



USER GUIDE

Firmware Version: 1.0.x
Last updated on Dec 1, 2025

SPECTER



SMART FLIP-UP HELMET WITH MESH COMMUNICATION



———— SOUND BY ————
harman/kardon®





























The firmware version 1.0.x indicates that this manual is applicable to all firmware updates within the version 1.0 series.

QUICK REFERENCE

 : Joystick up
 : Joystick center

 : Joystick down
 : Wave Intercom button

 : Mesh Intercom button
 : Multi-function button

Type	Operation	Button	Duration
Basic operations	Power on	 & 	Press for 1 second
	Power off	 & 	Single tap
	Volume up/down	 or 	Single tap
LED light	Taillight on/off		Press for 1 second
Phone	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
	Speed dial		Press for 3 seconds
	Play/Pause music		Press for 1 second
	Track forward/back	 or 	Press for 1 second
Siri or Google Assistant			Press for 3 seconds
Mesh Intercom™	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
Wave Intercom™	Wave Intercom on/off		Single tap
Configuration menu			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](https://www.sena.com).

CLICK ANY SECTION TO BEGIN



ABOUT THE
SPECTER



BASIC OPERATION



LED LIGHT



PAIRING WITH
BLUETOOTH
DEVICES



USING WITH A
SMARTPHONE



MESH INTERCOM



WAVE INTERCOM



AUDIO
MULTITASKING



VOICE COMMAND



FIRMWARE UPDATE



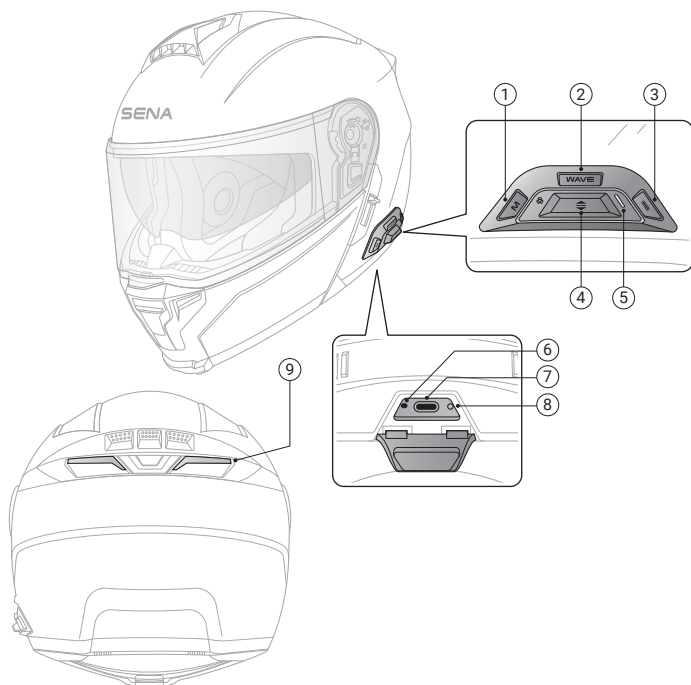
TROUBLESHOOTING



01 ABOUT THE SPECTER

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
- Professional studio quality sound with integrated speakers
- AI-based noise cancellation
- Enhanced voice command
- Rear running and brake taillight
- Bluetooth version 5.3
- Over-the-Air (OTA) firmware update



