

DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > DESCRIPTION

Several combinations of radio receivers and speaker systems are offered on this vehicle. The audio system receives fused battery voltage from a fuse in the Body Control Module (BCM) at all times. The RA4 radio receives additional fused battery voltage from the Voltage Stabilizer Unit.

There is an optional navigation system, the operator has the option of choosing a street address, point of interest, trip itinerary and other features outlined in the operator's manual.

The audio system includes the following components:

- Antenna (Cellular, Navigation, Satellite Audio). Refer to ANTENNA, SATELLITE, AUDIO, DESCRIPTION AND OPERATION .
- Antenna (AM/FM NAFTA and MW/LW/DAB EMEA Radio) (Refer to DESCRIPTION AND OPERATION and ANTENNA, SATELLITE, AUDIO, DESCRIPTION AND OPERATION).
- Media Hub. Refer to MEDIA HUB, DESCRIPTION AND OPERATION .
- Radio. Refer to RADIO, DESCRIPTION AND OPERATION .
- Remote radio switches (if equipped). Refer to SWITCH, REMOTE RADIO, DESCRIPTION AND OPERATION .
- Speakers. Refer to SPEAKER, DESCRIPTION AND OPERATION .

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The audio system components are designed to provide audio entertainment and information through the reception, tuning and amplification of locally broadcast radio signals in both the Amplitude Modulating (AM) and Frequency Modulating (FM) commercial frequency ranges. If the vehicle is so equipped, the audio system can also receive, amplify or process certain cellular, satellite audio and satellite Global Positioning System (GPS) radio signals. The audio system components operate on battery current received through a fuse in the Body Control Module (BCM).

The optional navigation radio system receives GPS signals from up to eight satellites to display the position and direction of the vehicle. Map information is supplied through a DVD-ROM. An electronic gyro-sensor and the speed sensor in the vehicle enable the system to display the present vehicle position even in locations where GPS signals may be blocked. When a destination is selected, the navigation system uses information from the map to quickly calculate a route. As the vehicle is driven along the chosen route, the operator is guided with pictorial displays and voice prompts.

On vehicles that are equipped with the optional remote radio switches, the BCM receives the input from the switches on the steering wheel. The programming in the BCM allows it to process those inputs and send the appropriate electronic command messages to the radio receiver over the Controller Area Network (CAN) - B data bus to control the radio volume up or down, station seek up or down, preset station advance, and mode advance functions.

DIAGNOSIS AND TESTING > DIAGNOSIS AND TESTING - AUDIO

Any diagnosis of the audio system should begin with the use of a diagnostic scan tool. Check for any Diagnostic Trouble Code (DTC) data. If a DTC is found, refer to DIAGNOSTIC CODE INDEX and perform the appropriate diagnostic procedure before proceeding in this article . Refer to the appropriate Diagnostic & Testing article.

WARNING:

To avoid serious or fatal injury on vehicles equipped with airbags, disable the Supplemental Restraint System (SRS) before attempting any steering wheel, steering column, airbags, airbag curtains, knee blocker, seat belt tensioner, impact sensor or instrument panel component diagnosis or service. Disconnect the IBS/negative battery cable assembly from the negative battery post, then wait two minutes for the system capacitor to discharge before performing further diagnosis or service. This is the only sure way to disable the SRS. Failure to take the proper precautions could result in accidental airbag deployment.

AUDIO SYSTEM DIAGNOSTIC TABLE		
CONDITION	POSSIBLE CAUSES	CORRECTION
RADIO INOPERATIVE	1. Fuse inoperative.	Check radio fuse.
	2. Open wiring.	Check "No Response from Radio". Refer to DIAGNOSIS AND TESTING .
NO AUDIO - BUT RADIO LIGHTS UP	1. Antenna problem.	Perform the "Poor or No AM/FM Audio Reception" test. Refer to DIAGNOSIS AND TESTING .
	2. Radio or Amplifier (if equipped) connector damaged.	Check for loose or corroded radio/amplifier connector. Repair, as required.
	3. Wiring damaged.	Check for shorted or open wires. Repair wiring as required.
	4. Radio or Amplifier (if equipped) ground damaged.	Check for continuity between radio chassis and a known good ground. There should be continuity. Repair ground as required.
	5. Amplifier (if equipped) inoperative.	Refer to DIAGNOSIS AND TESTING .
	6. Speakers inoperative.	Refer to DIAGNOSIS AND TESTING .
NO RADIO DISPLAY	1. Fuse inoperative.	Check radio fuse, Replace fuses as required.
	2. Radio connector damaged.	Check for loose or corroded radio connector. Repair as required.

	3. Wiring damaged.	Check for battery voltage at radio connector. Repair wiring as required.
	4. Radio ground circuit damaged.	Check for continuity between radio chassis and a known good ground. There should be continuity. Repair ground as required.
	5. Radio inoperative.	Check "No Response from Radio". Refer to DIAGNOSIS AND TESTING .
POOR AM/FM RADIO RECEPTION	1. Antenna inoperative.	Perform the "Poor or No AM/FM Audio Reception" test. Refer to DIAGNOSIS AND TESTING .
	2. Radio ground damaged.	Check for continuity between radio chassis and a known good ground. There should be continuity. Repair ground as required.
	3. Radio inoperative.	Refer to DIAGNOSIS AND TESTING or DIAGNOSIS AND TESTING .
POOR SDAR AUDIO RECEPTION	1. SDAR antenna Inoperative.	Perform the "Poor or No Satellite Audio Reception" test. Refer to DIAGNOSIS AND TESTING .
SOUND DISTORTION (VIBRATION FROM SPEAKER AREA, BUZZING - HUMMING)	1. Door trim panel loose or missing fasteners.	Inspect door trim panel and correct as necessary. Replace any missing fasteners.
	2. Water shield loose or misaligned.	Inspect water shield and adjust as required.
	3. Items placed in door trim panel map pockets vibrating or moving from side to side.	Remove items from door trim panel. Ensure that vibration is no longer present.

AMPLIFIER > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > DESCRIPTION

Vehicles equipped with the 9-speaker Premium Sound System package have a separate 8-channel amplifier unit. The amplifier is rated at 506 watts. The amplifier is mounted to the left rear quarter panel behind the quarter trim panel.

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The audio power amplifier receives fused battery current from a fuse in the rear Power Distribution Center (PDC) and is grounded through a circuit of the body wire harness that is secured to the body sheet metal at all times. The internal circuitry of the amplifier switches the amplifier on or off based upon electronic messages that are received over the Controller Area Network (CAN) - Interior High Speed (IHS) data bus from the Radio Receiver Module (RRM) whenever the RRM is turned on.

The amplifier receives analog sound signal inputs from the front and rear, left and right outputs of the RRM, then provides the amplified speaker outputs for each of those channels to the appropriate speakers through dedicated audio output circuits. The amplifier also receives electronic messages from the Body Control Module (BCM) and the RRM over the CAN-IHS data bus that communicate the correct channel settings for optimum speaker sound and output.

The hard wired circuits between components related to the amplifier may be diagnosed using conventional diagnostic tools and procedures. Refer to the appropriate Diagnostic & Testing article. The wiring information includes wiring diagrams, proper wire and connector repair procedures, details of wire harness routing and retention, connector pin out information and location views for the various wire harness connectors, splices and grounds.

However, conventional diagnostic methods will not prove conclusive in the diagnosis of the amplifier or the electronic controls and communication between modules and other devices that provide some features of the audio system. The most reliable, efficient and accurate means to diagnose the amplifier or the electronic controls and communication related to audio system operation requires the use of a diagnostic scan tool. Refer to the appropriate Diagnostic & Testing article.

AMPLIFIER > DIAGNOSIS AND TESTING > DIAGNOSIS AND TESTING - AUDIO POWER AMPLIFIER

WARNING:

To avoid serious or fatal injury on vehicles equipped with airbags, disable the Supplemental Restraint System (SRS) before attempting any steering wheel, steering column, airbags, airbag curtains, knee blocker, seat belt tensioner, impact sensor or instrument panel component diagnosis or service. Disconnect the IBS/negative battery cable assembly from the negative battery post, then wait two minutes for the system capacitor to discharge before performing further diagnosis or service. This is the only sure way to disable the SRS. Failure to take the proper precautions could result in accidental airbag deployment.

The audio power amplifier unit should be checked if there is no sound output noted from the speakers. Refer to SPEAKER, DIAGNOSIS AND TESTING .

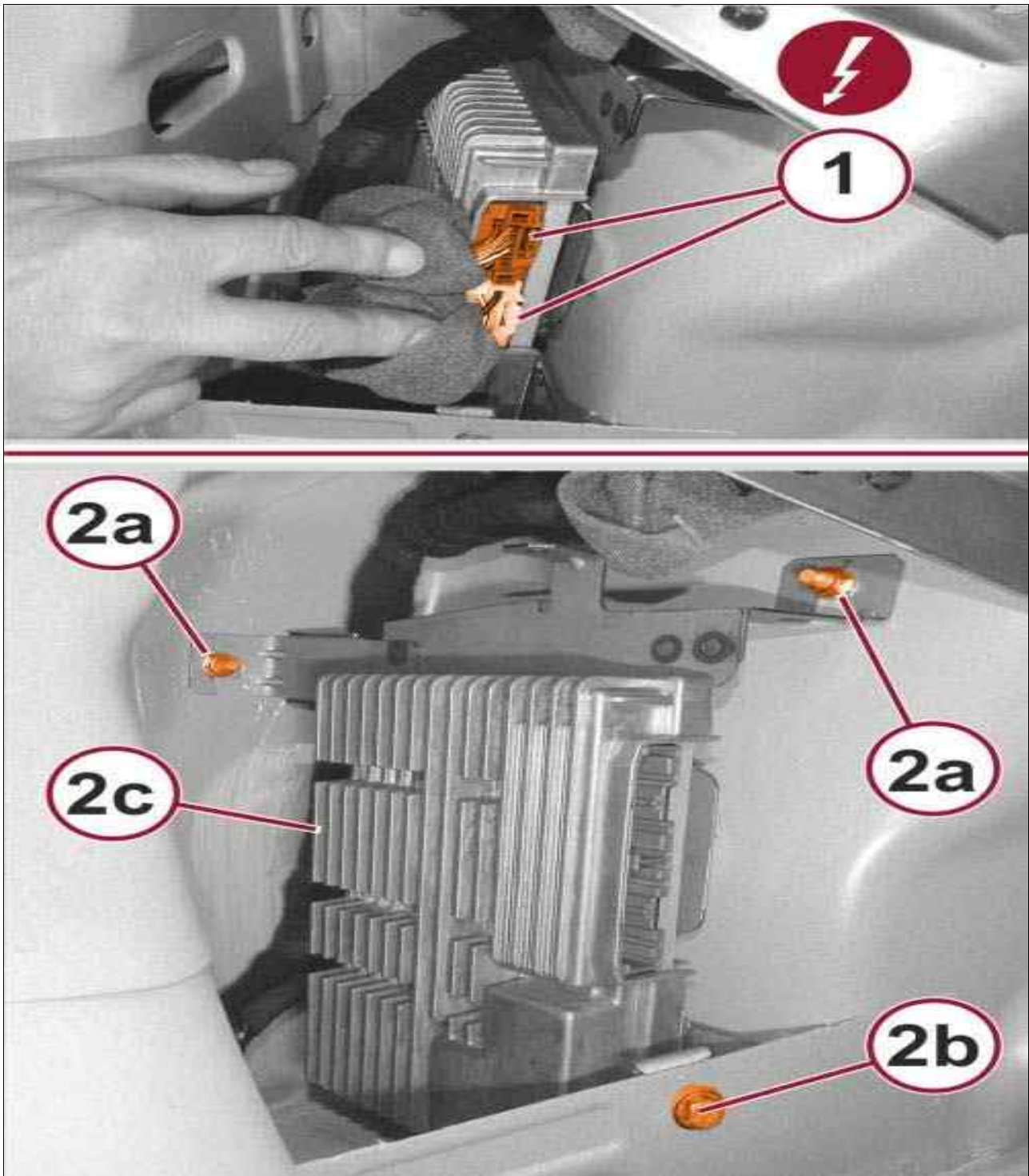
The hard wired circuits between components related to the audio power amplifier may be diagnosed using conventional diagnostic tools and procedures. Refer to the appropriate Diagnostic & Testing article. The wiring information includes wiring diagrams, proper wire and connector repair procedures, details of wire harness routing and retention, connector pin out information and location views for the various wire harness connectors, splices and grounds.

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AMPLIFIER > REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION >

REMOVAL

Fig 1: Remove/Install Amplifier



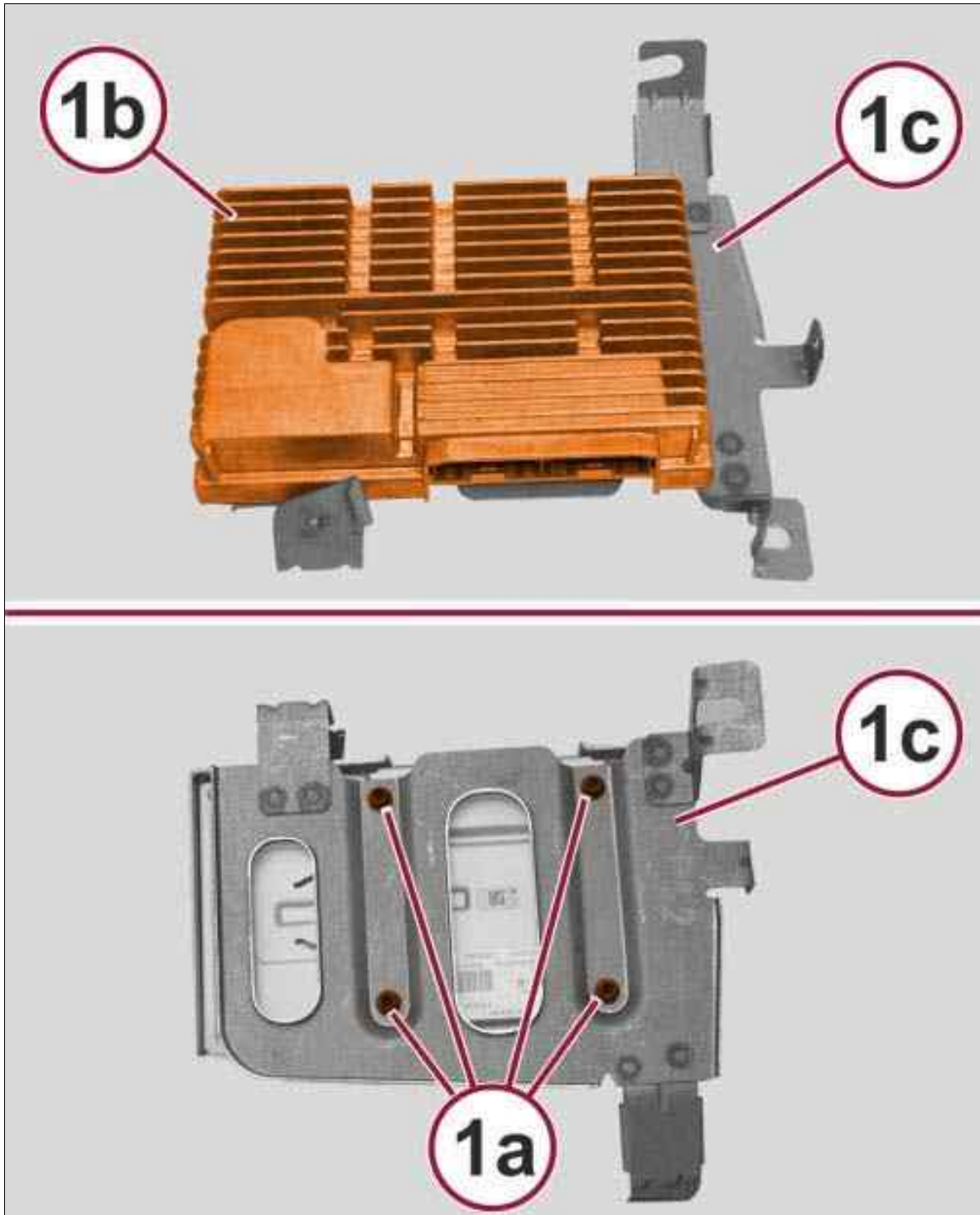
Courtesy of CHRYSLER GROUP, LLC

1. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable.
2. Remove the left side quarter panel trim. Refer to PANEL, QUARTER TRIM, REMOVAL AND

INSTALLATION .

3. Remove the amplifier and mounting bracket retainers (2a and 2b).
4. Pull back the foam harness protectors and disconnect the amplifier wire harness connectors (1).

Fig 2: Amplifier, Mounting Bracket & Fasteners



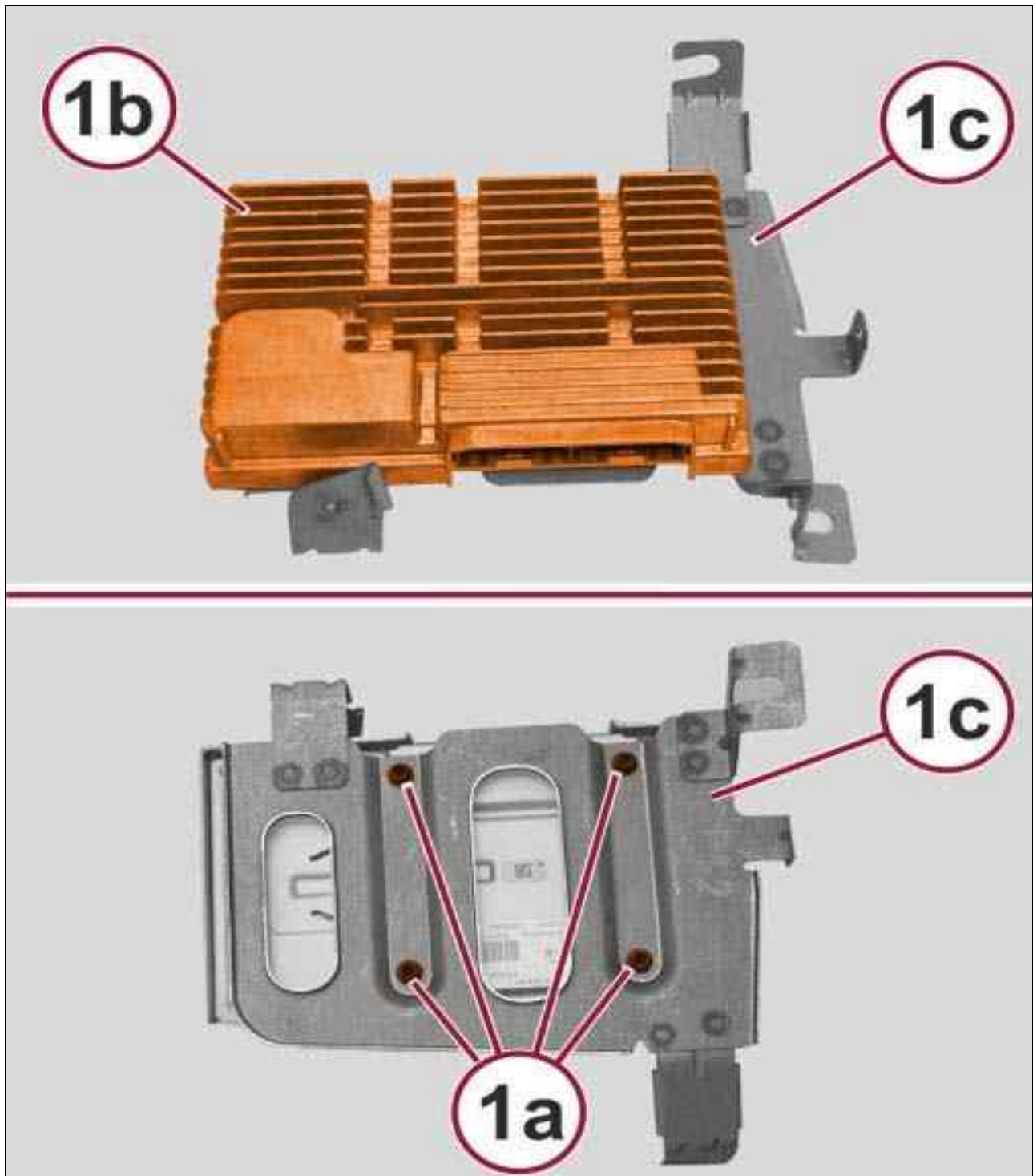
Courtesy of CHRYSLER GROUP, LLC

5. Remove the amplifier and mounting bracket from the vehicle.

6. Remove the four fasteners (1a) that secure the amplifier (1b) to the mounting bracket (1c) and separate the amplifier from the mounting bracket.

