



# INSTRUCTIONS

J06542

2020-07-13



## WIRELESS HEADSET INTERFACE MODULE (WHIM)

### GENERAL

#### Kit Number

76000768

#### Models

For model fitment information, see the Parts and Accessories (P&A) Retail Catalog or the Parts and Accessories section of [www.harley-davidson.com](http://www.harley-davidson.com) (English only).

#### Installation Requirements

These items are available at your local Harley-Davidson dealership.

- **2014-2017 Touring models:** Separate purchase of Headset Module Wire Harness (Part No. 69201726) is required for this installation.
- **FLHTCU, FLHTCUL, FLHTK, FLHTKL, FLHTKSE, FLHX, FLHXS and FLHXSE models:** Satellite radio requires relocation of antenna. New bracket is included in kit.
- Software flash performed by Harley-Davidson dealer using DIGITAL TECHNICIAN II (PART NUMBER: HD-48650)
- Radio software updated to most recent version. SOFTWARE

#### Electrical Overload

##### NOTICE

It is possible to overload the vehicle's charging system by adding too many electrical accessories. If the combined electrical accessories operating at any one time consume more electrical current than the vehicle's charging system can produce, the electrical consumption can discharge the battery and cause damage to the vehicle's electrical system. (00211d)

##### ⚠ WARNING

When installing any electrical accessory, be certain not to exceed the maximum amperage rating of the fuse or circuit breaker protecting the affected circuit being modified. Exceeding the maximum amperage can lead to electrical failures, which could result in death or serious injury. (00310a)

#### Kit Contents

See Figure 22 and Table 1.

##### ⚠ WARNING

Rider and passenger safety depend upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333b)

##### NOTE

*This instruction sheet references service manual information. A service manual for this year/model motorcycle is required for this installation. One is available from a Harley-Davidson dealer.*

### PREPARE

1. Remove main fuse. See service manual.
2. Remove seat. See service manual.
3. Remove tank. See service manual.
4. Remove backbone main wire harness trough cover.
5. Remove right side cover. See service manual.
6. Remove outer fairing. See service manual.
7. **Fork Mounted:** Remove fairing amplifier, if equipped. See service manual.
8. Locate and label connectors. See service manual for connector location by number [xxx].
  - a. **All:** [280A] accessory connector, gray 12-way
  - b. **2014-2017:** [184A] Citizens Band (CB) connector, black 12-way
  - c. If vehicle has CB, disconnect connector [184A] from [184B]
  - d. If a cap is present, remove connector and save.

### BRACKET INSTALLATION

1. See Figure 1 or Figure 2. Install bracket (2) to module (3) with screws (4). Tighten.  
Torque: 3.2–4.3 N·m (28–38 in-lbs)
2. Install module and bracket to inner fairing support with screws (1). Tighten.  
Torque: 10.8–12.2 N·m (96–108 in-lbs)



