



# USER GUIDE

**Firmware Version: 1.1.x**

Last updated on Apr 15, 2025

# CAVALRY 2

SMART HALF HELMET WITH MESH COMMUNICATION



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

# QUICK REFERENCE

 : (+) button

 : (-) button

 : Mesh Intercom button

 : Center button

Type	Operation	Button	Duration
<b>Basic operations</b>	Power on	 & 	Press for 1 second
	Power off	 & 	Single tap
	Volume up/down	 or 	Single tap
<b>Phone</b>	Phone pairing		Press for 5 seconds
	Answer phone call		Single tap
	End phone call		Press for 2 seconds
	Reject phone call		Press for 2 seconds
	Activate voice assistant		Press for 3 seconds
	Speed dial		Press for 3 seconds
	Play/Pause music		Press for 1 second
	Track forward/back	 or 	Press for 1 second
<b>Mesh Intercom™</b>	Mesh Intercom on/off		Single tap
	Mute/unmute mic		Press for 1 second
	Channel selection		Double tap
	Mesh grouping		Press for 5 seconds
	Mesh Reach-Out request		Triple tap
	Reset mesh		Press for 8 seconds
<b>Wave Intercom™</b>	Wave Intercom on		Double tap
	Wave Intercom off		Single tap
	Switch to Mesh Intercom		Single tap
<b>Configuration menu</b>			Press for 10 seconds

# BEFORE GETTING STARTED

## **I Sena Motorcycles App**

Download the Sena Motorcycles app from the Google Play Store or the App Store.



## **I WAVE Intercom App**

Download the WAVE Intercom app from the Google Play Store or the App Store.



For detailed information on the Wave Intercom, please refer to the Wave Intercom User Guide at [sena.com](http://sena.com).

# CLICK ANY SECTION TO BEGIN



ABOUT THE  
CAVALRY 2



BASIC OPERATION



PAIRING WITH  
BLUETOOTH  
DEVICES



USING WITH A  
SMARTPHONE



MESH INTERCOM



**WAVE**  
INTERCOM

WAVE INTERCOM



FIRMWARE UPDATE



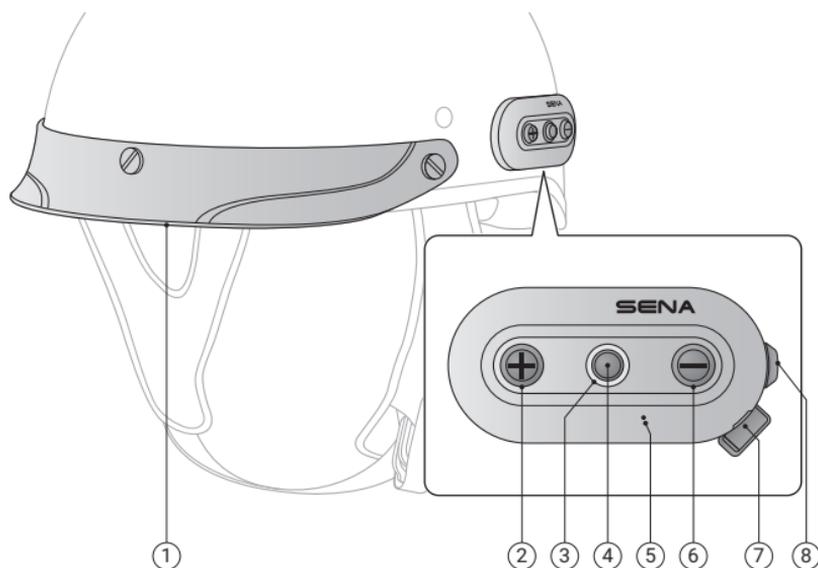
TROUBLESHOOTING



## 01 ABOUT THE CAVALRY 2

### 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
- Wave Intercom Compatible
- Advanced Noise Control™
- Bluetooth® version 5.2
- Over-the-Air (OTA) firmware update



① Visor

② (+) button

③ Status & charging LED

④ Center button

⑤ Reset pinhole

⑥ (-) button

⑦ USB-C charging port

⑧ Mesh Intercom button

## Package Contents



CAVALRY 2



USB-C charging cable

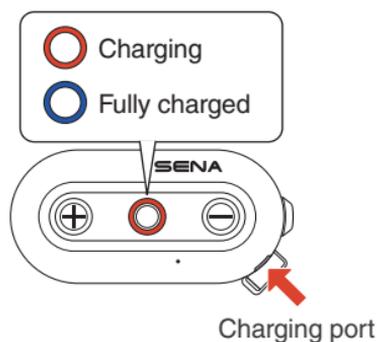


Helmet pouch

## 02 BASIC OPERATION

	<p><b>Tap</b> Tap the button the specified number of times</p>
	<p><b>Press and Hold</b> Press and hold the button for the specified amount of time</p>
	<p><b>Voice Prompt</b></p>
	<p><b>LED</b></p>