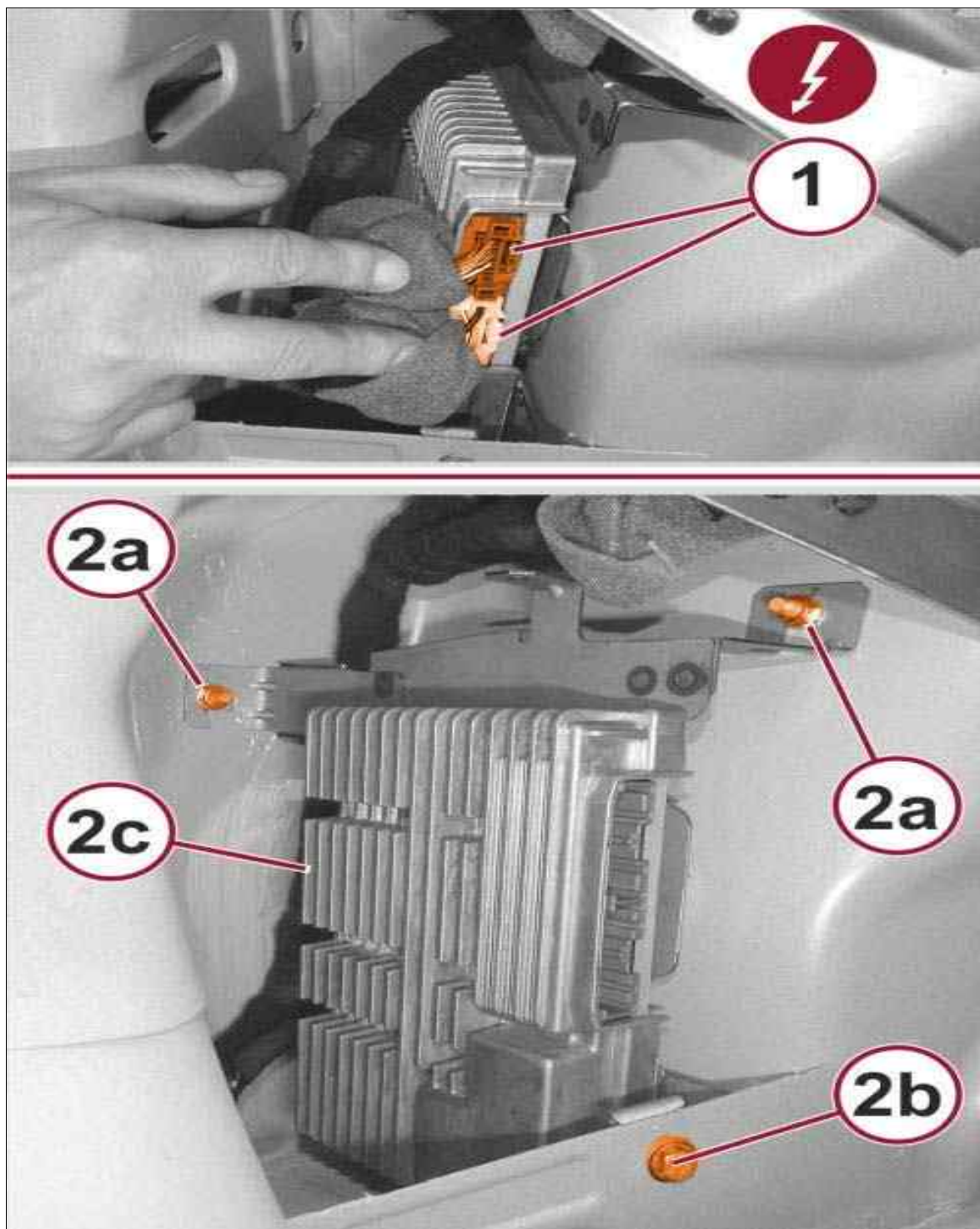
AMPLIFIER > REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION > INSTALLATION

Fig 1: Amplifier, Mounting Bracket & Fasteners



1. Position the amplifier (1b) to the mounting bracket (1c) and install the four fasteners (1a). Tighten the fasteners securely.

Fig 2: Remove/Install Amplifier



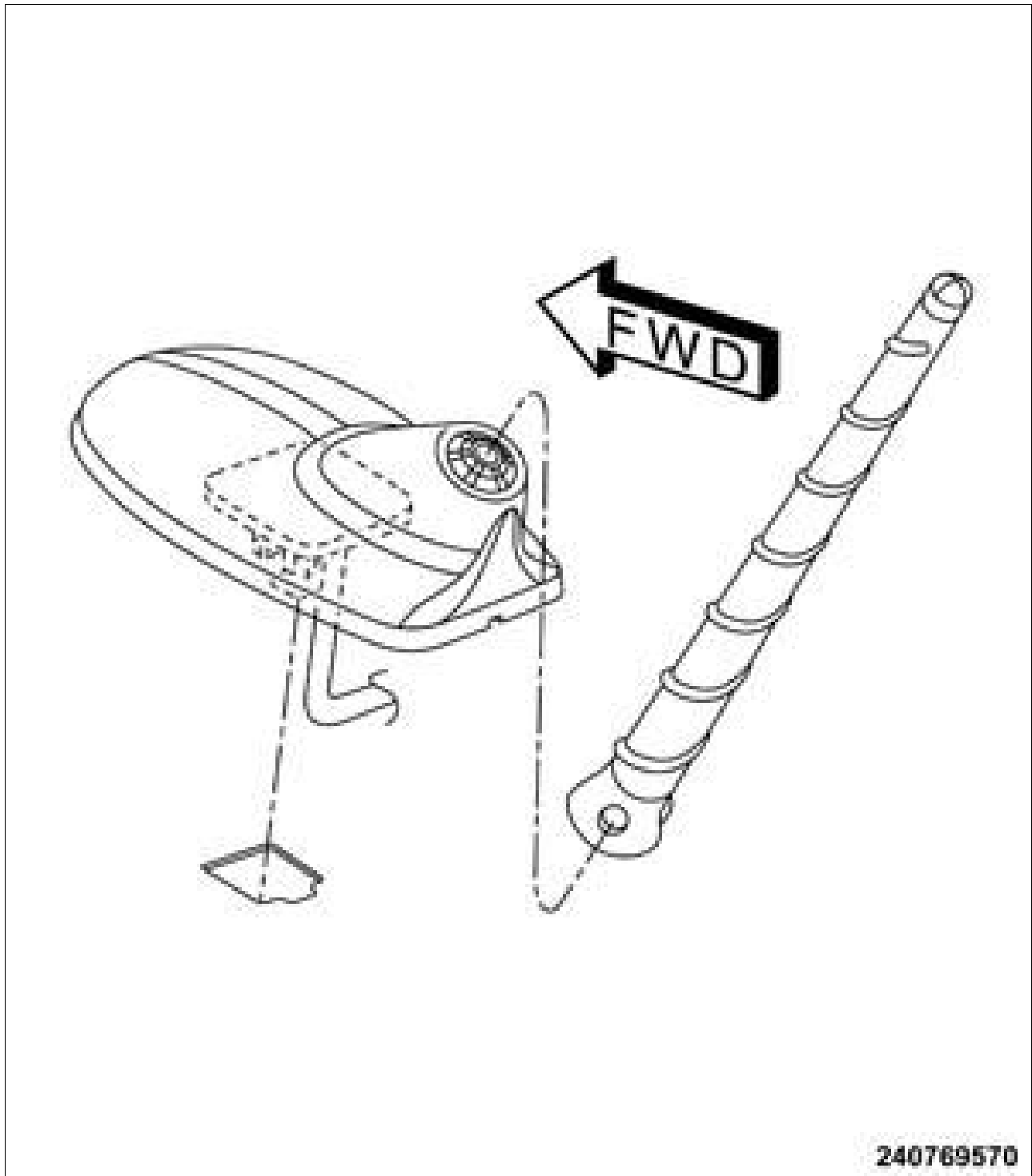
Courtesy of CHRYSLER GROUP, LLC

2. Position the assembled amplifier and mounting bracket (2c) and install the three fasteners (2a and 2b).
3. Connect the amplifier wire harness connectors (1). Position the foam harness protectors in place.

4. Install the left side quarter panel trim. Refer to PANEL, QUARTER TRIM, REMOVAL AND INSTALLATION .
5. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector.

ANTENNA, SATELLITE, AUDIO > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION

Fig 1: Satellite Antenna



Courtesy of CHRYSLER GROUP, LLC

If the vehicle is equipped with satellite audio, a combined antenna for AM/FM and satellite and navigation is used. For AM/FM only, the antenna looks similar and is mounted in the same location. For more information, refer to ANTENNA, SATELLITE, AUDIO, REMOVAL AND INSTALLATION .

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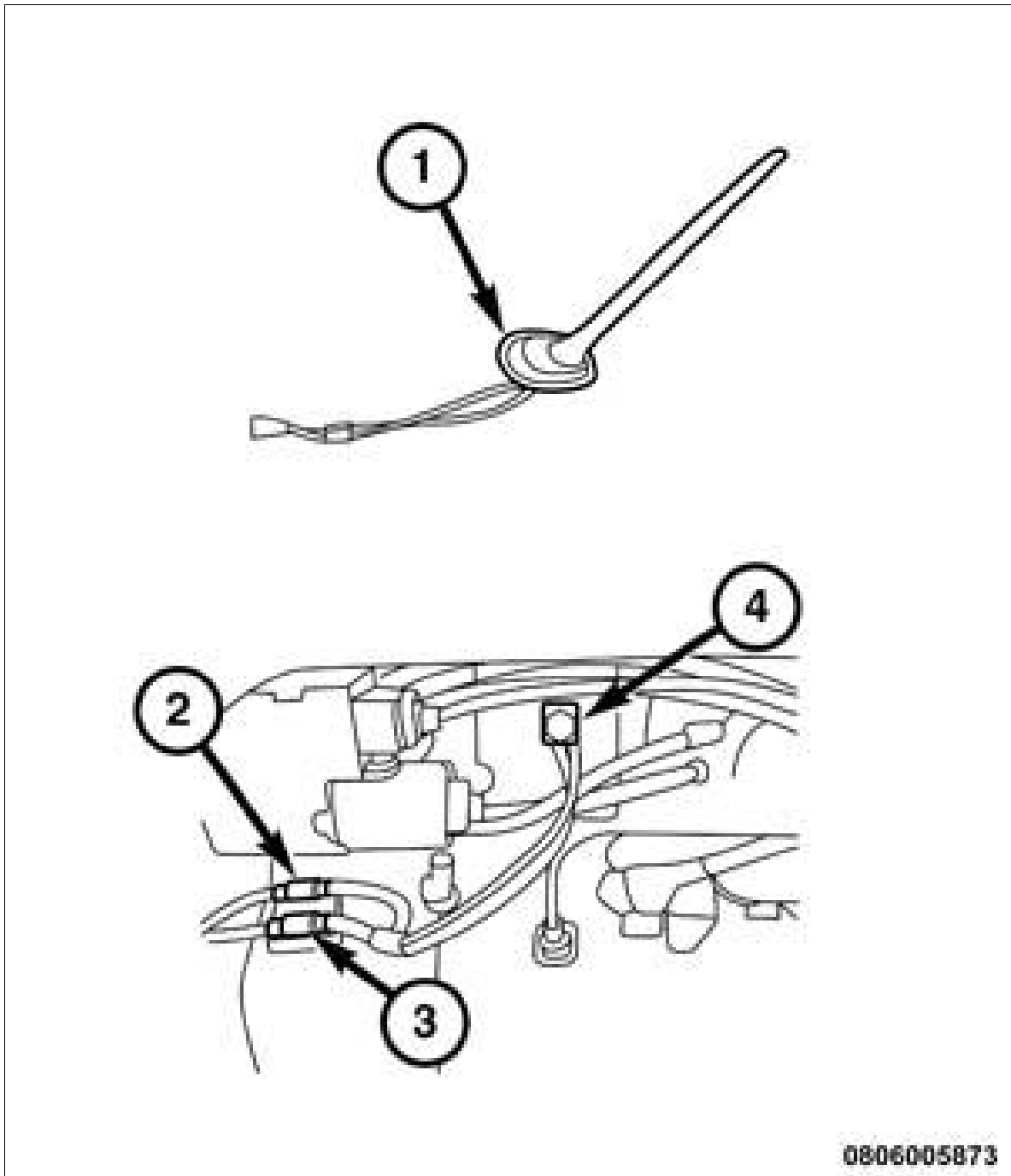
ANTENNA, SATELLITE, AUDIO > DIAGNOSIS AND TESTING > DIAGNOSIS AND TESTING - SATELLITE ANTENNA

For information on diagnosing the SDARS antenna and cables, use the "Poor or No Satellite Audio Reception" test. Refer to DIAGNOSIS AND TESTING . For information on diagnosing the GPS satellite navigation system, refer to DIAGNOSIS AND TESTING . For information on diagnosing the satellite antenna cables using the (special tool #9977-6, Kit, Radio Antenna Diagnostic), refer to DIAGNOSIS AND TESTING and perform the **Poor Or No Satellite Audio Reception** test.

ANTENNA, SATELLITE, AUDIO > REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION > REMOVAL

1. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable.
2. Remove the antenna mast.
3. Lower the headliner. Refer to HEADLINER, REMOVAL AND INSTALLATION .

Fig 1: Antenna, Connectors & Nut

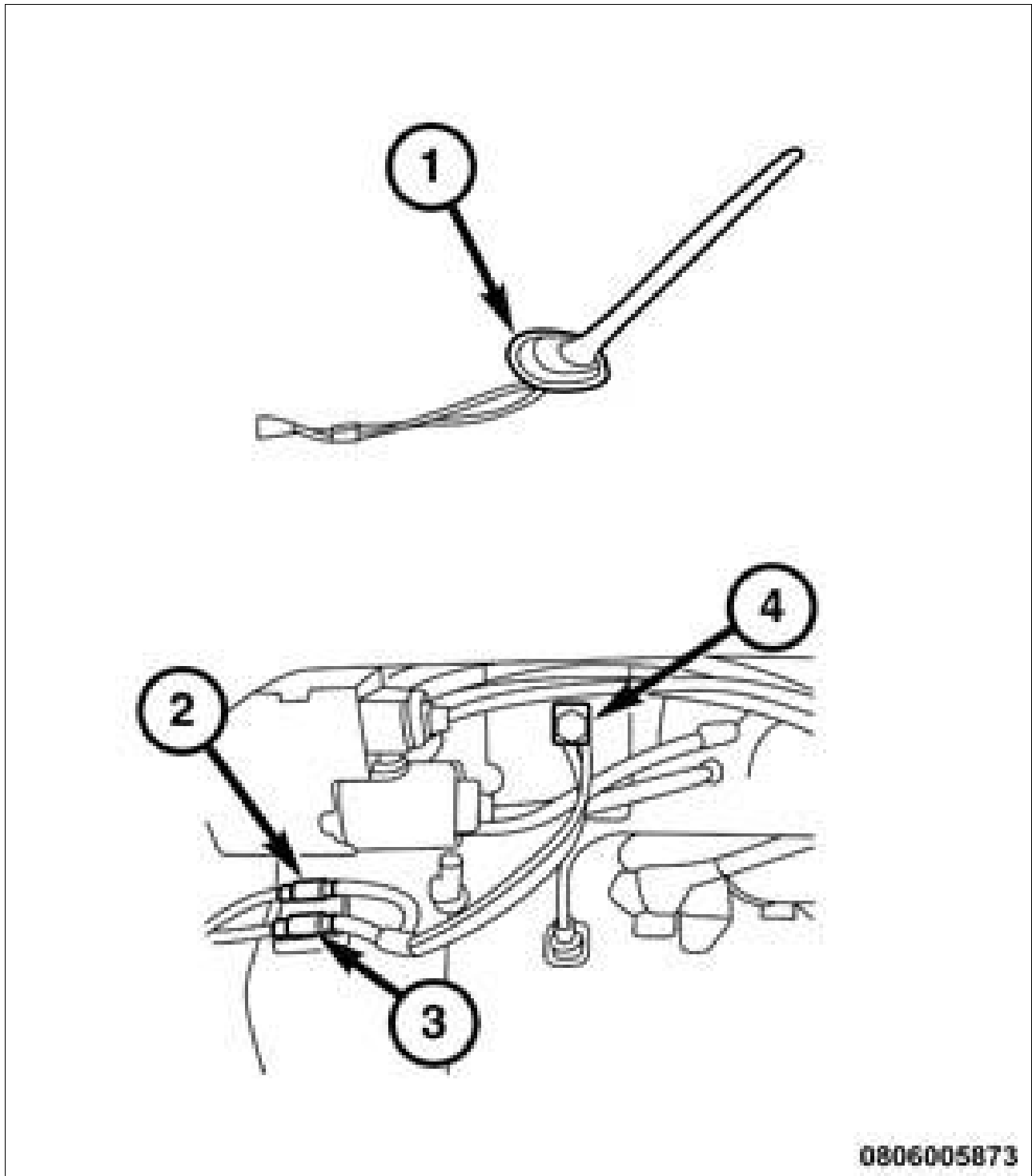


Courtesy of CHRYSLER GROUP, LLC

4. Disconnect the antenna wiring harness connectors (2 and 3).
5. Remove the nut (4) securing the antenna.
6. Pull the antenna assembly (1) from the roof of the vehicle.

**ANTENNA, SATELLITE, AUDIO > REMOVAL AND INSTALLATION > REMOVAL AND
INSTALLATION > INSTALLATION**

Fig 1: Antenna, Connectors & Nut



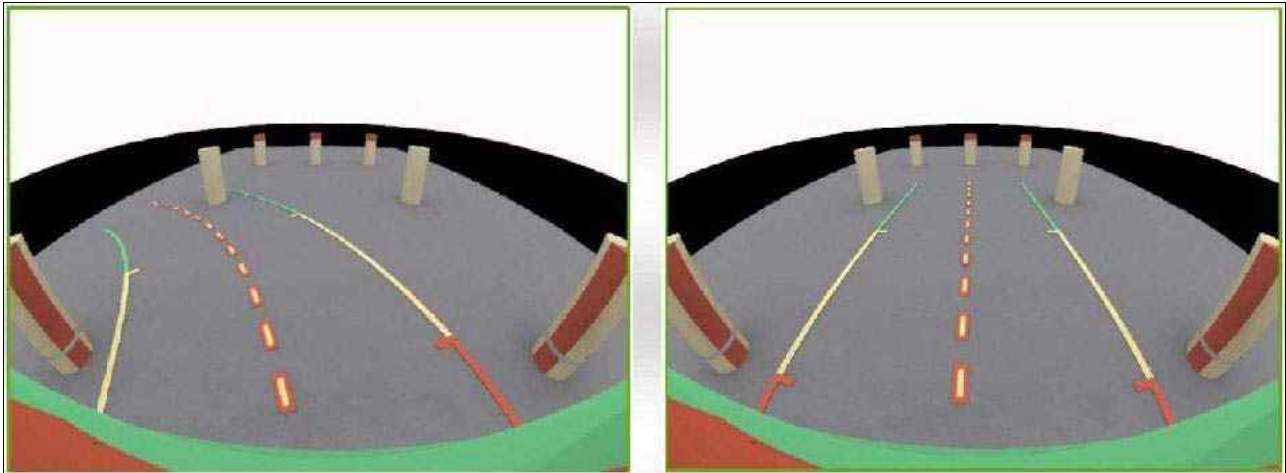
Courtesy of CHRYSLER GROUP, LLC

1. Install the antenna (1) into the antenna mount opening on the roof.
2. Install the antenna mounting retaining nut (4) and securely tighten.
3. Connect the antenna wire harness connectors (2 and 3).
4. Install the headliner. Refer to HEADLINER, REMOVAL AND INSTALLATION .

5. Install the antenna mast.
6. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector to the negative battery cable.
7. Verify operation outside with a clear line of sight not obstructed by trees or buildings.

CAMERA, REAR > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > DESCRIPTION

Fig 1: Rear View Camera (RVC) ParkView ® System

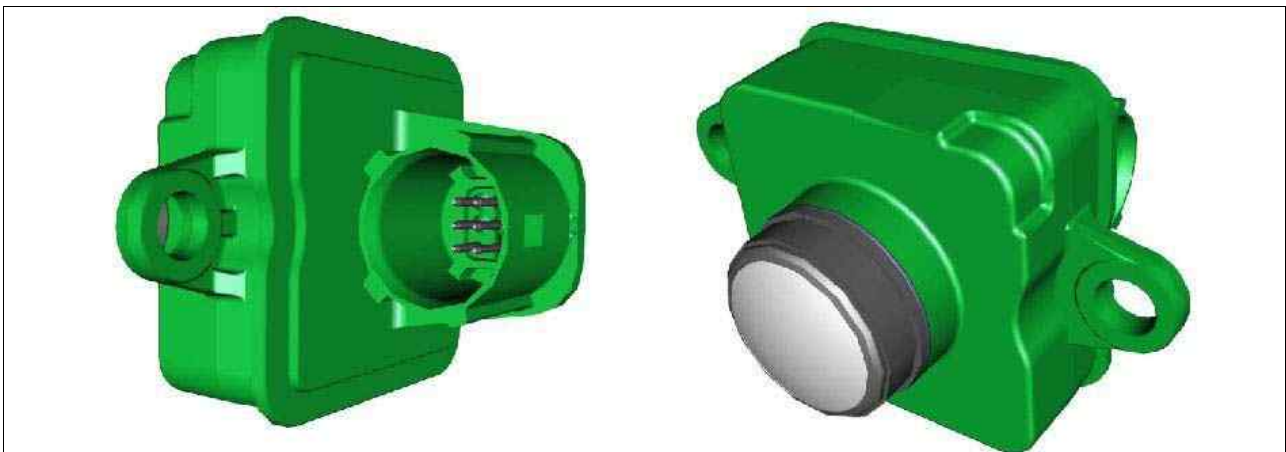


Courtesy of CHRYSLER GROUP, LLC

On vehicles equipped with Uconnect 5.0 or 6.5 UConnect ® touchscreen the image of the Rear View Camera (RVC) of the ParkView ® system will appear on the radio display when reversing. The image is displayed with lines representing the space occupied by the car that are automatically adapted to the steering wheel rotation.