① Mesh Intercom button

② Wave Intercom button

③ Multi-function button

④ Joystick

⑤ Status LED

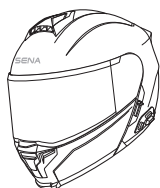
⑥ Charging LED

⑦ USB-C charging port

⑧ Reset pinhole

⑨ Taillight

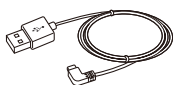
Package Contents



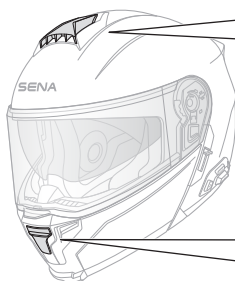
SPECTER



Microphone sponges



USB-C charging cable



Open



Closed

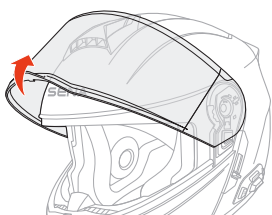


Open

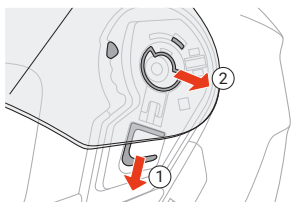


Closed

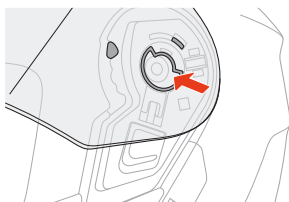








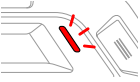
Removal



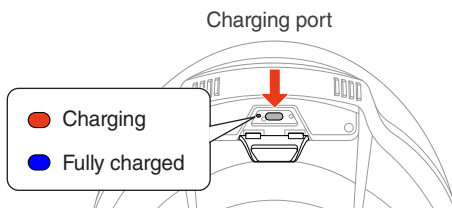
Installation



02 BASIC OPERATION

	Tap Tap the button the specified number of times
	Press and Hold Press and hold the button for the specified amount of time
	Voice Prompt
	Voice Command
	LED

Charging

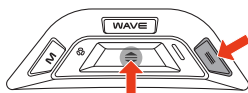


It takes 2.5 hours to fully charge.

- The SPECTER features fast charging, delivering 5.0 hours of Mesh Intercom with just a 20-minute charge.
- Safe power mode provides continuous power without battery charging to ensure safe, uninterrupted use on the road.
- 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.

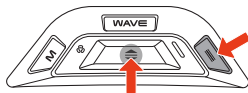
Power On

1s



Power Off

1x



- The SPECTER enters sleep mode if it remains motionless for 2 minutes.
- If any motion is detected within 3 hours, the SPECTER wakes up. Otherwise, it powers off completely after 3 hours.
- To enable or disable this function, go to Device Settings and toggle Auto On/Off in the Sena Motorcycles app.

Volume

1x

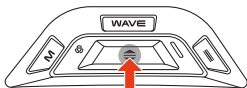


or



Configuration

Enter Configuration



10s



"Configuration menu"

Navigate

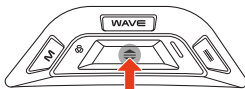
1x



or



Confirm



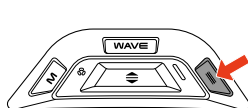
1x

03 LED LIGHT



In some regions, local laws and regulations restrict the use of LEDs on helmets. Therefore, ensure you are familiar with and comply with the relevant laws and regulations in the area where you use the helmet.

Taillight On/Off



On: "Taillight on"

Off: "Taillight off"

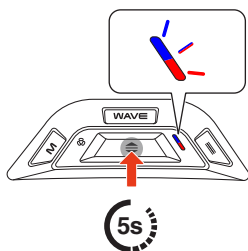
The taillight can be customized through the Sena Motorcycles app. The brake light activates automatically when braking is detected.

04 PAIRING WITH BLUETOOTH DEVICES

When using the SPECTER with other Bluetooth devices for the first time, they need to be paired. The SPECTER 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.

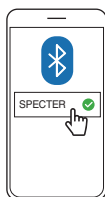
Phone Pairing

1.



🔊 "Phone pairing"

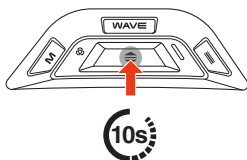
2.



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

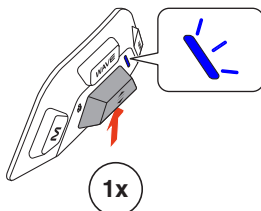
Second Mobile Phone Pairing

1.



"Configuration menu"

2.



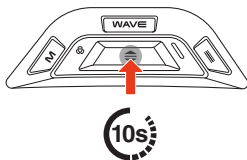
"Second mobile phone pairing"

3.



