



INSTRUCTIONS

J06535

2016-10-13



BOOM! AUDIO FAIRING, AMPLIFIER & SPEAKER KIT

GENERAL

Kit Number

76000074

Models

For model fitment information, see the P&A retail catalog or the Parts and Accessories section of www.harley-davidson.com (English only).

Installation Requirements

Models not equipped with a Non-Ultra Overlay Harness (Part No. 70169-06) will require the separate purchase of a Radio Wire Harness (Part No. 69200106).

Loctite® 243 Threadlocker and Sealant - Blue (Part No. 99642-97) is required for the proper installation of this kit.

⚠ 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)

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.

Electrical Overload

NOTE

The speakers provided in these kits have an impedance of 2 Ohms, and are for use ONLY with the Harley-Davidson® Advanced Audio System by Harmon/Kardon® AM/FM/CD radio on select fitments. See the P&A retail catalog or the Parts and Accessories section of www.harley-davidson.com (English only)

*Use of these speakers on 2005 and earlier Harley-Davidson audio systems **WILL cause permanent damage** to those systems.*

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)

This amplifier requires up to **11 amps** of additional current from the electrical system.

Kit Contents

See Figure 7 and Table 1.

INSTALLATION

Preparation

NOTE

For vehicles equipped with security siren:

- Verify that the Hands-Free Fob is present.
- Turn the ignition key switch to **IGNITION**.

⚠ WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, remove main fuse before proceeding. (00251b)

1. Follow the service manual instructions to remove the seat.
2. Refer to the service manual and follow the instructions to remove the main fuse.

⚠ WARNING

Disconnect negative (-) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00049a)

3. **For 2006 and 2007 models:** See the service manual for battery removal instructions. **For 2008 and later models:** Refer to the service manual and follow the instructions to remove the ECM caddy from the top of the battery. Disconnect the battery cables, negative (-) cable first.
4. **For ALL models:** Refer to the service manual, and follow the instructions to remove the fuel tank console and fuel tank.



5. Front fairing speakers:
 - a. Remove the outer fairing and windshield per service manual instructions.
 - b. Follow the service manual instructions to remove the front fairing speakers and adapters.
6. Rear speakers:
 - a. Remove the speaker grilles and speakers from the speaker boxes per service manual instructions.

Amplifier Installation

1. Remove the outer fairing and windshield per service manual instructions.

NOTE

- *Electrical connectors are identified in the service manual by the numbers and letters shown here **within brackets**.*
 - *See Figure 1. Make note of the location of the black six-way Deutsch audio to interconnect harness connector [6] (1) before moving the gray Molex 12-way connector [2] (2).*
2. Remove the gray Molex 12-way main to interconnect harness connector [2] from the left-side (shifter side) fairing bracket (radio support bracket, 3).
 3. See Figure 2. Remove the four socket head screws (1) to release the radio from the left and right radio support brackets (2). Use the oblong holes in the brackets to access the screws, and support the radio as the screws are removed.
 4. With the amplifier connector facing the left (shifter) side of the vehicle, place the amplifier into position on top of the radio, with the amplifier brackets outside the radio support brackets.
 5. Apply a few drops of Loctite 243 - Blue to the **clean** radio screw threads. Align the threaded inserts in the sides of the radio with the amplifier bracket holes and the oblong holes in the left and right radio support brackets.

NOTE

DO NOT OVERTIGHTEN. Threaded inserts can be easily loosened or cross threaded.

6. Starting at the rear, install the four socket head screws previously removed. Alternately tighten screws to:
Torque: 4–5.1 N·m (35–45 in-lbs) *Hex socket head screw*