The RVC, which is located on the tailgate, produces a high resolution image with greater clarity and sharpness to identify any obstacles.

Fig 2: Rear View Camera (RVC)



Courtesy of CHRYSLER GROUP, LLC

The RVC communicates with the Body Control Module (BCM) via the Local Interface Network (LIN2).

The RVC cannot be adjusted or repaired. If the RVC is damaged or ineffective, it must be replaced.

CAMERA, REAR > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > OPERATION

The Rear View Camera (RVC) is powered by a ignition feed received through the backup lamp switch output circuit from the Body Control Module (BCM) so that is only active when the transaxle is shifted into the Reverse (**R**) position. The RVC has a path to ground at all times through a take out and eyelet terminal of the body wire harness secured to the body sheet metal. If the camera delay feature is enabled, the RVC will remain active for 10 seconds, up to about 13 kilometers-per-hour (8 miles-per-hour) or until the touch screen display is pressed after the gear selector is shifted from (**R**) to Neutral (**N**) or Drive (**D**).

The output of the camera is a video signal compatible to the National Television System Committee (NTSC) standard composite video M format, or NTSC-M. The video signal is delivered to the radio video display unit through the entire length of the vehicle by camera signal and the camera return circuits that are arranged as a twisted pair, with an additional grounded foil jacket to protect the video signal from corruption due to stray radiated signals within the vehicle environment. The ground shield is terminated only at the video display (radio) end, not at the camera. Portions of these video signal wires are contained within the body wire harness and a jumper harness located between the radio and the body harness connector below the instrument panel at the right cowl side inner panel.

The hard wired circuits between components related to the RVC may be diagnosed using conventional diagnostic tools and procedures. Refer to the appropriate Diagnostic & Testing article. The wiring information includes wiring diagrams, proper wire and connector repair procedures, details of wire harness routing and retention, connector pin out information and location views for the various wire harness connectors, splices and grounds.

However, conventional diagnostic methods will not prove conclusive in the diagnosis of the RVC or the electronic controls and communication between modules and other devices that provide some features of the RVC. The most reliable, efficient and accurate means to diagnose the RVC or the electronic controls and communication related to RVC operation requires the use of a diagnostic scan tool. Refer to the appropriate Diagnostic & Testing article.

CAMERA, REAR > DIAGNOSIS AND TESTING > DIAGNOSIS AND TESTING - REAR CAMERA

The hard wired circuits of the Rear View Camera (RVC) and those between the RVC and the Radio may be diagnosed using conventional diagnostic tools and procedures. Refer to the appropriate Diagnostic & Testing article. The wiring information includes wiring diagrams, proper wire and connector repair procedures, details of wire harness routing and retention, connector pin out information and location views for the various wire harness connectors, splices and grounds.

However, conventional diagnostic methods will not prove conclusive in the diagnosis of the RVC or the radio. The most reliable, efficient and accurate means to diagnose the electronic controls and communication related to radio operation, as well as the retrieval or erasure of a DTC requires the use of a diagnostic scan tool. Refer to the appropriate Diagnostic & Testing article.

 WARNING:

To avoid serious or fatal injury on vehicles equipped with airbags, disable the Supplemental Restraint System (SRS) before attempting any steering wheel, steering column, airbags, airbag curtains, knee blocker, seat belt tensioner, impact sensor or instrument panel component diagnosis or service. Disconnect the IBS/negative battery cable assembly from the negative battery post, then wait two minutes for the system capacitor to discharge before performing further diagnosis or service. This is the only sure way to disable the SRS. Failure to take the proper precautions could result in accidental airbag deployment.

 NOTE:

Be certain to confirm the following prior to attempting any further diagnosis or testing of the RVC. Use a diagnostic scan tool to confirm the rear view camera is setup in the vehicle configuration.

REAR VIEW CAMERA DIAGNOSIS		
CONDITION	POSSIBLE CAUSES	CORRECTION
VIDEO IMAGE IS BLURRY OR OBSTRUCTIVE	1. Dirt, smear, fingerprints on RVC lens.	1. Inspect lens for foreign material, and clean lens as required, using the lens cleaning procedure.
NO VIDEO DISPLAY IN RADIO - DOES NOT DISPLAY CHECK ENTIRE SURROUNDINGS MESSAGE BRIEFLY AFTER SHIFTING INTO REVERSE	1. Incorrect radio software.	1. Check to be certain that the radio has the latest software update installed. Install the radio software update if required.
	2. Ineffective radio fuse.	2. Test and replace the radio fuses if required.
	3. Ineffective radio ground circuit.	3. Check for loose or damaged wiring connections at the radio. Test and repair the open radio ground circuit if required.
	4. Ineffective radio feed circuit.	4. Check for loose or damaged wiring connections at the radio. Test and repair the open radio feed circuit if required.
	5. Ineffective radio inputs or outputs.	5. Use a diagnostic scan tool to test the radio inputs and outputs including those received over the CAN data bus. Refer to the appropriate Diagnostic & Testing article.

	6. Ineffective radio.	6. Use a diagnostic scan tool to test the radio. Refer to the appropriate Diagnostic & Testing article.
NO CAMERA IMAGE IN RADIO VIDEO DISPLAY AND NO BACKUP LAMPS IN REVERSE	1. Backup lamps inoperative.	1. Test and repair the open backup lamp switch output circuit between the right and left tail lamps if required.
	2. Both backup lamps inoperative.	2. Test and repair the open backup lamp switch output circuit between the Body Control Module (BCM) and the tail lamps if required.
	3. Ineffective BCM inputs or outputs.	3. Use a diagnostic scan tool to test the BCM inputs and outputs. Refer to the appropriate Diagnostic & Testing article.
NO CAMERA IMAGE IN RADIO VIDEO DISPLAY - DOES DISPLAY CHECK ENTIRE SURROUNDINGS MESSAGE BRIEFLY AFTER SHIFTING INTO REVERSE AND BACKUP LAMPS DO OPERATE	1. Ineffective camera ground circuit.	1. Check for loose or damaged wiring connections at the camera, the license plate applique and the left rear cargo door opening header. Test and repair the open camera ground circuit if required.
	2. Ineffective camera feed (backup lamp switch output) circuit.	2. Check for loose or damaged wiring connections at the camera, license plate applique and left rear cargo door opening header. Test and repair the open camera feed (backup lamp switch output) circuit if required.
	3. Ineffective camera shield circuit.	3. Check for loose or damaged wiring connections at the camera, license plate applique, left rear cargo door opening header, right cowl side inner panel and radio. Test and repair the open or shorted camera shield circuit if required.
	4. Ineffective camera return circuit.	4. Check for loose or damaged wiring connections at the camera, license plate applique, left rear cargo door opening header, right cowl side inner panel and radio. Test and repair the open or shorted camera feed circuit if required.

	5. Ineffective camera signal circuit.	5. Check for loose or damaged wiring connections at the camera, license plate applique, left rear cargo door opening header, right cowl side inner panel and radio. Test and repair the open or shorted camera signal circuit if required.
	6. Ineffective camera.	6. Replace the ineffective camera if required.

CAMERA, REAR > CLEANING > CLEANING



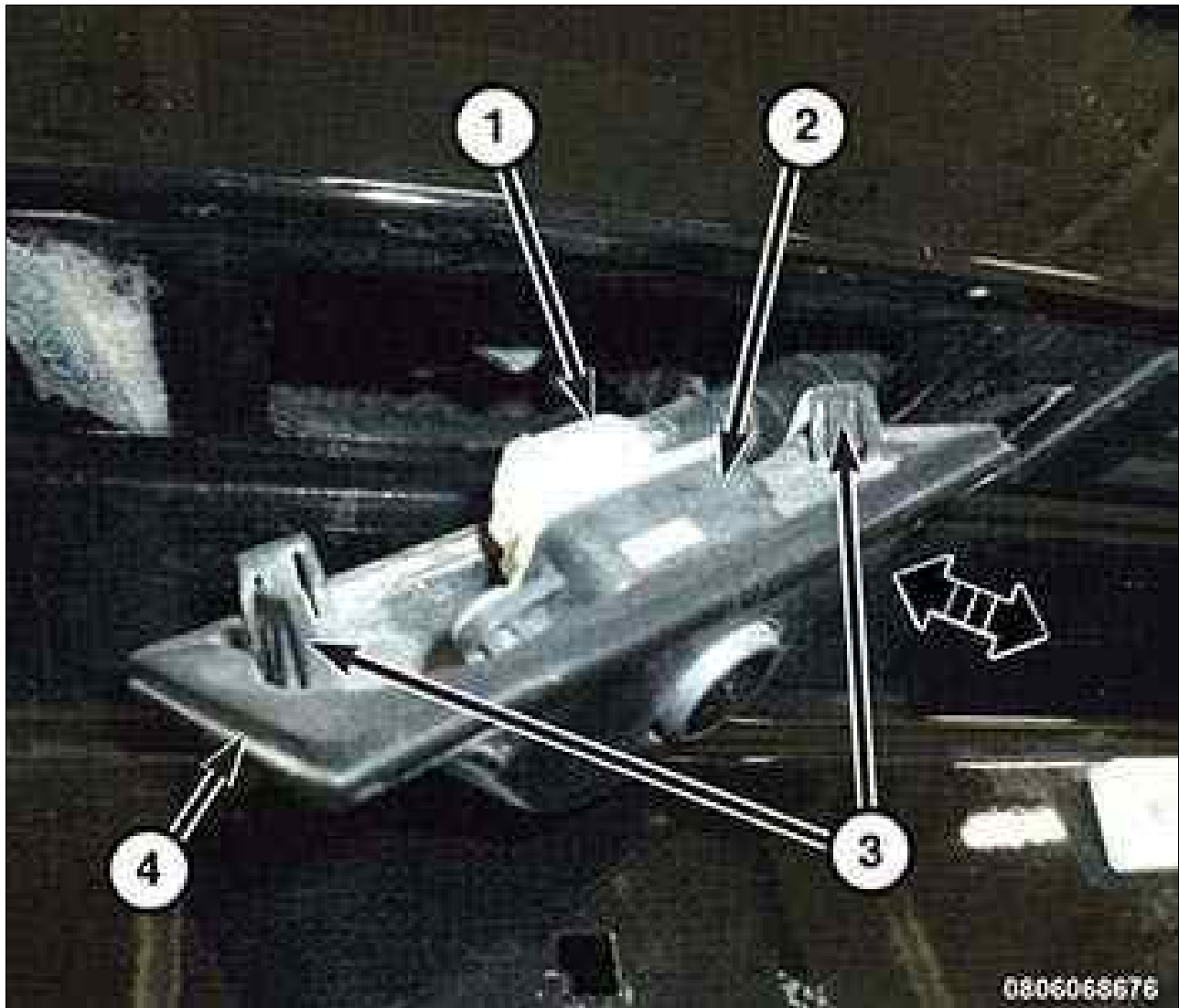
NOTE:

The use of nylon gloves will prevent oil and debris on your hands from being transferred to the camera body or lens surface. While wearing the gloves, care should be taken not to contact exposed body parts such as the forehead, nose and arms. If contact is made accidentally, gloves should be changed to mitigate the risk of contaminant transfer from the surface of the gloves.

1. Using compressed air, blow diagonally across the camera lens.
2. Use a microfiber lens tissue to gently wipe the lens.
3. Examine the lens to verify the cleaning process. Proceed to **Step #4** if the lens still shows signs of oil or debris.
4. Apply a lens cleaning solution to a section of an unused lens tissue.
5. Slowly wipe in a circular motion around the edges of the lens to remove any dirt or contamination from the periphery of the lens before cleaning the center.
6. Let the lens air dry.
7. Examine the lens to verify the cleaning process.

CAMERA, REAR > REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION > REMOVAL

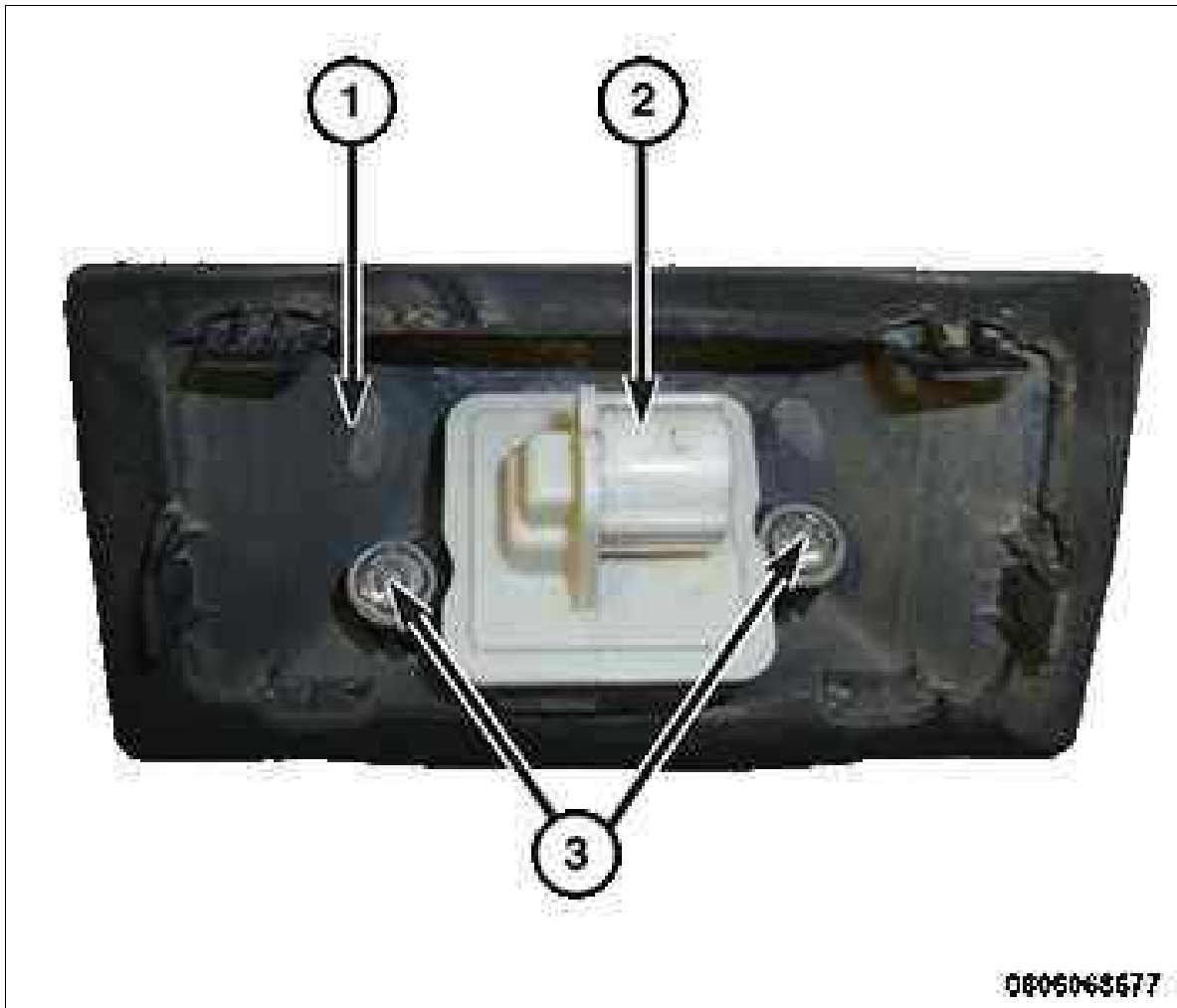
Fig 1: Remove/Install Rear View Camera (RVC)



Courtesy of CHRYSLER GROUP, LLC

1. Disconnect and isolate the negative cable from the battery. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector before disconnecting the negative cable from the battery.
2. Using a suitable tool, release the four retaining tabs (3) of the Rear View Camera (RVC) bezel (4) from the liftgate and pull the bezel out of the liftgate.
3. Disconnect the liftgate jumper wire harness connector (1) from the RVC (2) and remove the RVC and bezel from the vehicle.

Fig 2: Rear View Camera (RVC) Bezel, Wire Connector & Screws

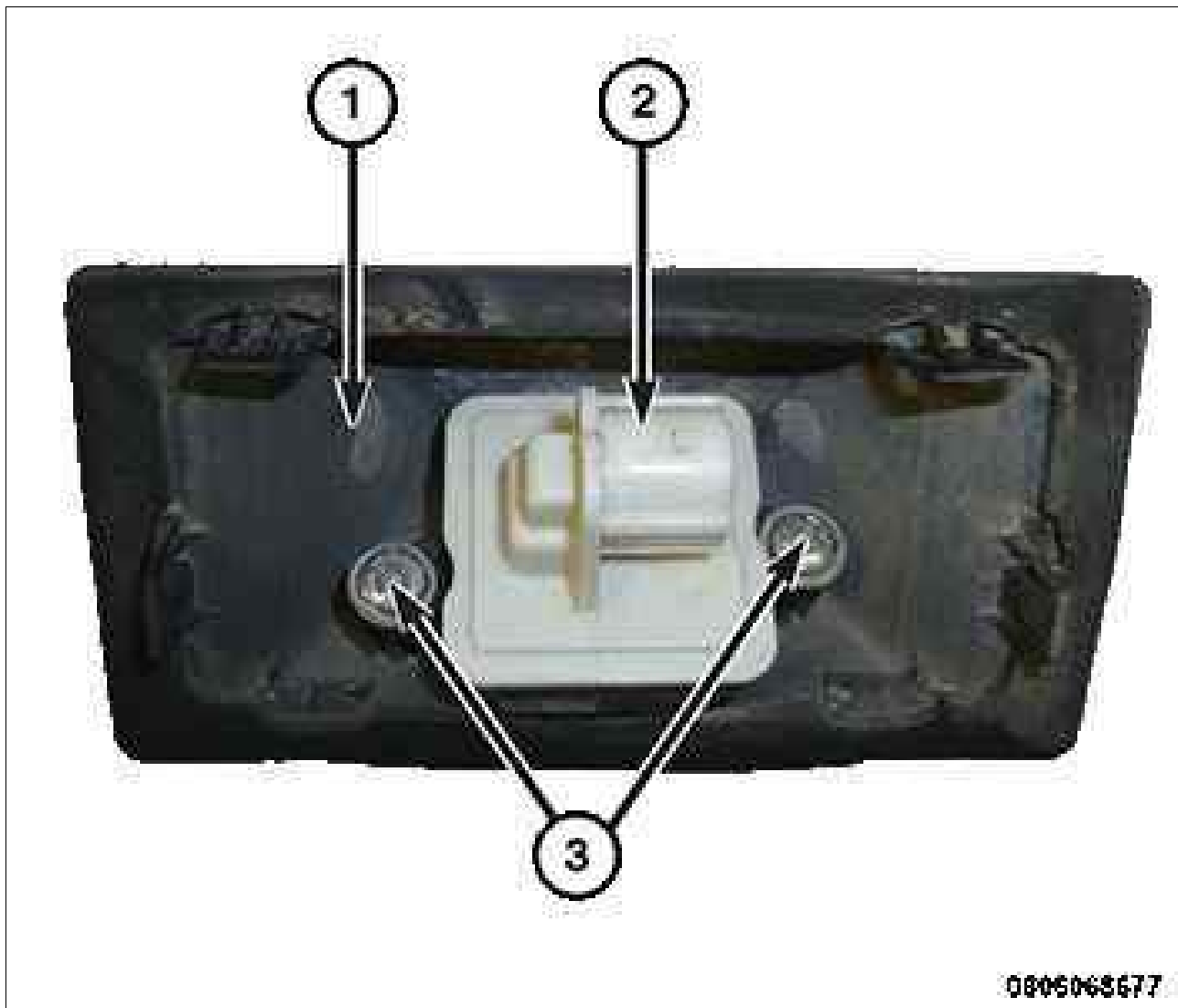


Courtesy of CHRYSLER GROUP, LLC

4. Remove the two screws (3) that secure the RVC (2) to the RVC bezel (1).
5. Remove the RVC from the RVC bezel.

**CAMERA, REAR > REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION
> INSTALLATION**

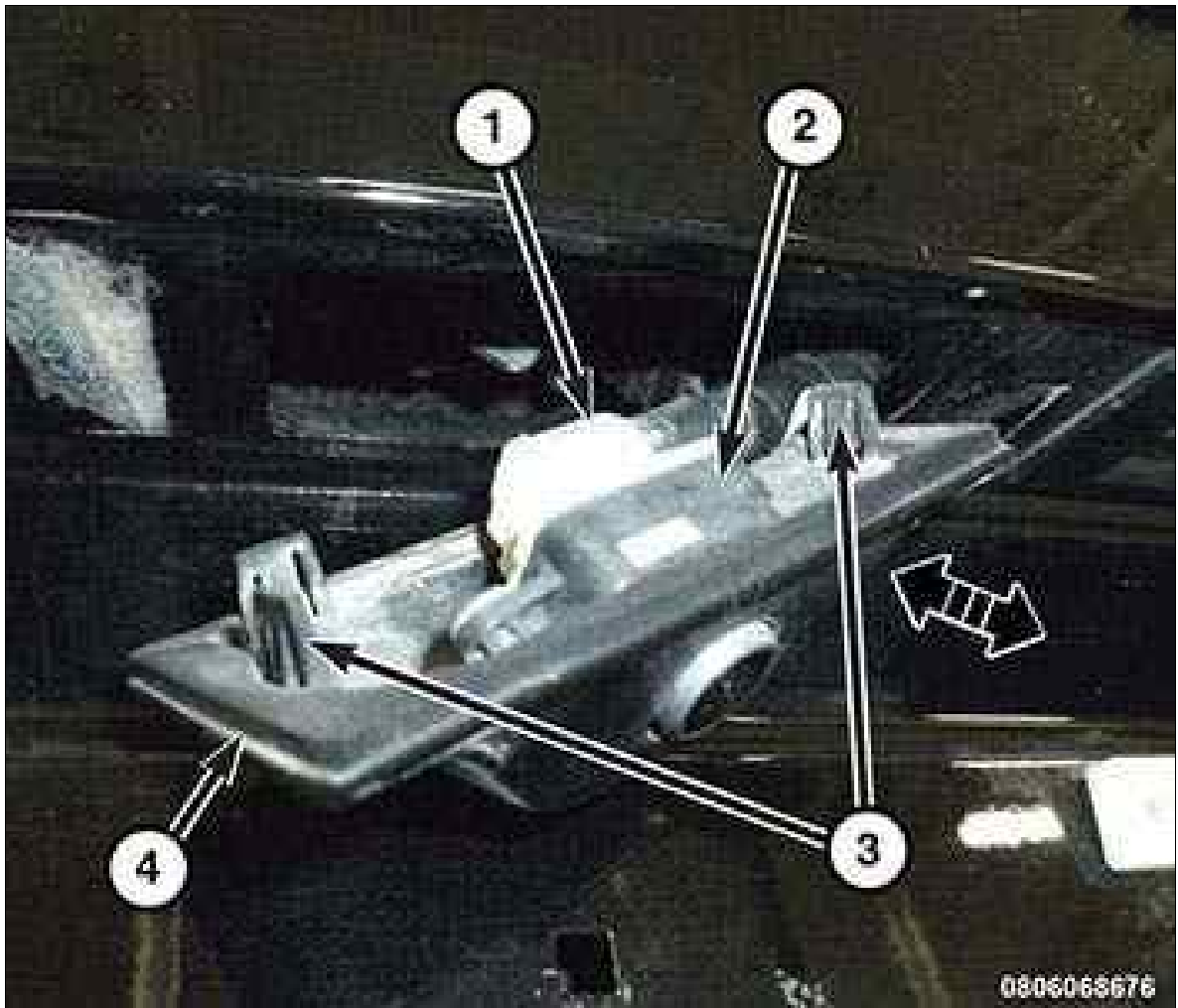
Fig 1: Rear View Camera (RVC) Bezel, Wire Connector & Screws



Courtesy of CHRYSLER GROUP, LLC

1. Position the Rear View Camera (RVC) (2) onto the RVC bezel (1).
2. Install and securely tighten the two screws (3) that secure the RVC (2) to the RVC bezel (1).