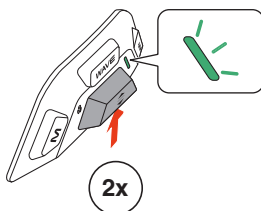
GPS Pairing

1.



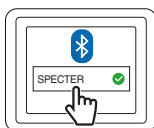
"Configuration menu"

2.



"GPS pairing"

3.



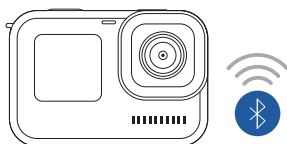
Action Camera Pairing

Pairing the SPECTER with an action camera allows you to record audio from the Mesh Intercom conversations. You can also use the action camera's voice commands via the headset's microphone.

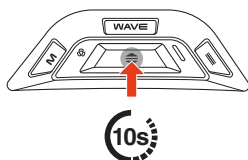
- For detailed instructions on voice commands, refer to the user guide for your action camera.

Device Pairing

- Put your action camera in Bluetooth pairing mode.

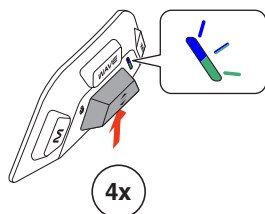


-



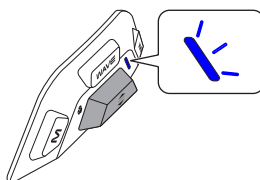
"Configuration menu"

-



"Action cam pairing"

- Wait until you hear a voice prompt.



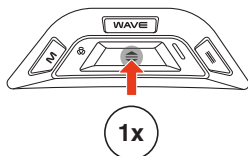
"Device Connected"

- When paired with an action camera, music is disabled.

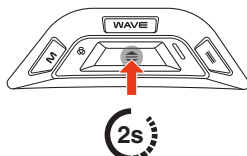
05 USING WITH A SMARTPHONE

Making and Answering Calls

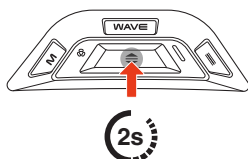
Answer a Call



End a Call



Reject a Call



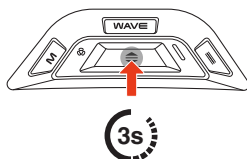
Siri or Google Assistant

Say "Hey Siri", "Hey Google," or press the center of the joystick for 3 seconds to activate Siri or Google Assistant.



"Hey Google" or "Hey Siri"

or



Speed Dial

Assign Speed Dial Presets

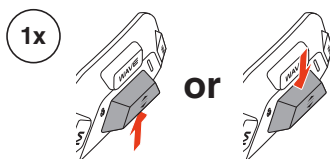
Speed dial presets can be assigned using the Sena Motorcycles app.

Use Speed Dial Presets

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

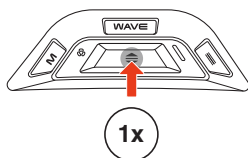


🔊 "Speed dial"



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

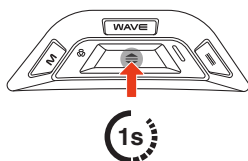
3. Tap the center of the joystick to confirm.



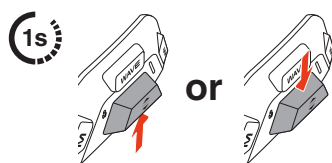
🔊 "Speed dial(#)"