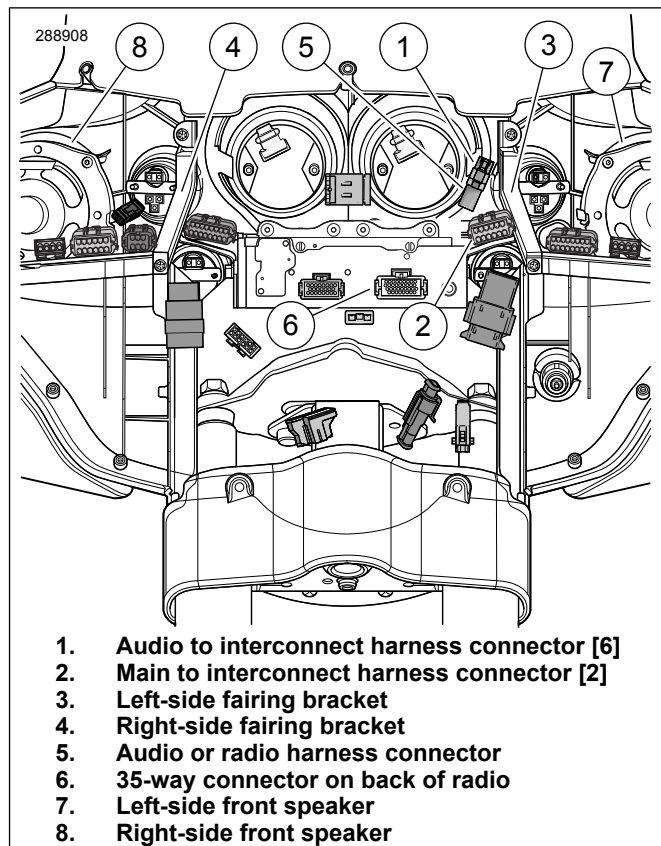


Figure 1. Inner Fairing Connectors (FLHX, FLHT/C/U)

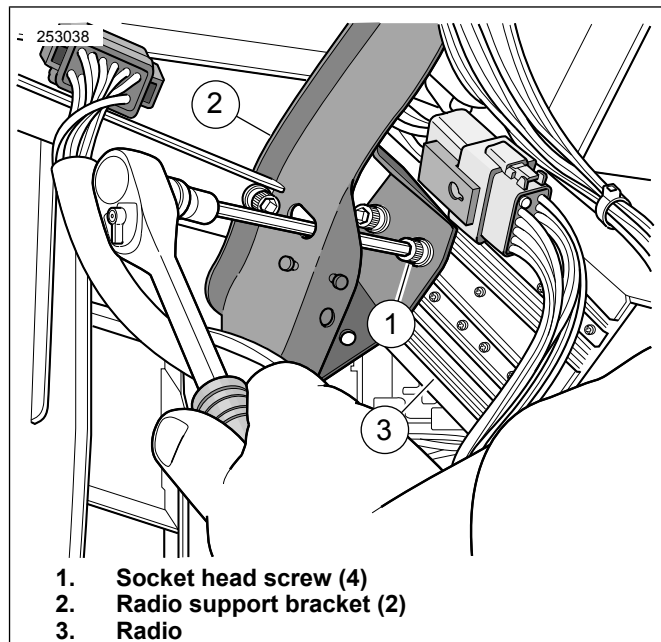


Figure 2. AM/ FM Radio Installation; Right (Brake) Side Shown

Radio Wire Harness Routing and Connection

If the black six-way Deutsch audio to interconnect harness socket housing [6B] (See Figure 1., Item 1) on the vehicle is **connected** to an audio harness (5), unplug the connector halves and proceed to the **Amplifier Harness Routing and Connection** section.

If the black six-way housing [6B] is **NOT** connected to a harness, install a radio wire harness (Part No. 69200106, purchased separately) as follows:

1. See Figure 7. Get the amplifier harness (2) from **this** kit.
2. See Figure 6. Follow service manual instructions to remove the plugs from cavities 8, 15, 22 and 23 of the 23-way connector (3) on the amplifier harness. Install the terminated wires (15) coming from the two remaining six-way connectors on the radio wire harness to the 23-way connector as follows:
 - Brown wire to cavity 8.
 - White/brown wire to cavity 15.
 - Green wire to cavity 22.
 - Light green/brown wire to cavity 23.
3. Plug the 35-way connector (13) of the radio wire harness (12) into the receptacle on the back of the radio (see Figure 1, Item 6). Listen for a definite "click".
4. Route the shorter branch of the radio wire harness (with a six-way pin housing and yellow/orange and yellow/violet wires), over to the area of socket housing [6B] (1), but **do not** connect at this time. This pin housing (14) will now be known as connector [6A].