Fig 2: Remove/Install Rear View Camera (RVC)



Courtesy of CHRYSLER GROUP, LLC

3. Connect the liftgate jumper wire harness connector (1) to the RVC (2).
4. Position the RVC bezel (4) to the liftgate and press the RVC bezel into the liftgate until the four retaining tabs (3) fully engage the liftgate.
5. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector.

MEDIA HUB > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > DESCRIPTION

Fig 1: Media Hub



Courtesy of CHRYSLER GROUP, LLC

The possibility of connecting devices for audio playback on the car can be performed by means of:

- a Universal Serial Bus (USB) port (1.5V) in the center console (standard)
- a USB in the center console but available only with VP2 NAV and VP4
- auxiliary power outlets (APO) placed in front and rear load areas

The media hub (1) is located in the forward surface of the center console (3). The media hub is a centralized connection point in the vehicle that contains:

- a 3.5 millimeter auxiliary audio input jack (4)
- a powered USB port (2)



NOTE:

The powered USB port provides 5 volts at 1.5 amperes to charge the battery of a

connected media device.

Only the molded plastic media hub faceplate and the connection ports are visible within the center console. The media hub housing, wiring and connections to the vehicle electrical system are concealed on the underside of the console. Two latch tabs integral to the media hub housing secure the unit on the back side of the mounting hole in the console.

Fig 2: USB Port In Center Console Storage Bin



Courtesy of CHRYSLER GROUP, LLC

There is also a USB port (1) in the center console storage bin (2). On the Sport model, this is a charge only port as an option. All other models have the charge port as standard equipment with a fully functioning USB port optional.

For USB sources the system can play files with the following extensions and formats:

- MP3 (32 - 320 Kbps)
- WAV

- WMA (5 - 320 Kbps) mono and stereo
- AAC (8 - 96 KHz) mono and stereo
- M4A (8 - 96 kHz) mono and stereo
- M4B (8 - 96 kHz) mono and stereo
- MP4 (8 - 96 kHz) mono and stereo

For all USB sources, the system can also play the following Playlist formats:

- M3U
- WPL



NOTE:

The system supports only FAT32-formatted USB devices. The system does not support devices with a capacity higher than 64 GB and does not support USB hubs connected to the USB port.

The media hub and optional USB port cannot be adjusted or repaired. If either is ineffective or damaged it must be replaced.

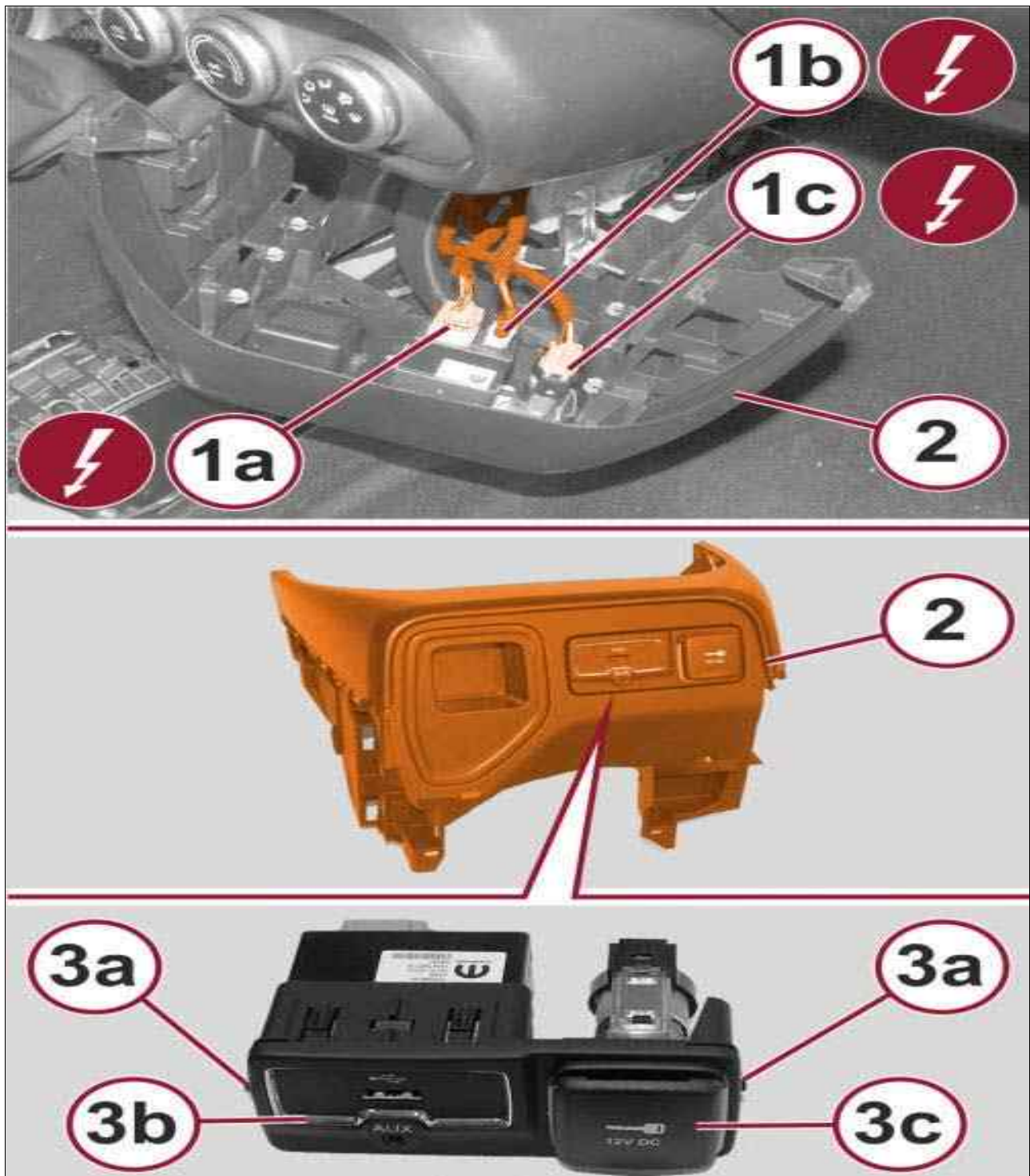
MEDIA HUB > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > OPERATION

In vehicles so equipped, the media hub allows the audio content of various media devices to be connected to Radio Receiver Module (RRM). Once connected, the audio content of the media device may be accessed and played through the audio system components of the vehicle using the RRM controls.

The hard wired circuits between the media hub and the RRM may be diagnosed using conventional diagnostic tools and procedures. Refer to the appropriate Diagnostic & Testing article. The wiring information includes wiring diagrams, proper wire and connector repair procedures, details of wire harness routing and retention, connector pin out information and location views for the various wire harness connectors, splices and grounds.

MEDIA HUB > REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION > REMOVAL

Fig 1: Remove/Install Media Hub



Courtesy of CHRYSLER GROUP, LLC

1. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable.

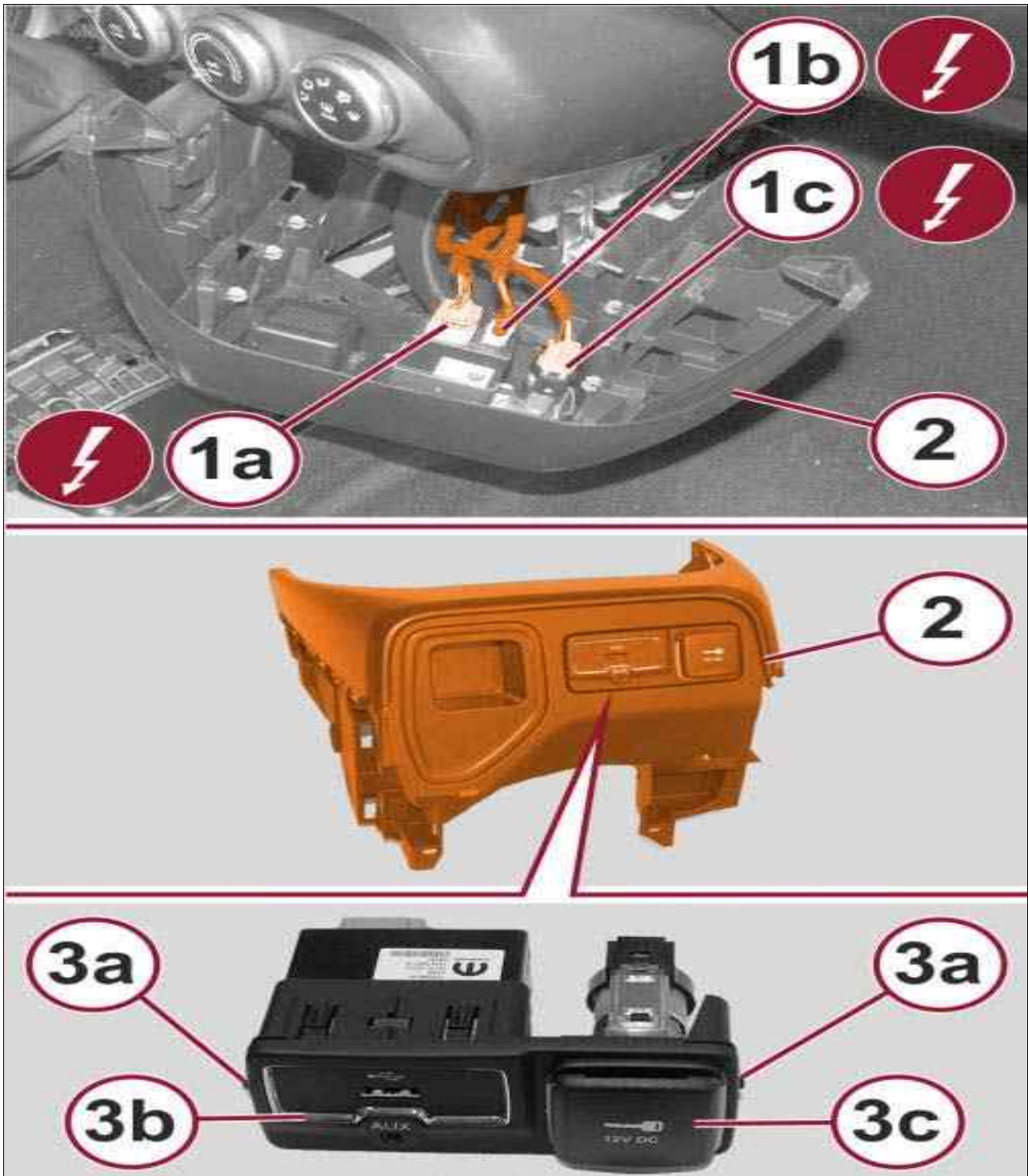
 **NOTE:**

Be certain to take the proper precautions to prevent the floor console and instrument panel from receiving cosmetic damage during the following procedures.

2. Remove the front floor console from the vehicle. Refer to CONSOLE, FLOOR, REMOVAL AND INSTALLATION .
3. Roll the trim panel (2) of the lower instrument panel to gain access to the wire harness connectors and disconnect the wire harness connectors (1a, 1b and 1c).
4. Working from the back side of the lower instrument panel trim panel (2), release the retaining clips (3a) and remove the bezel with the USB/AUX sockets (3b) and 12V outlet (3c).

MEDIA HUB > REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION > INSTALLATION

Fig 1: Remove/Install Media Hub



Courtesy of CHRYSLER GROUP, LLC



NOTE:

Be certain to take the proper precautions to prevent the floor console and instrument panel from receiving cosmetic damage during the following procedures.

1. Position and insert the media hub bezel (1) into the lower instrument panel trim panel (2) until all integral latches (3a) are fully engaged on the inside of the lower instrument panel trim panel (2).
2. Connect the wire harness connectors (1a, 1b and 1c) to the media hub and 12V outlet.
3. Install the front floor console into the vehicle. Refer to CONSOLE, FLOOR, REMOVAL AND INSTALLATION .
4. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector.

RADIO > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > DESCRIPTION

There are three Radio Receiver Modules (RRM) available in this vehicle, Uconnect® 3.0, Uconnect® 5.0 and Uconnect® 6.5. Each RRM has a distinct chassis design and is identified by a sales code. The Uconnect® 3.0 RRM (Sales Code RA1) includes the following features:

- AM/FM frequency reception
- dot-matrix, single DIN, monochromatic display
- six-channel presets
- four speakers
- iPod integration
- Auxiliary/Universal Serial Bus (USB) Media Hub
- USB port in the center console (optional)
- vehicle personalization/settings
- speed adjusted volume

The Uconnect® 5.0 RRM (Sales Code RA2) includes the following features:

- AM/FM frequency reception
- 12.7 centimeter (5.0 inch) full color touchscreen display
- iPod integration
- Auxiliary/USB Media Hub
- USB port in the center console (optional)
- vehicle personalization/settings
- speed adjusted volume
- integrated steering wheel controls
- Radio Broadcast Data System (RBDS)

- Bluetooth connectivity
- Bluetooth streaming audio
- hands-free phone
- Voice Recognition (VR) commands
- text message reader
- six speakers (optional)
- integrated Global Positioning System (GPS) navigation (optional)
- ParkView® integrated rear view camera (optional)
- Sirius XM satellite radio (optional)

The Uconnect® 6.5 RRM (Sales Code RA4) includes the following features:

- AM/FM frequency reception
- 16.5 centimeter (6.5 inch) full color touchscreen display
- iPod integration
- Auxiliary/USB Media Hub
- USB port in the center console (optional)
- vehicle personalization/settings
- speed adjusted volume
- integrated steering wheel controls
- Radio Broadcast Data System (RBDS)
- Bluetooth connectivity
- Bluetooth streaming audio
- hands-free phone
- Voice Recognition (VR) commands
- text message reader
- nine speakers (optional)
- Premium integrated 3D Global Positioning System (GPS) navigation (optional)
- ParkView® integrated rear view camera (optional)
- Sirius XM satellite radio (1-year subscription)

Hard wired circuitry connects the RRM to the electrical system of the vehicle. These hard wired circuits are integral to several wire harnesses, which routes throughout the vehicle and retained by many different methods. These circuits may be connected to each other and to the vehicle electrical system

through the use of a combination of soldered splices, splice block connectors, and many different types of wire harness terminal connectors and insulators. Refer to the appropriate Diagnostic & Testing article. The wiring information includes wiring diagrams, proper wire and connector repair procedures, further details on wire harness routing and retention, as well as pin out and location views for the various wire harness connectors, splices and grounds.

The RRM cannot be adjusted or repaired. If the RRM is damaged or ineffective, it must be replaced.

RADIO > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > OPERATION

The Radio Receiver Module (RRM) becomes operational when it receives a wake up signal over the Controller Area Network (CAN) - B data bus indicating the status of the ignition switch is On or Accessory. For further information on the operation of the radio or media system in the vehicle, see the heading for the appropriate audio system option in the User Guide or the Owner Manual. See the Uconnect® web site (<http://www.driveuconnect.com/>) for more information, or refer to the **For Owners** link on the vehicle brand web site for copies of those publications.

The RRM uses a roof mounted antenna for AM/FM signal reception and, depending upon vehicle optional equipment, a roof mounted combination antenna that can receive Global Positioning System (GPS) and satellite radio signals.

Depending upon the audio system options, the RRM can play audio from many different media sources. The media can be played by connecting the source to the audio system via a 3.5 millimeter auxiliary (AUX) port, a Universal Serial Bus (USB) port or through wireless Bluetooth audio streaming. Refer to the Uconnect® web site (<http://www.driveuconnect.com/>) for compatibility information.



NOTE:

USB devices (e.g., camera memory USB adaptors, etc. excluding Apple products) must comply with the MSD (Mass Storage Device) standard. This remote USB port can provide power to the inserted device.

RADIO > REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION > REMOVAL



NOTE:

For RA4 radios, if possible, the version of the map and Point Of Interest (POI) data should be noted before the original radio is replaced with a new unit. If the version of the map and POI data found on the new radio is not equal to or newer than the version that is found, updated data will need to be downloaded and installed to the new radio at the expense of the dealer. For the Navigation system restore and update procedures, refer to STANDARD PROCEDURE .

Fig 1: Center Trim Bezel & Screws



Courtesy of CHRYSLER GROUP, LLC

1. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable.
2. Using trim stick C-4755 or equivalent, remove the center trim bezel (1b) from the instrument panel.

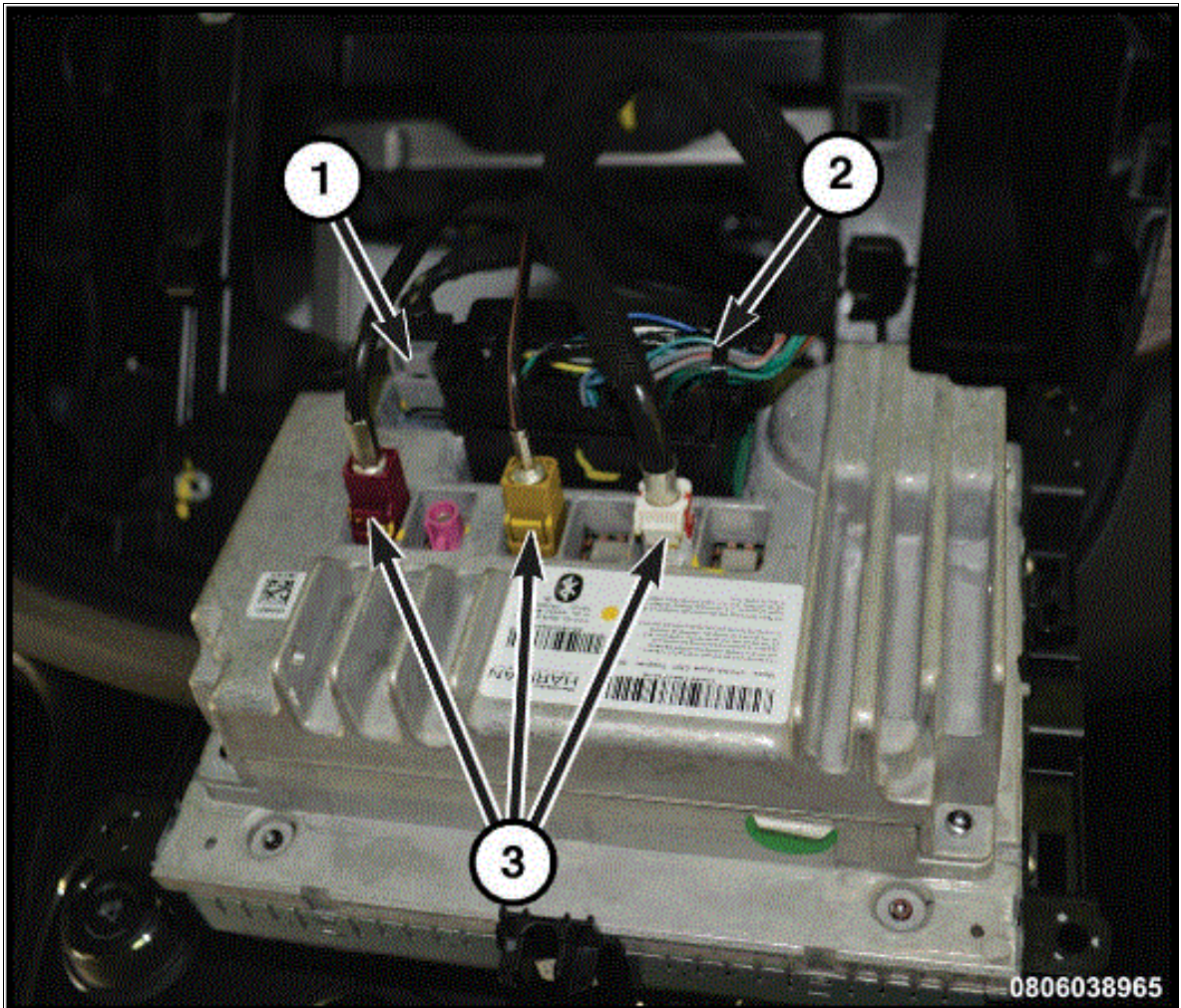
Fig 2: Radio & Screws



Courtesy of CHRYSLER GROUP, LLC

3. Remove the four screws (1a) securing the radio (1b) to the instrument panel.
4. Pull the radio out far enough to access the back of the radio.