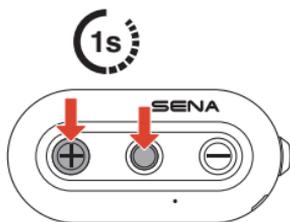
### Charging



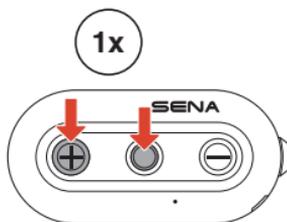
It takes 2.5 hours to fully charge.

- The CAVALRY 2 automatically powers off during charging for safety reasons.
- Any third-party USB charger can be used, as long as it is approved by the FCC, CE, IC, or other locally recognized regulatory agencies.
- Using a non-approved charger may cause fire, explosion, leakage, and other hazards, potentially reducing the battery's lifespan or performance.

**Power On**



**Power Off**



**Volume**



**Configuration**

**Enter Configuration**

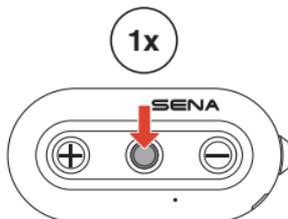


🔊 "Configuration menu"

**Navigate**



**Confirm**

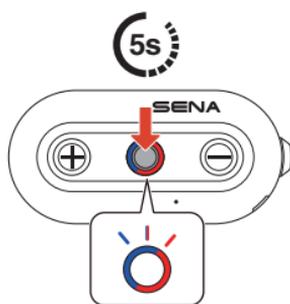


## 03 PAIRING WITH BLUETOOTH DEVICES

When using the CAVALRY 2 with other Bluetooth devices for the first time, they need to be paired. The CAVALRY 2 can pair with multiple devices, including two mobile phones and one GPS. However, it supports only one additional device, alongside a mobile phone, for simultaneous connection.

### Phone Pairing

1.



 "Phone pairing"

2.



- When you turn on the CAVALRY 2 for the first time or reboot it after a factory reset, the CAVALRY 2 will automatically enter phone pairing mode.
- To cancel phone pairing, press any button.

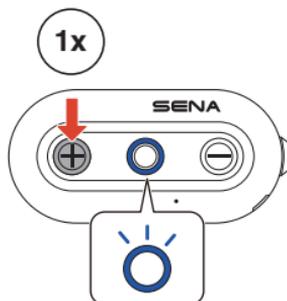
## Second Mobile Phone Pairing

1.



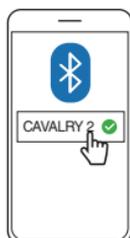
"Configuration menu"

2.



"Second mobile phone pairing"

3.



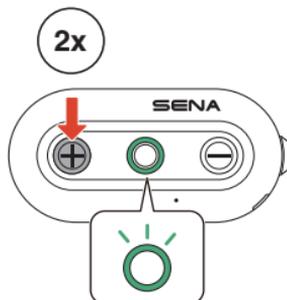
## GPS Pairing

1.



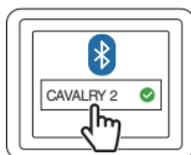
"Configuration menu"

2.



"GPS pairing"

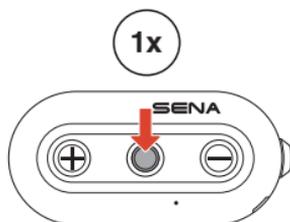
3.



## 04 USING WITH A SMARTPHONE

### Making and Answering Calls

#### Answer a Call



#### End a Call



#### Reject a Call



#### Activate Voice Assistant



## Speed Dial

### Assign Speed Dial Presets

Speed dial presets can be assigned using the Sena Motorcycles app.