Amplifier Harness Routing and Connection

1. Remove the secondary locking wedge from socket housing [6B] (See Figure 1., Item 1) on the vehicle per service manual instructions. Remove the plugs from cavities 4 and 5.
2. See Figure 6. Follow service manual instructions to install the **yellow/orange** terminated wire (4) from the amplifier harness into cavity 4 of socket housing [6B] (1), and the **yellow/violet** terminated wire (5) into cavity 5.
3. Install the secondary locking wedge into the socket housing per service manual instructions.
4. Plug the six-way socket housing [6B] into the pin housing [6A] (14) on the radio wire harness (12) installed in the previous section or the vehicle audio harness.
5. Plug the 23-way socket housing (3) into the receptacle on the side of the amplifier. Listen for a definite "click".

NOTE

Two branches of the amplifier harness, each with two socket and two spade terminals, connect to the front speakers.

6. Route the short branch (6) of the amplifier harness (with white/orange and light-green/white wires) **underneath** the left-side fairing support bracket and over to the left-side speaker.
7. Carefully disconnect the interconnect harness socket terminals from the left-side speaker spade terminals.

8. Install the socket terminals from the amplifier harness to the speaker spade terminals. The spade terminals are different-sized to prevent improper assembly.
9. Install the spade terminals from the amplifier harness to the socket terminals from the interconnect harness. The spade terminals are different-sized to prevent improper assembly.
10. Route the long branch (7) of the amplifier harness (with gray/red and light-green/black wires) to the right-side speaker.
11. Carefully disconnect the interconnect harness socket terminals from the right-side speaker spade terminals.
12. Install the socket terminals from the amplifier harness to the speaker spade terminals. The spade terminals are different-sized to prevent improper assembly.
13. Install the spade terminals from the amplifier harness to the socket terminals from the interconnect harness. The spade terminals are different-sized to prevent improper assembly.

NOTE

*See Figure 3. Routing wires and conduit over the amplifier (1) and radio **near the front (headlamp) side** (3) will make installation of the outer fairing (2) difficult due to tight clearance.*