Fig 3: Radio Receiver Module Connectors

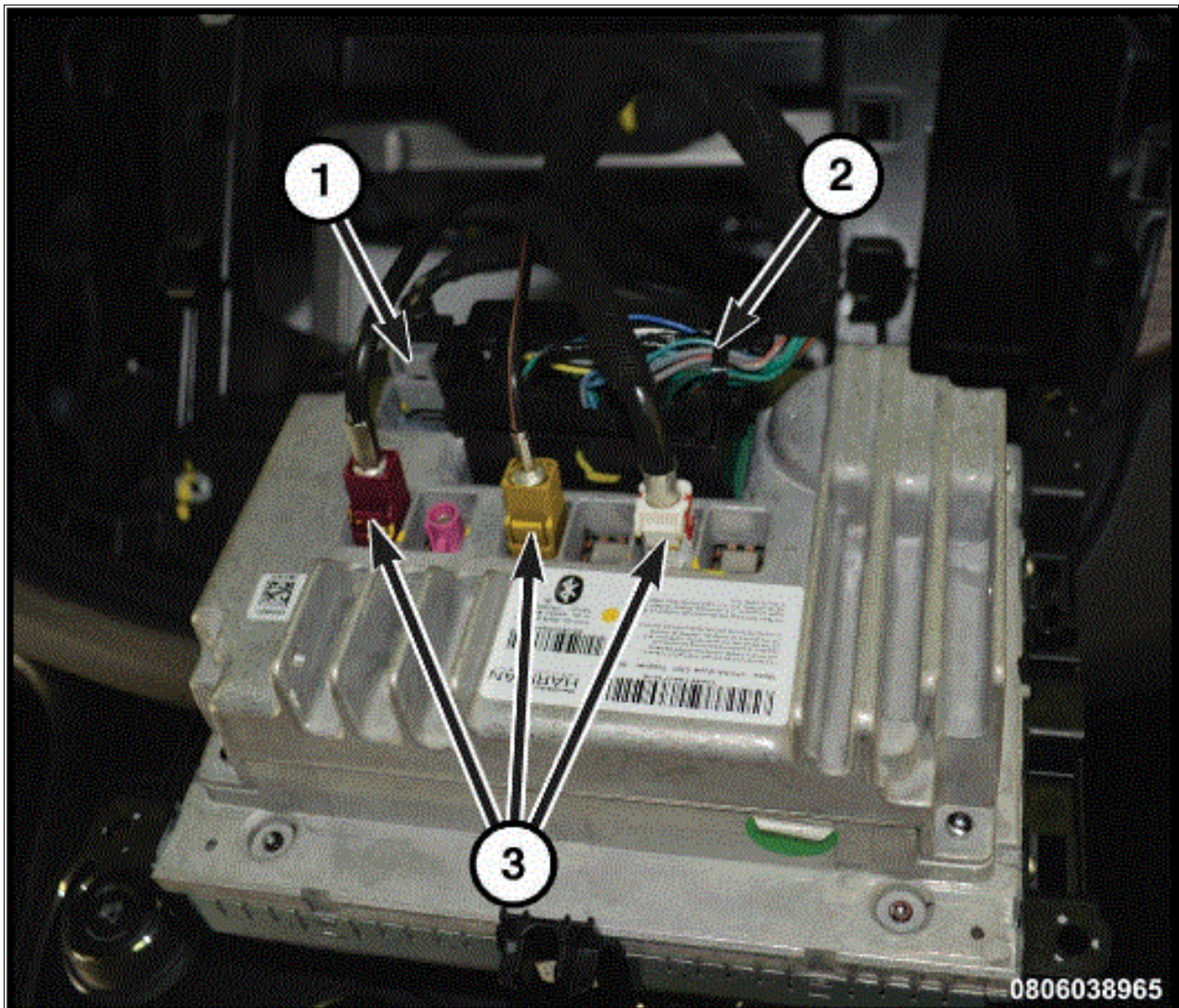


Courtesy of CHRYSLER GROUP, LLC

5. Disconnect the antenna cables (3), and radio wire harness connector (2).
6. If equipped, disconnect the USB connector (1).
7. Remove the radio from the instrument panel.

RADIO > REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION > INSTALLATION

Fig 1: Radio Receiver Module Connectors



Courtesy of CHRYSLER GROUP, LLC

1. Position the radio near the instrument panel.
2. Connect the antenna cables (3) and radio wire harness connector (2).
3. If equipped, connect the USB connectors (1).

Fig 2: Radio & Screws



Courtesy of CHRYSLER GROUP, LLC

4. Position the radio into the instrument panel.
5. Install and securely tighten the four screws (1a) securing the radio (1b) to the instrument panel.

Fig 3: Center Trim Bezel & Screws



Courtesy of CHRYSLER GROUP, LLC

6. Install the instrument panel center bezel (1b). Be certain the four retaining tabs (1a) are fully engaged to the instrument panel.
7. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector.

 NOTE:

*If this Electronic Control Unit (ECU) is being replaced with a new unit, a diagnostic scan tool **MUST** be used to align the PROXI configuration data into the new ECU. Follow the routine outlined in the diagnostic scan tool for PROXI Configuration Alignment under Body Control Module (BCM) Miscellaneous Functions menu.*

 NOTE:

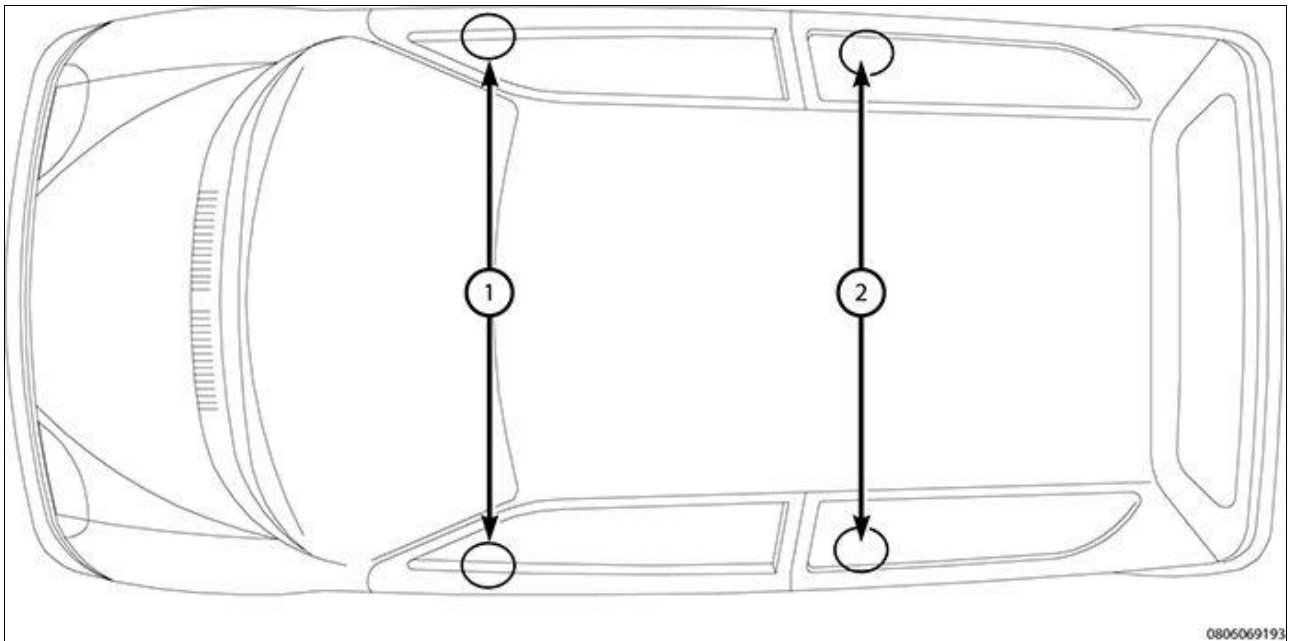
Uconnect® Access Applications and WiFi hotspot will be automatically updated in the replacement radio through the radio's embedded cellular phone based on the customers present subscription status. This update process may take up to an hour, depending upon the number of apps and adequate cellular services accessibility. The dealer is not expected to perform this process or to oversee it, but may need to explain to the vehicle owner or operator that some features and applications may not be fully restored and overall system response may be slowed until the process has completed.

 NOTE:

For RA4 radio only: Any factory replacement radio for the same vehicle will be provided with the Navigation system already activated. Refer to the Navigation/Telecommunication DESCRIPTION AND OPERATION for more information.

SPEAKER > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > DESCRIPTION

Fig 1: Base Equipment Four Speaker System

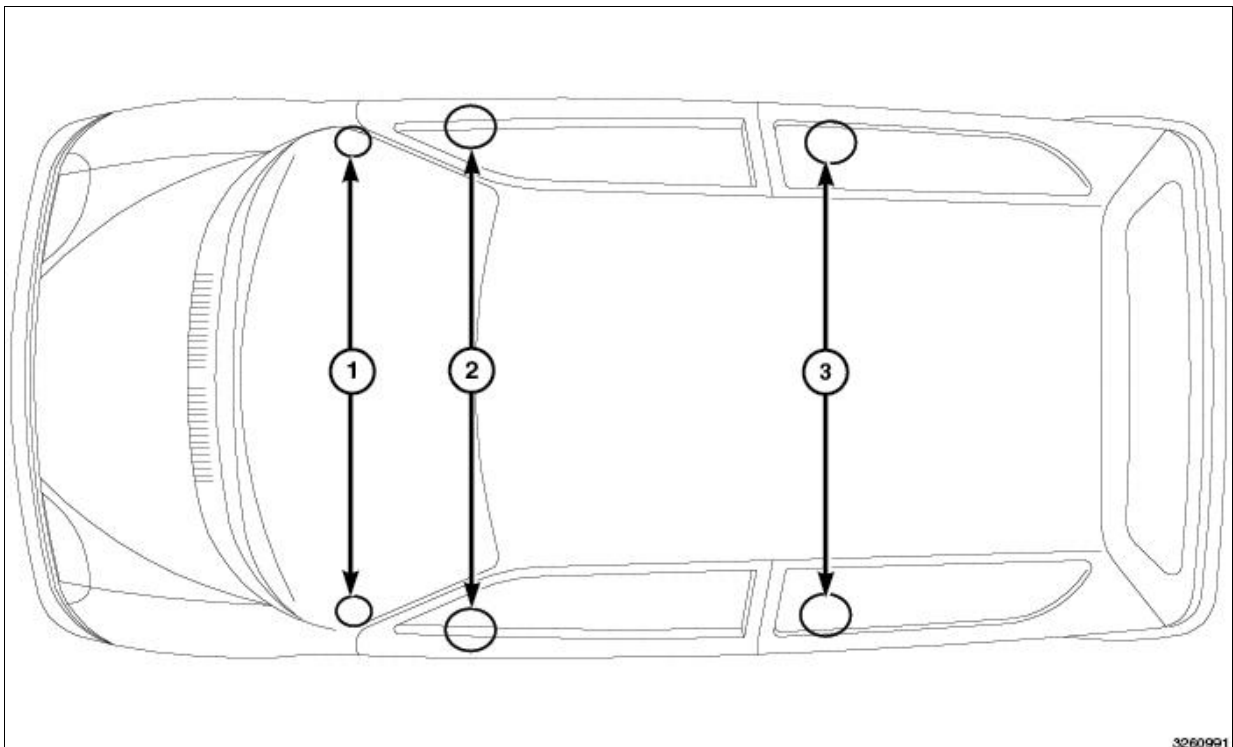


Courtesy of CHRYSLER GROUP, LLC

The base equipment four speaker 120-watt system includes speakers in four locations for the Uconnect® 3.0 radio.

- Two 15.2 X 23 centimeter (6 X 9 inch) speakers (1) located in the front door panels
- Two 15.2 X 23 centimeter (6 X 9 inch) speakers (2) located in the rear door panels

Fig 2: Tweeter Speakers, Mid-Woofer Speakers & Rear Speakers

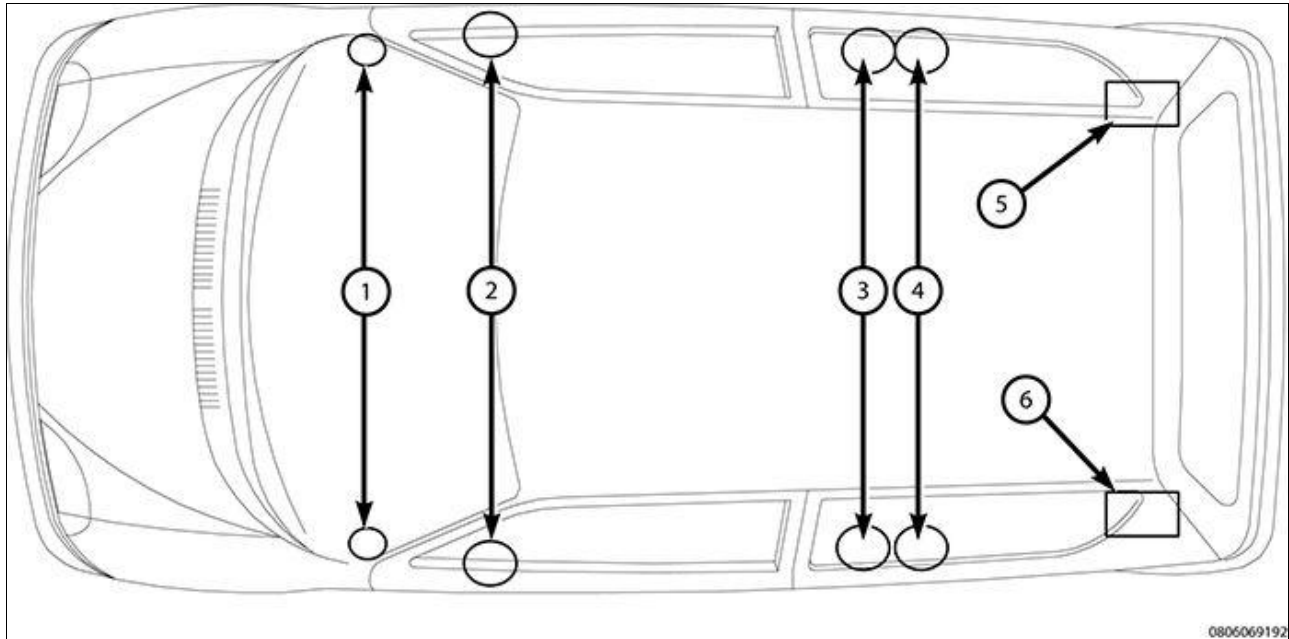


Courtesy of CHRYSLER GROUP, LLC

The six speaker 180-watt system includes speakers in six locations for the Uconnect® 5.0 and 6.5 radios.

- Two 8.89 centimeter (3.5 inch) diameter midrange tweeters (1) located in the instrument panel
- Two 15.2 X 23 centimeter (6 X 9 inch) speakers (2) located in the front door panels
- Two 15.2 X 23 centimeter (6 X 9 inch) speakers (3) located in the rear door panels

Fig 3: Premium Nine Speaker System



Courtesy of CHRYSLER GROUP, LLC

As an option, the premium nine speaker Beats® by Dre 506-watt system includes speakers in nine locations and an amplifier for the Uconnect® 6.5 radio.

- Two 8.89 centimeter (3.5 inch) (1) diameter midrange tweeters located in the instrument panel
- Two 15.2 X 23 centimeter (6 X 9 inch) speakers (2) located in the front door panels
- Two 2.54 centimeter (1 inch) (3) diameter tweeters located in the rear door panels by the door handles
- Two 15.2 X 23 centimeter (6 X 9 inch) speakers (4) located in the rear door panels
- One 16.51 centimeter (6.5 inch) subwoofer (5) located behind the right side quarter trim panel
- Eight channel 506-watt power amplifier (6) located behind the left side quarter trim panel

SPEAKER > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > OPERATION

Two wires connected to each speaker, one feed circuit (+) and one return circuit (-), allow the audio output signal electrical current from the amplifier section of the Radio Receiver Module (RRM) to flow

through each speaker voice coil.

The hard wired circuits between the RRM and the speakers may be diagnosed using conventional diagnostic tools and procedures. Refer to the appropriate Diagnostic & Testing article. The wiring information includes wiring diagrams, proper wire and connector repair procedures, details of wire harness routing and retention, connector pin out information and location views for the various wire harness connectors, splices and grounds.

SPEAKER > DIAGNOSIS AND TESTING > DIAGNOSIS AND TESTING - SPEAKER



WARNING:

To avoid serious or fatal injury on vehicles equipped with airbags, disable the Supplemental Restraint System (SRS) before attempting any steering wheel, steering column, airbags, airbag curtains, knee blocker, seat belt tensioner, impact sensor or instrument panel component diagnosis or service. Disconnect the IBS/negative battery cable assembly from the negative battery post, then wait two minutes for the system capacitor to discharge before performing further diagnosis or service. This is the only sure way to disable the SRS. Failure to take the proper precautions could result in accidental airbag deployment.



CAUTION:

The speaker output of the radio is a "floating ground" system. Do not allow any speaker lead to short to ground, as damage to the radio may result.

The hard wired circuits between components related to the audio system may be diagnosed using conventional diagnostic tools and procedures. Refer to the appropriate Diagnostic & Testing article. The wiring information includes wiring diagrams, proper wire and connector repair procedures, details of wire harness routing and retention, connector pin out information and location views for the various wire harness connectors, splices and grounds.

However, conventional diagnostic methods will not prove conclusive in the diagnosis of the Radio Receiver Module (RRM), the audio power amplifier or the electronic controls and communication between modules and other devices that provide some features of the audio system. The most reliable, efficient and accurate means to diagnose the RRM, the audio power amplifier or the electronic controls and communication related to audio system operation requires the use of a diagnostic scan tool. Refer to the appropriate Diagnostic & Testing article.