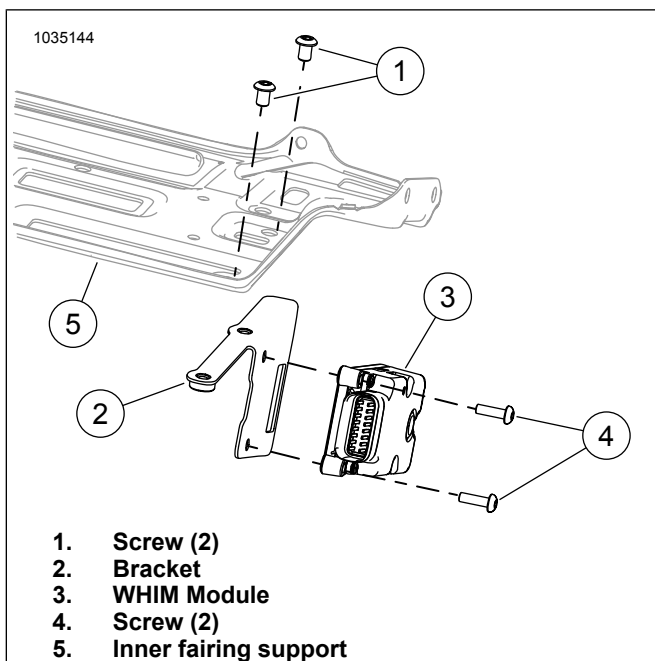


Figure 1. Fork Mounted Fairing WHIM

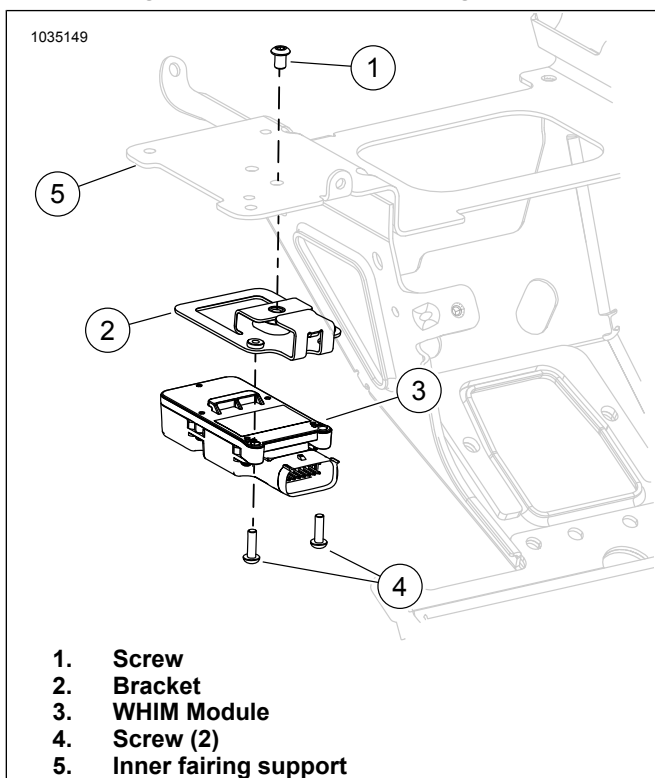


Figure 2. Frame Mounted Fairing WHIM

## INSTALL HARNESS

1. Install wire harness kit.

### NOTE

Though both harnesses look similar (and will physically mate to the vehicle) it is very important to be sure the correct harness is used for the correct model year. Using the incorrect harness will result in a condition where the radio will not recognize the Wireless Headset Interface Module (WHIM).

a. **2014-2017 models:** See Figure 6. Discard wire harness 69201751 from kit and use harness 69201726.

b. **2018 and later models:** See Figure 7. Use wire harness 69201751 from kit.

2. **2014-2017 models:** See Figure 6. Connect harness connectors.

a. Connect gray 16-way connector (3) to WHIM.

b. Connect gray 12-way connector (2) to vehicle [280A].

c. If vehicle is **not** equipped with CB: Remove weather cap from black 12-way pin side connector [184A] on vehicle. Connect 12-way black socket side connector of WHIM harness (4) to black 12-way pin side connector on vehicle. Install weather cap into unused pin side connector of WHIM harness (5).

d. If vehicle **is** equipped with CB: Separate black 12-way connector between CB module and vehicle main harness on vehicle [184A/B]. Connect black 12-way socket side of WHIM harness (4) to vehicle 12-way black pin side connector [184A]. Connect black 12-way pin side of WHIM harness (5) to vehicle 12-way black socket side connector [184B] on CB module.

3. **2018 and later models:** See Figure 7. Connect harness connectors.

a. Connect gray 16-way connector (3) to WHIM.

b. Connect gray 12-way connector (2) to vehicle [280A].

4. **All:** Route Micro Universal Serial Bus (USB) harness (1).

a. Route Micro USB through fairing.

b. Route past steering head.

c. Route through wire trough.

d. Exit wire trough at bottom.

e. Locate Micro USB under right side cover.

### NOTE

Make sure cap on end of USB is installed if not being used.

5. **NOTE**

Failure to relocate this antenna will result in reduced satellite radio reception and performance.

On 2014-2015 FLHTKSE models, the satellite antenna cannot be relocated due to the remote lock antenna location.

**FLHTCU, FLHTCUL, FLHTK, FLHTKL, FLHTKSE, FLHX, FLHXS and FLHXSE models with SiriusXM Satellite radio:**

- a. See Figure 3. Locate satellite radio antenna (1) on inboard side of left speaker enclosure.
- b. Remove antenna (1) from the bracket (2) (secured magnetically or with VHB tape).
- c. Loosen screws and remove bracket (2). Cut and discard cable straps.

**NOTE**

*Bracket (2) has open end slots so the screws do not need to be removed.*

- d. See Figure 4. Test fit relocation bracket (3) to speaker enclosure (4).
- e. Test fit antenna (1) to bracket and mark location.