### Use Speed Dial Presets

1. Enter the speed dial menu.
2. Navigate forward or backward through speed dial preset.



- ① Last number redial
- ② Speed dial (1→2→3)
- ③ Cancel

3. Tap the center button to confirm.



## Music

### Play/Pause Music



### Track Forward/Backward

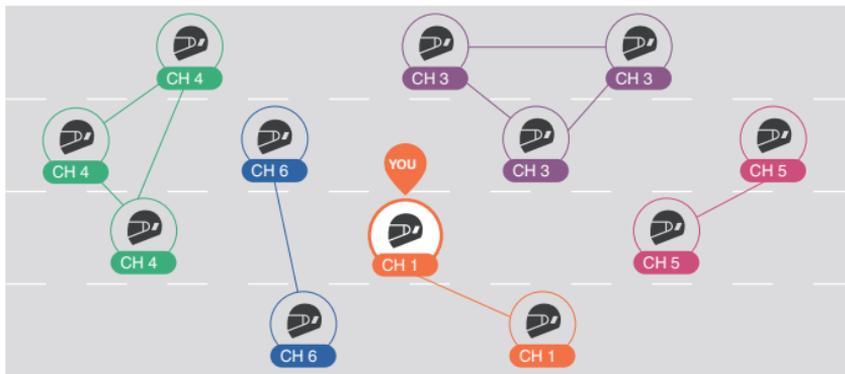


## 05 MESH INTERCOM

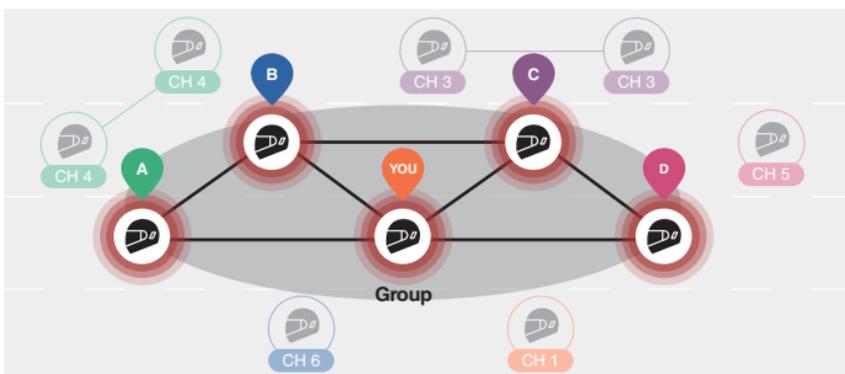
The CAVALRY 2 provides two Mesh Intercom modes:

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

### Open Mesh



### Group Mesh



## Mesh Version Switch

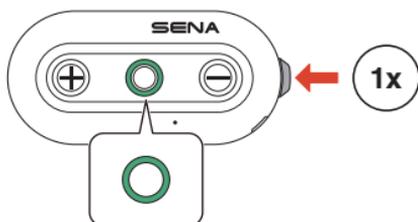
### Switch to Mesh 2.0 for Backward Compatibility

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 Motorcycles app.

## Open Mesh

You can freely communicate with virtually unlimited users in each of the 6 available channels. The default Mesh Intercom channel is 1.

### Mesh Intercom On/Off



**On:** "Mesh intercom on, Open Mesh, channel 1"



**Off:** "Mesh intercom off"

### Mute/Unmute Mic

Press the Mesh Intercom button for 1 second to mute/unmute the microphone during Mesh Intercom communication.



**Mute:** "Mic off"

**Unmute:** "Mic on"

## Channel Selection

1. Enter the channel setting.



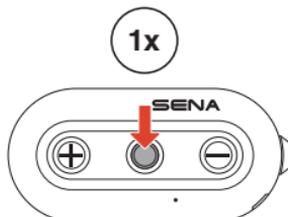
"Channel setting, 1"

2. Navigate between channels.



"#"

3. Confirm and save the channel.



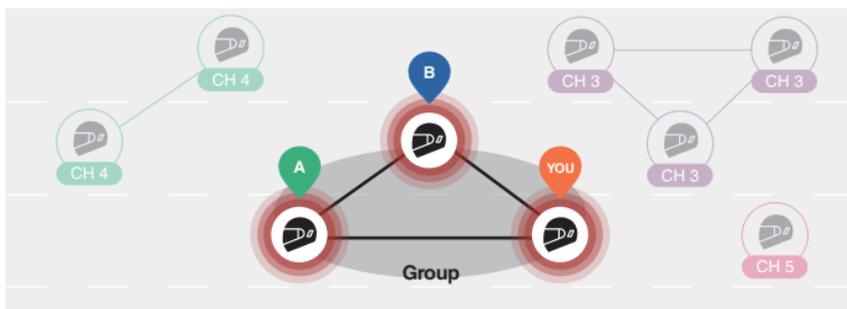
"Channel is set,  
channel #"

- The channel will be automatically saved if no buttons are pressed for 10 seconds on a specific channel.
- The channel will be saved even if the CAVALRY 2 is turned off.