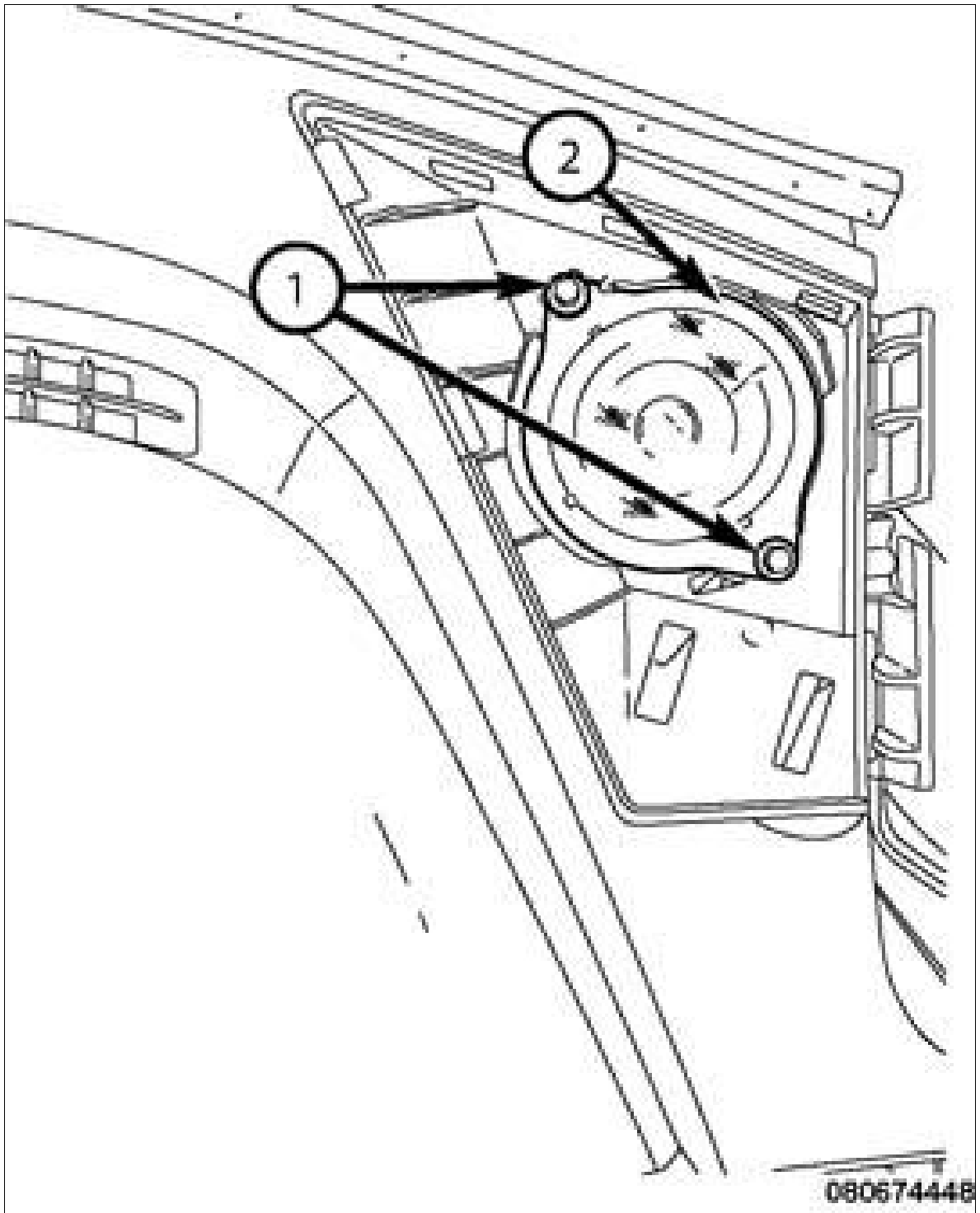
1. If all speakers are inoperative, inspect all of the RRM related fuses. If OK, go to Step 2. If not OK, repair the shorted circuit or component as required and replace the ineffective fuse.
2. If equipped with an audio power amplifier, check the fuse for the amplifier. If OK, go to Step 3. If not OK, repair the shorted circuit or component as required and replace the ineffective fuse.
3. Transition the ignition switch to the On status. Turn the RRM On. Adjust the balance and fader control controls to check the performance of each individual speaker. Note the speaker locations that are not performing correctly. Go to Step 4.

4. Turn the RRM Off. Transition the ignition switch to the Off status. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable. If vehicle is **not** equipped with an audio power amplifier, remove the RRM. If vehicle is equipped with an amplifier, disconnect wire harness connector at the output side of the amplifier. Go to Step 5.
5. Check both the speaker feed (+) circuit and return (-) circuit cavities for the inoperative speaker at the RRM wire harness connector for continuity to ground. There should be no continuity. If OK, go to Step 6. If not OK, repair the shorted speaker feed (+) and/or return (-) circuit(s) to the speaker as required.
6. Disconnect the wire harness connector at the inoperative speaker. Check for continuity between the speaker feed (+) circuit cavities of the RRM wire harness connector or, if equipped, the audio power amplifier wire harness connector and the speaker wire harness connector. Repeat the check between the speaker return (-) circuit cavities of the RRM wire harness connector and the speaker wire harness connector. In each case, there should be continuity. If OK, replace the ineffective speaker. If not OK, repair the open speaker feed (+) and/or return (-) circuit(s) as required.

SPEAKER > REMOVAL AND INSTALLATION > INSTRUMENT PANEL END SPEAKER > REMOVAL

1. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable.
2. Remove the instrument panel speaker grill.

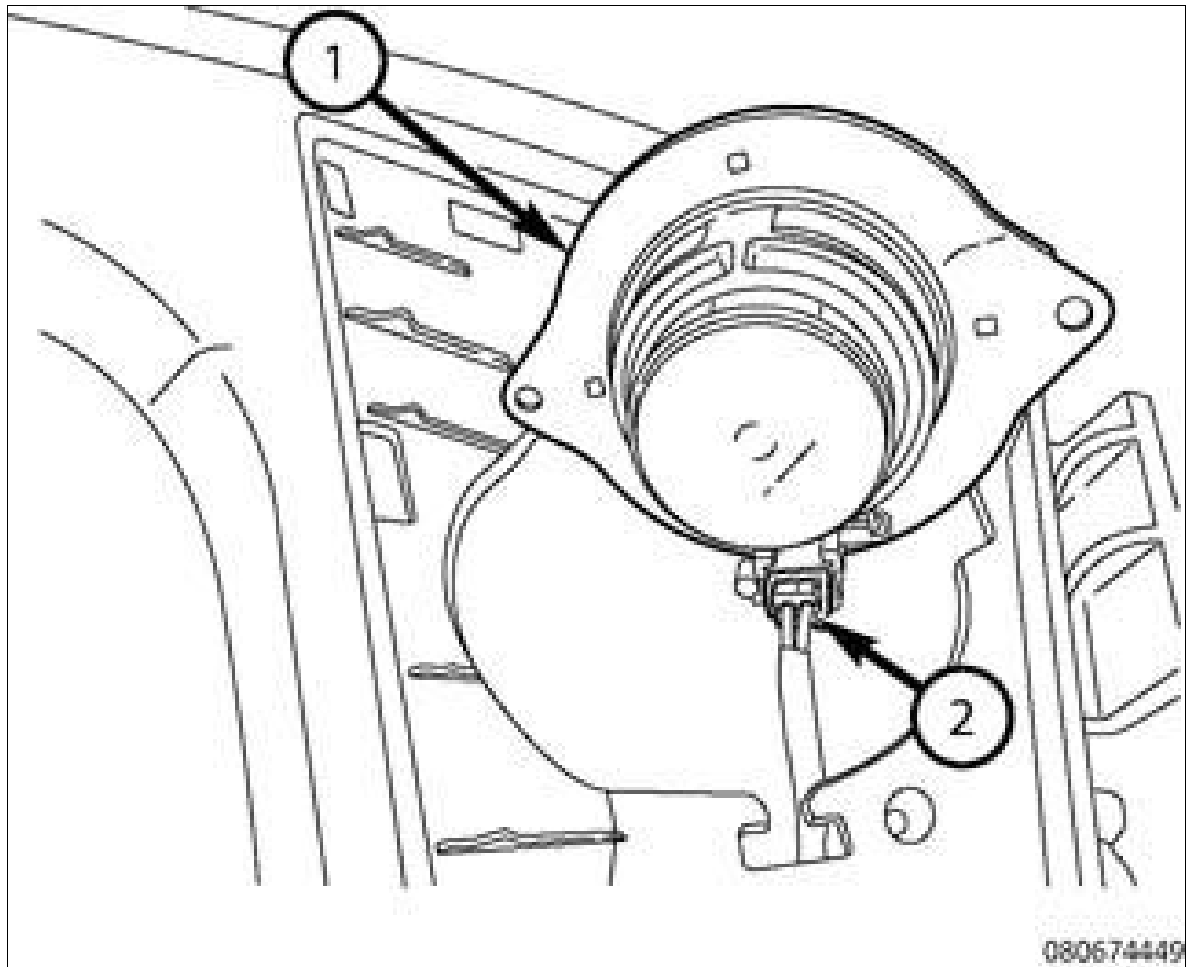
Fig 1: Removing/Installing Instrument Panel End Speaker



Courtesy of CHRYSLER GROUP, LLC

3. Remove the speaker (2) mounting fasteners (1).

Fig 2: Disconnecting/Connecting Speaker Electrical Connector

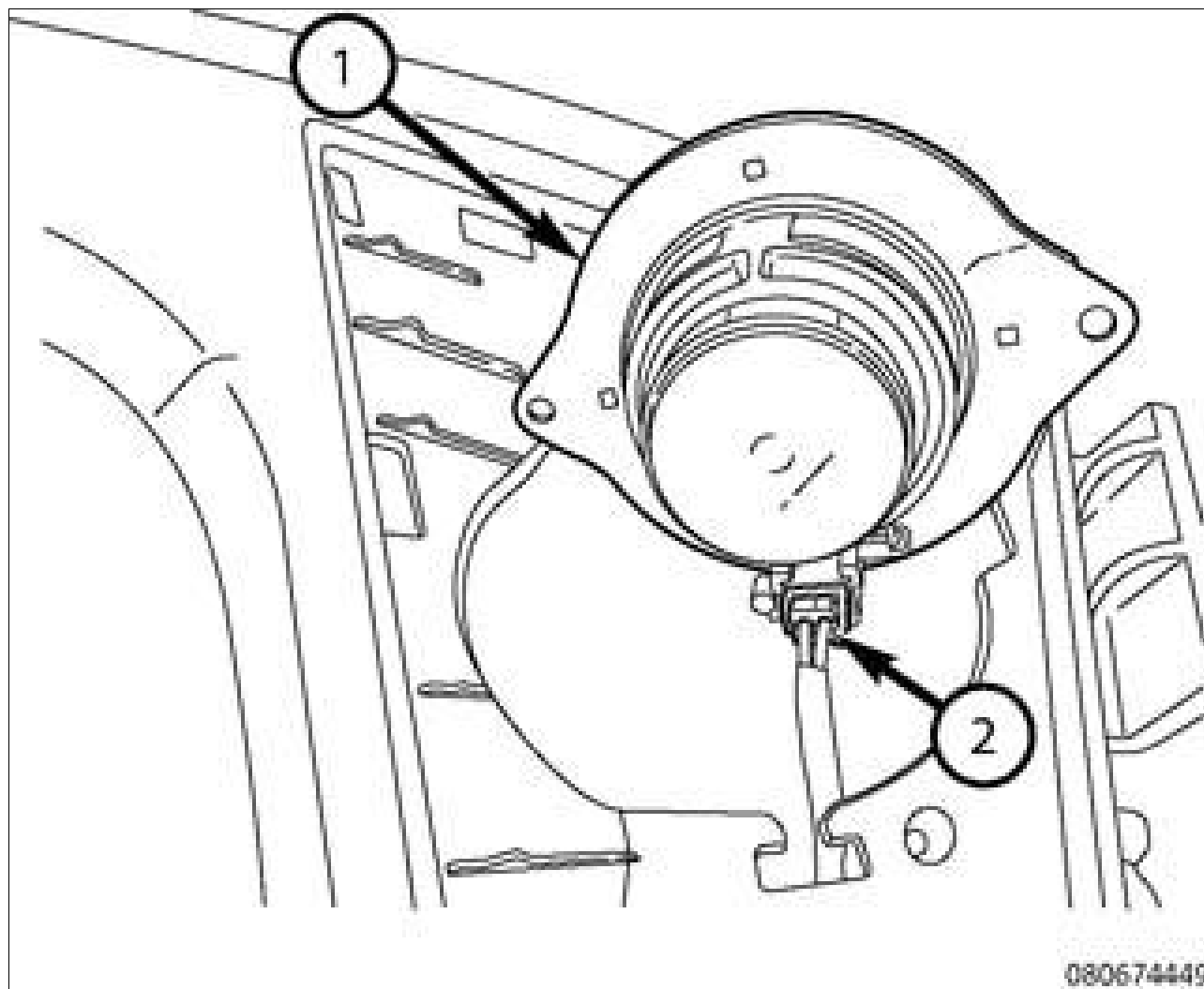


Courtesy of CHRYSLER GROUP, LLC

4. Disconnect the wire harness connector (2) and remove the speaker (1).

SPEAKER > REMOVAL AND INSTALLATION > INSTRUMENT PANEL END SPEAKER > INSTALLATION

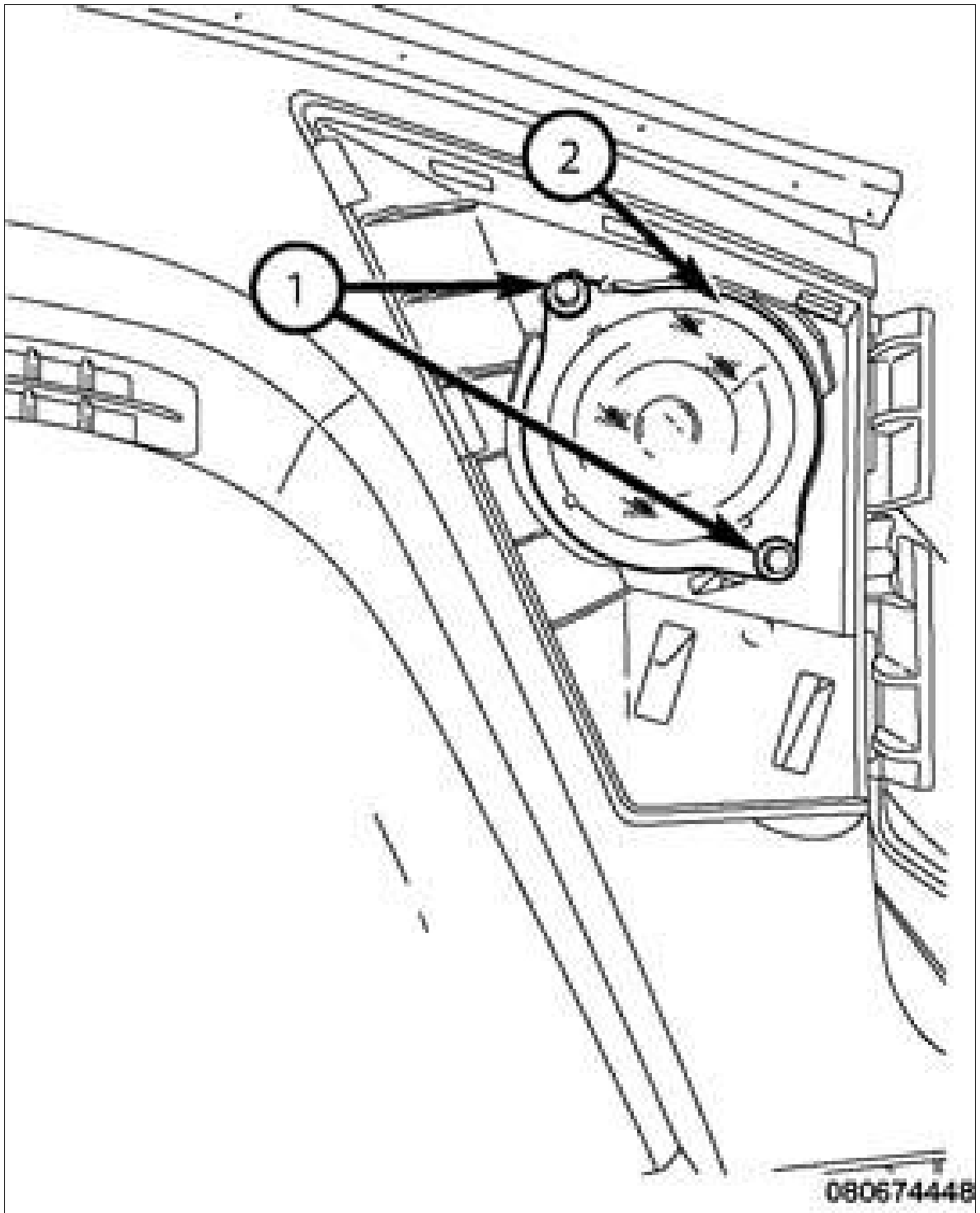
Fig 1: Disconnecting/Connecting Speaker Electrical Connector



Courtesy of CHRYSLER GROUP, LLC

1. Connect the wire harness connector (2) and install the speaker (1).

Fig 2: Removing/Installing Instrument Panel End Speaker

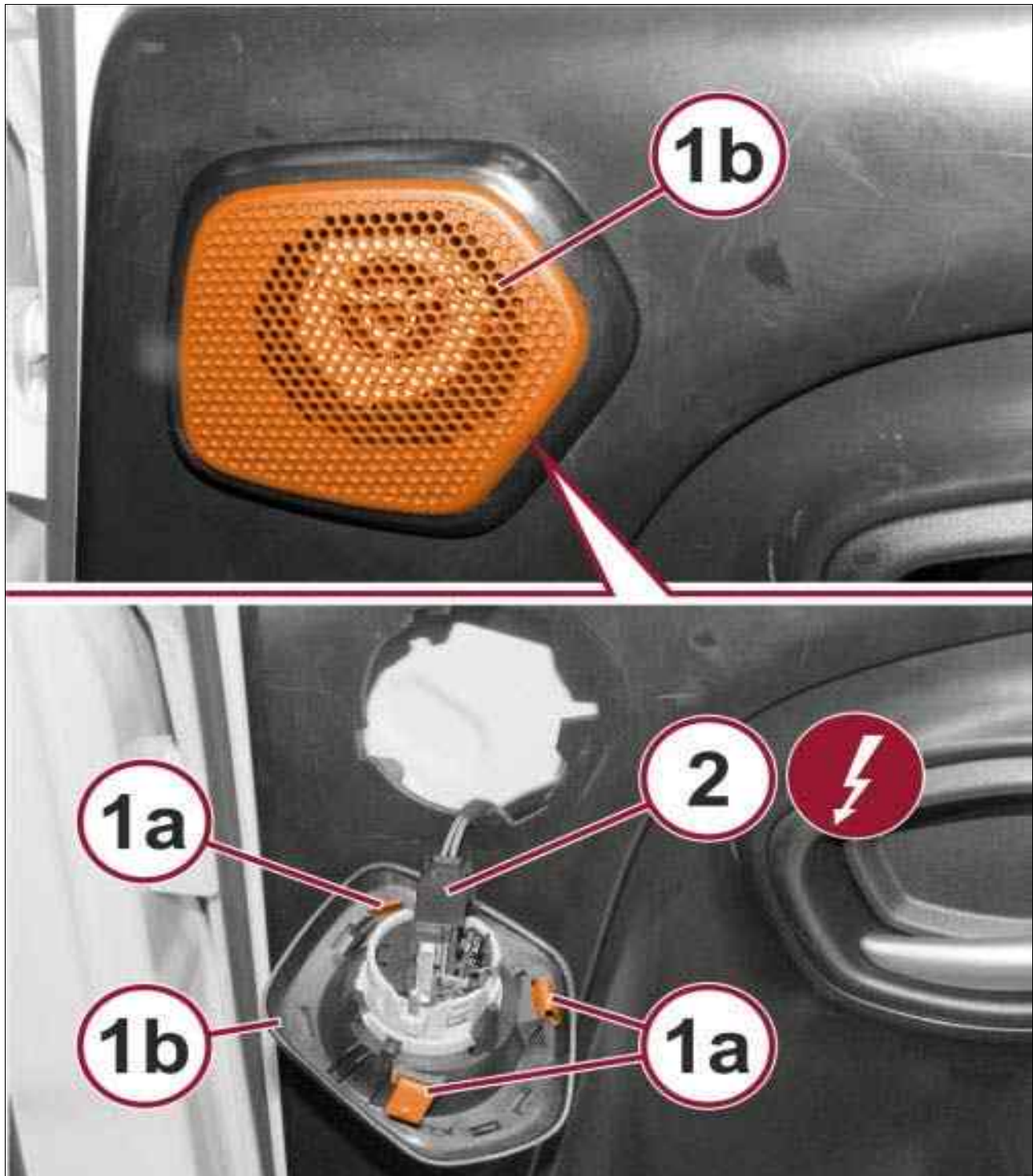


Courtesy of CHRYSLER GROUP, LLC

2. Install and securely tighten the speaker (2) mounting fasteners (1).
3. Install the instrument panel outer speaker grill.
4. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector.