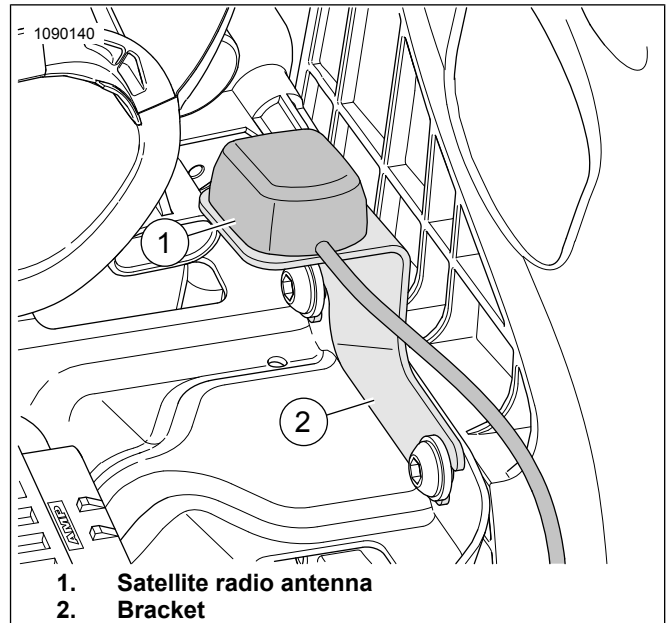
**NOTE**

*See Figure 5. Check for clearance between windshield (2) and antenna (1).*

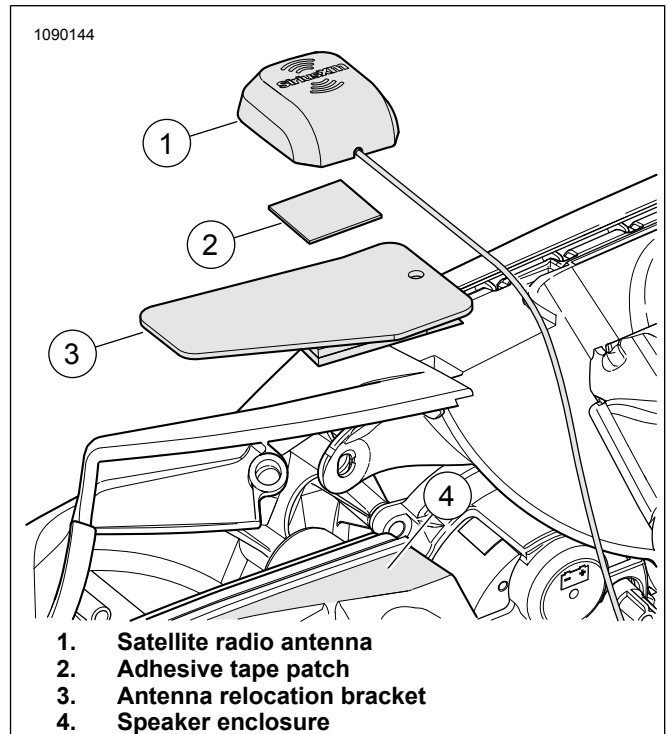
**NOTICE**

**Do not clean with denatured alcohol, mineral spirits, or other solvent products, or component damage may occur. (00411c)**

- f. See Figure 4. Clean tops of speaker enclosure (4) and antenna relocation bracket (3). Use 50/50 isopropyl alcohol and water mixture.
- g. Remove backing tape from bottom of bracket (3) and secure to speaker enclosure (4).
- h. Attach antenna (1) to bracket (3). Secure with adhesive tape patch (2) or magnetically.
- i. Secure wiring from antenna (1) to faring harness with cable straps.