Music

Play/Pause Music



Track Forward/Backward

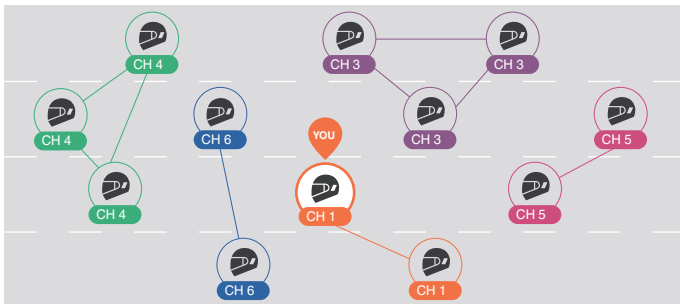


06 MESH INTERCOM

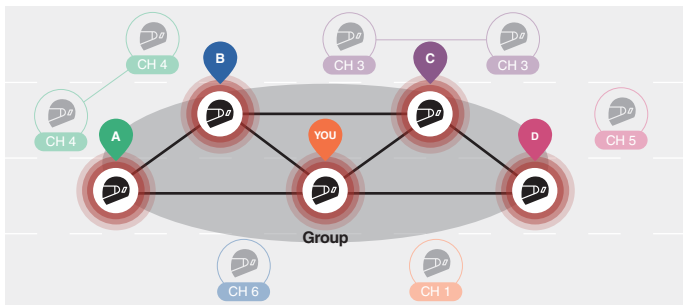
The SPECTER provides two Mesh Intercom modes:

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

Open Mesh



Group Mesh



Mesh Version Switch

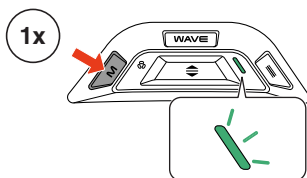
Switch to Mesh 2.0 for Backward Compatibility

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.

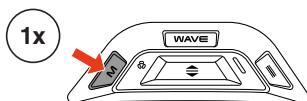
Open Mesh

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



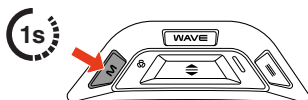
On: "Mesh intercom on,
Open Mesh, channel 1"



Off: "Mesh intercom off"

Mute/Unmute Mic

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

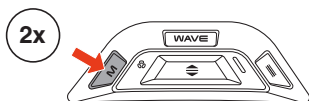


Mute: "Mic off"

Unmute: "Mic on"

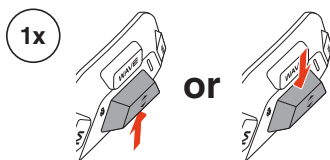
Channel Selection

1. Enter the channel setting.



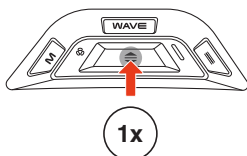
"Channel setting, 1"

2. Navigate between channels.



"#"

3. Confirm and save the channel.



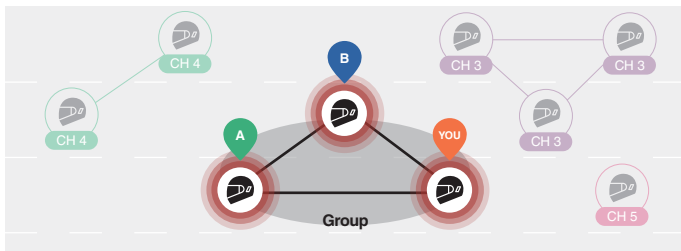
"Channel is set, channel #"

- 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 SPECTER 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.

"Group Mesh"

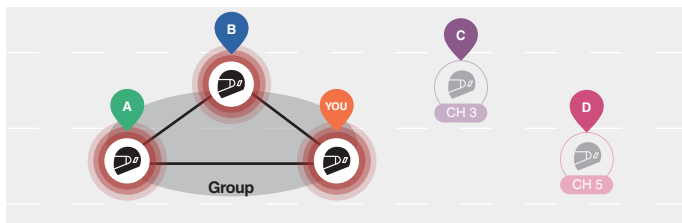
- If you want to cancel mesh grouping, tap the Mesh Intercom button.



- 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

When 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.

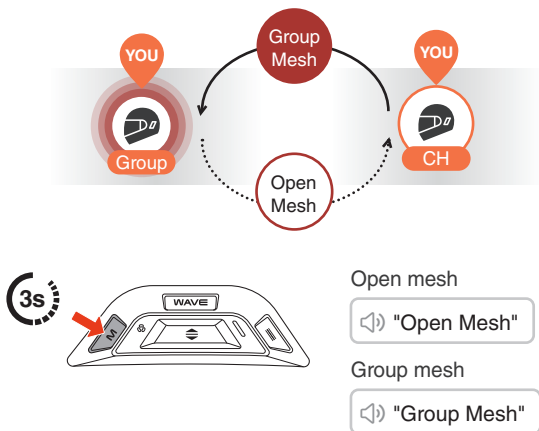
"Group Mesh"

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."