# Group Mesh

By using group mesh, a private conversation group can be created for up to 24 participants.

## Create a Group Mesh



1. Users (You, A, and B) enter the mesh grouping by pressing the Mesh Intercom button for 5 seconds while staying in the open mesh. They don't need to be on the same open mesh channel to create a group mesh together.



2. When mesh grouping is completed, it automatically switches from open mesh to group mesh.



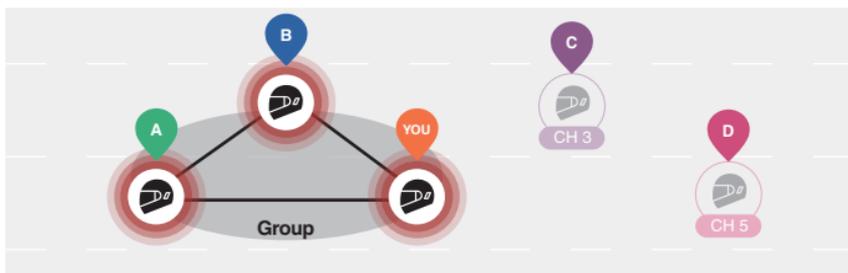
- If you want to cancel mesh grouping, tap the Mesh Intercom button.



- If the mesh grouping is not successfully completed within 30 seconds, users will hear a voice prompt saying, "Grouping failed."

## Join an Existing Group Mesh

While you are in a group mesh, you can invite other users in open mesh to join the group.



You are already in group mesh with A and B, and the other users, C and D, are in open mesh.

1. You and the other users, C and D, enter mesh grouping by pressing the Mesh Intercom button for 5 seconds.



2. When mesh grouping is completed, the other users, C and D, automatically join the group mesh while leaving the open mesh.

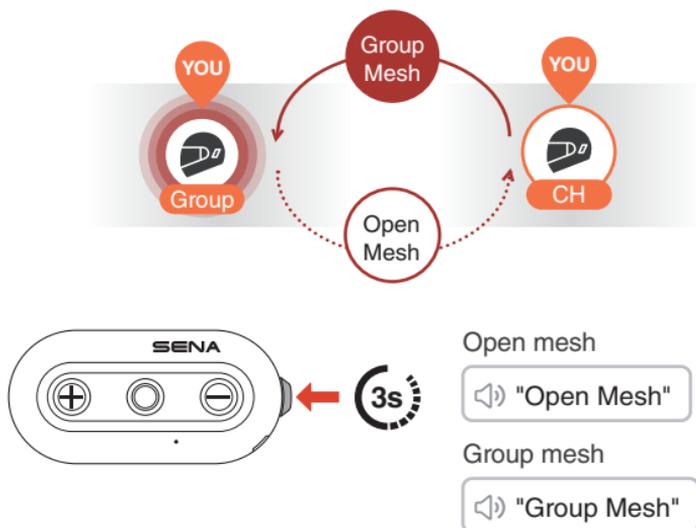
🔊 "Group Mesh"

New participants (C and D)

- If the mesh grouping is not successfully completed within 30 seconds, the current user (You) will hear a low tone double beep and the new users (C and D) will hear a voice prompt saying, "Grouping failed."

## Toggle Open/Group Mesh

You can toggle between open mesh and group mesh without resetting the mesh.



- If you have never participated in group mesh, you cannot toggle between open mesh and group mesh. You will hear a voice prompt saying, "No group available."

## Mesh Reach-Out Request

You (caller) can send a Mesh Reach-Out request to turn on Mesh Intercom to nearby\* friends who have it turned off.

1. If you want to send or receive a Mesh Reach-Out request, you need to enable it in the Sena Motorcycles app.
2. You can send a Mesh Reach-Out request using the Mesh Intercom button or the Sena Motorcycles app.

**Caller**



**Caller:** "Mesh reach-out request"

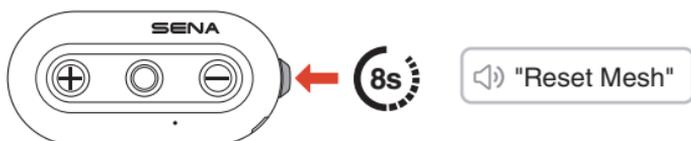
**Nearby Friends:** "Mesh intercom requested"

3. Friends who receive the Mesh Reach-Out request need to manually turn on their Mesh Intercom.

\* Up to 330 ft in open terrain

## Reset Mesh

If the CAVALRY 2 resets the mesh while in open mesh or group mesh, it will automatically return to open mesh, channel 1.