**Figure 3. SiriusXM Satellite Radio Antenna**



**Figure 4. Antenna Relocation Bracket**

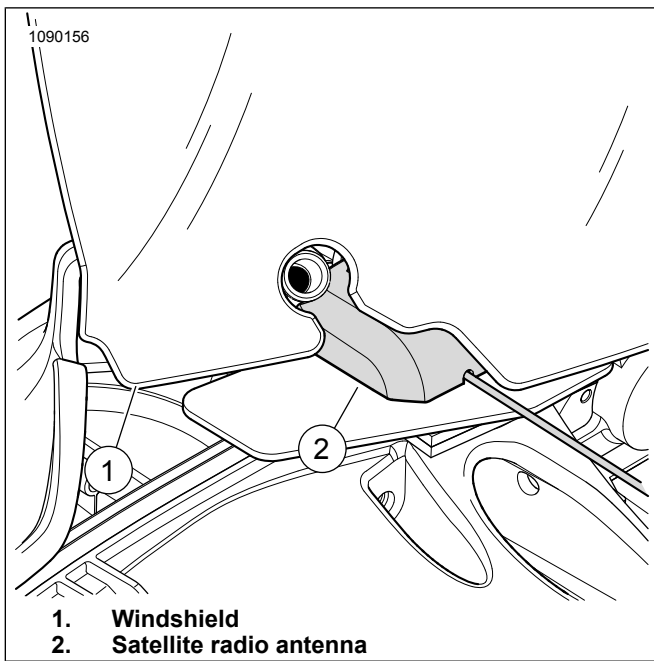


Figure 5. Windshield Clearance

6. Secure with cable straps.
  - a. Wire harnesses.
  - b. Excess bundles.
7. Make sure wire harness does not interfere with dynamic movement of the steering or suspension components in any way.

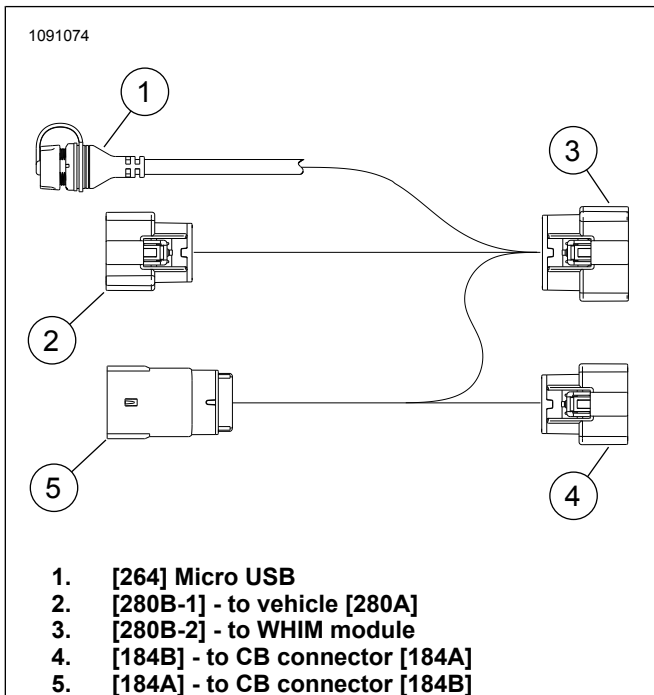


Figure 6. Harness 69201726

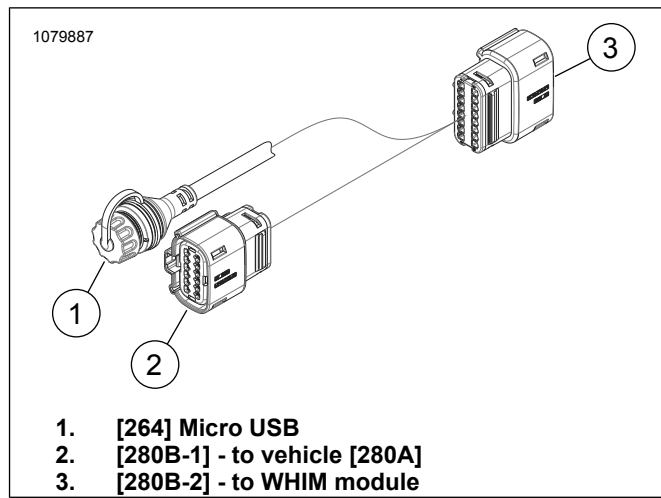


Figure 7. Harness 69201751

## COMPLETE

1. **Fork Mounted:** Install upper amplifier, if equipped. See service manual.
2. Install outer faring. See service manual.
3. Install right side cover. See service manual.
4. Install backbone main wire harness trough cover.
5. Install tank. See service manual.
6. Install seat. See service manual.
7. Install main fuse. See service manual.

## SOFTWARE

See [www.H-D.com/infotainment-support](http://www.H-D.com/infotainment-support) for the latest software downloads or visit your local Harley-Davidson dealership for the latest on infotainment system information.