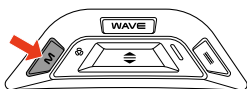
Mesh Reach-Out Request

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

3x



Caller: "Mesh reach-out request"

Nearby Friends: "Mesh intercom requested"

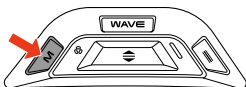
3. Friends who receive the Mesh Reach-Out request need to manually turn on their Mesh Intercom.

* Up to 330 ft in open terrain

Reset Mesh

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

8s



"Reset Mesh"

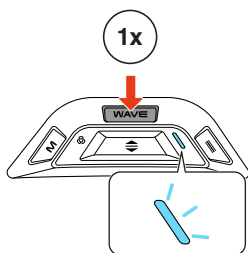
07 WAVE INTERCOM

Wave Intercom enables open communication using cellular data. For detailed information, please refer to the Wave Intercom User Guide on sena.com.

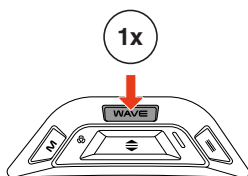
Wave Intercom On/Off

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

- You must open the app before starting Wave Intercom.



On: "Wave Intercom on"



Off: "Wave Intercom off"

When you start Wave Intercom, you will automatically connect with users in the Wave Zone. The Wave Zone covers a 1-mile radius in North America and a 1.6-km radius in Europe.

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

08 AUDIO MULTITASKING

Audio multitasking on the SPECTER allows you to listen to music and GPS turn-by-turn instructions while having a Mesh Intercom conversation.

For more details, go to Device Settings on the Sena Motorcycles app to configure the settings.

Background Volume

Background audio, such as music playback, will automatically lower in volume during an active intercom conversation. You can adjust the volume reduction percentage in the app under 'Background Volume'.

09 VOICE COMMAND

The SPECTER offers multi-language voice commands in eight different languages, which can be easily set through the Sena Motorcycles app. A complete list of available voice commands is also provided in the Sena Motorcycles app.

To activate voice commands, simply say, "Hey Sena."



Voice Command List

"Answer"

"Ignore"

"Hey Sena, Check Battery"

"Hey Sena, Volume Up"

"Hey Sena, Volume Down"

"Hey Sena, Phone Pairing"

"Hey Sena, Redial Number"

"Hey Sena, End Call"

"Hey Sena, Play Music"

"Hey Sena, Stop Music"

"Hey Sena, Previous Track"

"Hey Sena, Next Track"

"Hey Sena, Mesh Intercom On"

"Hey Sena, Mesh Intercom Off"

"Hey Sena, Wave Intercom On"

"Hey Sena, Wave Intercom Off"

10 FIRMWARE UPDATE

Over-the-Air (OTA) Update

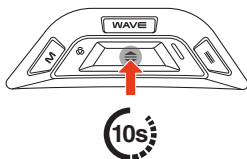
You can update the firmware via Over-the-Air (OTA) directly from the settings in the Sena Motorcycles app.

11 TROUBLESHOOTING

Factory Reset

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

1.



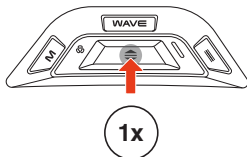
🔊 "Configuration menu"

2.



🔊 "Factory reset"

3.



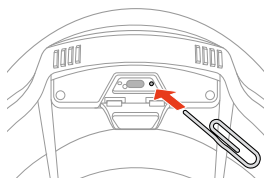
🔊 "Headset reset, good-bye"

Fault Reset

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

Use a clip to press the reset pinhole next to the USB-C charging port.

All settings will remain unchanged.





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