SPEAKER > REMOVAL AND INSTALLATION > REAR DOOR TWEETER > REMOVAL

Fig 1: Rear Tweeter Grille, Wire Connector & Clips

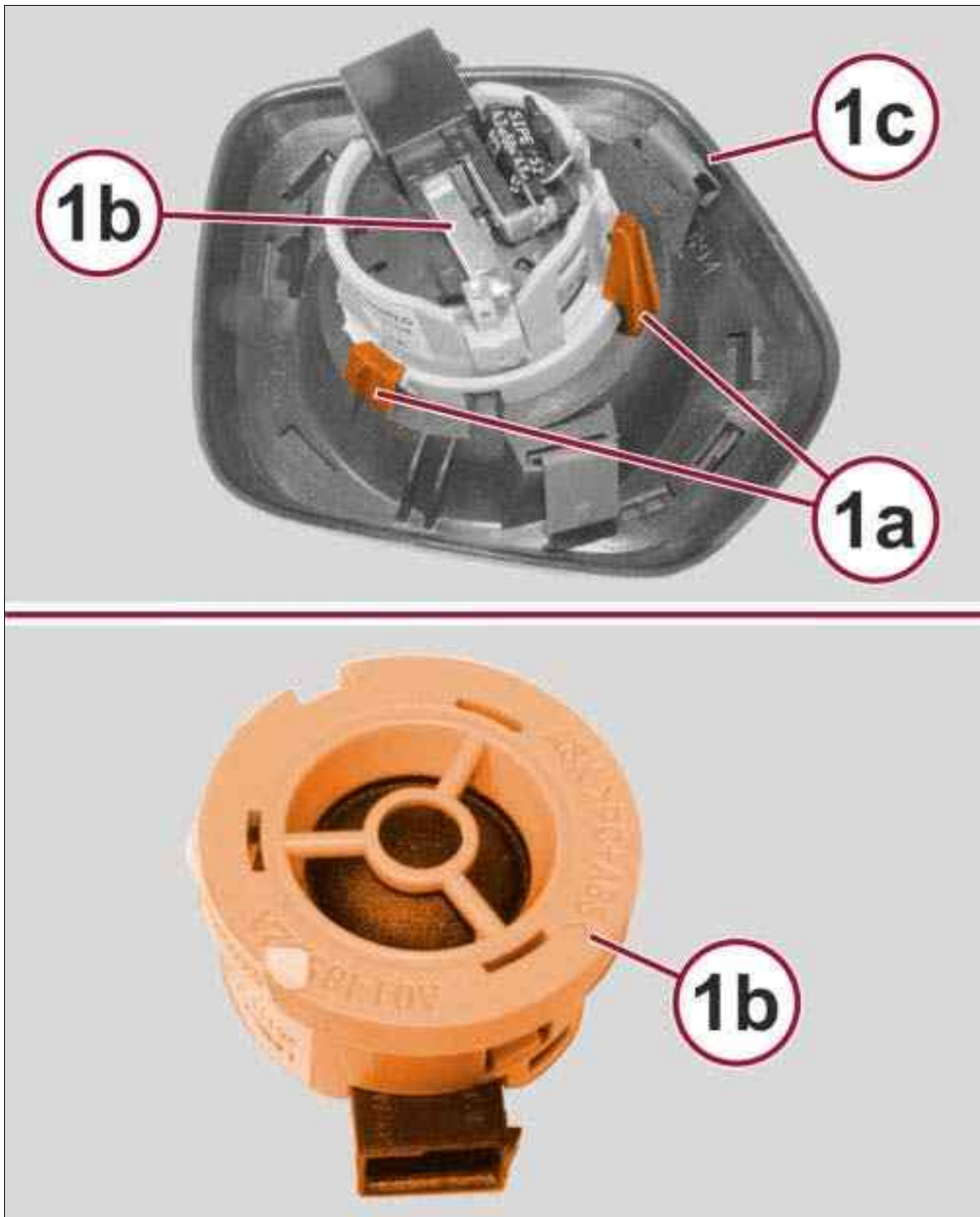


Courtesy of CHRYSLER GROUP, LLC

1. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable.

2. Using trim stick C-4755 or equivalent, remove the rear tweeter grille (1b) from the rear door trim panel.
3. Disconnect the tweeter wire harness connector (2) from the rear door tweeter.

Fig 2: Rear Door Tweeter, Grille & Clips

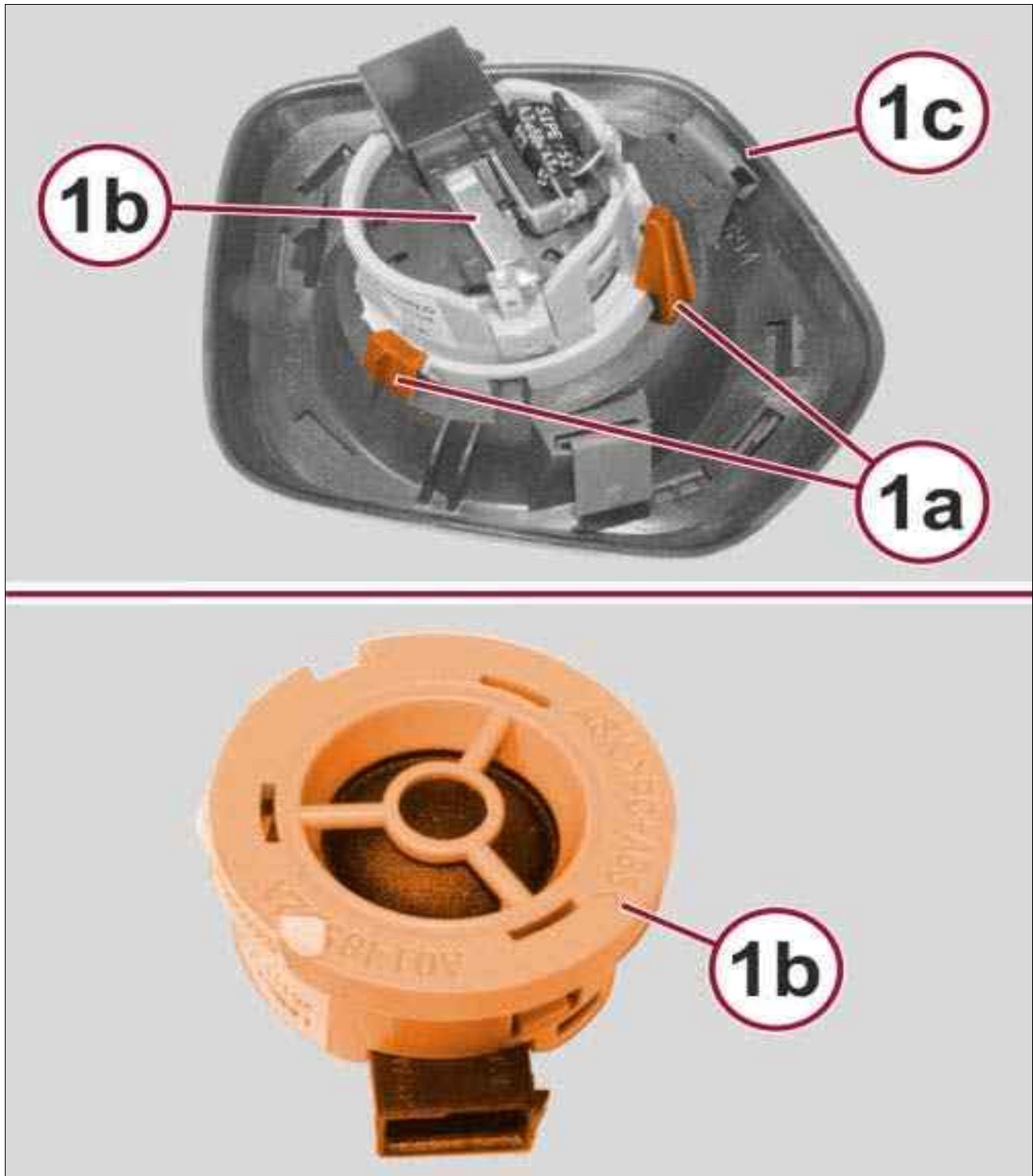


Courtesy of CHRYSLER GROUP, LLC

4. Release the tweeter (1b) from the three tweeter grille retaining clips (1a) and separate it from the tweeter grille (1c).

SPEAKER > REMOVAL AND INSTALLATION > REAR DOOR TWEETER > INSTALLATION

Fig 1: Rear Door Tweeter, Grille & Clips

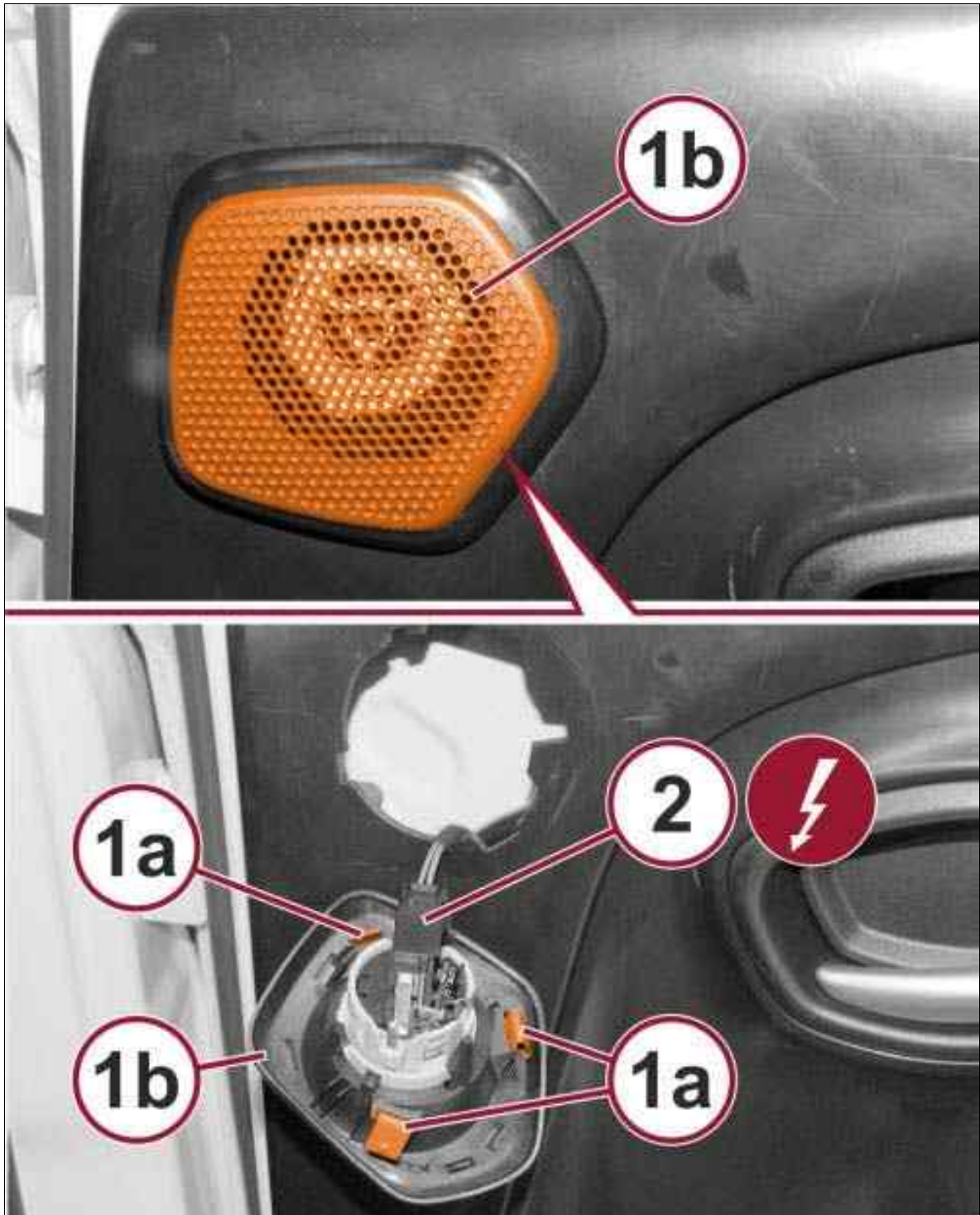


Courtesy of CHRYSLER GROUP, LLC

1. Position the tweeter (1b) to the tweeter grille retaining clips (1a) and press the tweeter and the tweeter grille (1c) together. Be certain the tweeter (1b) fully engages the retainers (1a) of the

tweeter grille (1c).

Fig 2: Rear Tweeter Grille, Wire Connector & Clips



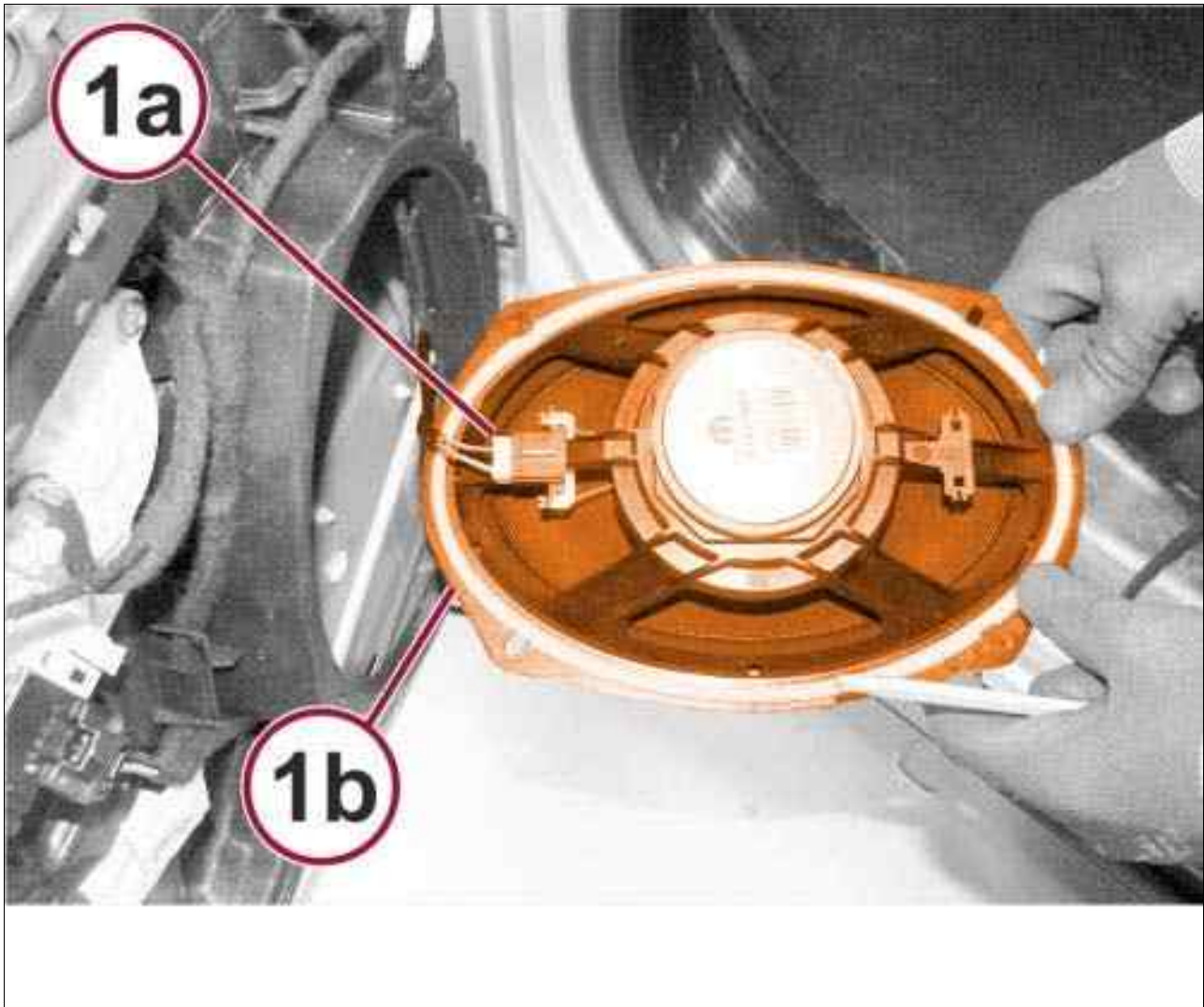
Courtesy of CHRYSLER GROUP, LLC

2. Connect the tweeter wire harness connector (2) to the rear door tweeter.
3. Install the rear tweeter grille (1b) into the rear door panel. Be certain the tweeter grille retainers (1a) fully engages the rear door panel.
4. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS),

connect the IBS connector.

SPEAKER > REMOVAL AND INSTALLATION > DOOR SPEAKER > REMOVAL

Fig 1: Speaker & Wire Connector

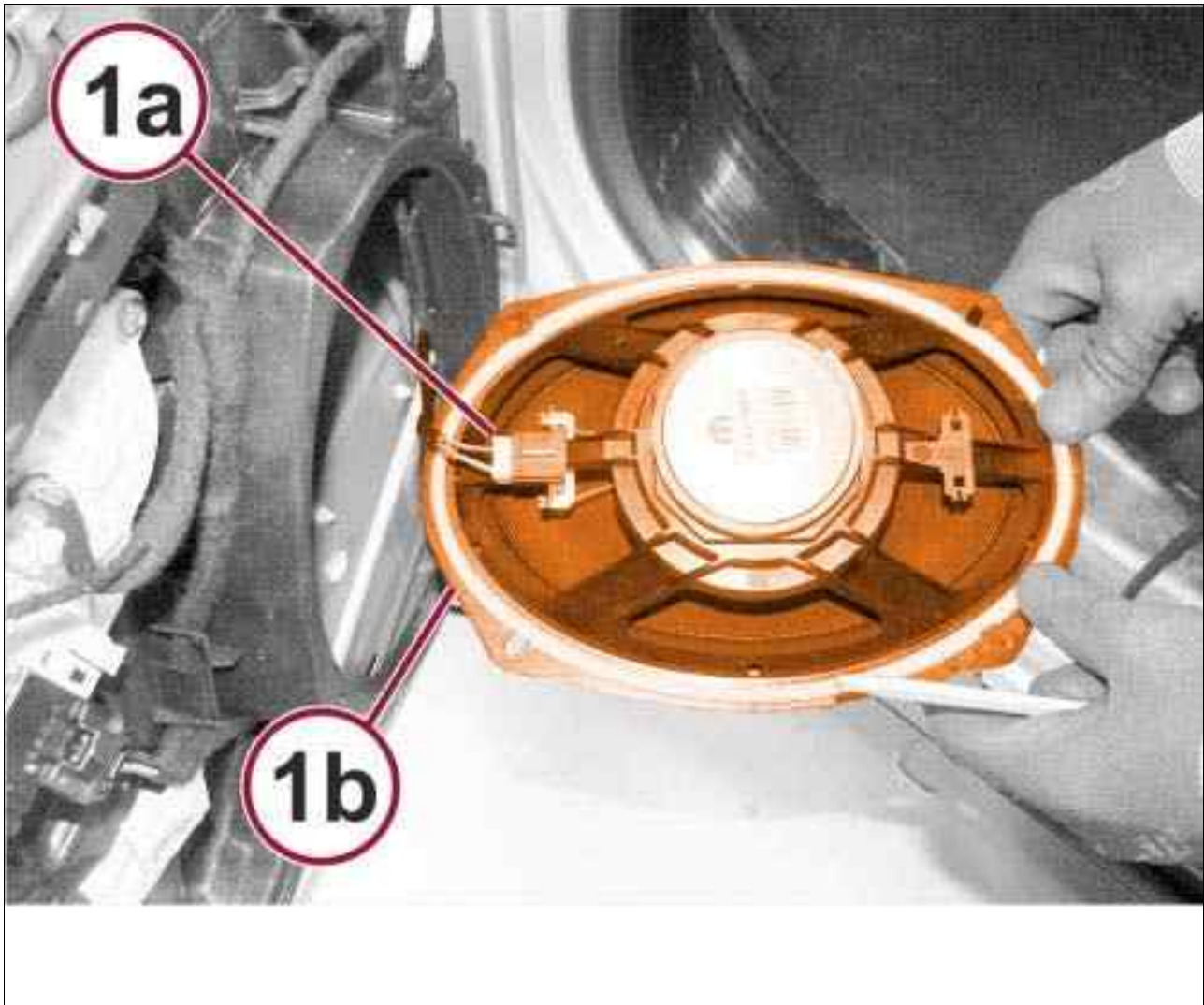


Courtesy of CHRYSLER GROUP, LLC

1. Disconnect and isolate the negative cable from the battery. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector before disconnecting the negative cable from the battery.
2. Remove the trim panel from the inside of the door to access the speaker. Refer to PANEL, DOOR TRIM, REMOVAL AND INSTALLATION .
3. Remove the four fasteners that secure the speaker to the door inner panel.
4. Disconnect the wire harness (1a) connector from the speaker (1b).
5. Remove the speaker from the door panel.