1. **NOTE**  
*A laptop computer is recommended.*

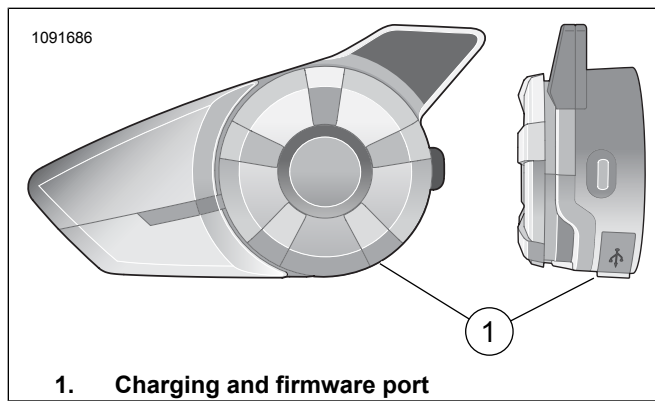
Update vehicle software.

- a. Visit Harley-Davidson website.
- b. Download latest WHIM or BOOM Audio 20S headset software to a laptop. This is not required if product has been recently removed from the packaging.
- c. Download and install Device Manager on your laptop.

**NOTE**  
*Make sure to install the correct software for your laptop.*

2. Locate software port.
  - a. **Vehicle:** See Figure 6 and Figure 7. USB (1) connector under right side cover.

- b. **Headset:** See Figure 8. Charging and firmware port (1).



**Figure 8. Boom Firmware Port**

3. Connect laptop to software port using USB cable.
  - a. **Boom Audio 20S:** Leave unit powered off.
  - b. **Vehicle:** Leave unit powered off (Ignition Off) and do not plug in the USB cable until prompted by the Device Manager program.
4. Upload software.
  - a. Open Device Manager.
  - b. Follow instructions to upload software. **1.7.5 or later for 20S and 1.1 or later for SPH10.**
5. Disconnect cable from software port.
6. Make sure radio software is updated with most recent version (1.21 or later).

## Digital Technician II Update

1. Visit Harley-Davidson dealer.
2. Perform update.
  - a. See **Radio System Information** screen.
  - b. Select **Options**.
  - c. Click **Yes** box for Wireless Headset installed.

## OPERATION

### Wireless Headset

Please read the Sena User's Guide for additional information pertaining to the wireless headset. Also see [www.H-D.com/infotainment-support](http://www.H-D.com/infotainment-support) for the latest version of User's Guide and related information to Boom! Audio Bluetooth products or visit your local Harley-Davidson dealership.

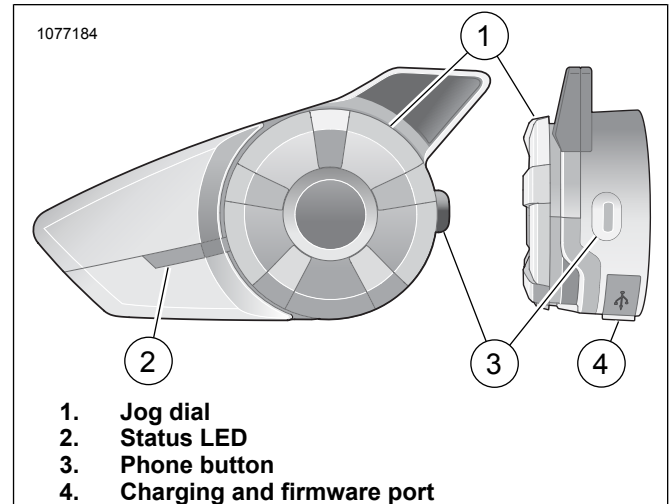
### Getting Started

Charge the wireless headset by connecting the supplied USB power & data cable into a computer USB port or USB wall

charger. You can use any standard micro-USB cable to charge. The Light Emitting Diode (LED) turns red while the headset is charging and turns blue when it is fully charged. It takes about 2.5 hours to be completely charged.

### Powering On and Off

Press the Jog Dial and the Phone Button at the same time to power the headset either on or off. When powering on the headset, press the Jog Dial and the Phone button at the same time until the blue LED appears while hearing the ascending beeps. When powering off the headset, press the Jog Dial and the Phone Button at the same time until the red LED appears briefly and the headset turns off completely while hearing descending beeps.