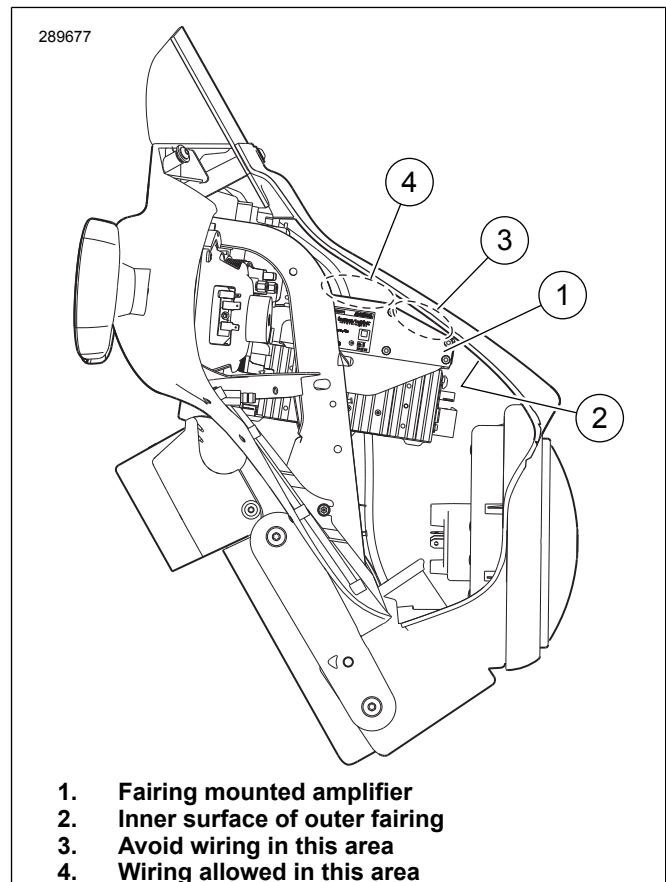


Figure 3. Fairing Mounted Amplifier Wiring Clearances

14. See Figure 6. Use a cable strap from the kit to coil the unconnected wiring (16) of the radio wire harness. Optionally, the brown and white/brown wires and their connector [42A] can provide a signal to an additional left speaker. The green and green/brown wires and their connector [41A] can provide a signal to an additional right speaker.
15. Route the amplifier and radio harnesses rearward along the side of the radio and amplifier or the area above the amplifier nearest the inner fairing (See Figure 3., area 4). Use cable straps from the kit to fasten the amplifier and radio harnesses to existing harnesses inside the fairing.
16. See Figure 6. Route the remaining branch (8) of the amplifier harness rearward on the vehicle to the harness tray. Open the cover of the harness tray. Route the amplifier harness through the openings in the tray, using cable straps to fasten to the main harness.
17. Route the harness along the right side of the battery cavity. Bring the red fuse wire (9) and black ground wire (10) into the front of the battery compartment.
4. Align the mounting holes in the speaker, adapter and grille. Use the two longer TORX® screws removed earlier to fasten all three components to the inner fairing through the two top holes. See Figure 4. Use a new Phillips head screw (6) from the kit in the lower outboard hole, capturing the fairing support brace under the screw head. The lower inboard hole is not used.
5. Tighten screws:
 - a. Lower:
Torque: 2.5–3.2 N·m (22–28 in-lbs)
 - b. Upper:
Torque: 4.0–5.6 N·m (35–50 in-lbs)
6. See Figure 5. Install the socket terminals from the vehicle harness to the spade terminals (3) and (4) on the back of the speaker. Different size spade contacts prevent improper assembly.
7. Repeat Steps 1 through 6 for the remaining speaker on the opposite side of the vehicle, then proceed to Rear Speakers, All Models or RETURN TO SERVICE as appropriate.

▲ WARNING

Be sure that steering is smooth and free without interference. Interference with steering could result in loss of vehicle control and death or serious injury. (00371a)

- Be sure wires do not pull tight when handlebars are turned fully to left or right fork stops.

Front Fairing Speakers, Electra Glide Models

1. NOTE

To prevent permanent damage to the woofers and outer fairings, the original speaker adapters MUST be reused after the following modifications are made.

Peel off and discard the plastic grille and fabric from the OE adapter faces. Clean off any dirt or dried adhesive.

2. NOTE

The speaker grilles are side-specific. The grilles install so that the tweeter is to the outboard side of the vehicle.

See Figure 4. Position the correct new speaker grille (2) against the face of the adapter (1) as shown, with the thick edge of the adapter up, and the tweeter (3) to the outboard side of the vehicle. Feed the tweeter wires out between the grille and adapter on the outboard side. Position a new speaker (4) against the rear face of the adapter as shown, with the spade terminals (5) pointed up.

3. See Figure 5. Connect the wires from the grille-mounted tweeter to the spade terminals (1) and (2) on the back of the speaker. Different size spade contacts prevent improper assembly.

