOOTING

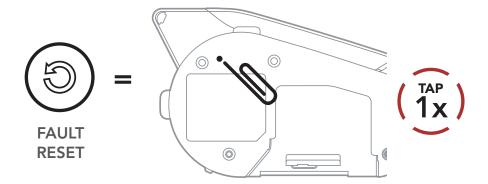
Please visit **sena.com** for answers to frequently asked questions. This detailed online FAQ section deals with troubleshooting, illustrates case studies and contains tips on using the headset.

Click Here to Visit sena.com

Fault Reset 14.1

When the headset is not working properly, you can easily reset the unit:

- 1. Locate the **pinhole reset button** below on the back of the main unit.
- 2. Gently insert a paperclip into the hole and tap the Fault Reset Button with light pressure.



3. The headset will shut down.

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

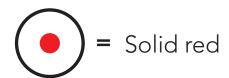
14.2 **Factory Reset**

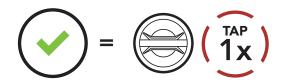
To erase all of your settings and start fresh, the headset can be restored to factory default settings using the Factory Reset feature.





"Factory Reset"







"Headset reset, good-bye"

Note: If you press the Phone Button or do not press the Jog Dial within 5 seconds, the reset attempt is canceled and the headset returns to standby mode. You will hear a voice prompt saying "Canceled".



Copyright © 2020 Sena Technologies, Inc. All rights reserved.

© 1998–2020 Sena Technologies, Inc. All rights reserved.

Sena Technologies, Inc. reserves the right to make any changes and improvements to its product without providing prior notice.

Sena™ is a trademark of Sena Technologies, Inc. or its subsidiaries in the USA and other countries. SF1™, SF2™, SF4[™], SFR[™], SRL[™], Momentum[™], Momentum INC[™], Momentum Lite™, Momentum Pro™, Momentum INC Pro™, Momentum EVO™, Cavalry™, Latitude SR™, Latitude SX™, Latitude S1TM, 30KTM, 50STM, 50RTM, 5STM, 20S EVOTM, 20STM, 10S™, 10C™, 10C PRO™, 10C EVO™, 10U™, 10Upad™, 10R™, 3S™, 3S PLUS™, SMH5™, SMH5-FM™, SMH5 MultiCom[™], SMH10[™], SMH10R[™], SPH10[™], SPH10H-FM™, Savage™, Prism Tube WiFi™, Prism™, Bluetooth Audio Pack for GoPro®, R1™, R1 EVO™, R1 EVO CS™, M1™, M1 EVO™, RC1™, RC3™, RC4™, Handlebar Remote™ Wristband Remote™, PowerPro Mount™, Powerbank™, FreeWire™, WiFi Docking Station™, WiFi Sync Cable™, WiFi Adapter™,+mesh™, +Mesh Universal™, MeshPort Blue™, MeshPort Red™, Econo™, OUTRUSH™, OUTSTAR™, EcoCom™, Parani M10™, Snowtalk™, Snowtalk2™, SR10™, SR10iTM, SM10TM, X1TM, X1 ProTM, X1STM, ExpandTM, Expand Boom™, Bluetooth Mic & Intercom™, Tufftalk™, Tufftalk Lite™, Tufftalk M™ are trademarks of Sena Technologies, Inc. or its subsidiaries. These trademarks may not be used without the express permission of Sena.

GoPro® is a registered trademark of Woodman Labs of San Mateo, California. Sena Technologies, Inc. ("Sena") is not affiliated with Woodman Labs, Inc. The Sena Bluetooth Pack for GoPro® is an aftermarket accessory specially designed and manufactured by Sena Technologies, Inc. for the GoPro® Hero3 and Hero4 allowing for Bluetooth capabilities.

The Bluetooth® word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Sena is under license. iPhone® and iPod® touch are registered trademarks of Apple Inc.

Address: 152 Technology Drive Irvine, CA 92618