**Figure 9. Boom Wireless Headset**

### Wireless Headset Setup

Before using the wireless headset with any Bluetooth® devices for the first time, you will need to pair them together. For example, it can be paired with Bluetooth mobile phones, Bluetooth stereo devices such as MP3 players, or motorcycle specific Bluetooth Global Positioning System (GPS) navigation, and with other Boom! Audio Bluetooth headsets. This pairing operation is only required once for any Bluetooth device. The headset remains paired with the devices and automatically reconnects to them when they are within range. You will hear a high tone single beep and a voice prompt when the headset connects to the paired device automatically:

When a headset is paired to the motorcycle, it will say **Your Headset is Paired, Boom Audio Connected**. After this initial pairing, every time the headset connects to the motorcycle you will hear **Boom Audio Connected**.

When a headset is paired to a phone, it will confirm the pairing by saying **Your Headset is Paired..** After this initial pairing, every time the headset reconnects to the phone it will say **Phone Connected**.

1. Turn on wireless headset.
2. From the Home screen, select Setup on the touchscreen.
3. See Figure 10. Use the scroll control and scroll to Wireless Headset.



Figure 10. Scroll to Wireless Headset

4. See Figure 11. Select Wireless Headset.



Figure 11. Select Wireless Headset

5. **NOTE**

Place headset in pairing mode before selecting **Pair Rider Headset**. Press phone button for 5 seconds until red and blue LED's alternately flash.

Put **Headset** into pairing mode.

- a. Touchscreen will display **Pairing in Progress with Headset**.

6. **NOTE**

Rider's headset should be paired first followed by the passenger.

See Figure 12. Select Pair Rider Headset.



Figure 12. Pair Rider Headset

7. **NOTE**

Harley Davidson headsets will show up as Boom Audio and the version of its software. See owner's manual of non-Harley Davidson headset products for display options.

See Figure 13. Confirm wireless headset display information on the touchscreen. Select the model of wireless headset to pair.



Figure 13. Place Headset Into Pairing Mode

8. See Figure 14. Touchscreen will display confirmation status that the wireless headset has been Connected.

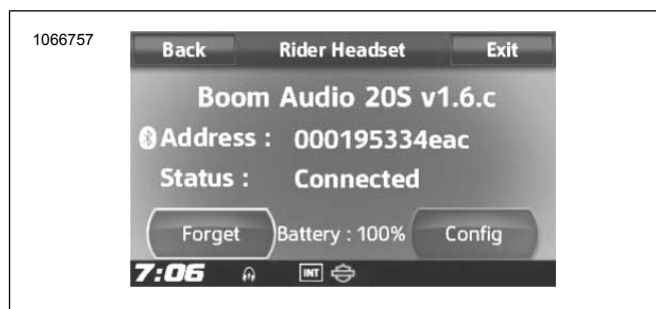


Figure 14. Paired Headset

9. Perform the same procedure for pairing the wireless headset for a passenger.

## Headset to Headset Intercom Pairing

**NOTE**

When in pairing mode, do one device at a time in the area of the motorcycle and headset.

Please read the Sena User's Guide for information pertaining to the wireless headset to headset intercom set up and usage.

## Headset Configurations

**NOTE**

The wireless headset must be turned on and paired with the system for the following configurations to appear on the touchscreen.

**The headset configurations only affect headset performance when it is paired to a phone or other headset. They do not directly impact the performance of the headset when it is paired to the vehicle. The Sidetone and INT-Audio Overlay Sensitivity are the only two settings in the configuration options that will directly impact the headset when it is paired to a vehicle.**

The 12 configuration modes can be accessed through the Boom! Box Infotainment system. Configuration options are only available for Harley 20S and 20S EVO headsets. They will not appear for non-Harley headsets or the SPH10.

Select **Home > Setup > Wireless Headset > Manage Rider or Passenger Headset > Config** to manage headset configurations.



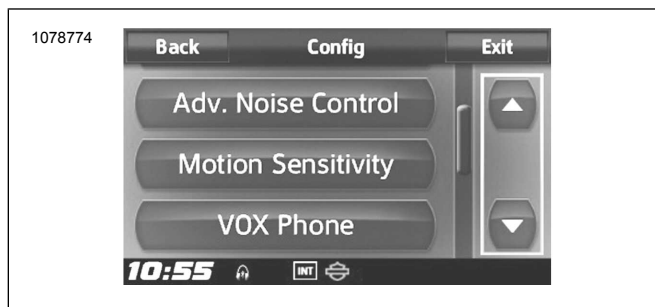
**Figure 15. Headset Configuration**

**Smart Vol. Control:** Smart Volume Control automatically changes the level of the speaker volume based on the level of the environmental noise. When it is disabled, volume is controlled manually. You can enable it by setting the sensitivity to low, medium, or high. Smart Volume Control responds to smaller environmental noises as the sensitivity level becomes higher. This factory setting is disabled.