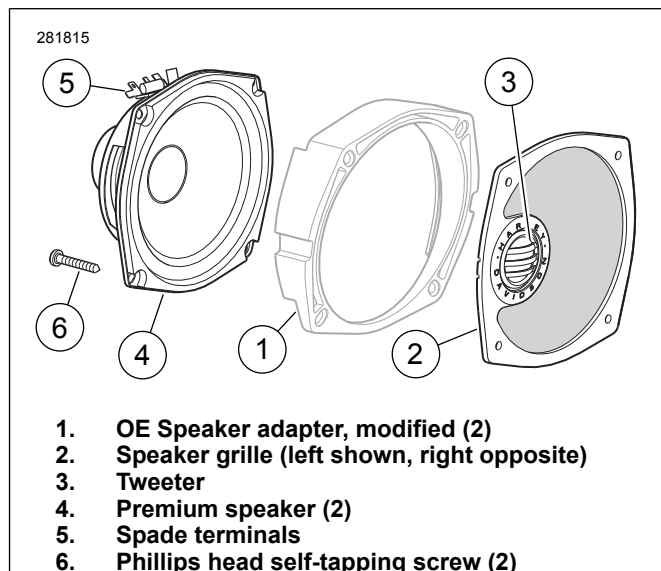


Figure 4. Boom! Audio Front Speaker Kit Components for Electra Glide and Trike

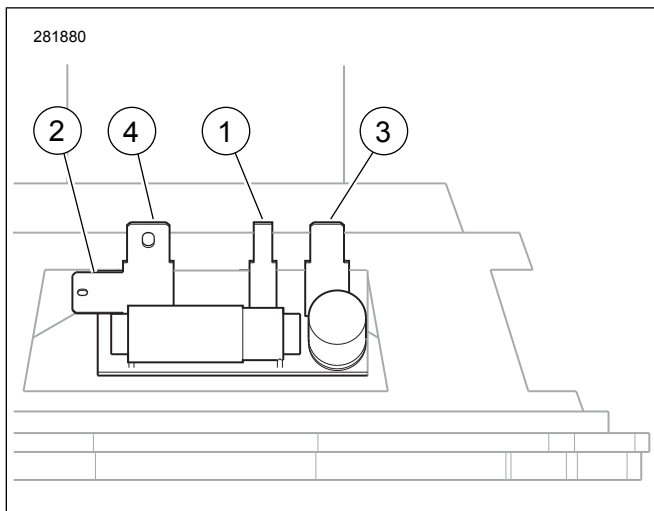


Figure 5. Bagger Speaker Spade Terminals

Return to Service

NOTE

Verify that the ignition key switch is in the OFF position **before** attaching the battery cables or installing main fuse.

▲ WARNING

Connect positive (+) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00068a)

1. Connect the battery as follows:
 - a. Install the amplifier harness fused red wire terminal along with the red battery positive (+) cable terminal to the positive (+) side of the battery.
 - b. Install the amplifier harness black ground wire terminal along with the black battery negative (-) cable terminal to the negative (-) side of the battery.
 - c. Apply a light coat of Harley-Davidson electrical contact lubricant (Part No. 99861-02), petroleum jelly or corrosion retardant material to the battery terminals.
 - d. See Figure 6. Tuck the fuse holder (11) and amplifier connecting wires in front of the battery.

NOTE

It may be helpful to cut the cable strap on the strain relief arm of the fuse holder, and install a new cable strap to tie the arm in place after the fuse holder is in position.

- e. **For 2006 and 2007 models:** Refer to the service manual and follow the instructions to install the battery into the vehicle. **For 2008 and later models:** Be sure that all wire terminals connected to the battery are aligned with the openings in the ECM caddy. Refer to the service manual and follow the instructions to install the ECM caddy to the top of the battery.
- f. **For ALL models:** Install the main fuse per service manual instructions.

2. NOTE

Before installing the outer fairing, check that speakers are operating correctly, understanding that full sound quality and fidelity will not be achieved until the outer fairing is completely installed.

Turn the ignition key switch to IGNITION, but do not start the motorcycle

3. Test the sound system for proper operation. Refer to the ADVANCED AUDIO SYSTEM section of the owner's manual and turn the radio or CD player ON. Make sure all speakers are working and front/rear fader function is operating correctly. If no sound, proceed to **TROUBLESHOOTING**.
4. Upon satisfactory sound system operation, install the outer fairing and windshield per service manual instructions.
5. Disconnect the negative (black) battery cable from the negative (-) battery terminal.
6. Refer to the service manual, and follow the instructions to install the fuel tank and console. Attach the negative battery cable.
7. See service manual and install seat. After installing seat, pull upward on seat to be sure it is locked in position.

IN USE

During use, the domed tweeters may appear to take on an orange tint near the base of the dome. This tint is a natural property of the Ferrofluid used to provide proper voice coil functionality. This does not affect speaker performance.

TROUBLESHOOTING

No Sound

1. Verify the wire connections at [6A] and [6B]. Make sure that the yellow/orange wires are installed in cavity 4 of both connector halves, and yellow/violet in cavity 5.
2. At each connector involved in the installation:
 - Make sure all pin and socket terminals are fully seated at the mating face of the connector, and that they have not pushed back upon installation into the mating connection.
 - Gently tug on each wire individually from the rear of the connector to find any that are not seated in their lock.