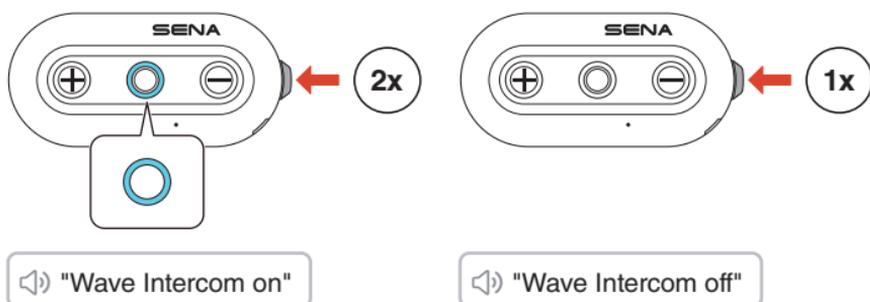
## 06 WAVE INTERCOM

Wave Intercom enables open communication using cellular data. For detailed information, please refer to the Wave Intercom User Guide on [sena.com](http://sena.com).

### Wave Intercom On/Off

Open the WAVE Intercom app, then double-tap the Mesh Intercom button to join Wave Intercom.

- You must open the WAVE Intercom app before starting Wave Intercom.

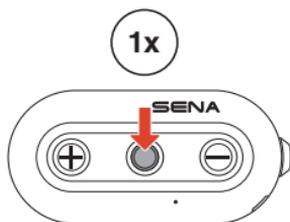


When you start Wave Intercom, you will automatically connect with random users in the Wave Zone. The Wave Zone covers a 5-mile radius in North America and an 8-km radius in Europe.

To end Wave Intercom, single-tap the Mesh Intercom button.

## Switch between Wave Intercom and Mesh Intercom

You can easily switch between Mesh Intercom and Wave Intercom with a single tap on the center button.



**Wave to Mesh:** "Wave Intercom off. Mesh Intercom on."

**Mesh to Wave:** "Mesh Intercom off. Wave Intercom on."

- When the WAVE Intercom app is in use, the Bluetooth Intercom becomes temporarily disabled.

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## 07 FIRMWARE UPDATE

### Over-the-Air (OTA) Update

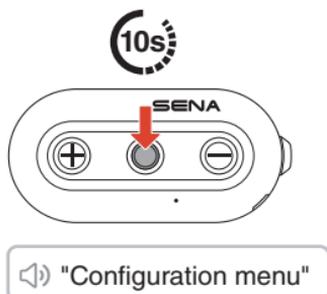
You can update the firmware via Over-the-Air (OTA) directly from the settings in the Sena Motorcycles app.

## 08 TROUBLESHOOTING

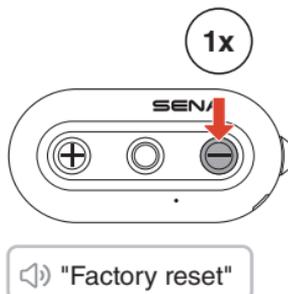
### Factory Reset

To restore the CAVALRY 2 to its factory default settings, simply use the factory reset feature.

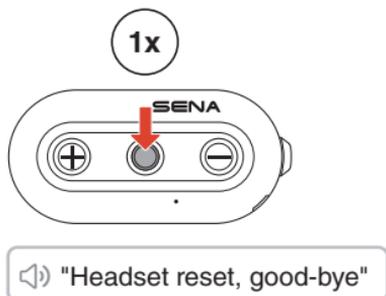
1.



2.



3.

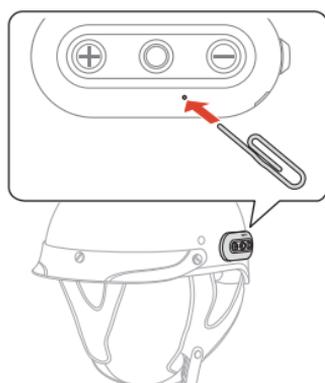


### Fault Reset

If the CAVALRY 2 is on but not responding, you can perform a fault reset to restore normal functionality.

Use a clip to press the reset pinhole below the center button.

All settings will remain unchanged.





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