**SideTone:** Sidetone is the sound of your own voice as picked up by your headset's microphone and reproduced in your own ear, by your own speaker. 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. This factory setting is disabled.

**Voice Prompt:** You can disable voice prompts, but the following voice prompts are always on:

- Voice prompts for configuration setting menu
- Voice prompts for battery level Indicator
- Voice prompts for factory reset
- Voice prompts for speed dial
- Voice prompts for FM radio functions



**Figure 16. Headset Configuration**

**Adv. Noise Control:** 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. This factory setting is enabled.

**Motion Sensitivity:** Motion Sensor Sensitivity determines the sensitivity when you double tap on the surface of the Boom! Audio 20S EVO to enter voice command mode. The factory setting is low, but you may change it to high, or disable the feature.

**VOX Phone:** If this feature is enabled, you can answer incoming calls by simply saying a word loudly enough, unless you are connected to intercom. For example, when you hear a series of beeps for an incoming call, you can answer the phone by saying **Hello** or any other word loudly. However, the VOX Phone

feature does not work if you are connected to the intercom. This feature is enabled from the factory but can be disabled through the configuration menu, Device Manager, or the Sena Smartphone App. If this mode is disabled, you have to tap the Jog Dial or the Phone Button to answer an incoming call.



**Figure 17. Headset Configuration**

**HD Intercom:** 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. This factory setting is enabled.

**Audio Multitasking:** 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. If this feature is disabled, any incoming or outgoing intercom will interrupt your audio channel. This factory setting is enabled.

**INT-Audio Sensitivity:** INT-Audio Sensitivity changes the sensitivity level at which the headset detects you are speaking and turns on sidetones. Level 1 is the lowest sensitivity and you will have to speak very loud. Level 10 is the most sensitive and will trigger with very little sound. Pending on riding conditions this may need to be adjusted due to ambient noise. The factory setting is 6.



**Figure 18. Headset Configuration**

**Nav. App Support:** When Audio Multitasking is enabled, your smartphone's GPS application reduces in volume whenever there is an ongoing intercom conversation. To listen to your smartphone's GPS navigation clearly without this volume reduction, enable Navigation App Support. This factory setting is disabled.

**Eight-way Intercom:** Disabling the Eight-way Intercom optimizes the intercom performance for a small group up to four participants. Enabling the Eight-way Intercom optimizes the intercom performance for a larger group up to eight participants. This factory setting is disabled.

**FM Station Guide:** 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. This factory setting is enabled.

## Headset Software Version

### NOTE

The Boom! Audio 20S EVO supports firmware upgrade function. Visit [www.H-D.com/infotainment-support](http://www.H-D.com/infotainment-support) to check for the latest software downloads.

The information given in this topic is only informational. The exact Model/Software Version and Address will vary upon the product that is paired to the vehicle.

See Figure 19. When the wireless headset is properly paired it will confirm:

- Model/Software Version:
- Bluetooth Address:
- Status: Connected

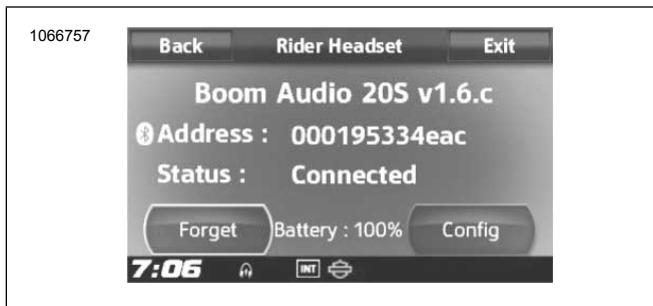


Figure 19. Paired Headset

## Unpair Wireless Headset

1. Select **Home** > **Setup** > **Wireless Headset**
2. Select Manage **Rider** or **Passenger** headset.
3. See Figure 20. Press **Forget** to unpair rider or passenger wireless headset from the Boom system.

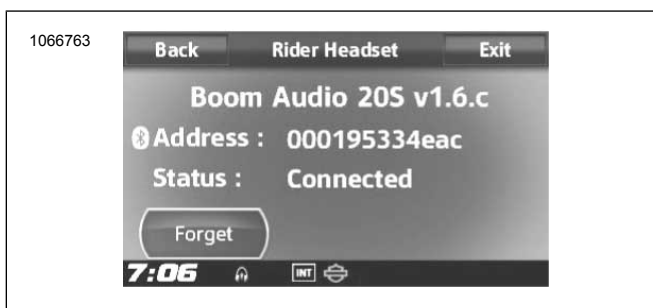


Figure 20. Delete Paired Headset

## Reset Factory Headset Settings

### NOTE

When performing this procedure, the link between the Boom Infotainment system and headset will be broken. The wireless headsets must be paired again for system communications to operate properly.

1. To restore the Boom! Audio 20S EVO to factory default settings, press and hold the Phone Button for 12 seconds until the LED shows solid red and you hear double beeps. You will hear a voice prompt saying **Factory reset**.
2. Within 5 seconds, press the Jog Dial to confirm reset. The headset will be restored to factory settings and switched off automatically. You will hear a voice prompt saying **Headset reset, good-bye**.
3. If you press the Phone Button or don't press the Jog Dial within 5 seconds, the reset attempt is canceled and the headset returns to stand-by mode. You will hear a voice prompt saying **Canceled**.
4. Unpair current wireless headset(s) in Boom system. See Unpair Wireless Headset in this section.
5. Perform pairing procedure. See Wireless Headset Setup in this section.

## Fault Reset

When the Boom! Audio 20S EVO is not working properly or is in faulty status for any reason, you may reset by pushing the pin-hole reset button at the back of the headset main unit. Insert a paper clip into the reset pin-hole and press the reset button for a second with light pressure. The Boom! Audio 20S EVO will be switched off, and you have to turn the system back on and try again. However, this will not restore the headset to factory default settings.

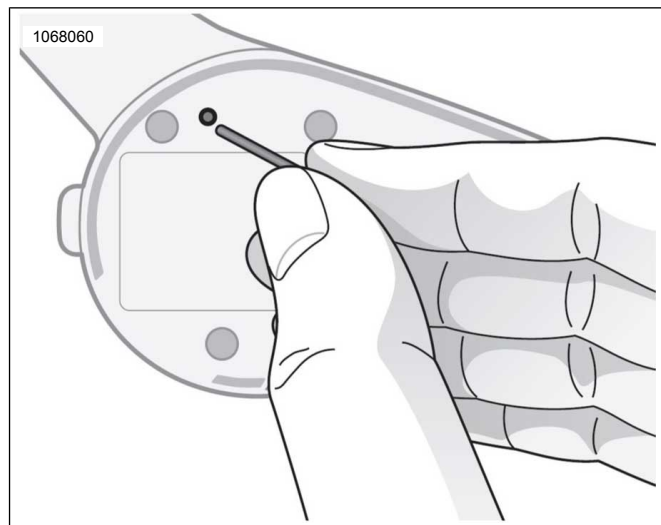
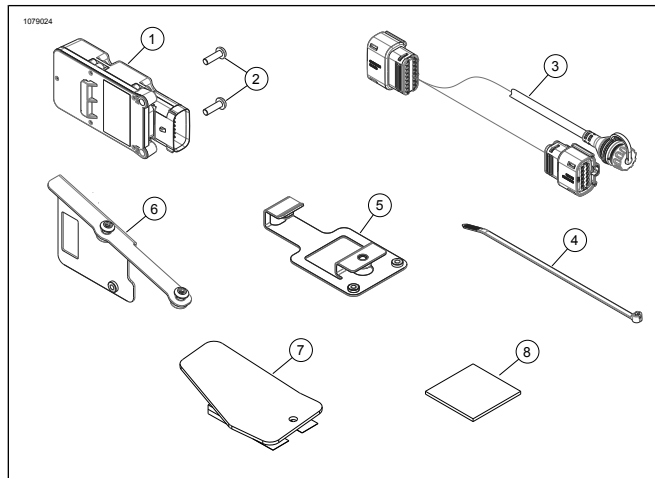


Figure 21. Fault Reset



## SERVICE PARTS



**Figure 22. Service Parts: WHIM**

**Table 1. Service Parts**

Item	Description (Quantity)	Part Number
1	INFOT, Module, Wireless Interface	76000771
2	Screw (2)	3154
3	Harness, Wire, Headset Module	69201751
4	Cable Strap	10006
5	Mount, INFOT, WHIM, Frame Mounted Fairing	76000774
6	Mount, INFOT, WHIM, Fork Mounted Fairing	76000773
7	SiriusXM® Antenna relocation bracket	76000808
8	Adhesive tape patch	76498-06