SERVICE PARTS

1019067

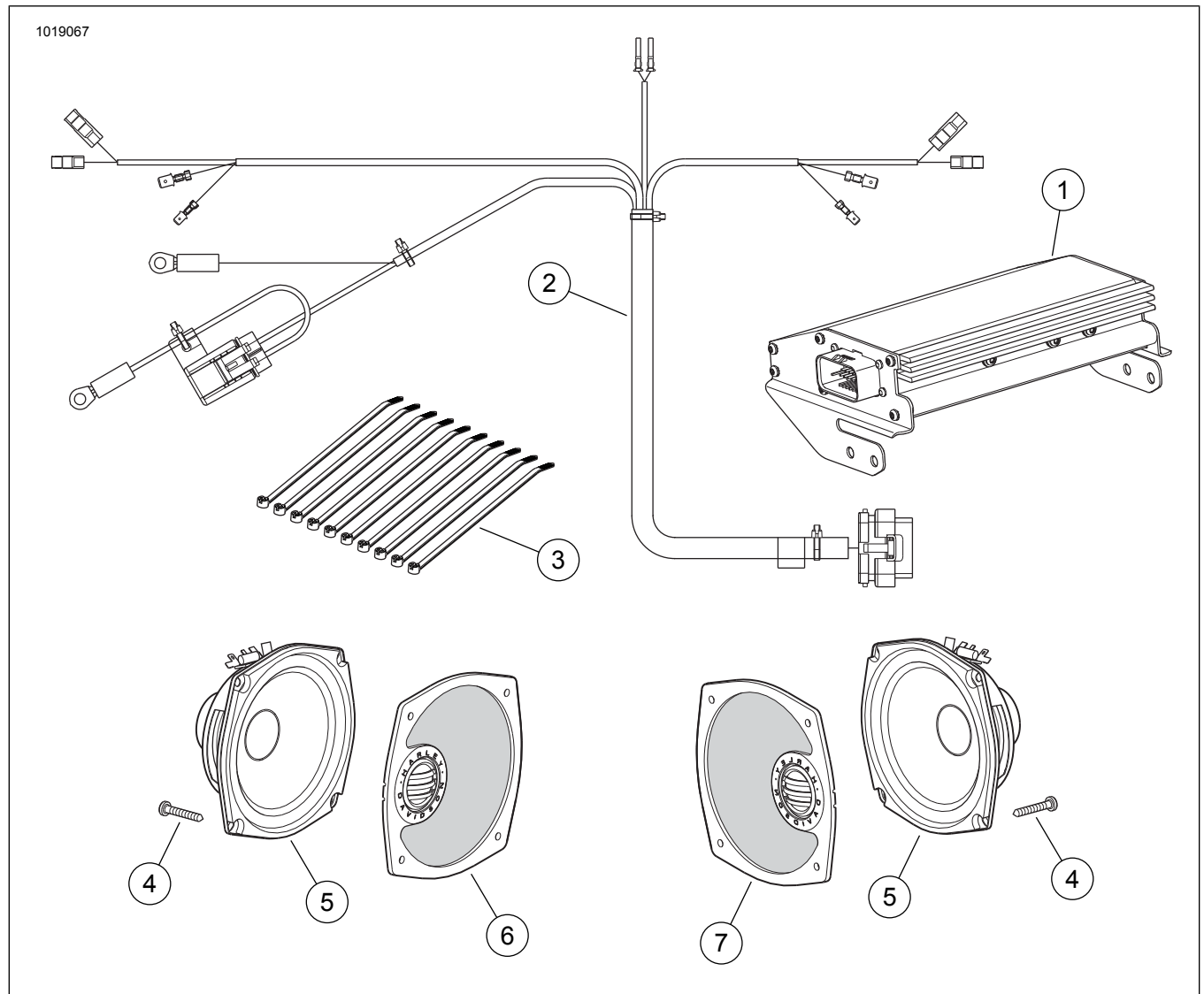


Figure 7. Service Parts, Boom! Audio Amplifier Kit

Table 1. Service Parts

Item	Description (Quantity)	Part Number
1	Amplifier, fairing mounted	76000071
2	Harness, amplifier	Not sold separately
3	Cable strap (10)	Not sold separately
4	Screw, Phillips head, self-tapping (2)	Not sold separately
5	Speaker, premium (2)	77026-10
6	Speaker grille, left	Not sold separately
7	Speaker grille, right	Not sold separately