SPEAKER > REMOVAL AND INSTALLATION > DOOR SPEAKER > INSTALLATION

Fig 1: Speaker & Wire Connector

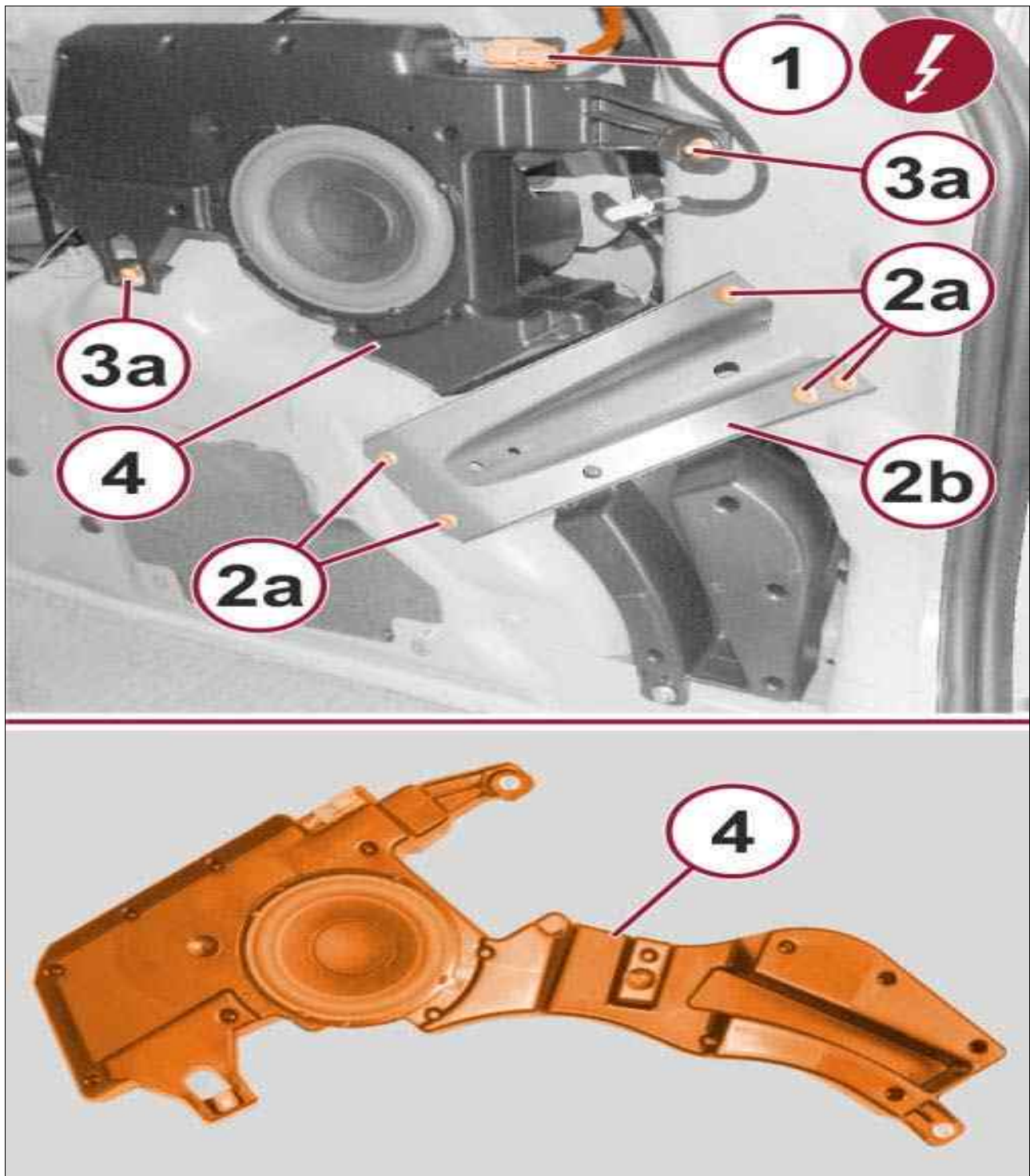


Courtesy of CHRYSLER GROUP, LLC

1. Position the speaker (1b) to the door inner panel.
2. Connect the door wire harness connector (1a) to the speaker (1b).
3. Install and securely tighten the fasteners to secure the speaker (1b) to the door inner panel.
4. Install the door trim panel onto the inside of the door. Refer to PANEL, DOOR TRIM, REMOVAL AND INSTALLATION .
5. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector.

SPEAKER > REMOVAL AND INSTALLATION > SUBWOOFER > REMOVAL

Fig 1: Remove/Install Subwoofer Assembly



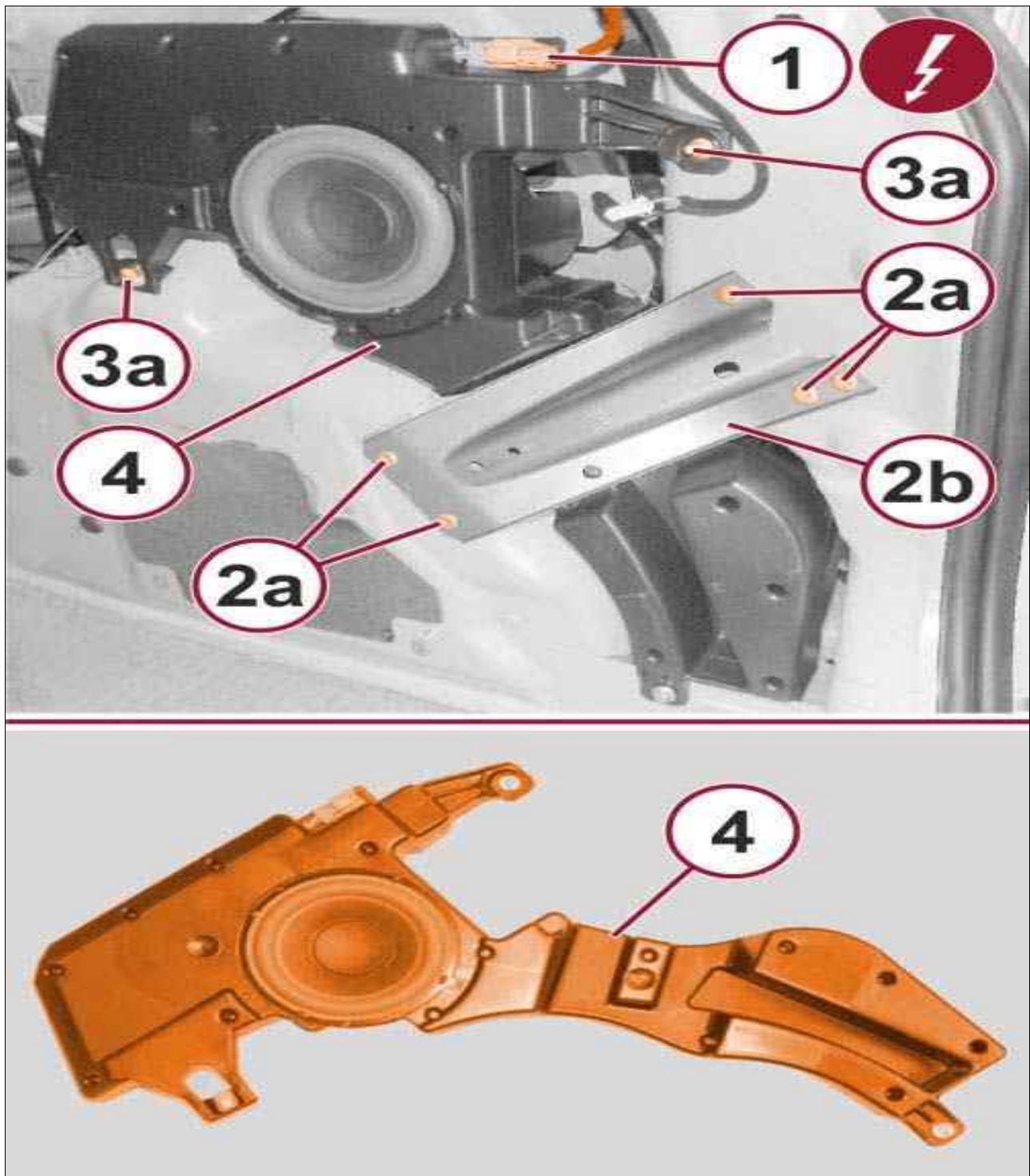
Courtesy of CHRYSLER GROUP, LLC

1. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable.
2. Remove the right rear quarter trim panel. Refer to PANEL, QUARTER TRIM, REMOVAL AND INSTALLATION .

3. Remove the five fasteners (2a) from right rear quarter trim panel support bracket (2b).
4. Disconnect the subwoofer assembly wire harness connector (1).
5. Remove the fasteners (3a) for the subwoofer (4).
6. Remove the subwoofer (4) from the cargo area.

SPEAKER > REMOVAL AND INSTALLATION > SUBWOOFER > INSTALLATION

Fig 1: Remove/Install Subwoofer Assembly



Courtesy of CHRYSLER GROUP, LLC

1. Position the subwoofer assembly (4) into the cargo area.
2. Install the fasteners (3a) for the subwoofer (4).
3. Connect the subwoofer assembly wire harness connector (1).
4. Position the right rear quarter trim panel support bracket (2b) and install the five fasteners (2a). Securely tighten the fasteners.

5. Install the right rear quarter trim panel. Refer to PANEL, QUARTER TRIM, REMOVAL AND INSTALLATION .
6. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector.

SWITCH, REMOTE RADIO > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > DESCRIPTION

Fig 1: Remote Radio Switches



Courtesy of CHRYSLER GROUP, LLC

The remote radio switches (1) are mounted to the back (instrument panel side) of the horizontal steering wheel spokes (2). Each switch includes a momentary rocker with a momentary push button located in the center, between the two ends of the rocker.

The right switch includes the following functions:

- Volume Up

- Mode
- Volume Down

The left switch includes the following functions:

- Seek Up
- Preset
- Seek Down

The remote radio switches (1) can not be adjusted or repaired and, if ineffective or damaged, the entire switch unit must be replaced.

SWITCH, REMOTE RADIO > DESCRIPTION AND OPERATION > DESCRIPTION AND OPERATION > OPERATION

The six switches in the two remote radio switch units are normally open, resistor multiplexed momentary switches that are hard wired to the Body Control Module (BCM) through the steering wheel wire harness and the clockspring on the steering column. The BCM reads the remote radio switch inputs then sends the appropriate electronic messages to the Radio Receiver Module (RRM) over the Controller Area Network (CAN) - B data bus to invoke the requested command.

The hard wired circuits between the remote radio switches and the BCM may be diagnosed using conventional diagnostic tools and procedures. Refer to the appropriate Diagnostic & Testing article. The wiring information includes wiring diagrams, proper wire and connector repair procedures, details of wire harness routing and retention, connector pin out information and location views for the various wire harness connectors, splices and grounds.

However, conventional diagnostic methods will not prove conclusive in the diagnosis of the remote radio switches or the electronic communication between modules that provide the features of the remote radio switches. The most reliable, efficient and accurate means to diagnose the remote radio switches or the electronic communication related to remote radio switch operation requires the use of a diagnostic scan tool. Refer to the appropriate Diagnostic & Testing article.

SWITCH, REMOTE RADIO > DIAGNOSIS AND TESTING > DIAGNOSIS AND TESTING - REMOTE RADIO SWITCHES



WARNING:

On vehicles equipped with airbags, refer to electrical, restraints before attempting any steering wheel, steering column, or instrument panel component diagnosis or service. Failure to take the proper precautions could result in accidental airbag deployment and possible personal injury.

Any diagnosis of the audio system should begin with the use of the diagnostic scan tool. For information on the use of the scan tool, refer to the appropriate Diagnostic & Testing article. For complete circuit

diagrams, refer to the appropriate SYSTEM WIRING DIAGRAMS article.

1. Remove the remote radio switch(es) from the steering wheel. Refer to SWITCH, REMOTE RADIO, REMOVAL AND INSTALLATION .
2. Use an ohmmeter to check the switch resistances as shown in the Remote Radio Switch Test chart.

REMOTE RADIO SWITCH TEST				
Switch	Switch Position	Minimum Resistance (kilohms)	Nominal Resistance (kilohms)	Maximum Resistance (kilohms)
Right	Volume Up	6.732	6.8	6.868
Right	Volume Down	14.850	15	15.151
Right	Mode Advance	0	0	0
Left	Seek Up	1.188	1.2	1.212
Left	Seek Down	3.267	3.3	3.333
Left	Pre-Set Station Advance	0.465	0.47	0.474

3. If the switch resistance checks OK, go to Step 4. If not OK, replace the ineffective switch.
4. Check for continuity between the ground circuit cavity of the steering wheel wire harness connectors for the switches and a good ground. There should be continuity. If OK, go to Step 5. If not OK, repair the open ground circuit as required.
5. Disconnect the appropriate wire harness connector from the Body Control Module (BCM). Check for continuity between the radio control circuit cavity of the steering wire harness connectors for the switches and a good ground. There should be no continuity. If OK, go to Step 6. If not OK, repair the shorted radio control circuit as required.
6. Check for continuity between the radio control circuit cavities of the steering wheel wire harness connectors for the switches and the BCM wire harness connector. There should be continuity. If OK, use a diagnostic scan tool and the appropriate diagnostic procedures to test the BCM, the Radio Receiver Module (RRM) and the Controller Area Network (CAN) data bus. If not OK, repair the open radio control circuit as required.

SWITCH, REMOTE RADIO > REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION > REMOVAL

Fig 1: Remote Radio Switch & Cover



Courtesy of CHRYSLER GROUP, LLC

⚠ WARNING:

To avoid serious or fatal injury on vehicles equipped with airbags, disable the Supplemental Restraint System (SRS) before attempting any steering wheel, steering column, airbags, airbag curtains, knee blocker, seat belt tensioner, impact sensor or instrument panel component diagnosis or service. Disconnect the IBS/negative battery cable assembly from the negative battery post, then wait two minutes for the system capacitor to discharge before performing further diagnosis or service. This is the only sure way to disable the SRS. Failure to take the proper precautions could result in accidental airbag deployment.

1. Disconnect and isolate the negative cable from the battery. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector before disconnecting the negative cable from the battery.
2. Working from the back of the steering wheel, unsnap and remove the remote radio switch

cover (1) from the remote radio switch.

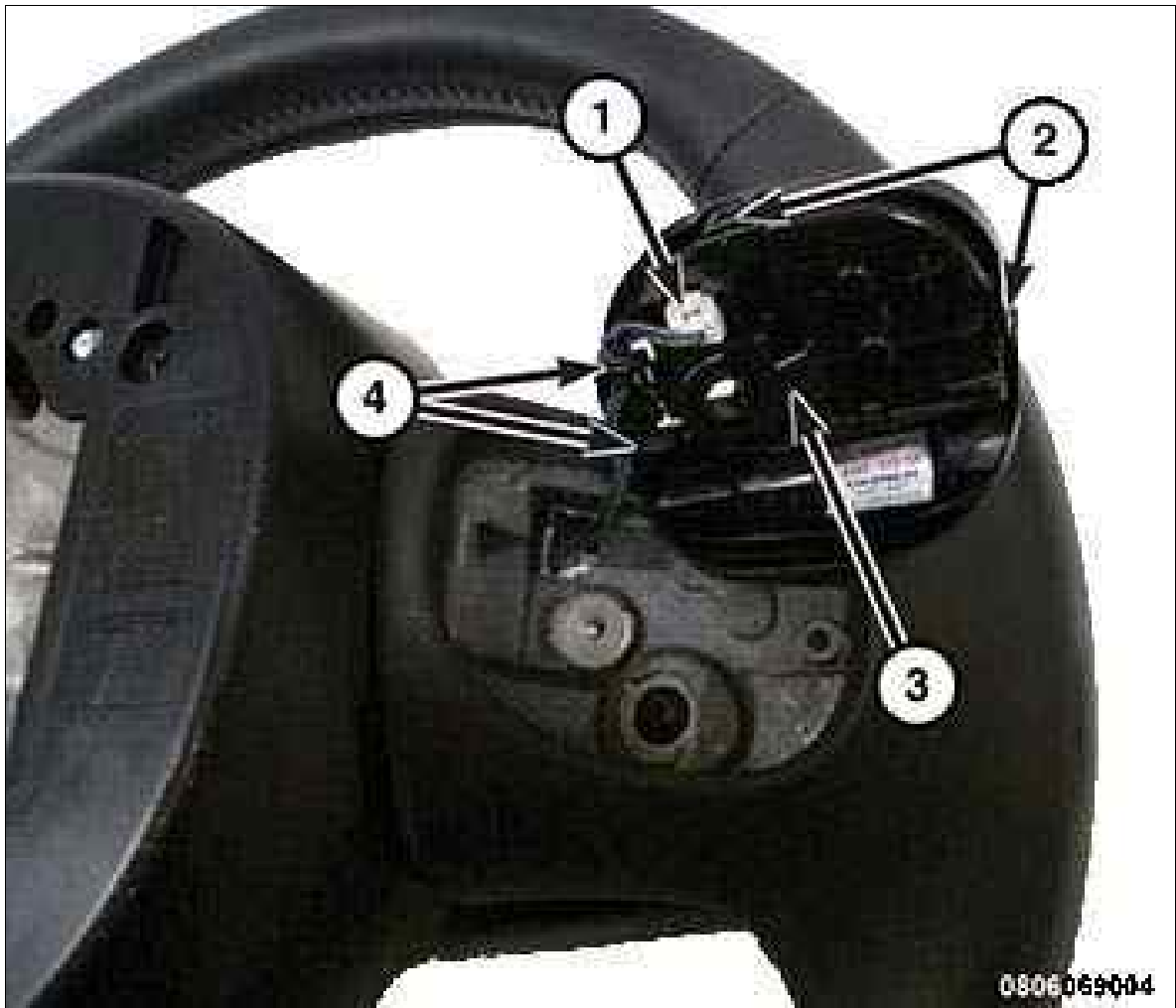
Fig 2: Remote Radio Switch & Screw



Courtesy of CHRYSLER GROUP, LLC

3. Remove the screw (1) that secures the remote radio switch (2) to the steering wheel spoke armature.
4. Carefully pull the remote radio switch (2) away from the steering wheel spoke armature.

Fig 3: Remote Radio Switch, Connector, Harness Retainers & Tabs

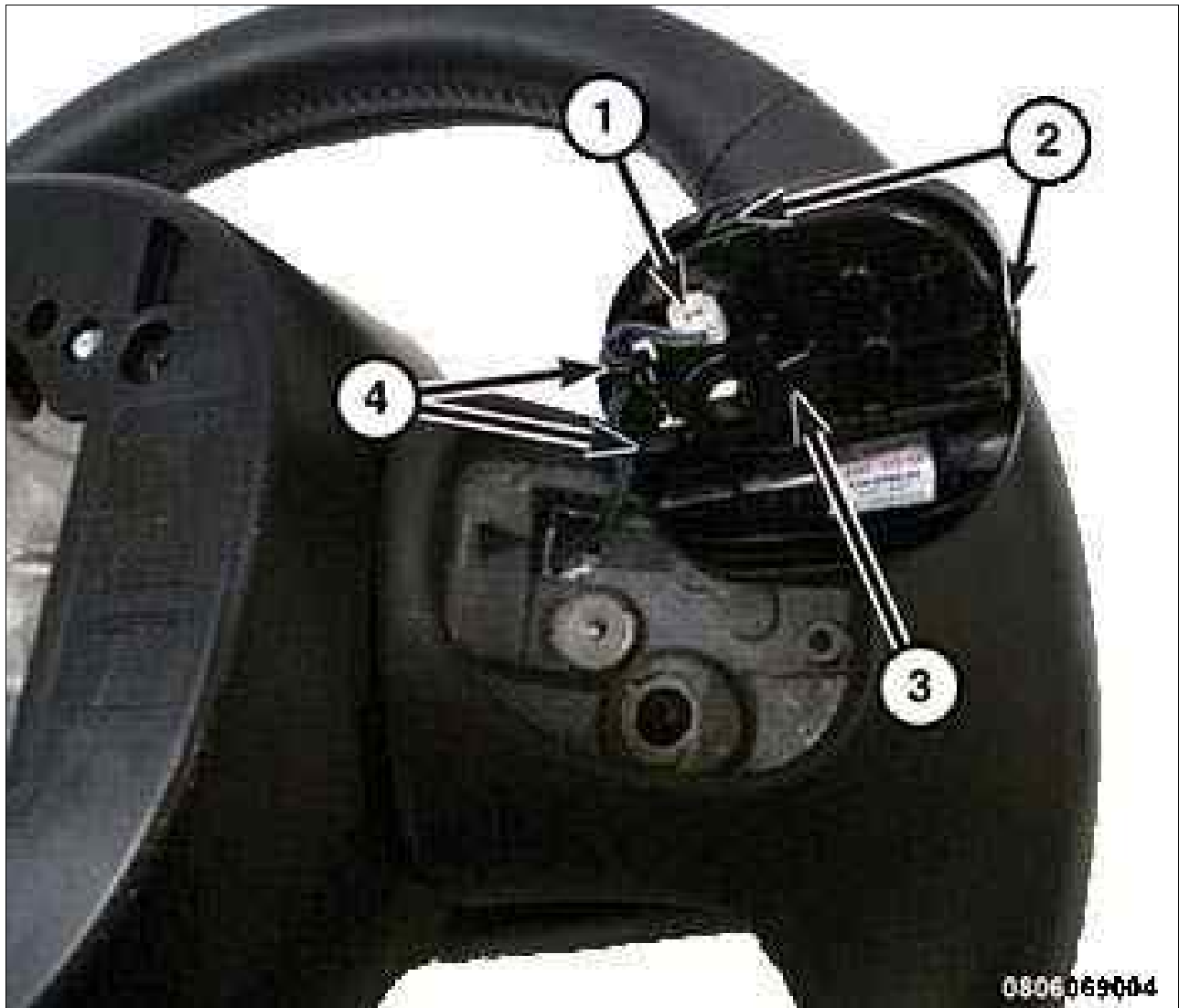


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5. Carefully disconnect the remote radio switch connector (1) from the remote radio switch (3) and release the wire harness from the harness retainers (4) on the remote radio switch.
6. Release the remote radio switch (3) from the four retaining tabs (2) on the remote radio switch bezel and separate the remote radio switch (3) from the bezel.

**SWITCH, REMOTE RADIO > REMOVAL AND INSTALLATION > REMOVAL AND
INSTALLATION > INSTALLATION**

Fig 1: Remote Radio Switch, Connector, Harness Retainers & Tabs



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1. Position the remote radio switch (3) to the remote radio switch bezel and combine them together. Be certain to engage the retaining tabs (2) fully.
2. Working from the back of the steering wheel, connect the remote radio switch connector (1) to the remote radio switch (3) and secure the wire harness in the harness retainers (4).

3. Position and carefully seat the remote radio switch (2) and wire harness to the steering wheel spoke armature.

Fig 2: Remote Radio Switch & Screw



Courtesy of CHRYSLER GROUP, LLC

4. Install and securely tighten the screw (1) for the remote radio switch (2) to the steering wheel.

Fig 3: Remote Radio Switch & Cover



Courtesy of CHRYSLER GROUP, LLC

5. Install the remote radio switch cover (1). Be certain that the cover is snapped securely into place.
6. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector.