

**ACCESSORIES & EQUIPMENT****Communication (Sedan)****91 COMMUNICATION****GENERAL INFORMATION****ANTENNA SYSTEM**

The antenna system consists of the rear window antennas and the roof antenna.

The roof antenna (radio, telephone, navigation system antenna -R52-) contains the:

- Navigation system antenna -R50-
- Telephone antenna -R65-
- Satellite antenna -R170-

**System with phase diversity (radio CAN/MMI from 11.03.2008)**

- Antenna amplifier 3 -R112- (AM/FM1/FM2/CLS) on the left D-pillar (CAN)
- Antenna amplifier 3 -R112- (AM/FM1/FM2/TV1/TV2/CLS) on the left D-pillar (MMI)
- Antenna amplifier 2 -R111- (DAB) on the right D-pillar (CAN)
- Antenna amplifier 2 -R111- (DAB/TV3) on the right D-pillar (MMI)
- Radio, Telephone, Navigation System Antenna -R52- (GPS/GSM/RC/SAT) roof antenna

**System with switch diversity (MMI through 10.31.2008)**

- Antenna Amplifier 3 -R112- (HF/ZF/TV1/TV2/FZV) on the left D-pillar
- Antenna amplifier 2 -R111- (FM3/DAB/TV3) on the right D-pillar
- Radio, telephone, navigation system antenna -R52- (GPS/GSM/RC/SAT) roof antenna

Repairing antenna wires, refer to **General Information** .

**CD CHANGER R41**

The CD changer is installed in the instrument panel on the MMI version.

From 03.11.2008, the CD changer is installed inside the glove compartment.

The MOST bus connects the CD changer to the Infotainment.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

**EXTERNAL AUDIO SOURCE CONNECTION -R199-**

There are several versions of the external audio source connection.

**CAN versions**

Jack for an external audio source inside the glove compartment

The AUX IN socket version is installed in the center console storage compartment.

These external audio source connections are connected directly to the radio.

Either an external audio source connection or an AUX IN jack is installed.

MOST versions, MMI through 10.31.2008

Jack for an external audio source inside the glove compartment

The MOST bus connects the external audio source connection to the Infotainment.

The AUX IN socket version is installed in the center console storage compartment.

This external audio source connection is connected directly to the digital sound system control module -J525-.

Either an external audio source connection or an AUX IN jack is installed.

MOST versions, MMI from 11.03.2008

The external audio source connection is part of information electronics control module 1 -J794-.

The interface is located in the glove compartment.

The AUX IN socket version is installed in the center console storage compartment.

This external audio source connection is connected directly to the information electronics control module 1 -J794-.

Different external audio sources can be connected to the external audio source connection :

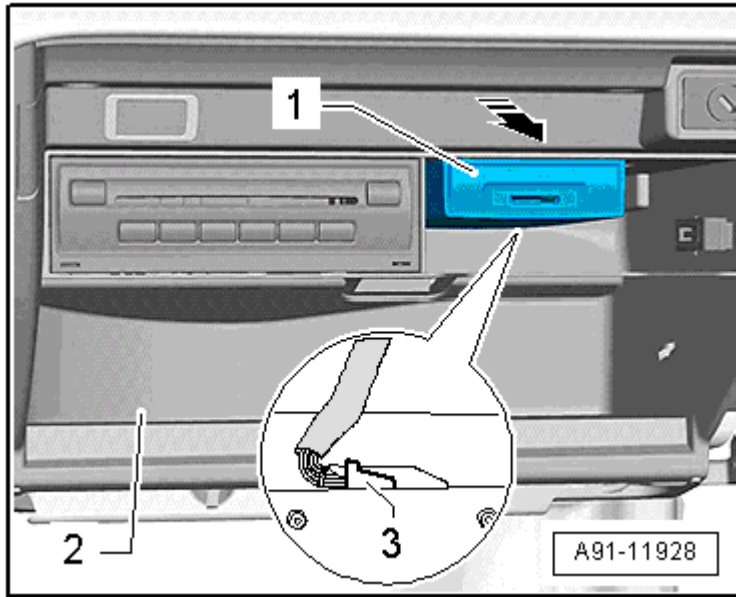
- iPod
- MP3-Player
- USB Stick

Suitable adapter cables are needed. Refer to the Owner's Manual.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

**INTERNET ACCESS CONTROL MODULE -J666-**

The internet access control module -1- is located in the glove compartment -2-.



**Fig. 1: Identifying Internet Access Control Module**

Courtesy of AUDI OF AMERICA, LLC

The internet access control module expands the functions of the external audio source connection -R199- :

- Register web radio stations and Podcasts using the WLAN-Home Network and play them in the vehicle
- Use the USB broadband modem to listen to the web radio stations while traveling
- Show WLAN-Hotspots (with USB broadband modem)

The SD-card reader is integrated in the internet access control module. The SD memory card is used for the online configuration.

The internet access control module is installed together with the external audio source connection -R199- (interface). The internet access control module (WLAN-Antenna) is attached to the air guide channel behind the glove compartment.

The USB-broadband modem is connected to the internet access control module (interface) using the adapter cables.

Further information, refer to the operating instructions.

The fault finding is performed using the information electronics control module 1 -J794- (DTC memory).

Configuration with SD memory card: [www.audi.com/mp3](http://www.audi.com/mp3). The configuration is stored on the SD memory card.

#### **MICROPHONE UNIT IN FRONT ROOF MODULE -R164-**

The microphone unit in front roof module is installed in the front interior light -W1-. Depending on the

equipment, there are up to three microphones installed.

Microphone Unit in Front Roof Module, removing and installing, refer to **MICROPHONE UNIT IN FRONT ROOF MODULE -R164-**.

#### **MMI INFOTAINMENT SYSTEM THROUGH 10.31.2008**

The data for the infotainment, telephone, navigation, voice control system, audio players, sound system and Data Bus On Board Diagnostic Interface -J533- is transmitted via the fiber optic MOST Bus.

The connection to the other data bus systems in the vehicle is provided by the data bus on board diagnostic interface.

The central control module is the Front Information Display Control Head Control Module -J523-. The signals required to display information on the instrument cluster display are transmitted via the MOST Bus to the Front Information Display Control Head Control Module -J533- and from there via the CAN Bus (instrument cluster) to the instrument cluster.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

Additional information, refer to Self Study Program No. 286; New Data Bus Systems - LIN, MOST Bluetooth.

#### **MMI**

- Front information display control head control module -J523-, behind the instrument panel
- Multimedia control head -E380- in the center console
- Front information display control head -J685- in center of the instrument panel
- Radio -R- (with Speech Input Control Module -J507-) located in luggage compartment (left rear)
- Satellite radio -R146- in left rear of luggage compartment
- Digital sound system control module -J525- in the luggage compartment (on the left side, in the rear)
- Sound systems: Standard/Bang & Olufsen
- CD changer -R41- inside the Instrument Panel
- External audio source connection -R199- in the glove compartment/center console storage compartment
- Navigation system with CD drive control module -J401- in luggage compartment, left rear
- Cell phone preparation
- Multifunction Steering Wheel

#### **Notes on MOST bus**

The optical Data bus "MOST bus" is used in addition to the CAN bus.

A fiber-optic cable is used as a "connecting cable". Fiber optic cables are routed inside corrugated tubes for protection.

Replace complete fiber optic cable if possible.

Make sure that the face surfaces of the connectors do not become soiled.

If the connectors are disconnected: install the protective cap for cable connector VAS 6223/9.

When installing fiber optic cables, make sure not to go below the minimum bending radius of 25 mm. Do not crush or kink fiber optic cables.

Repairing fiber optic cables, refer to **General Information** .

Additional information, refer to Self Study Program No. 286; New Data Bus Systems - LIN, MOST Bluetooth".

### **MMI INFOTAINMENT SYSTEM FROM 11.03.2008**

The MMI from 11.03.2008 an advancement of the MMI currently in use. The cell phone preparation, external audio source connection, CD and DVD drives, navigation (with hard disc drive) and voice recognition system are integrated all together in one unit, the information electronics control module 1 -J794-.

The radio/CD changer and digital sound system control module -J525- are connected via the MOST Bus. The basis sound systems are controlled directly by the radio. The satellite radio -R146- (SDARS) is optionally integrated in the radio.

### **MMI maximum equipment**

- The information electronics control module 1 -J794- inside the instrument panel at the top contains the CD player/DVD player/navigation system/cellular telephone preparation/voice control system/SD memory card reader
- Internal hard drive disc storage (HD) for storing navigation data and MP3 files
- Multimedia control head -E380- in the center console
- Front information display control head -J685- in center of the instrument panel
- The CD changer -R41- /optional external audio source connection -R199- (interface) in the glove compartment
- External audio source connection -R199- (AUX IN socket) in the center console storage compartment
- Digital sound system control module -J525- in the luggage compartment (on the left side, in the rear)
- Sound system: Standard/Bang & Olufsen
- Radio -R- on the left side of the luggage compartment in the rear is optional with satellite radio -R146-
- Optional multifunction steering wheel
- Optional Bluetooth hands-free equipment
- WLAN (from MY 13)

The MOST bus performs the system data exchange in the MMI.

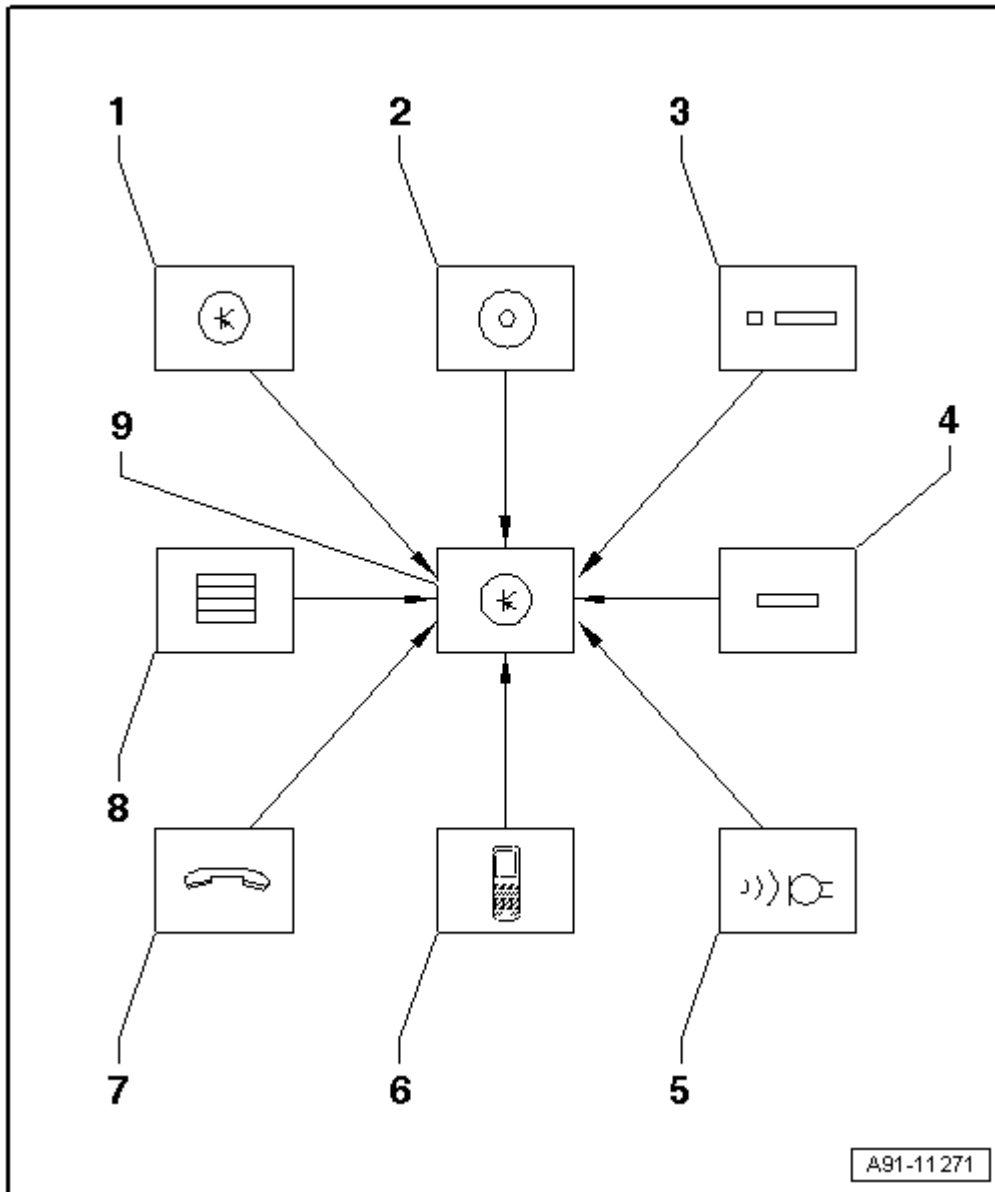
The connection to the other Data bus systems in the vehicle are provided by the data bus on board diagnostic interface -J533-.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

Additional information, refer to Self Study Program No. 286; New Data Bus Systems - LIN, MOST Bluetooth".

#### Information electronics control module 1 -J794- overview

information electronics control module 1 -J794- is a 3rd generation MMI. Depending on the equipment level, the Information Electronics Control Module 1 contains the following known control modules from the 2nd generation:



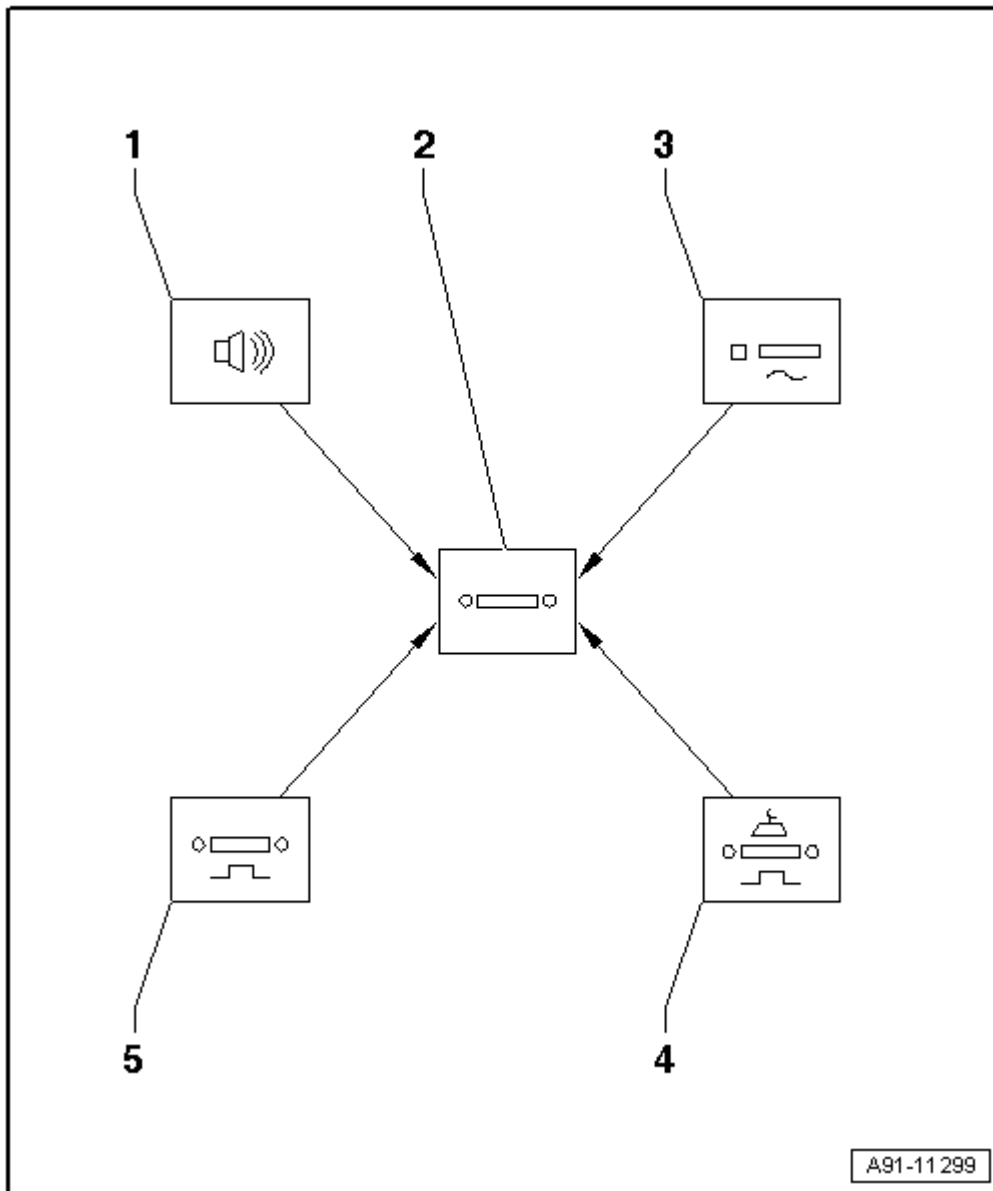
**Fig. 2: Identifying Information Electronics Control Module 1 -J794- MMI Overview**  
 Courtesy of AUDI OF AMERICA, LLC

1. Front Information Display Control Head Control Module -J523-
2. CD Player -R89-

3. Navigation System With CD Drive Control Module -J401-
4. Card Reader (Telephone) -R115- /SD memory card reader
5. Speech Input Control Module -J507-
6. Not installed
7. Telephone Transceiver -R36- (cell phone preparation)
8. Internal Hard Drive (HD) Disc Storage
9. Information Electronics Control Module 1 -J794-

### Radio -R- overview

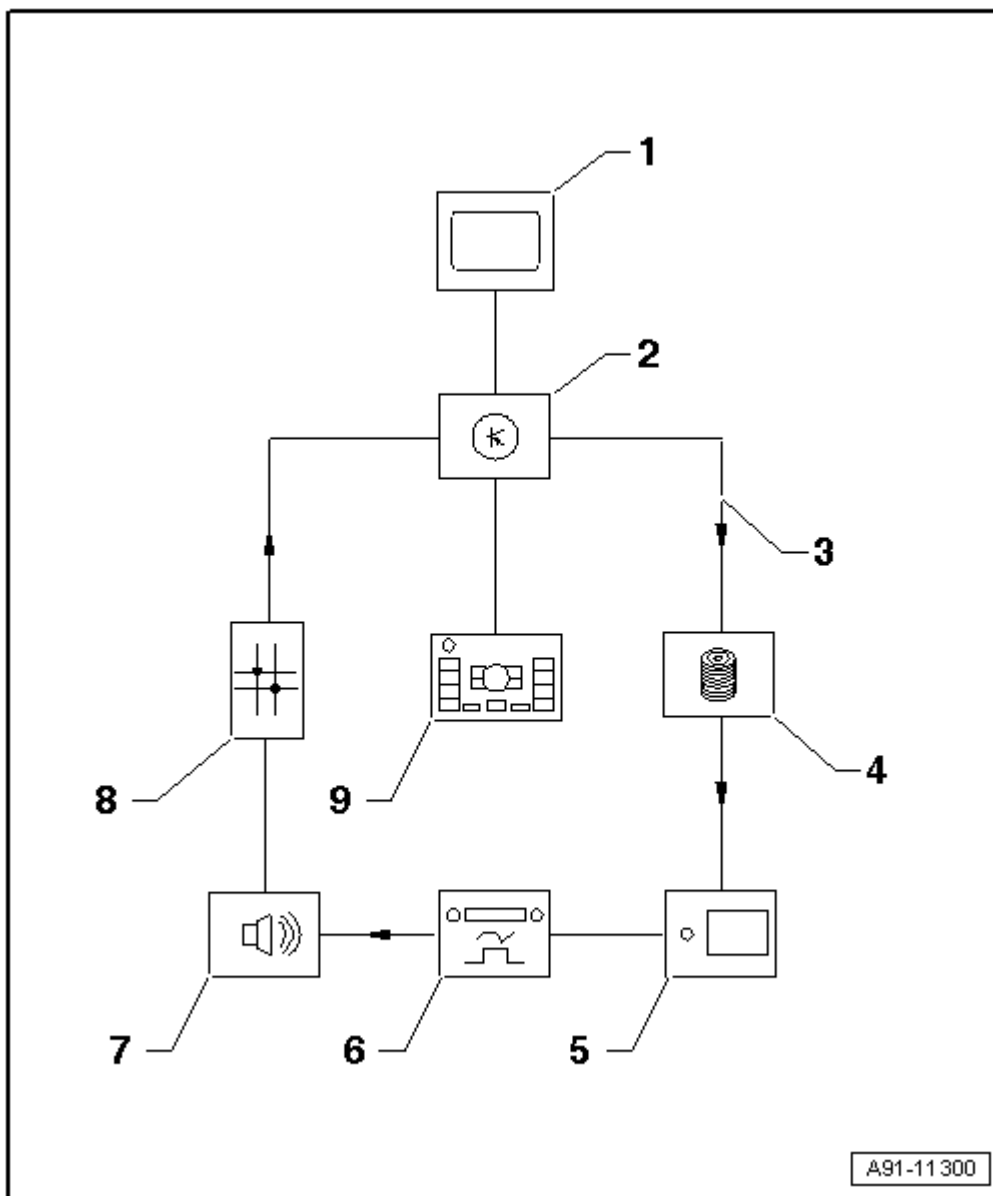
Depending on the equipment level, the radio contains the following known 2nd generation control modules:



**Fig. 3: Identifying Radio -R- MMI Overview**

Courtesy of AUDI OF AMERICA, LLC

1. Digital Sound System Control Module -J525-
2. Radio
3. Radio AM/FM tuner
4. Satellite Radio -R146-
5. Not installed

**MOST bus Overview****Fig. 4: Identifying MOST Bus MMI**

Courtesy of AUDI OF AMERICA, LLC

1. Front Information Display Control Head -J685-
2. Information Electronics Control Module 1 -J794-
3. MOST bus
4. CD Changer -R41-
5. Not installed
6. Radio -R-
7. Digital Sound System Control Module -J525-
8. Data Bus On Board Diagnostic Interface -J533-
9. Multimedia System Control Head -E380-

**Notes on MOST bus**

The optical Data bus "MOST bus" is used in addition to the CAN bus.

A fiber-optic cable is used as a "connecting cable". Fiber optic cables are routed inside corrugated tubes for protection.

Replace complete fiber optic cable if possible.

Make sure that the face surfaces of the connectors do not become soiled.

If the connectors are disconnected: install the protective cap for cable connector VAS 6223/9.

When installing fiber optic cables, make sure not to go below the minimum bending radius of 25 mm (1 in.). Do not crush or kink fiber optic cables.

Repairing fiber optic cables, refer to **General Information** .

Additional information, refer to Self Study Program No. 286; New Data Bus Systems - LIN, MOST Bluetooth".

**MULTIFUNCTION STEERING WHEEL**

Buttons are integrated in the steering wheel for easier operation of Infotainment, telephone and the navigation system. On vehicles with Tiptronic, rocker switches are also installed on the left and right.

The Multi-function Steering Wheel Control Module -J453- (under the right button) reads out the button information and transfers them over the LIN-Bus (single wire Bus) to the Steering Column Electronic Systems Control Module -J527-. From the Steering Column Electronic Systems Control Module -J527-, the information is transferred to the individual components via the CAN bus (comfort) and the Data Bus On Board Diagnostic Interface -J533-.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

**NAVIGATION SYSTEM THROUGH 10.31.2008**

The optical MOST bus links the navigation system into the MMI Infotainment.

The navigation system is available from equipment version "MMI basic plus Navigation".

With the "MMI basic plus Navigation" version, the navigation system with CD drive control module -J401- is located in the glove compartment and contains the radio -R- and the front information display control head control module -J523-.

In the "MMI" version, the Navigation System with CD Drive Control Module -J401- is located at the left rear of the luggage compartment.

All versions are operated via the Multimedia Control Head -E380-.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

Repairing antenna wires, refer to **General Information** .

#### **NAVIGATION SYSTEM FROM 11.03.2008**

The navigation system is part of information electronics control module 1 -J794- inside the instrument panel.

Operation is performed via the Multimedia Control Head -E380-.

Navigation data is stored on an internal hard drive disc (HDD) on the MMI with maximum features.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

Repairing antenna wires, refer to **General Information** .

#### **RADIO SYSTEM**

Radio systems consist of:

##### **Concert radio**

- Radio with integrated CD player (MP3)
- Display Mid
- SD Memory Card Reader
- Sound systems: Standard/Bang & Olufsen
- Cell phone preparation
- Satellite radio -R146- integrated in concert
- External audio source connection -R199-

##### **Symphony radio**

- Radio with integrated CD changer

- Display Mid
- SD Memory Card Reader
- Sound systems: Standard/Bang & Olufsen
- Cell phone preparation
- Satellite radio -R146- integrated in symphony
- External audio source connection -R199-

The connection to other vehicle systems takes place via the Infotainment CAN bus and the data bus on board diagnostic interface -J533-.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

### **REARVIEW CAMERA SYSTEM**

The rear view camera system assists the driver during back-up driving by providing the driver with an image of the traffic situation behind the vehicle via the Front Information Display Control Head -J685-.

The rear view camera system is switched on when engaging the reverse gear. The system can be activated manually by pressing the parking aid button -E266- in the center console (optional).

The rear view camera system consists of the following components:

- Rear View Camera -R189-
- Rearview Camera System Control Module -J772-
- Front information display control head control module -J523-
- Steering wheel with Steering Angle Sensor -G85-

Other control modules may be installed as optional equipment.

It is not permitted to install an auxiliary license plate for vehicles with rear view camera system as it could impair the function of the rear view camera system.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

### **REARVIEW CAMERA SYSTEM, CALIBRATING**

#### **GENERAL INFORMATION**

After performing service work on the vehicle, it may be necessary to calibrate the rearview camera system. In detail, this is the case after:

- Rear View Camera -R189-, removing and installing
- Rear View Camera System Control Module -J772-, removing and installing
- Collision repairs on rear lid
- Axle alignment

- Rear Axle Repairs

**CALIBRATION REQUIREMENTS**

- The camera lens must be clean.
- The vehicle must be standing on a firm and level surface.
- There must be sufficient open space around the vehicle.
- The parking brake must be set.
- The steering wheel must be in the 0 position and the wheels must be straight.
- All doors and the rear lid must be closed.
- No one should be in the vehicle.
- The vehicle must not be loaded (curb weight).
- Before each calibration: Turn on the ignition.

Calibration Tool for Lane Changing Assist VAS 6350 installing and aligning, refer to **CALIBRATION TOOL FOR LANE CHANGING ASSIST VAS 6350 INSTALLING AND ALIGNING.**

Rearview Camera -R189-, Calibrating, refer to **REARVIEW CAMERA -R189-, CALIBRATING.**

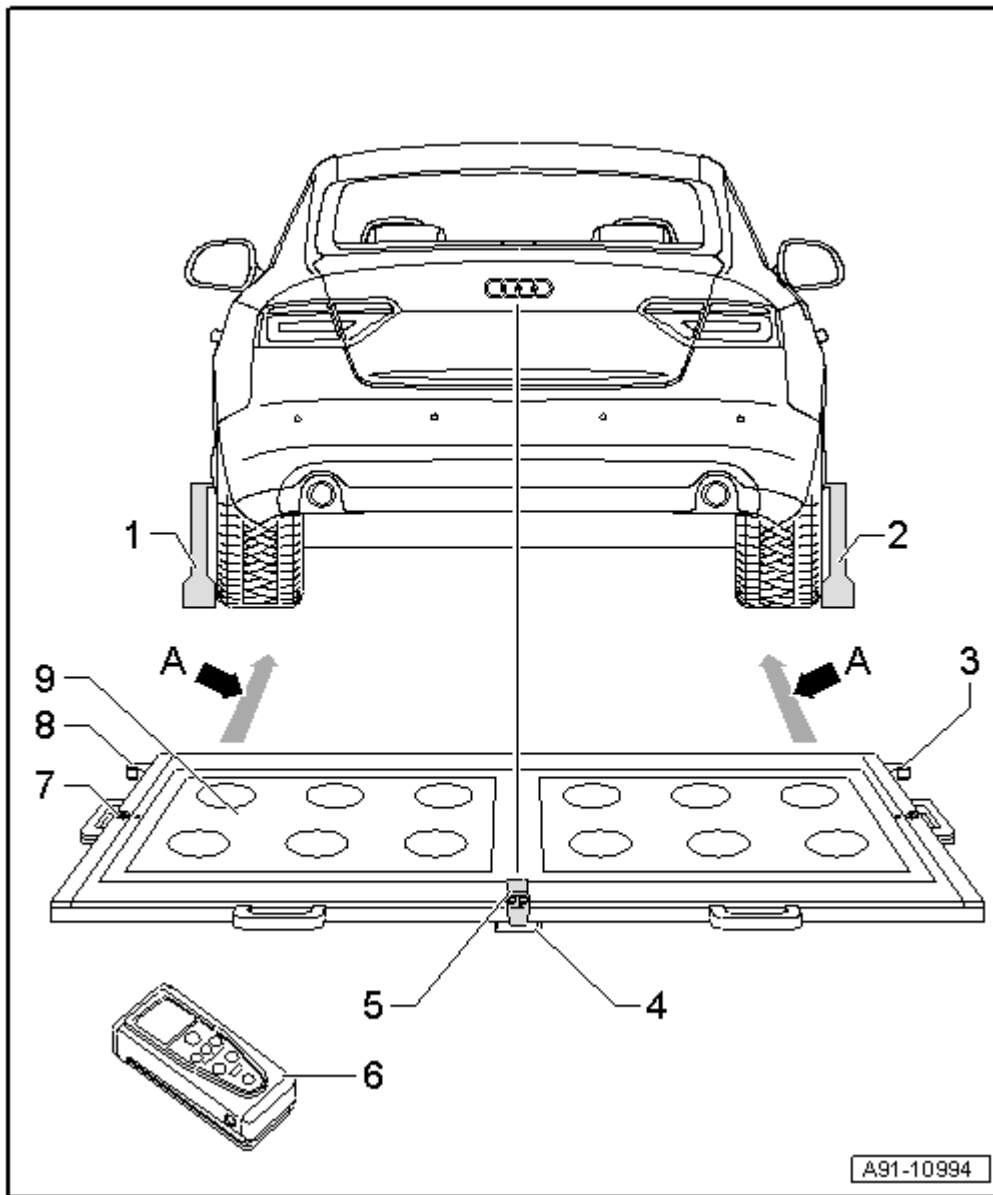
**CALIBRATION TOOL FOR LANE CHANGING ASSIST VAS 6350 INSTALLING AND ALIGNING****Special tools and workshop equipment required**

- Calibration Device VAS 6350
- Vehicle Diagnostic Tester

The calibration tool VAS 6350 includes the following special tools:

- Wheel Center Sensor VAS 6350/1
- Spacing Laser VAS 6350/2
- Line Laser VAS 6350/3

**INSTALLED VAS 6350 OVERVIEW**



**Fig. 5: Identifying VAS 6350**

Courtesy of AUDI OF AMERICA, LLC

1. Wheel Center Sensor VAS 6350/1
2. Wheel Center Sensor VAS 6350/1
3. Right Angle Bracket
  - Spacing laser VAS 6350/2 mount
4. Plastic Foot
  - Three on underside of calibration platform
  - Adjustable for aligning horizontal position of calibration platform
5. Line Laser VAS 6350/3
  - On the calibration board

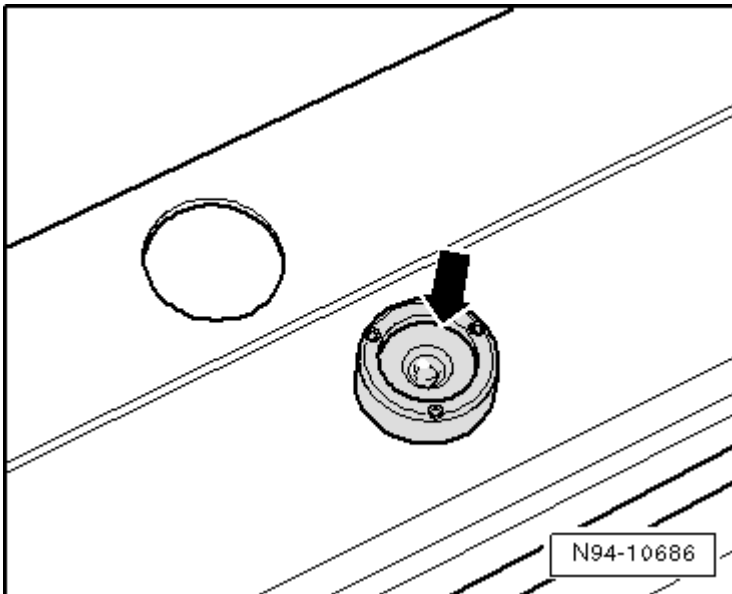
- Switching on and off, refer to the operating instructions
- 6. Spacing Laser VAS 6350/2
  - Notes on operation, refer to the operating instructions
- 7. Level On Calibration Platform
  - On the calibration board
  - For checking the horizontal position
- 8. Left Angle Bracket
  - Spacing laser VAS 6350/2 mount
- 9. Calibration Board
  - Between the mounts on the calibration board and the wheel center sensor VAS 6350/1 -dimension A- 1.47 m - 1.90 m (4.8 - 6.2 ft.).

### Calibration board alignment

-- Position the calibration platform behind the vehicle at a distance of 1.47 m to 1.90 m to the rear wheels, see - dimension A- in the illustration **CALIBRATION TOOL FOR LANE CHANGING ASSIST VAS 6350 INSTALLING AND ALIGNING.**

-- Bring calibration device to a horizontal position.

-- To do so, twist plastic feet under calibration platform so that air bubble in the level is located exactly in the center of the indicator -arrow-.

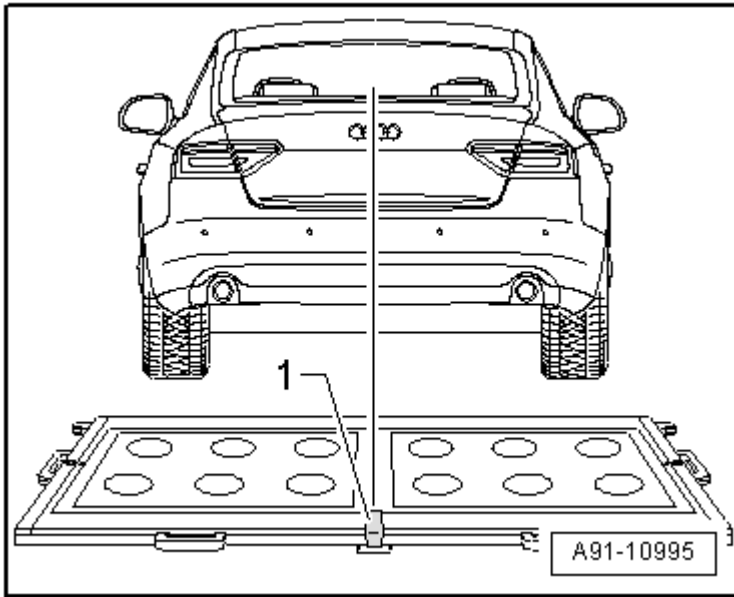


**Fig. 6: Identifying Center Of Indicator**  
Courtesy of AUDI OF AMERICA, LLC

**WARNING:** Make sure light does not reflect off the calibration platform.

**Reflections affect the rear view camera -R189- and may make it impossible to perform the calibration.**

-- Switch on the line laser VAS 6350/3 -1- on the calibration device so that the laser beam is pointed to the center of the Audi rings.



**Fig. 7: Switching On Line Lazer VAS6350/3**  
Courtesy of AUDI OF AMERICA, LLC

-- Make sure the Audi rings are centered on the rear. Adjust the laser beam as needed.

Continue to calibrate the rearview camera, refer to **REARVIEW CAMERA -R189-, CALIBRATING.**

**REARVIEW CAMERA -R189-, CALIBRATING**

-- Set-up requirements, refer to **CALIBRATION REQUIREMENTS.**

-- Connect Vehicle Diagnostic Tester.

Attach the wheel center sensor VAS 6350/1:

-- Check which hole circle the rims have.

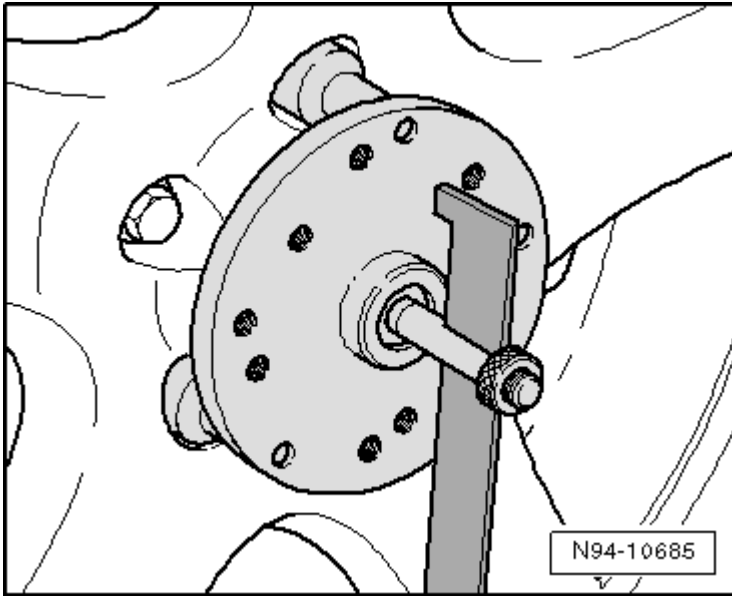
-- Install the wheel bolt adapters VAS 6350/1.

-- To do so, secure three wheel center sensor VAS 6350/1 in the hole circle to each wheel pick-up.

-- Attach paddles to both wheel pick-ups VAS 6350/1 and secure them with clamping screw.

-- Place Wheel center sensor VAS 6350/1 on wheel bolts on rear wheels.

The wheel center sensors VAS 6350/1 are positioned by the "O-rings" in the adapters and held in place.



**Fig. 8: Identifying Wheel Pick-Ups On Wheel Mounting Bolts At Rear Wheels**

Courtesy of AUDI OF AMERICA, LLC

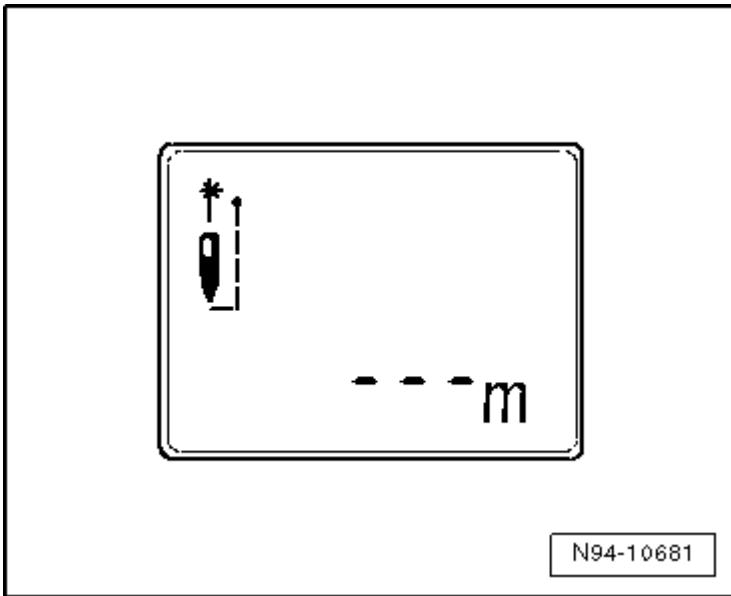
**NOTE:** Mount the wheel center sensor VAS 6350/1 on the wheel so that if the wheel has "anti-theft" wheel bolts, they do not contact the wheel center sensor VAS 6350/1.

-- Adjust paddle with aid of clamping screws so that they move freely just above the floor. Make sure the paddles move easily.

-- Install the calibration device and align it. Refer to **CALIBRATION TOOL FOR LANE CHANGING ASSIST VAS 6350 INSTALLING AND ALIGNING.**

**Distance measurement:**

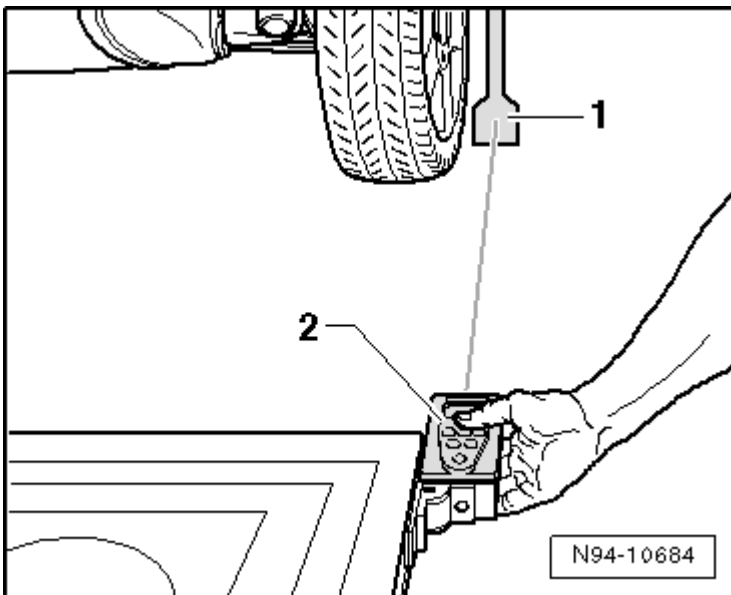
-- Turn on the spacing laser VAS 6350/2.



**Fig. 9: Identifying Laser Display**

Courtesy of AUDI OF AMERICA, LLC

-- Hold the spacing laser VAS 6350/2 -2- flush in the bracket on one side of the calibration platform as illustrated. The laser must sit securely on the bracket.



**Fig. 10: Ensuring Laser Beam From Distance Laser VAS 6350/2 Hits Lower, Enlarged Part Of Paddle**

Courtesy of AUDI OF AMERICA, LLC

-- Press the measuring button briefly.

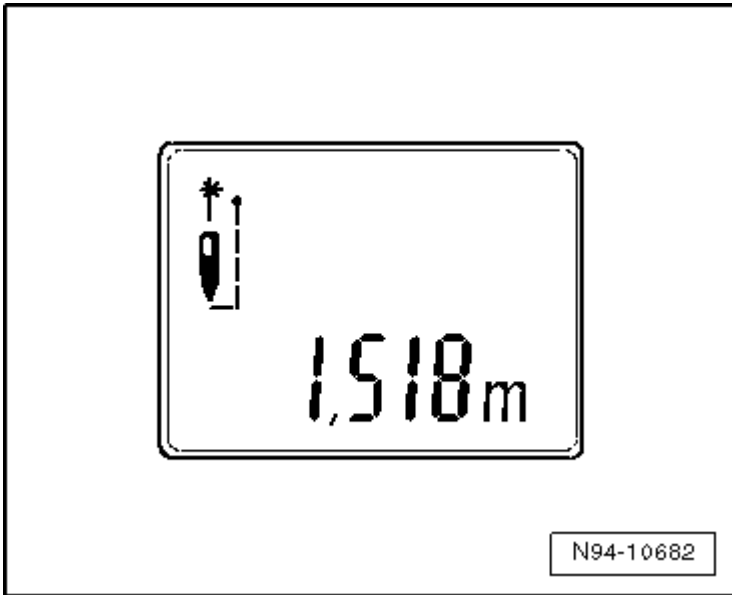
The laser turns on.

-- Make sure that laser beam from VAS 6350/2 -2- hits lower, enlarged part of paddle -1-.

If this is not the case, then the paddle must be corrected accordingly via the screws on the wheel center sensor VAS 6350/1.

-- With one hand, firmly hold the VAS 6350/2 in the bracket on the calibration device while the laser beam is visible on the paddle.

-- Press the measuring button briefly for the distance measurement.



**Fig. 11: Identifying Display Readout**  
Courtesy of AUDI OF AMERICA, LLC

-- Note the value read off.

-- Repeat measuring procedure in the same manner for the other rear wheel on the other side of the calibration device.

The distance value must be the same on both sides.

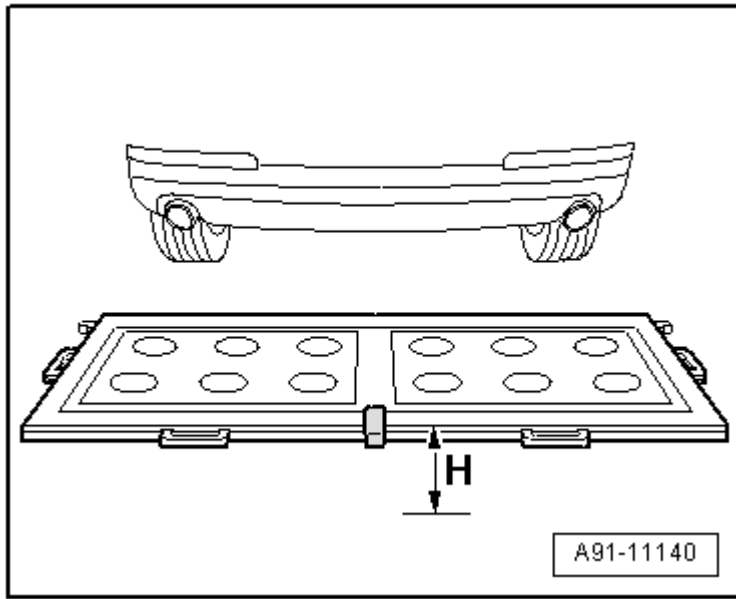
If values are not identical:

-- Adjust the calibration device until values on both sides are identical.

Make sure the line laser VAS 6350/3 strikes the center of the Audi rings and the indicator of the level remains centered. If necessary, make further corrections.

Dimension measurement -H- :

-- Measure the height of the calibration device, dimension -H- (top edge platform - floor).



**Fig. 12: Identifying Height Of Calibration Platform, Dimension -H-**  
Courtesy of AUDI OF AMERICA, LLC

Enter the height and distance dimensions into the Vehicle Diagnostic Tester in "millimeters".

### Performing calibration

Vehicle Diagnostic Tester is attached.

-- Select **Guided Fault Finding** .

-- Select "vehicle selection" from the menu for the corresponding vehicle data.

-- Using the **GO TO** button, select the following menu points:

- Select Function/Component Selection
- Body
- Electrical Equipment
- 01 - On Board Diagnostic (OBD) capable systems
- 6C - rearview camera system/J772
- 6C - rearview camera system control module, functions
- 6C - Calibration, (Repair Group 91)

The Vehicle Diagnostic Tester continues with the calibrating procedure from here on.

**WARNING: Make sure light does not reflect off the calibration platform.**

**Reflections affect the rear view camera and may make it impossible to**

**perform the calibration.**

## **SOUND SYSTEMS**

The following systems are offered:

### **Radio (CAN) Sound System Basic**

- One speaker in the left and right front doors
- One loud speaker on the left and right side of the instrument panel

### **Radio (CAN) Sound System Basic Plus**

- One speaker in the left and right front doors
- One loud speaker on the left and right side of the instrument panel
- Two speakers in the left and right rear doors

### **MMI sound system basic plus through 10.31.2008**

- One speaker in the left and right front doors
- One loud speaker on the left and right side of the instrument panel
- Two speakers in the left and right rear doors
- Digital sound system control module -J525-
- External audio source connection -R199-

### **MMI sound system basic from 11.03.2008**

- One speaker in the left and right front doors
- One loud speaker on the left and right side of the instrument panel
- Two speakers in the left and right rear doors

### **Radio CAN/MMI through 10.31.2008, sound system standard**

- One speaker in the left and right front doors
- One loud speaker on the left side, center and right side of the instrument panel
- Two speakers in the left and right rear doors
- Subwoofer in rear shelf -R157- (sedan)
- Subwoofer in rear shelf -R157- in the spare wheel well (Avant)
- Digital sound system control module -J525-
- External audio source connection -R199- MMI

### **MMI sound system standard from 11.03.2008**

- One speaker in the left and right front doors
- One loud speaker on the left side, center and right side of the instrument panel
- Two speakers in the left and right rear doors
- Subwoofer in rear shelf -R157- (sedan)
- Subwoofer in rear shelf -R157- in the spare wheel well (Avant)

**Radio CAN/MMI Sound System Premium Bang & Olufsen**

- One speaker in the left and right front doors
- Per one loud speaker in the left and right triangular mirror
- One loud speaker on the left side, center and right side of the instrument panel
- Two speakers in the left and right rear doors
- Two speakers on the left and right sides of the rear shelf (sedan)
- Two speakers in the left and right D-pillars (Avant)
- Subwoofer in rear shelf -R157- (sedan)
- Subwoofer in rear shelf -R157- in the spare wheel well (Avant)
- Digital sound system control module -J525-
- External audio source connection -R199- through 10.31.2008

**Notes on MOST bus**

The optical Data bus "MOST bus" is used in addition to the CAN bus.

The connection to the other Data bus systems in the vehicle are provided by the data bus on board diagnostic interface -J533-.

A fiber optic cable is utilized as the "connecting cable". Fiber optic cables are routed inside corrugated tubes for protection.

Replace complete fiber optic cable if possible.

Make sure that the face surfaces of the connectors do not become soiled.

If the connectors are disconnected: install the protective cap for cable connector VAS 6223/9.

When installing fiber optic cables, make sure not to go below the minimum bending radius of 25 mm. Do not crush or kink fiber optic cables.

Repairing fiber optic cables, refer to **General Information** .

Additional information, refer to Self Study Program No. 286; New Data Bus Systems - LIN, MOST Bluetooth.

**SPEECH CONTROL SYSTEM**

The voice control system enables voice operation of the telephone, telematics, Infotainment and navigation system.

Functions can be conveniently operated by voice commands. System is activated via the **PTT** button in the multi-function steering wheel.

From 11.03.2008, the voice control system is part of the information electronics control module 1 -J794-.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

#### **TELEPHONE SYSTEM THROUGH 10.31.2008**

The telephone system consists of the cell phone pre-installation.

The telephone transceiver -R36- is integrated in the MMI Infotainment via the CAN/MOST-BUS. It also has a Bluetooth Antenna -R152-.

The Telephone base plate -R126- is installed in the center console. The operation is performed via the Multimedia Control Head -E380- (MOST), the Radio (CAN) or via the Cellular Telephone -R54-.

The microphones for the microphone unit in front roof module -R164- are integrated in the front interior lamp -W1-. One microphone is connected (Telephone Microphone -R38-) with the Telephone Transceiver -R36-.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

Repairing antenna wires, refer to **General Information** .

#### **Notes on Bluetooth technology**

A standardized radio connection system is used to transmit data between Telephone Transceiver and Telephone Handset -R37- /Cellular Telephone -R54- - Bluetooth technology.

An additional transmitter/receiver unit is installed in the Telephone Transceiver. A separate Bluetooth Antenna -R152- connects the Telephone Transceiver and Telephone Base plate/Cellular Telephone -R54- so that the Telephone Handset -R37- /Cellular Telephone -R54- can be operated cordless.

The range of the radio wave connection is approximately 10 meters (33 ft.).

Additional information, refer to Self Study Program No. 286; New Data Bus Systems - LIN, MOST Bluetooth".

#### **TELEPHONE SYSTEM FROM 11.03.2008**

The telephone system consists of the following components:

- Cell phone preparation (CAN)

The CAN bus connects the telephone transceiver -R36- to the Infotainment (radio). It also has a Bluetooth Antenna -R152-.

Operation is performed via the radio or the cellular telephone -R54-.

The microphones for the microphone unit in front roof module -R164- are integrated in the front interior lamp -W1-. One microphone is connected (left front microphone -R140-) with the telephone transceiver -R36-.

- Cell phone preparation in the information electronics control module 1 -J794- (MMI)

The cell phone preparation does not have a separate control module (telephone transceiver), but rather all the functions are integrated into the information electronics control module 1 -J794-. The telephone is operated either by the MMI Infotainment or by the cellular telephone -R54-.

The microphones for the microphone unit in front roof module -R164- are integrated in the front interior lamp -W1-. One microphone is directly connected to the information electronics control module 1 -J794-.

- Bluetooth setup (CAN)

The telephone transceiver is installed with the microphone unit in front roof module -R164- /Bluetooth antenna -R152- and is part of the hands-free setup. Bluetooth connect the cell phone -R54-.

The Bluetooth antenna -R152- is attached to the telephone transceiver.

- Bluetooth hands-free setup in the information electronics control module 1 (MMI)

The information electronics control module 1 is installed with the microphone unit in front roof module -R164- and is part of the hands-free setup. Bluetooth connect the cell phone -R54-.

The Bluetooth antenna -R152- is integrated in the information electronics control module 1 -J794-.

Fault finding is performed via "Guided Fault Finding" using the Vehicle Diagnostic Tester.

Repairing antenna wires, refer to **General Information** .

### **Notes on Bluetooth technology**

A standardized radio connection system is used to transmit data between information electronics control module 1 and cellular telephone -R54- - Bluetooth Technology.

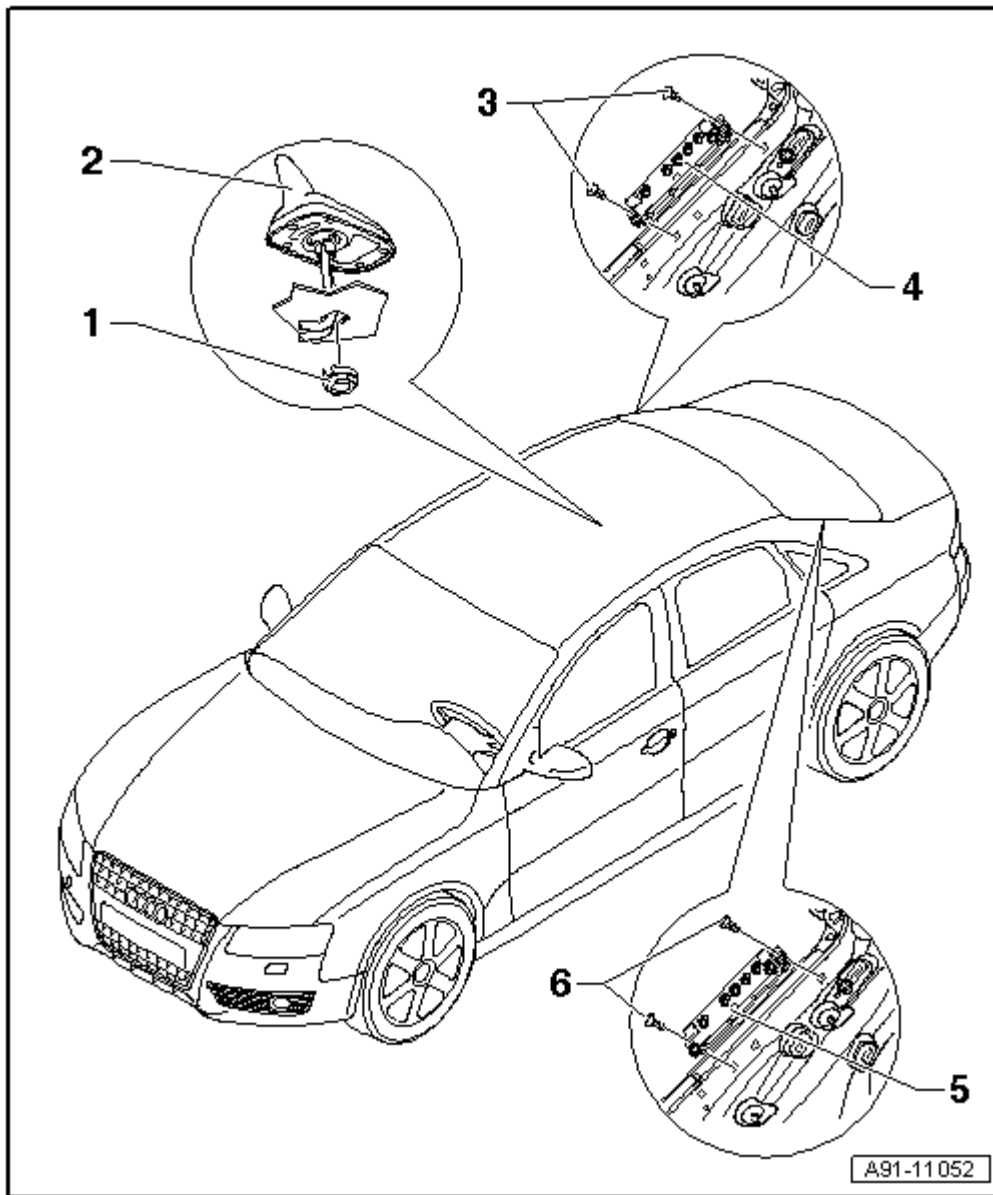
An additional transmitter/receiver unit is installed in the information electronics control module 1. A separate Bluetooth antenna -R152- connects the information electronics control module 1 and cellular telephone -R54-.

The range of the radio wave connection is approximately 10 meters.

Additional information, refer to Self Study Program No. 286; New Data Bus Systems - LIN, MOST Bluetooth".

## **DESCRIPTION AND OPERATION**

### **ANTENNA OVERVIEW**

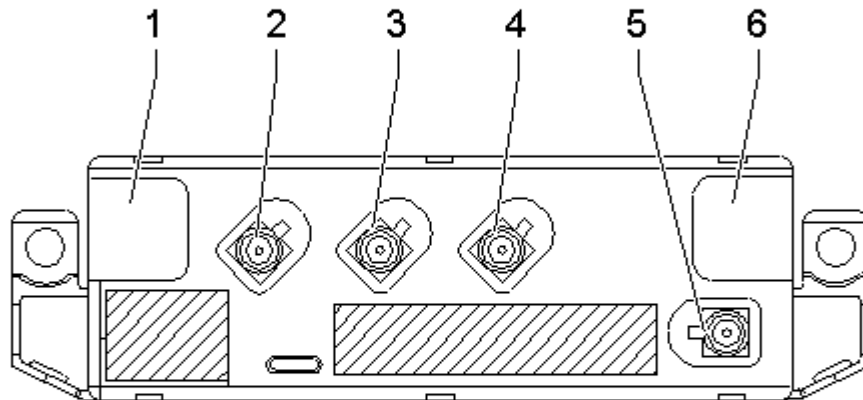
**Fig. 13: Identifying Antenna**

Courtesy of AUDI OF AMERICA, LLC

1. Nut
  - 6 Nm
2. Radio/Telephone/Navigation System Antenna -R52-
  - Removing and installing, refer to **ROOF ANTENNA -R52-**.
3. Bolt
  - 2 Nm
4. Antenna Amplifier 2 -R111-
  - Refer to **ANTENNA CONNECTORS** for connectors through 10.31.2008
  - For connectors from 11.03.2008 refer to **ANTENNA AMPLIFIER 2 -R111- (FROM 11.03.2008)**

- Removing and installing, refer to **ANTENNA AMPLIFIERS 2 AND 3 -R111- / -R112-**.
5. Antenna Amplifier 3 -R112-
- CAN connectors. Refer to
  - For MMI connectors through 10.31.2008, refer to
  - Connector assignments, MMI from 11.03.2008, refer to
  - Removing and installing, refer to **ANTENNA AMPLIFIERS 2 AND 3 -R111- / -R112-**.
6. Bolt
- 2 Nm

**ANTENNA CONNECTORS****ANTENNA AMPLIFIER 3 -R112- (RADIO CAN)**

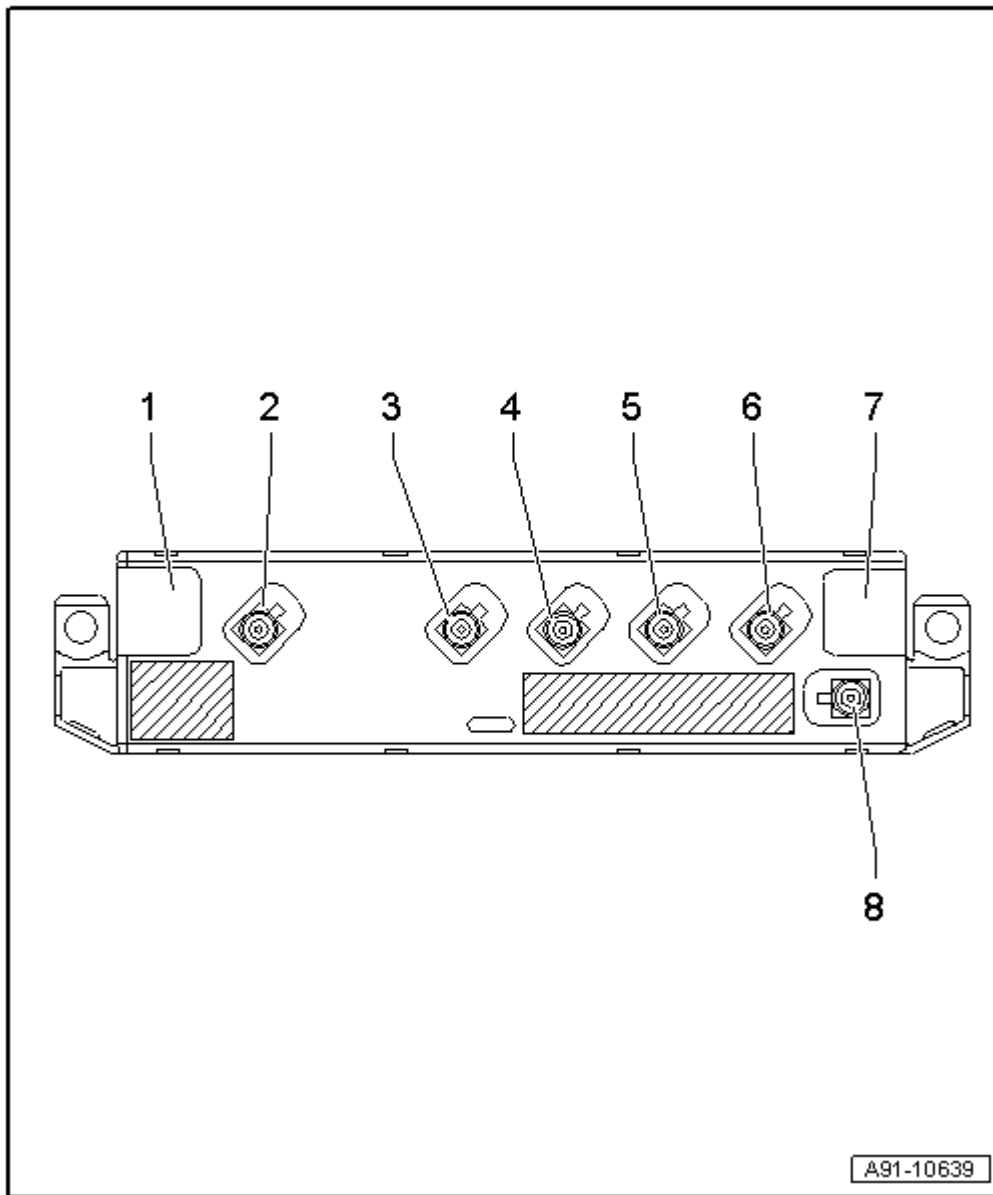


A91-10019

**Fig. 14: Identifying Antenna Amplifier**  
Courtesy of AUDI OF AMERICA, LLC

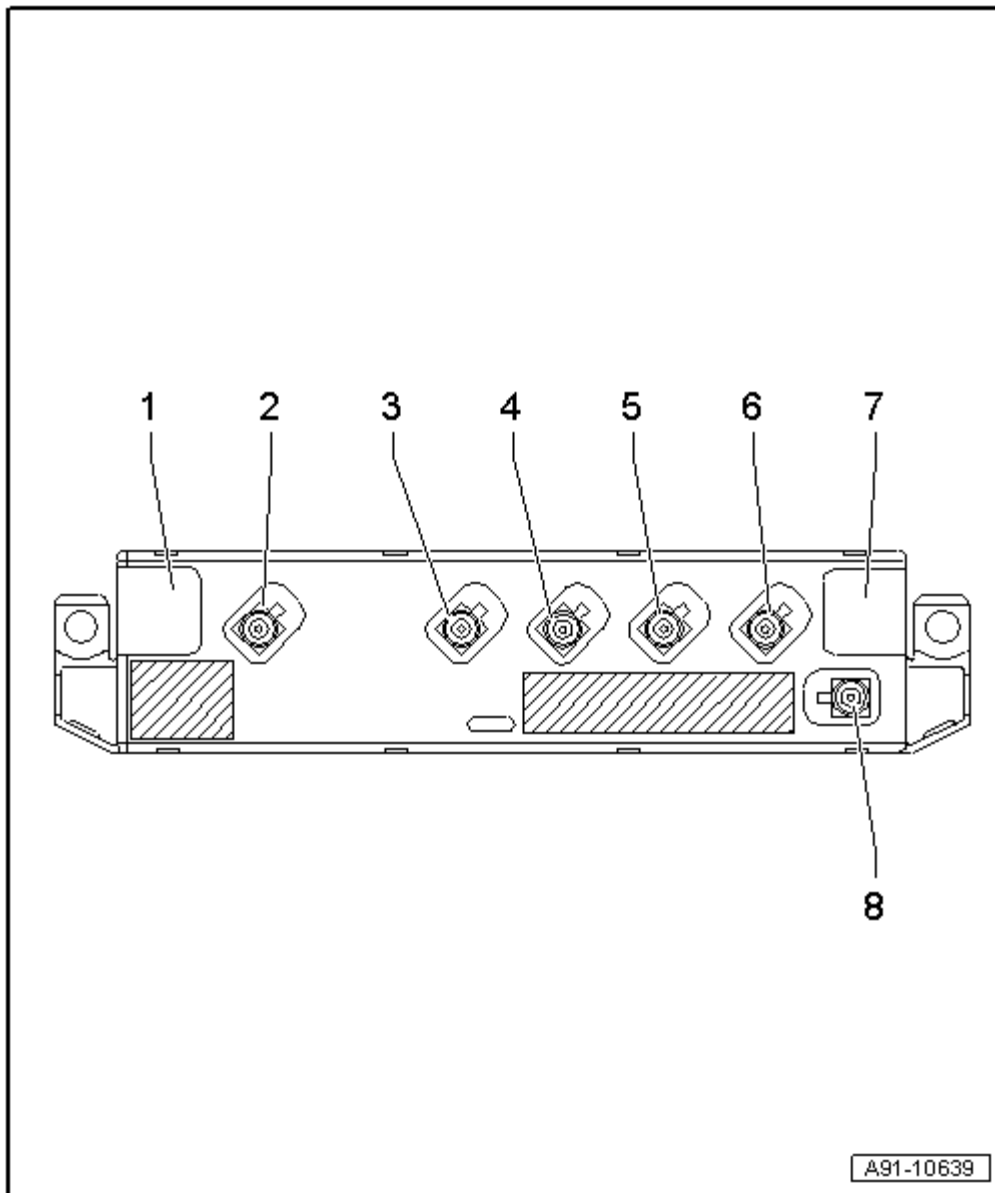
1. Connection For Window Antennas
2. Not Assigned
3. AM/FM1 Connection (Yellow) To Radio -R-
4. FM2 Connection (White) To Radio -R-
5. CLS Connection (Gray) To Comfort System Central Control Module -J393-
6. Connection For Window Antennas

ANTENNA AMPLIFIER 3 -R112- (MMI THROUGH 10.31.2008)



**Fig. 15: Identifying Antenna Amplifier**  
Courtesy of AUDI OF AMERICA, LLC

1. Connection For Window Antennas
2. TV1 Connection (Brown) To TV Tuner -R78-
3. IF (Yellow) Connection From the Radio -R-
4. FM3 Connection (Purple) From the Antenna Amplifier 2 -R111-
5. HF (White) Connection To Radio -R-
6. TV2 Connection (Green) To TV Tuner -R78-
7. Connection For Window Antennas
8. CLS Connection (Gray) to Comfort System Central Control Module -J393-

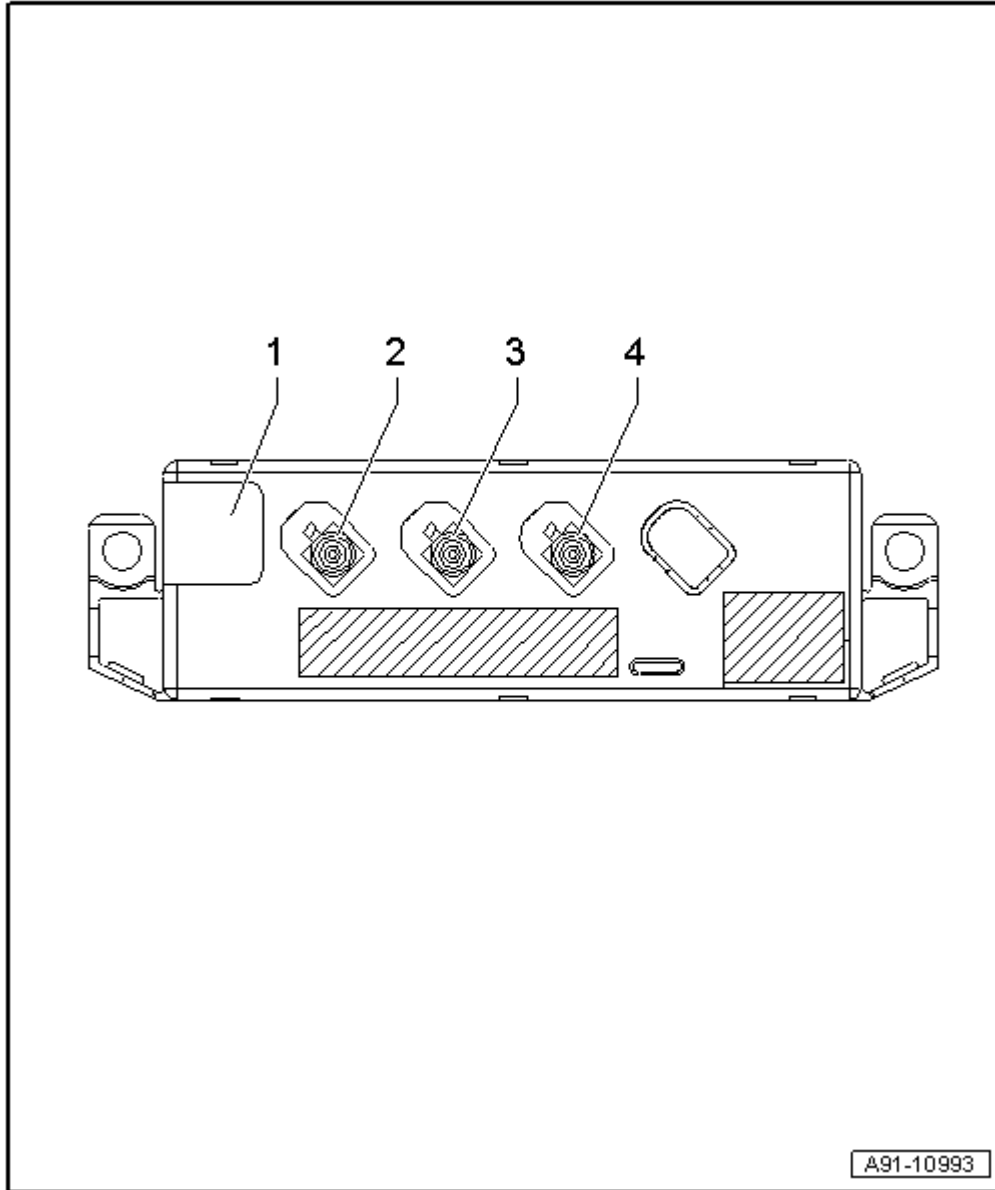
**ANTENNA AMPLIFIER 3 -R112- (MMI FROM 11.03.2008)**

**Fig. 16: Identifying Antenna Amplifier**  
Courtesy of AUDI OF AMERICA, LLC

1. Connection For Window Antennas
2. TV1 Connection (Brown) To TV Tuner -R78-
3. AM/FM1 Connection (Yellow) To Radio -R-
4. Not Assigned
5. FM2 Connection (White) To Radio -R-
6. TV2 Connection (Green) To TV Tuner -R78-
7. Connection For Window Antennas

8. CLS connection (Gray) to Comfort System Central Control Module -J393-

**ANTENNA AMPLIFIER 2 -R111- (THROUGH 10.31.2008)**



**Fig. 17: Identifying Antenna Amplifier 2**  
Courtesy of AUDI OF AMERICA, LLC

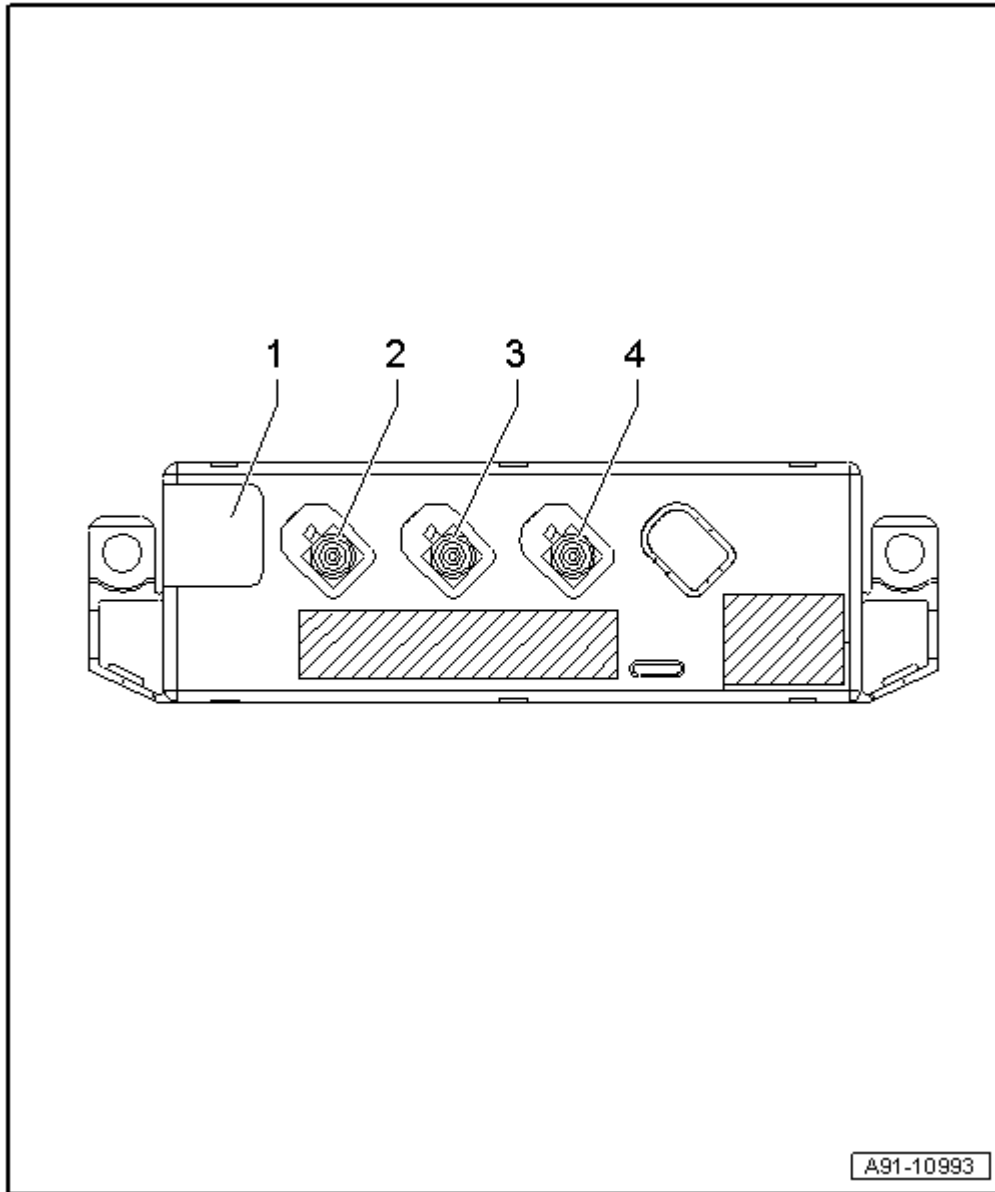
1. Connection For Window Antennas
2. DAB Connection (Black) to the Radio -R- /Digital Radio -R147- (Europe)

VICS Connection (Black) to the Navigation System With CD Drive Control Module -J401- (Japan)

3. FM3 Connection (Purple) To Antenna Amplifier 3 -R112-

4. Connection TV3 (Green) To TV Tuner -R78- (MMI)

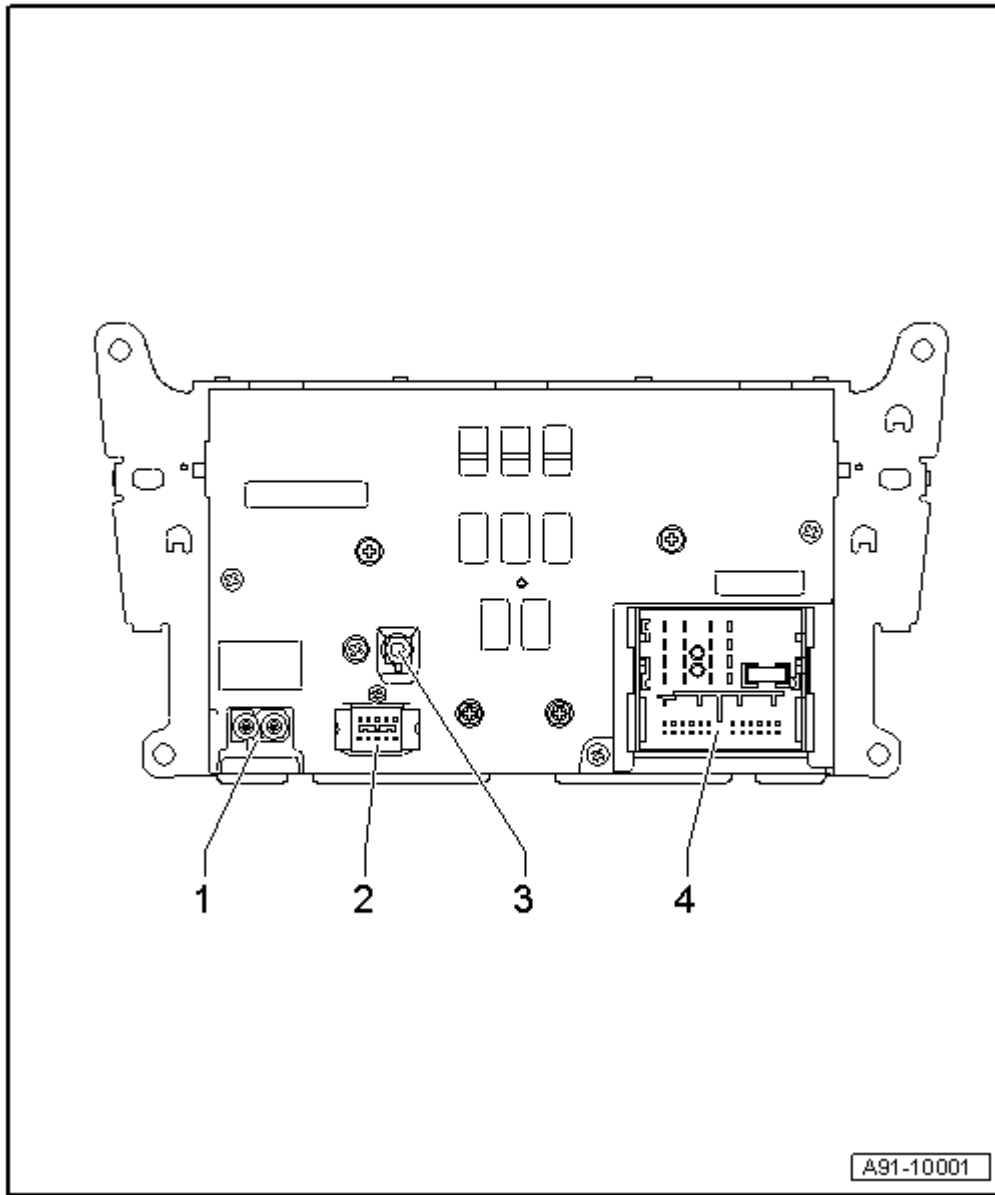
**ANTENNA AMPLIFIER 2 -R111- (FROM 11.03.2008)**



**Fig. 18: Identifying Antenna Amplifier 2**  
Courtesy of AUDI OF AMERICA, LLC

1. Connection For Window Antennas
2. DAB Connection (Black) to Radio -R-
3. Not Assigned
4. Green TV3 Connection to the TV Tuner -R78-

**CONCERT/SYMPHONY CONNECTORS**

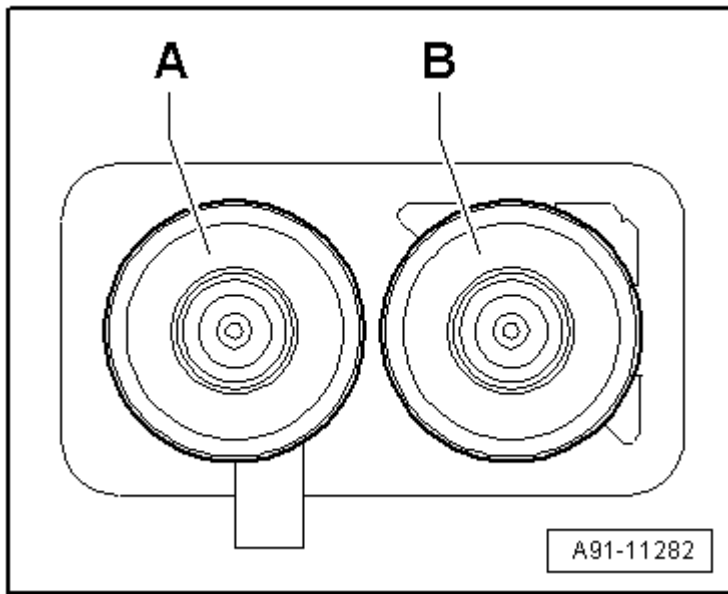


**Fig. 19: Identifying Concert/Symphony Connectors**

Courtesy of AUDI OF AMERICA, LLC

1. (AM/FM1/FM2) Antenna Jack
2. 10-pin Connector (T10v) for the Front Information Display Control Head -J685-
3. Antenna Connection (SAT), from the Radio, Telephone, Navigation System Antenna -R52- (Satellite Antenna -R170-)
4. Connection Block with Four Connectors

**NOTE:** Unlisted connector terminals are not used.



**Fig. 20: 1 - AM/FM1/FM2 Antenna Connection**  
Courtesy of AUDI OF AMERICA, LLC

**Sedan**

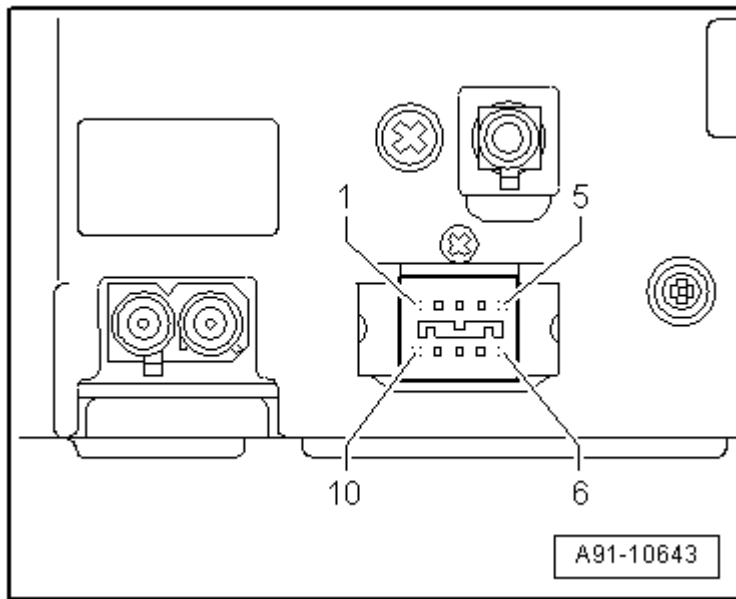
A - Chamber 2 (AM/FM1) from antenna amplifier 3 -R112- (antenna -R11-)

B - Chamber 1 (FM2) from antenna amplifier 3 -R112- (radio antenna 2 -R93-)

**Avant**

A - Chamber 2 (AM/FM1) from antenna amplifier 3 -R112- (antenna -R11-)

B - antenna amplifier -R24- (radio antenna 2 -R93-) FM2 connector 1



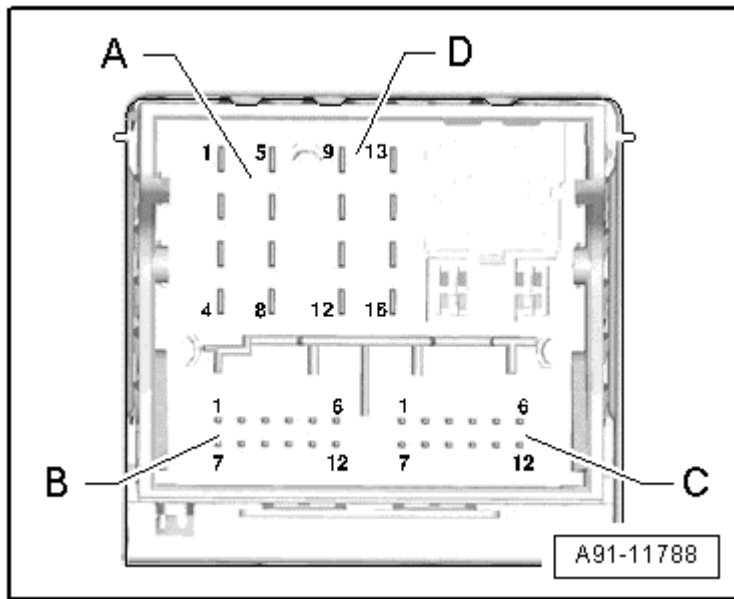
**Fig. 21: 2 - 10-pin connector (T10v)**

Courtesy of AUDI OF AMERICA, LLC

**All pins are connected to the front information display control head -J685-.**

1. Voltage Supply
2. Ground
3. Not assigned
4. Diag. Display
5. Cable Diag
6. LVDS OUT (+)
7. LVDS OUT (-)
8. LVDS OUT ground
9. Diag T0
10. Diag T1

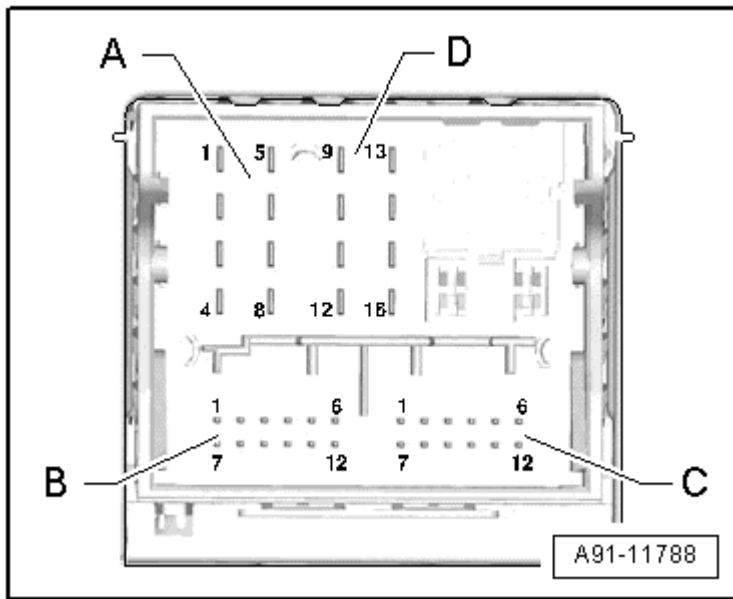
#### **4 - Connection Block With Four Connectors**



**Fig. 22: A - 8-Pin Connector (T8k)**

Courtesy of AUDI OF AMERICA, LLC

1. Right rear speaker (+)
2. Right front speaker (+)
3. Left front speaker (+)
4. Left rear speaker (+)
5. Right rear speaker (-)
6. Right front speaker (-)
7. Left front speaker (-)
8. Left rear speaker (-)



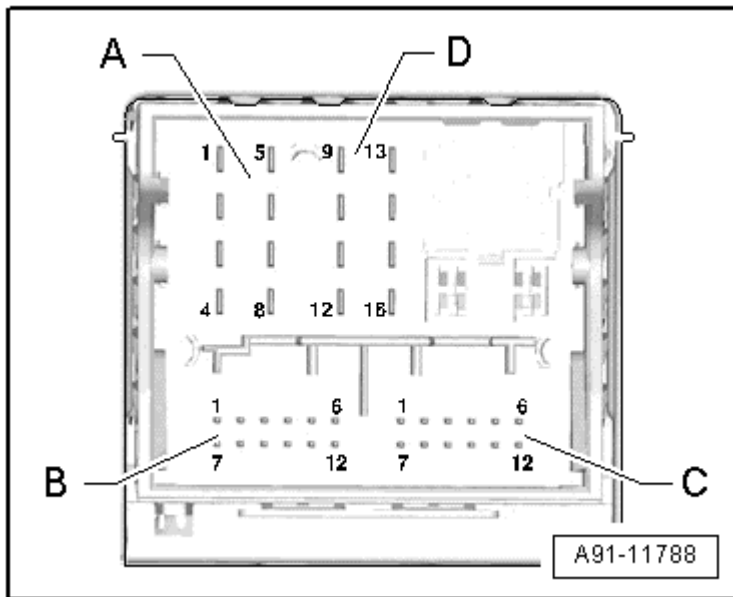
**Fig. 23: B - 12-Pin Connector (T12s)**

Courtesy of AUDI OF AMERICA, LLC

1 - Left LF IN for the external audio source connection -R199-

2 - LF IN ground for the external audio source connection -R199-

7 - Right LF IN for the external audio source connection -R199-

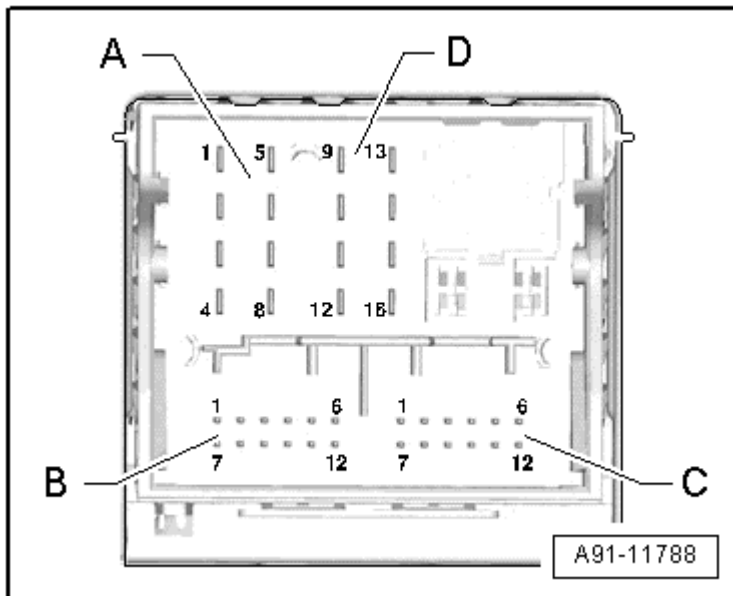


**Fig. 24: C - 12-Pin Connector (T12a)**

Courtesy of AUDI OF AMERICA, LLC

1. Microphone IN (-)

2. Right LF OUT
3. LF OUT ground
4. Microphone OUT (-)
5. Left LF IN (-)
6. LF (-) from Telephone Transceiver -R36-
7. Microphone IN (+)
8. Left LF OUT
9. Microphone OUT (+)
10. LF mute
11. Left LF IN (+)
12. LF (+) for the telephone transceiver -R36-



**Fig. 25: D - 8-pin Connector (T16)**

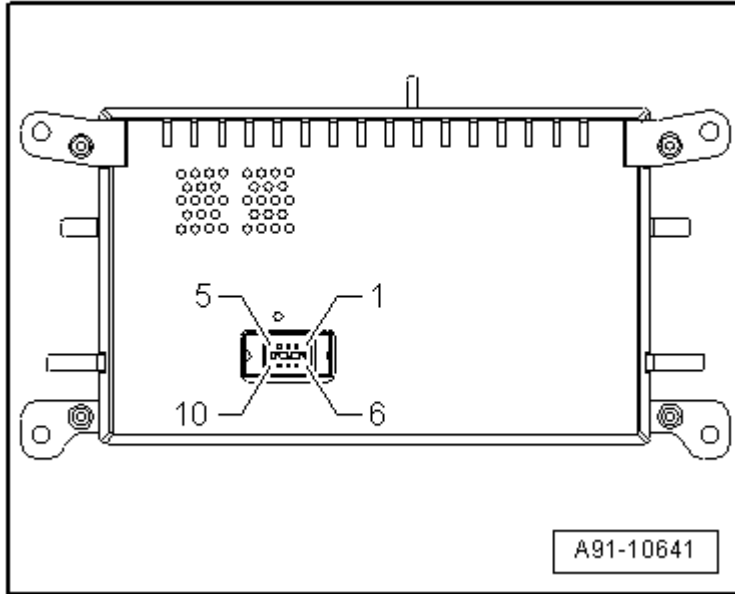
Courtesy of AUDI OF AMERICA, LLC

- 9 - CAN bus high (Infotainment)
- 10 - CAN bus low (Infotainment)
- 12 - Terminal 31
- 15 - Terminal 30
- 16 - Permanent positive (not used)

#### DISPLAY, CONNECTORS

Front Information Display Control Head -J685-

**NOTE:** Unlisted connector terminals are not used.



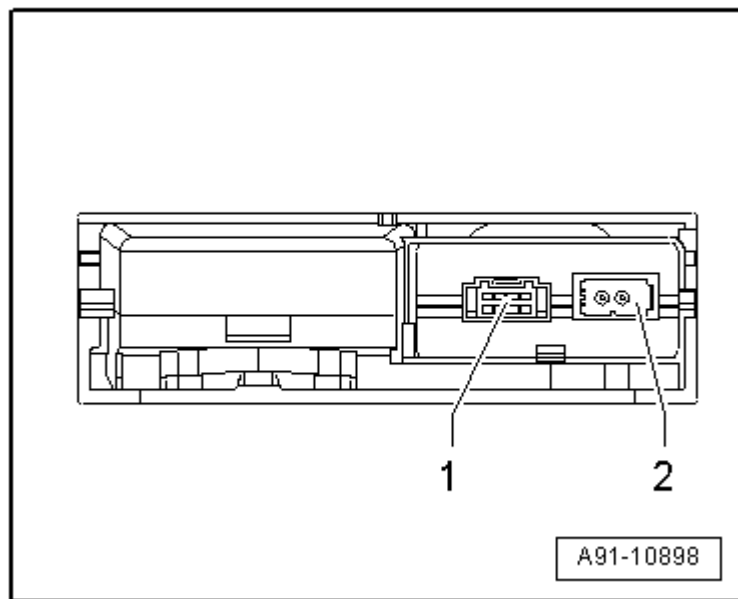
**Fig. 26: "Concert" / "Symphony" (T10w)**  
Courtesy of AUDI OF AMERICA, LLC

All pins are connected to the radio -R-.

1. Voltage Supply
2. Ground
3. Not assigned
4. Diag. Display
5. Cable Diag
6. LVDS OUT (+)
7. LVDS OUT (-)
8. LVDS ground
9. Diag T0
10. Diag T1

**EXTERNAL AUDIO SOURCE CONNECTION -R199- CONNECTORS**

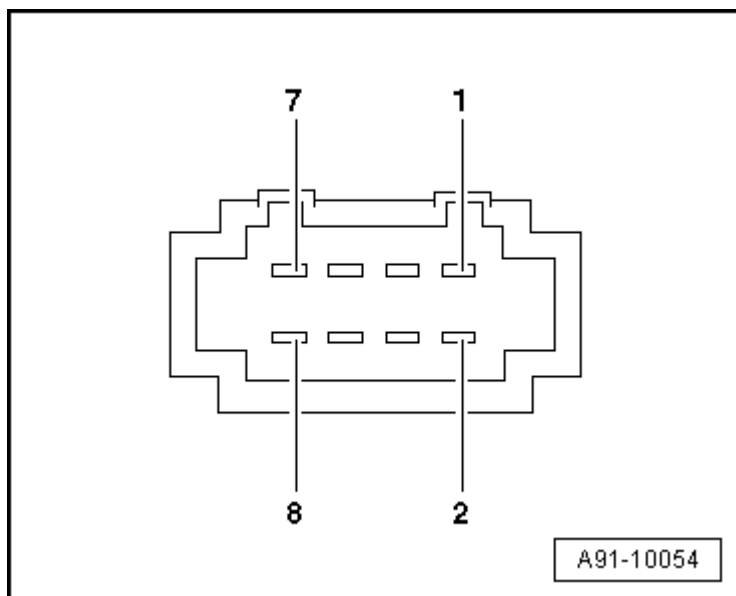
MMI THROUGH 10.31.2008



**Fig. 27: External Audio Source Connection -R199-**  
Courtesy of AUDI OF AMERICA, LLC

1. 8-pin multi-pin connector (T8aa)
2. MOST bus

**NOTE:** Unlisted connector terminals are not used.



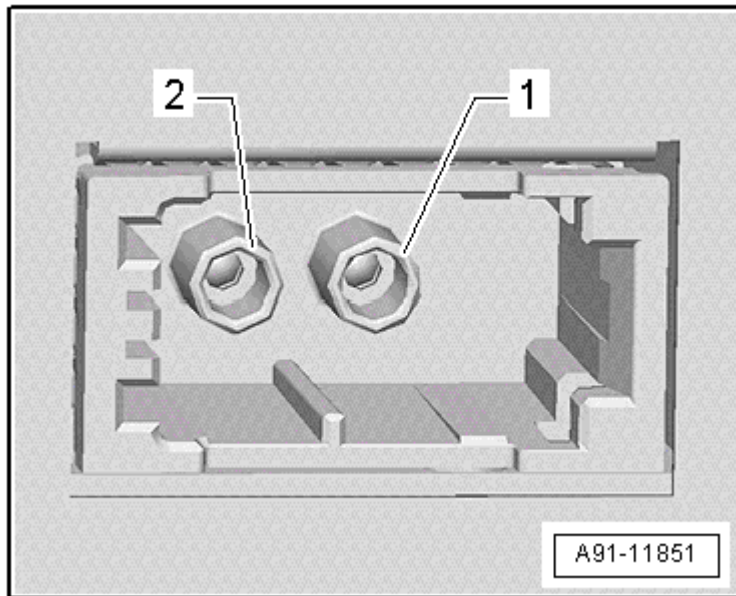
**Fig. 28: Black 8-Pin Multi-Pin Connector**  
Courtesy of AUDI OF AMERICA, LLC

1 - Terminal 31

2 - Terminal 30

4 - Terminal 31

5 - Ring-break Diagnostic Cable



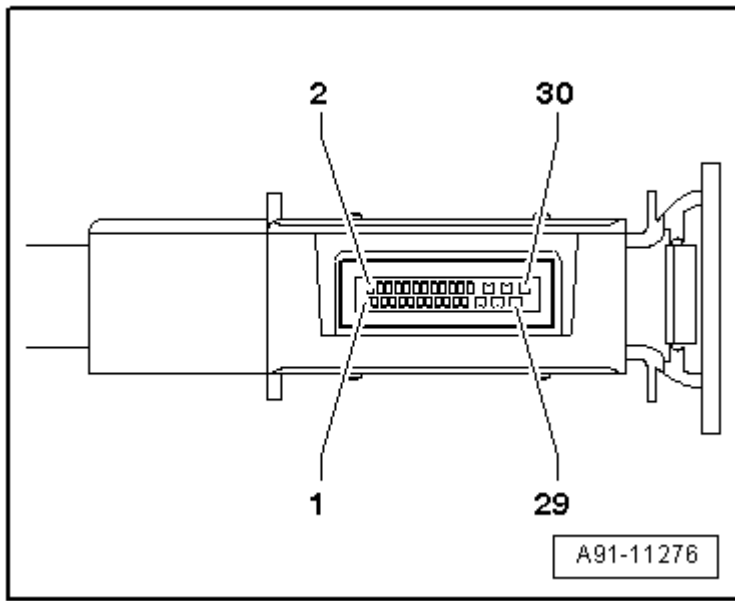
**Fig. 29: 2 - MOST bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT

**INTERFACE**

**NOTE:** Unlisted connector terminals are not used.



**Fig. 30: 30-pin Connector (T30b)**

Courtesy of AUDI OF AMERICA, LLC

All pins are connected to the information electronics control module 1 -J794-.

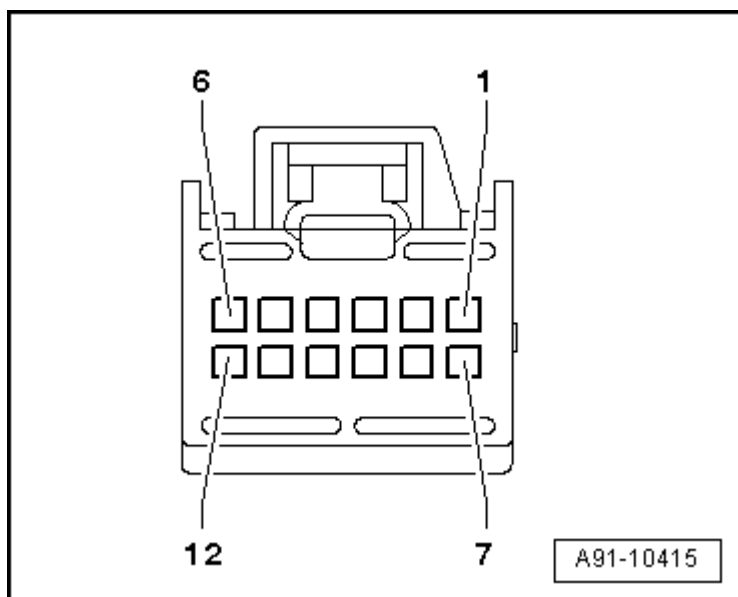
- 1 - Left LF-In
- 2 - Right LF-In
- 3 - LF ground
- 4 - LF-In ground shielding
- 13 - iPod data
- 14 - iPod data
- 16 - iPod recognized
- 17 - D (+)
- 18 - D (-)
- 21 - Detect
- 22 - Ground
- 24 - FBAS wire (-)
- 25 - USB (ground)

27 - FBAS wire (+)

28 - USB (+5V)

#### CAN EXTERNAL AUDIO SOURCE CONNECTION CONNECTORS

**NOTE:** Unlisted connector terminals are not used.

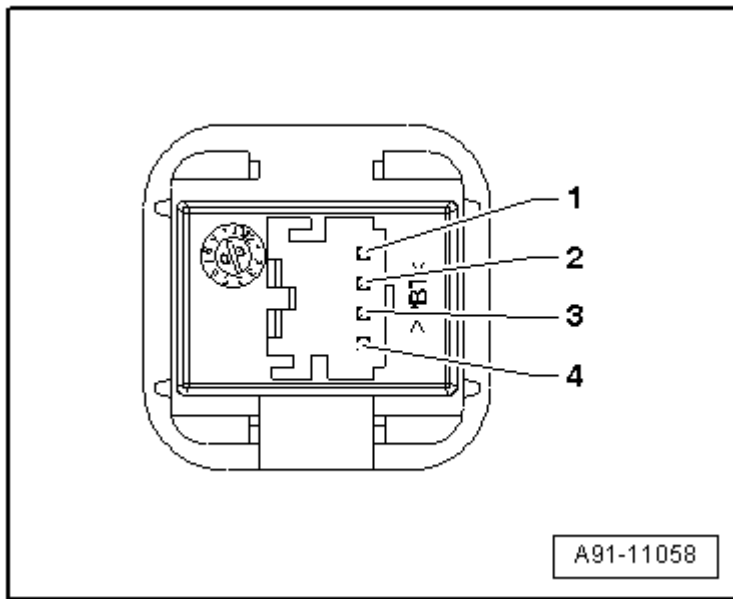


**Fig. 31: Black 12-Pin Multi-Pin Harness Connector**  
 Courtesy of AUDI OF AMERICA, LLC

1. Terminal 31
2. CAN bus low (Infotainment)
3. Not assigned
4. LF right to the radio -R-
5. Not assigned
6. Not assigned
7. Terminal 30
8. CAN bus high (Infotainment)
9. LF left to the radio
10. LF ground to the radio

#### AUX IN CONNECTORS

**NOTE:** Unlisted connector terminals are not used.



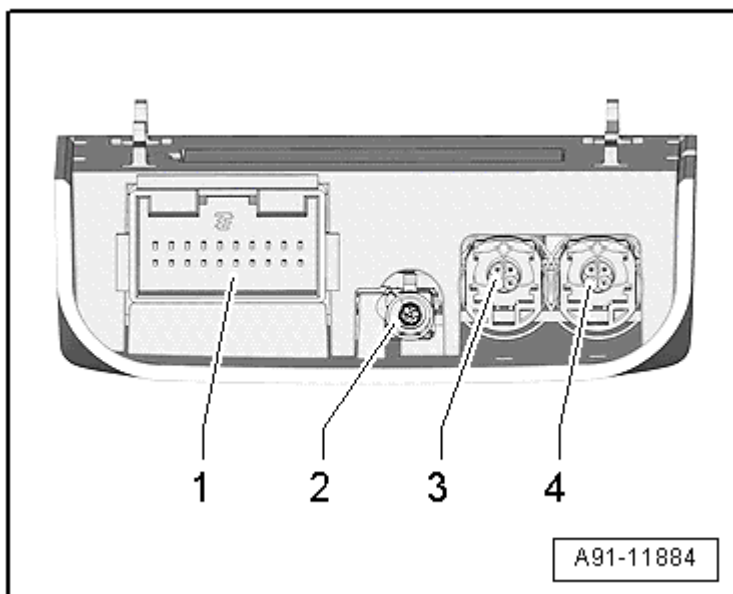
**Fig. 32: 4-pin Connector (T4i)**

Courtesy of AUDI OF AMERICA, LLC

All pins are connected to the radio -R- /digital sound system control module -J525- through 10.31.2008.

1. LF ground
2. LF left
3. LF right
4. LF ground

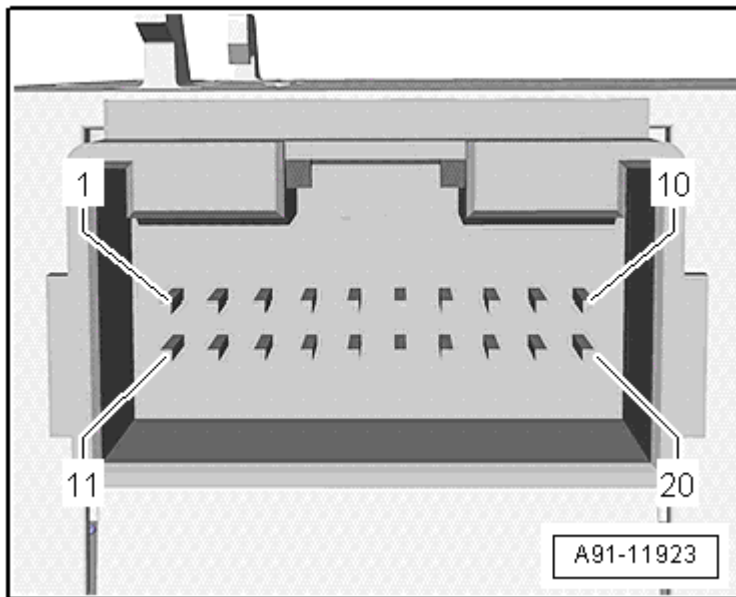
#### INTERNET ACCESS CONTROL MODULE -J666- CONNECTORS



**Fig. 33: Internet Access Control Module -J666-**  
 Courtesy of AUDI OF AMERICA, LLC

1. 20-pin connector (T20g)
2. Internet access antenna -R266- connection
3. 4-pin connector (T4o) for the information electronics control module 1 -J794-
4. 4-pin connector (T4n) to the external audio source connection -R199- (interface)

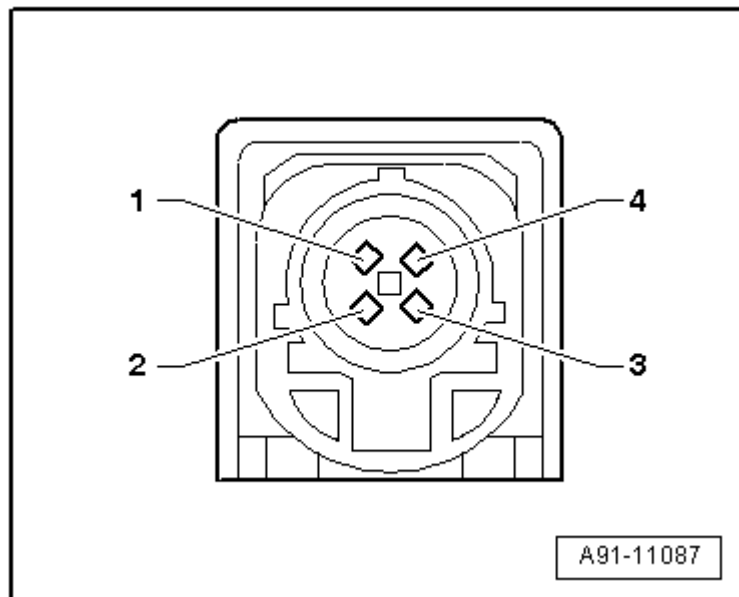
**NOTE: Unlisted connector terminals are not used.**



**Fig. 34: 1 - 20-pin Connector (T20g)**  
 Courtesy of AUDI OF AMERICA, LLC

- 1 - USB (+5 V) from information electronics control module 1 -J794-
- 2 - USB (ground) from information electronics control module 1
- 3 - USB (+5 V) for the external audio source connection -R199- (interface)
- 6 - Terminal 30
- 7 - Terminal 31
- 16 - Detect for the external audio source connection (interface)
- 18 - Detect from the information electronics control module 1
- 19 - CAN bus High (instrument cluster)

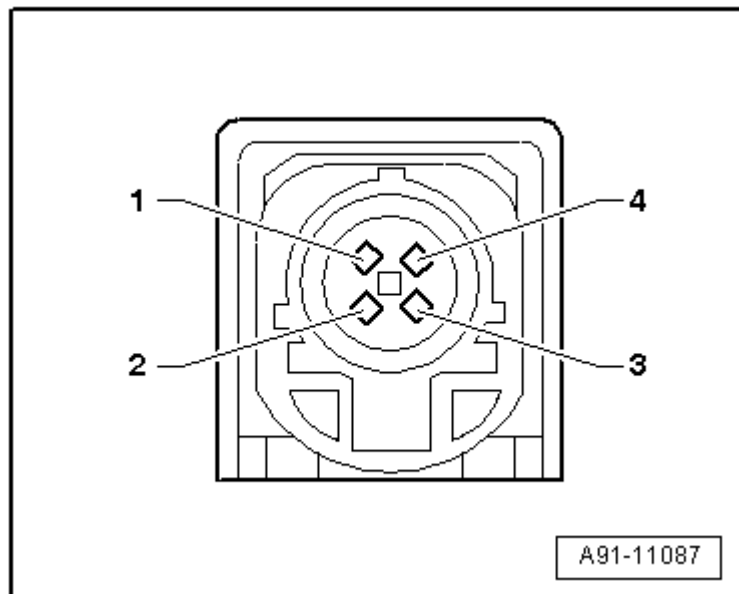
## 20 - CAN bus Low (instrument cluster)

**Fig. 35: 3 - 4-pin Connector (T40)**

Courtesy of AUDI OF AMERICA, LLC

**All pins are connected to the information electronics control module 1 -J794-.**

1. D (+)
2. iPod recognized
3. D (-)
4. Ground

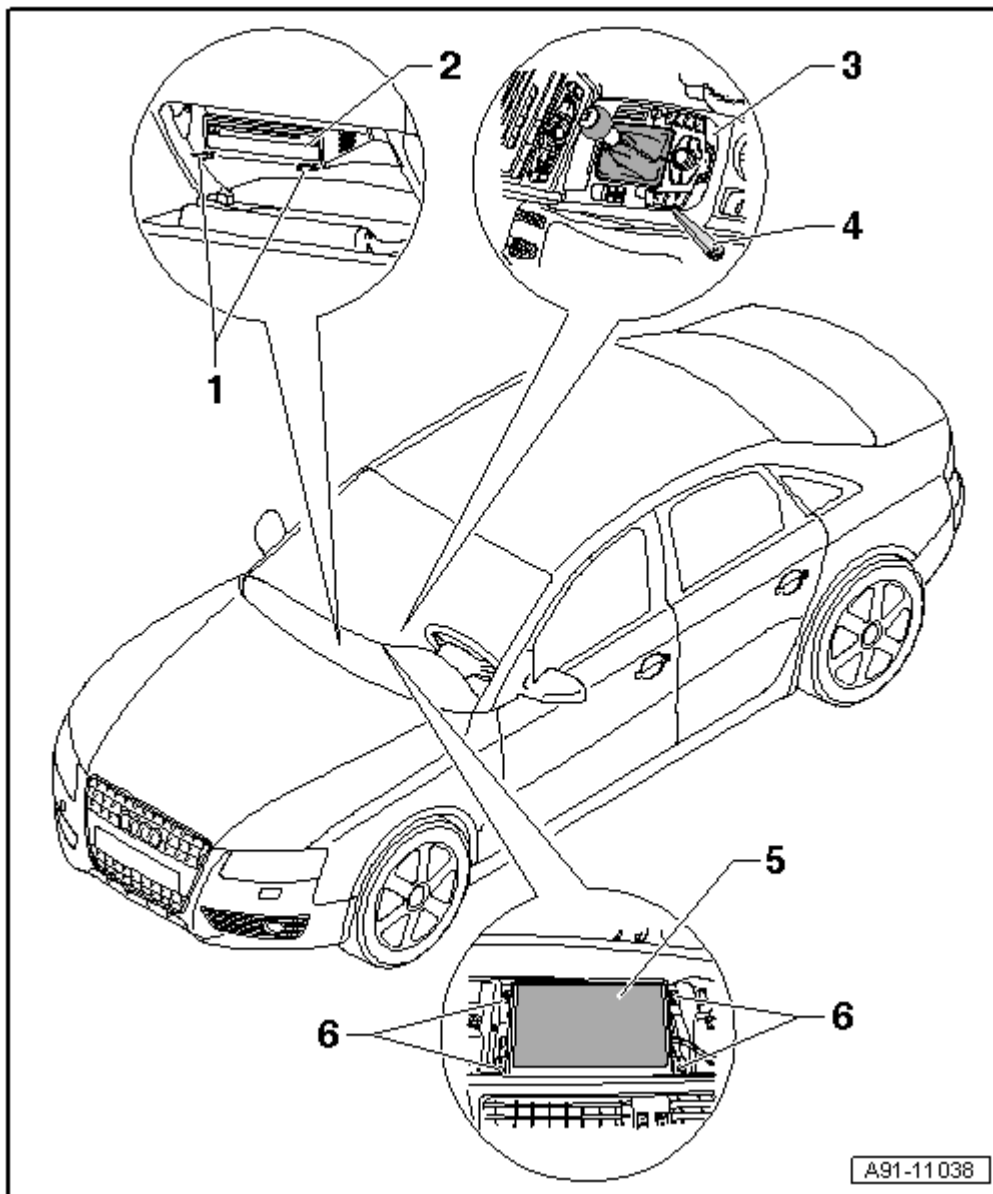


**Fig. 36: 4 - 4- Pin Multi-Pin Harness Connector (T4n)**

Courtesy of AUDI OF AMERICA, LLC

All pins are connected (interface) to the external audio source connection -R199-.

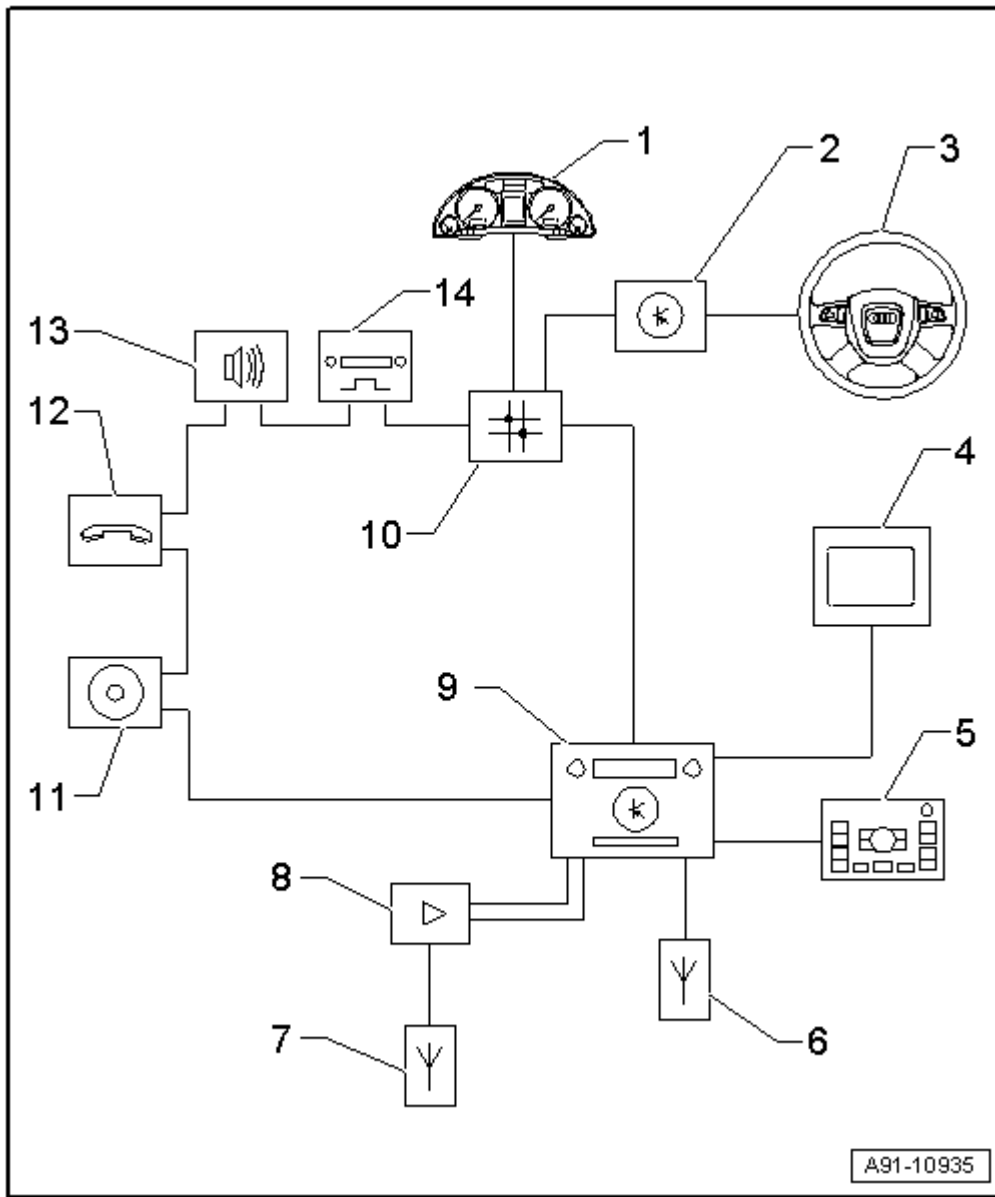
1. D (+)
2. iPod recognized
3. D (-)
4. Ground

**MMI BASIC/BASIC PLUS NAVIGATION COMPONENT LOCATION OVERVIEW****Fig. 37: Identifying MMI Basic/Basic Plus Navigation Component Location**

**Courtesy of AUDI OF AMERICA, LLC**

1. Radio Removal Tool T10057
2. Front Information Display Control Head Control Module -J523-
  - Connectors, refer to **MMI BASIC PLUS CONNECTORS**.
  - Removing and installing, refer to **FRONT INFORMATION DISPLAY CONTROL HEAD CONTROL MODULE -J523-, MMI BASIC**.
3. Multimedia System Control Head -E380-
  - Connectors, refer to **MULTIMEDIA SYSTEM CONTROL HEAD -E380- CONNECTOR**.
  - Removing and installing, refer to **MULTIMEDIA CONTROL HEAD -E380-**.
4. Removal Wedge 3409
5. Front Information Display Control Head -J685-
  - MMI Basic Connectors **MMI BASIC DISPLAY CONNECTORS**.
  - Removing and installing, refer to **FRONT INFORMATION DISPLAY CONTROL HEAD - J685- (DISPLAY)**.
6. Screws
  - 2 Nm

**MMI BASIC/BASIC PLUS NAVIGATION SYSTEM OVERVIEW**



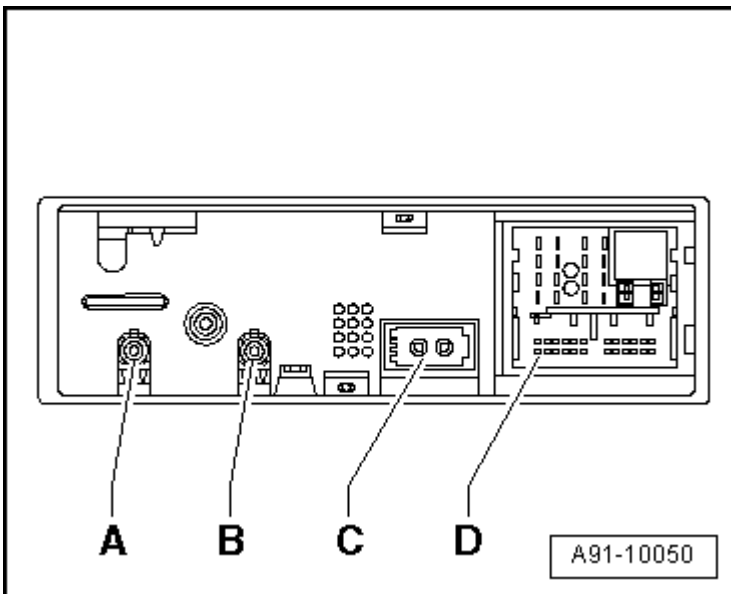
**Fig. 38: Identifying MMI Basic/Basic Plus Navigation System**

Courtesy of AUDI OF AMERICA, LLC

1. Instrument Cluster Control Module -J285- In The Instrument Panel
2. Steering Column Electronics Control Module -J527- On Steering Column At Steering Column Switch
3. Multifunction Steering Wheel
4. Front Information Display Control Head -J685- In Center Of The Instrument Panel
5. Multimedia Control Head -E380- in the Center Console
6. Radio, Telephone, Navigation System Antenna -R52- Roof Antenna
7. Window Antenna
8. Antenna Amplifier 3 -R112- Behind the Left D-Pillar Trim/Luggage Compartment Side Trim Panel
9. Front Information Display Control Head Control Module -J523- Inside Glove Compartment

- MMI basic contains the Radio -R- /CD player -R89-
  - MMI basic plus Navigation contains the Radio/CD-Player/Navigation System with CD Drive Control Module -J401-
10. Data Bus On Board Diagnostic Interface -J533- Behind the Glove Compartment On the Left Side
  11. CD Changer -R41- Inside the Instrument Panel
- External audio source connection -R199- (AUX IN) inside the center console storage compartment
12. Telephone Transceiver -R36- under the front passenger seat
  13. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
  14. Digital Radio -R147- behind the left luggage compartment left side trim

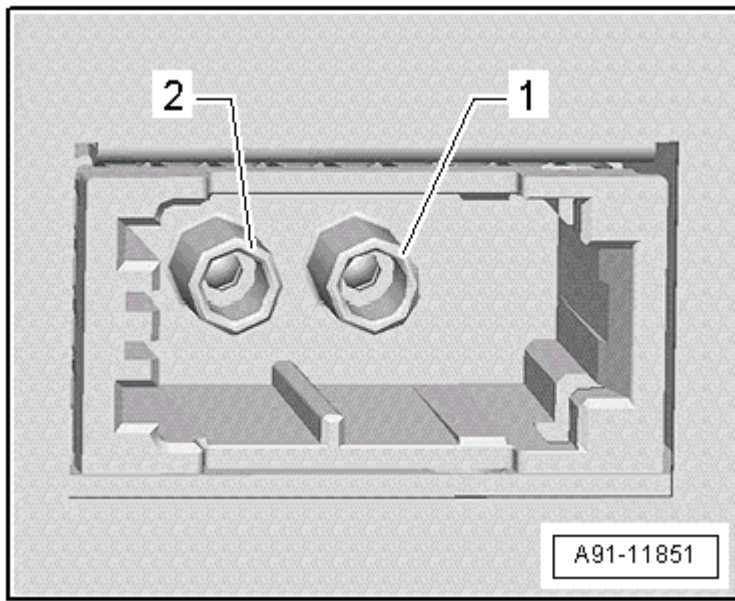
#### MMI BASIC PLUS CONNECTORS



**Fig. 39: Front Information Display Control Head Control Module -J523-**  
 Courtesy of AUDI OF AMERICA, LLC

- A - Antenna Amplifier 3 -R112- HF Connection
- B - IF Connection to Antenna Amplifier 3 -R112-
- C - MOST bus
- D - Connection Block with Four Connectors

**NOTE:** Unlisted connector terminals are not used.

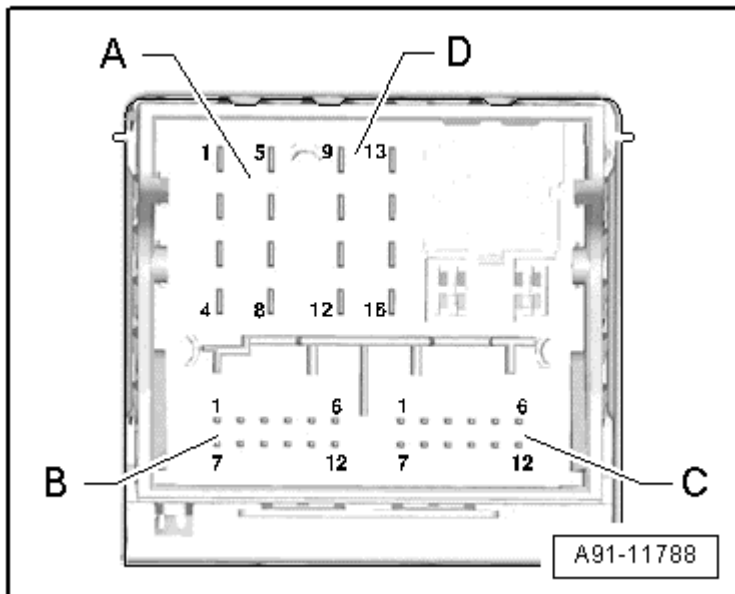


**Fig. 40: C - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT

**D - Connection Block With Four Multi-pin Connectors**



**Fig. 41: A - 8-Pin Multi-Pin Connector (T8ab)**

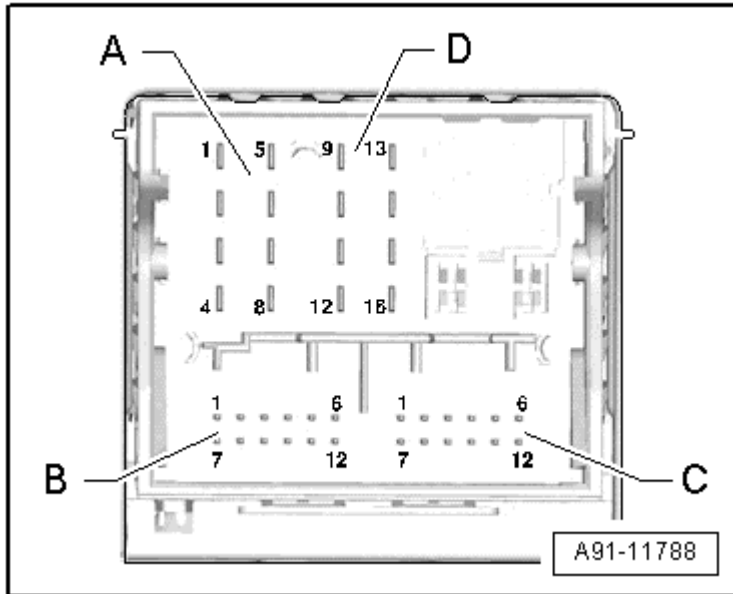
Courtesy of AUDI OF AMERICA, LLC

- 1 - Wake UP to Multimedia Control Head -E380-

4 - Res HU to Multimedia Control Head

5 - Res BT to Multimedia Control Head

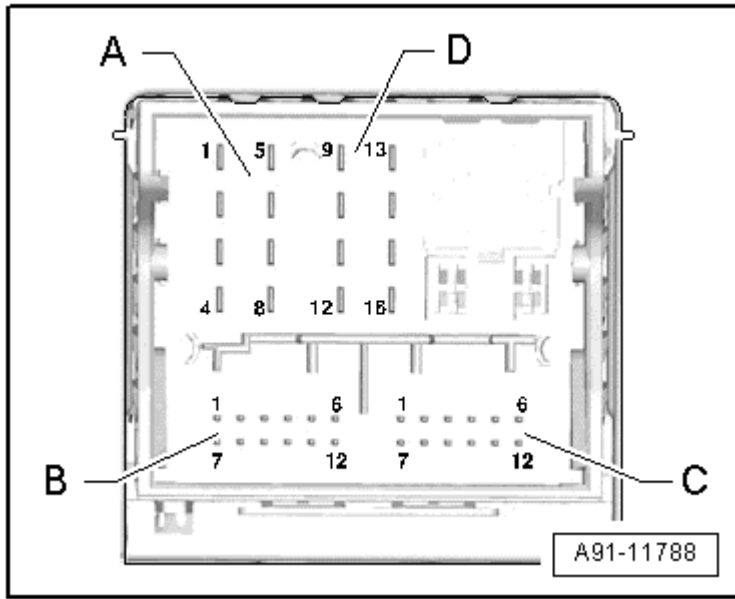
8 - Ground (GND) to Front Information Display Control Head -J685-



**Fig. 42: B - 12-Pin Connector (T12q)**

Courtesy of AUDI OF AMERICA, LLC

1. Data to the Multimedia system control head -E380-
2. Not assigned
3. Data (+) to Front Information Display Control Head -J685-
4. Data (-) to Front information display control head
5. Data from Multimedia system control head



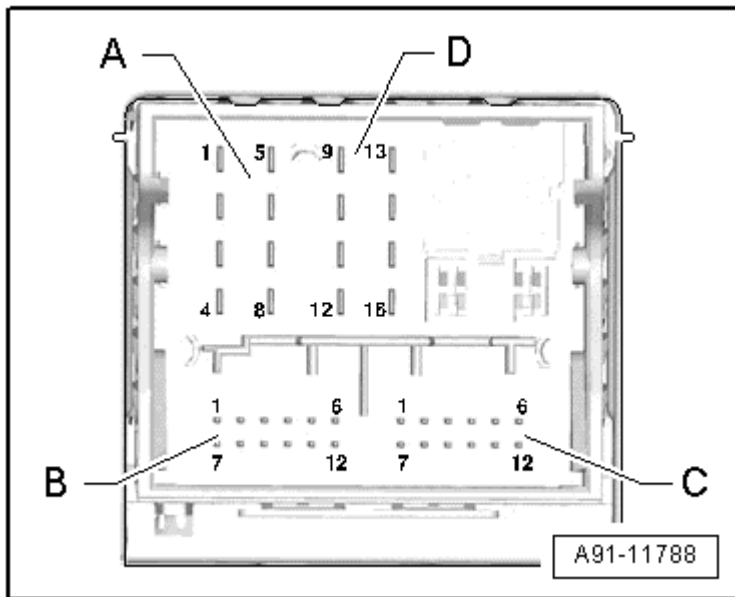
**Fig. 43: C - 12-Pin Connector (T12r)**

Courtesy of AUDI OF AMERICA, LLC

5 - Data (-) from Front Information Display Control Head -J685-

7 - Ground (GND) to Multimedia Control Head -E380-

11 - Data (+) from Front Information Display Control Head -J685-



**Fig. 44: D - 8-Pin Connector (T16j)**

Courtesy of AUDI OF AMERICA, LLC

11 - NF mute from preliminary setup for cell phone preparation

12 - Terminal 31

13 - Voltage supply for the Front information display control head -J685-

14 - Ring-break diagnostic cable

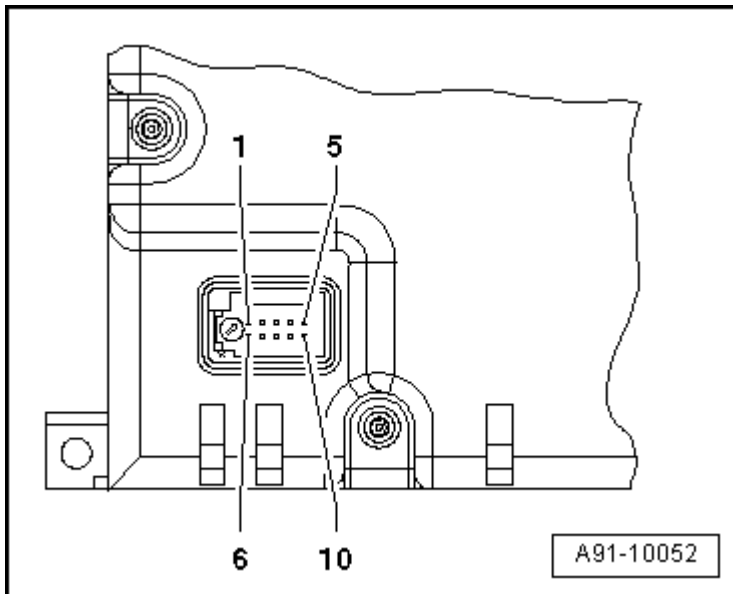
15 - Terminal 30

16 - Voltage supply to Multimedia Control Head -E380-

#### MMI BASIC DISPLAY CONNECTORS

Front information display control head -J685-

**NOTE:** Unlisted connector terminals are not used.



**Fig. 45: Front Information Display Control Head Control Module J685 Connectors (MMI Basic/Basic Plus)**

Courtesy of AUDI OF AMERICA, LLC

2 - Voltage supply from Front Information Display Control Head Control Module -J523-

3 - Ground (GND) from Front Information Display Control Head Control Module

6 - Terminal 31, ground (GND)

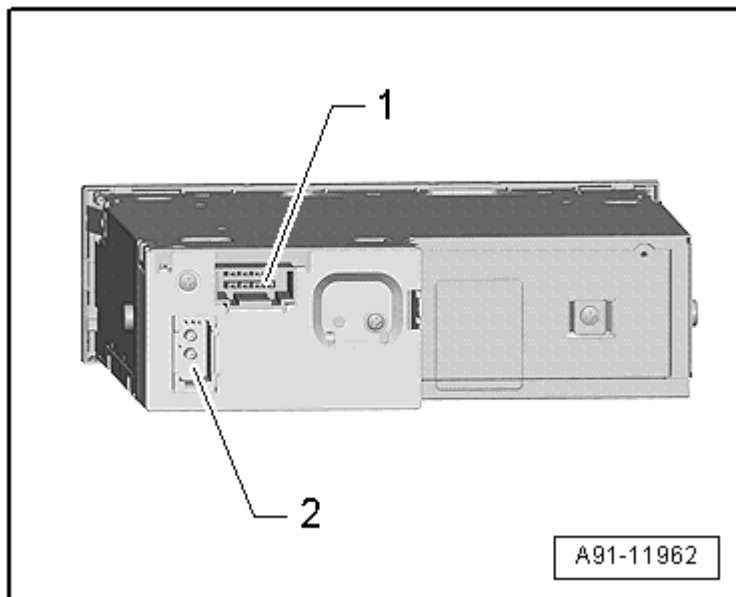
7 - Data (+) from Front Information Display Control Head Control Module

8 - Data (-) from Front Information Display Control Head Control Module

9 - Data (+) to Front Information Display Control Head Control Module

10 - Data (-) to Front Information Display Control Head Control Module

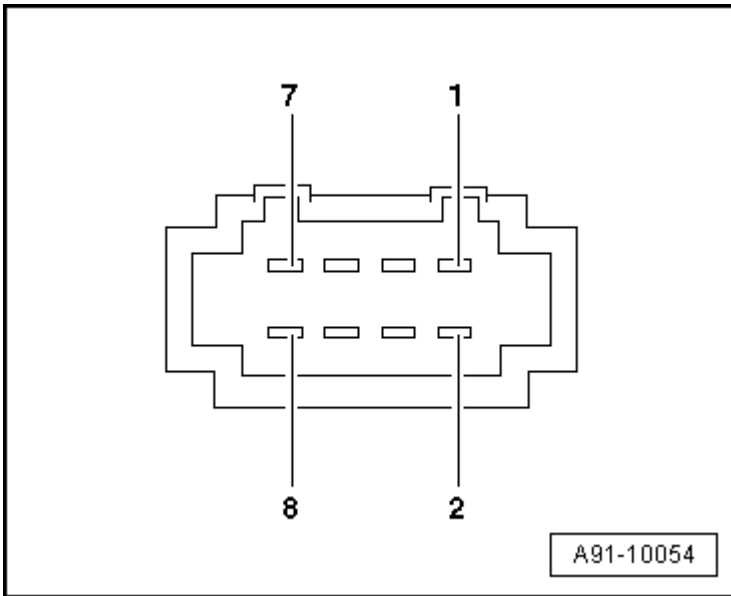
**MMI CD CHANGER -R41- CONNECTORS**



**Fig. 46: CD changer -R41-**  
**Courtesy of AUDI OF AMERICA, LLC**

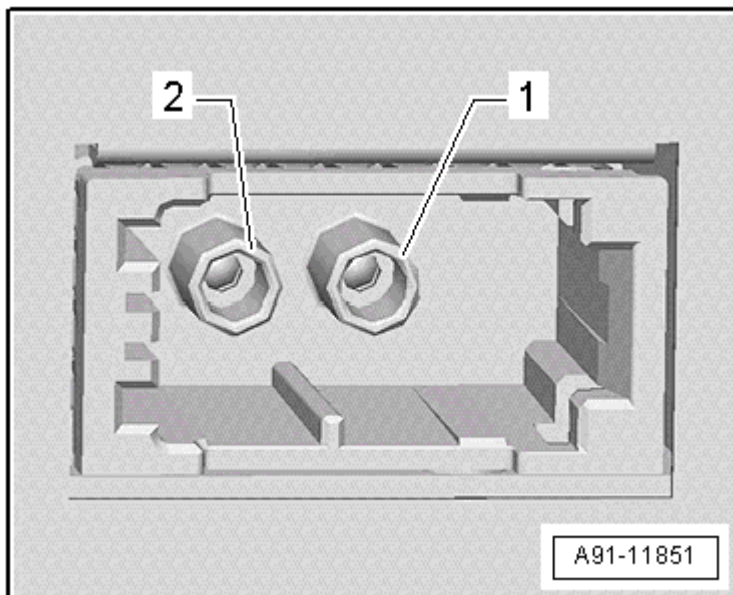
1. 8-pin multi-pin connector (T8aa)
2. MOST bus

**NOTE:**        **Unlisted connector terminals are not used.**



**Fig. 47: Black 8-Pin Multi-Pin Connector**  
 Courtesy of AUDI OF AMERICA, LLC

- 1 - Terminal 31
- 2 - Terminal 30
- 4 - Terminal 31 (MMI basic only)
- 5 - Ring-break Diagnostic Cable



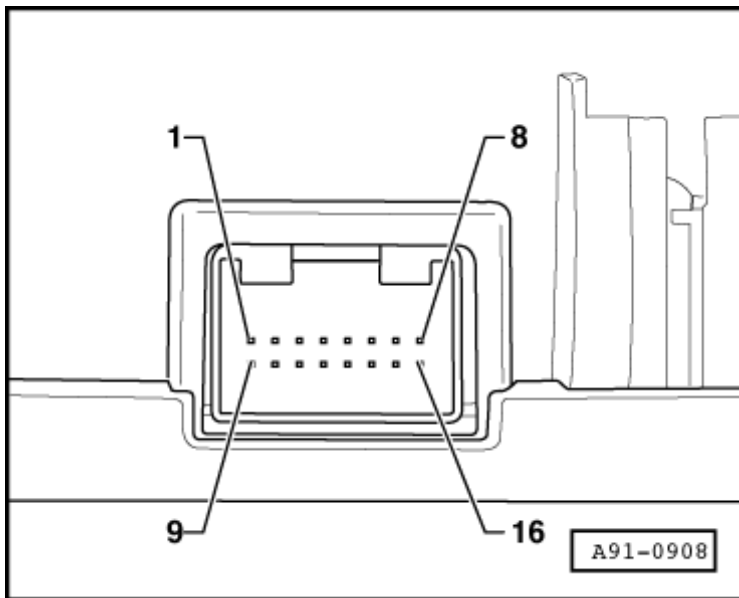
**Fig. 48: 2 - MOST Bus**  
 Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT

**MULTIMEDIA SYSTEM CONTROL HEAD -E380- CONNECTOR**

Multimedia system control head -E380-

**NOTE:** Unlisted connector terminals are not used.



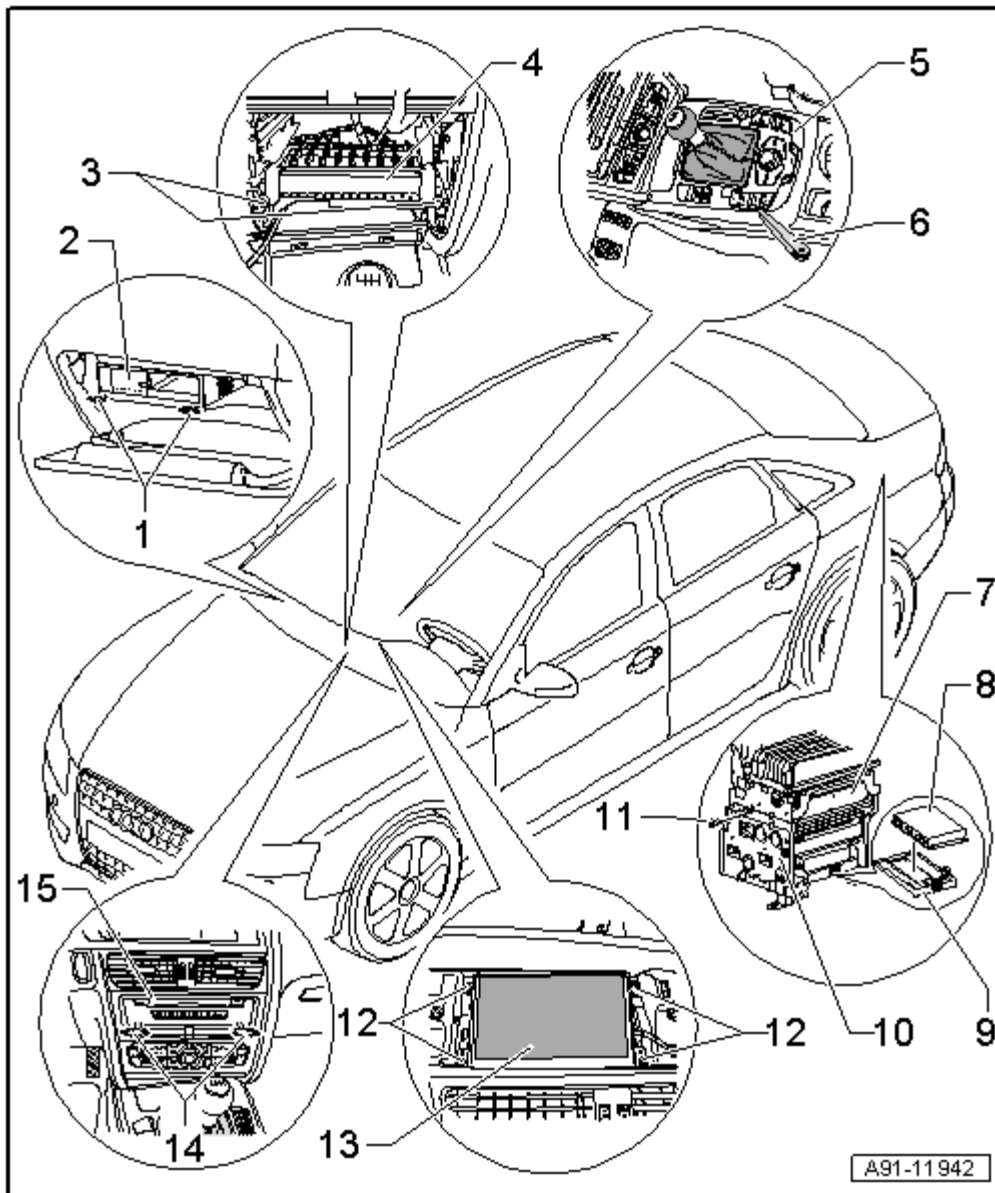
**Fig. 49: Multimedia Control Head E380, Harness Connectors**  
Courtesy of AUDI OF AMERICA, LLC

All pins are connected to the Front information display control head -J523-.

- 6 - Wake UP
- 7 - Voltage Supply
- 8 - Ground
- 13 - Res HU
- 14 - Res BT
- 15 - IN
- 16 - OUT

**MMI OVERVIEWS AND CONNECTORS THROUGH 10.31.2008**

## COMPONENT LOCATION OVERVIEW



**Fig. 50: Identifying Component Location**  
 Courtesy of AUDI OF AMERICA, LLC

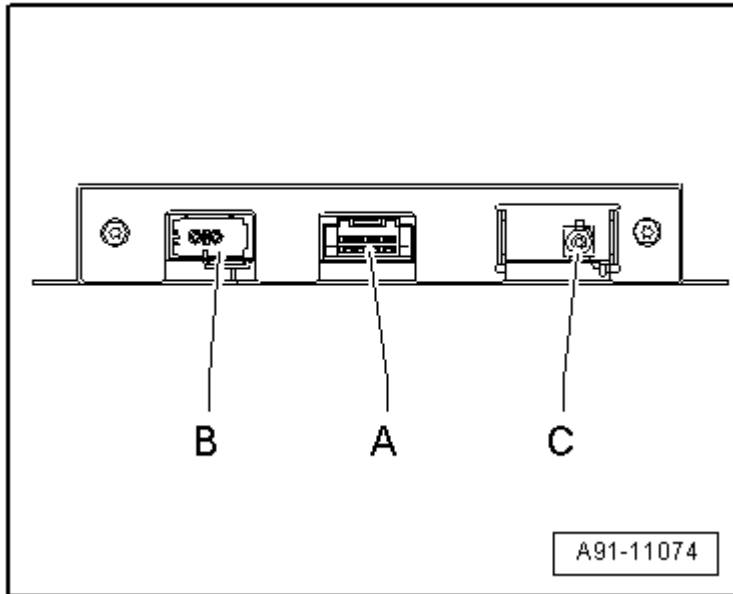
1. Radio Removal Tool T10057
2. External Audio Source Connection -R199-
  - MMI connectors. Refer to **MMI THROUGH 10.31.2008**.
  - Removing and installing, refer to **EXTERNAL AUDIO SOURCE CONNECTION -R199-**.
  - External Audio Source Connection -R199- (AUX IN)
  - AUX IN connectors, refer to **AUX IN CONNECTORS**.

- AUX IN, removing and installing, refer to **EXTERNAL AUDIO SOURCE CONNECTION - R199- AUX IN.**
3. Screw
    - 2 Nm
    - screw bracket
    - 2 Nm
  4. Front Information Display Control Head Control Module -J523-
    - Refer to **CONNECTORS** for connectors through 10.31.2008.
    - Removing and installing through 10.31.2008, refer to **FRONT INFORMATION DISPLAY CONTROL HEAD CONTROL MODULE -J523-, THROUGH 10.31.2008.**
  5. Multimedia System Control Head -E380-
    - Connectors, refer to **MULTIMEDIA SYSTEM CONTROL HEAD -E380- CONNECTOR.**
    - Removing and installing, refer to **MULTIMEDIA CONTROL HEAD -E380-.**
  6. Removal Wedge 3409
  7. Radio -R-
    - Refer to **RADIO CONNECTORS** for connectors through 10.31.2008.
    - Removing and installing through 10.31.2008, refer to **RADIO, MMI THROUGH 10.31.2008.**
  8. Satellite Radio -R146-
    - Refer to **SATELLITE RADIO -R146- CONNECTORS** for connectors through 10.31.2008
    - Removing and installing through 10.31.2008, refer to **SATELLITE RADIO -R146-, MMI THROUGH 10.31.2008.**
  9. Bracket
  10. Rack
  11. Bolt
    - 2 Nm
  12. Bolt
    - 2 Nm
  13. Front Information Display Control Head -J685-
    - For MMI connectors through 10.31.2008 refer to **DISPLAY CONNECTORS.**
    - Removing and installing, refer to **FRONT INFORMATION DISPLAY CONTROL HEAD - J685- (DISPLAY).**
  14. Radio Removal Tool T10057
  15. CD Changer -R41-
    - MMI connectors. Refer to **MMI CD CHANGER -R41- CONNECTORS.**
    - Removing and installing through 10.31.2008, refer to **CD CHANGER -R41- THROUGH 10.31.2008.**



1. Front Information Display Control Head -J685- in center of the instrument panel
2. Front Information Display Control Head Control Module -J523-, behind the instrument panel
3. Instrument Cluster Control Module -J285- in the instrument panel
4. Data Bus On Board Diagnostic Interface -J533- Behind the Glove Compartment On the Left Side
5. Radio -R- optional with Speech Input Control Module -J507- behind left luggage compartment side trim
6. Satellite Radio -R146- behind the left luggage compartment left side trim
7. Navigation System with CD Drive Control Module -J401- behind luggage compartment left side trim
8. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
9. Telephone Transceiver -R36- under the front passenger seat

10. Multifunction Steering Wheel
11. External Audio Source Connection -R199- in the glove compartment
12. CD Changer -R41- Inside the Instrument Panel
13. Steering Column Electronics Control Module -J527- on steering column at steering column switch
14. Multimedia Control Head -E380- in the center console

**SATELLITE RADIO -R146- CONNECTORS**

**Fig. 52: Satellite Radio -R146-**

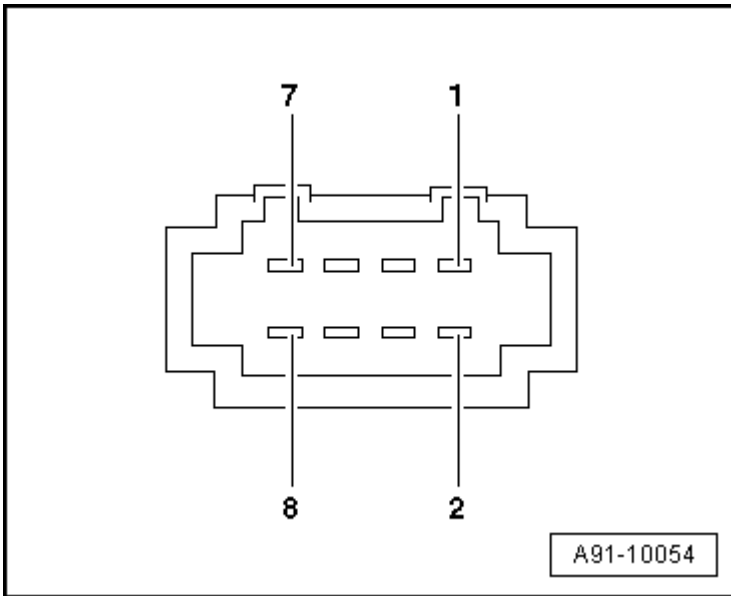
Courtesy of AUDI OF AMERICA, LLC

A - 8-pin multi-pin connector (T8p)

B - MOST bus

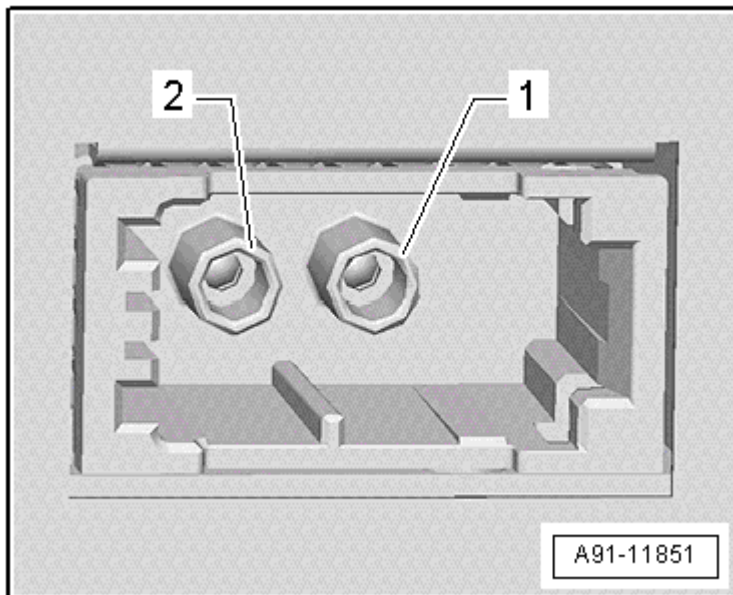
C - Radio, telephone, navigation system antenna -R52- SAT connection (satellite antenna -R170-)

**NOTE:** Unlisted connector terminals are not used.



**Fig. 53: Black 8-Pin Multi-Pin Connector**  
Courtesy of AUDI OF AMERICA, LLC

- 1 - Terminal 31
- 2 - Terminal 30
- 5 - Ring-break diagnostic cable

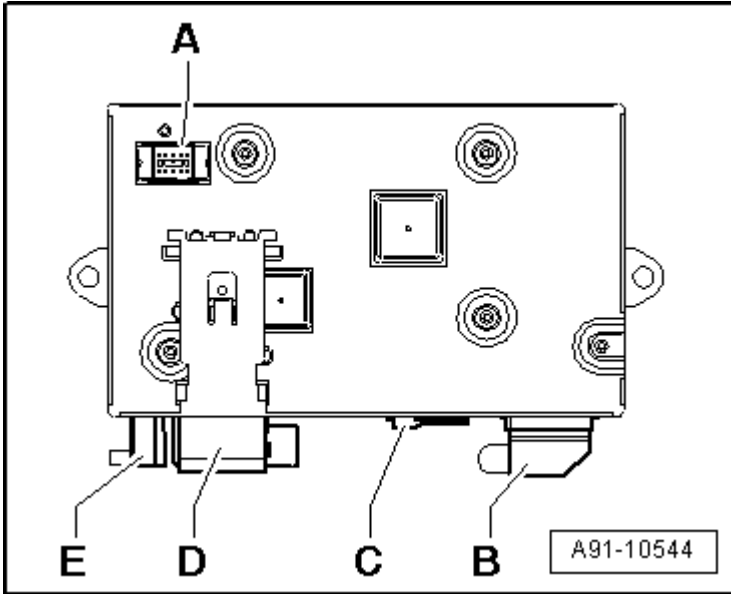


**Fig. 54: B - MOST Bus**  
Courtesy of AUDI OF AMERICA, LLC

- 1. IN

## 2. OUT

## CONNECTORS



**Fig. 55: Front Information Display Control Head Control Module -J523-**  
Courtesy of AUDI OF AMERICA, LLC

A - 10-pin connector, Japan Navigation

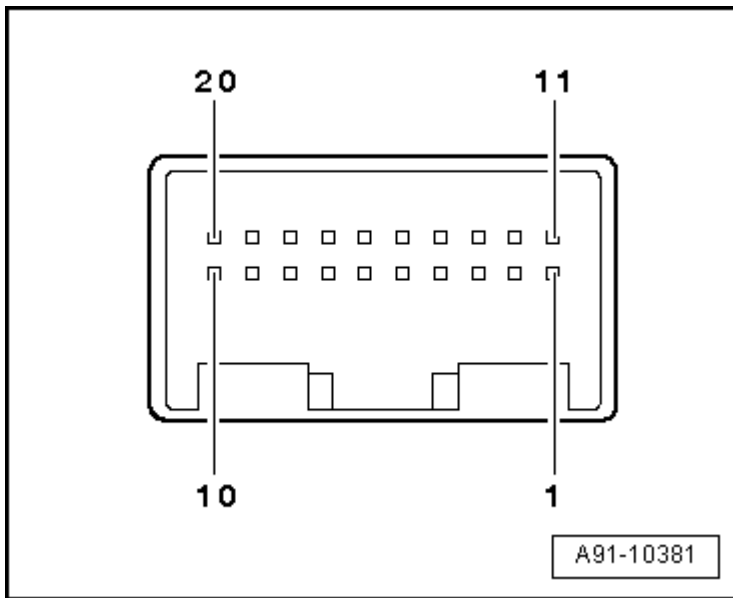
B - 20-pin connector (T20b) to the multimedia system control head -E380-

C - MOST bus

D - 22-pin connector (T22a) to the front information display control head -J685-

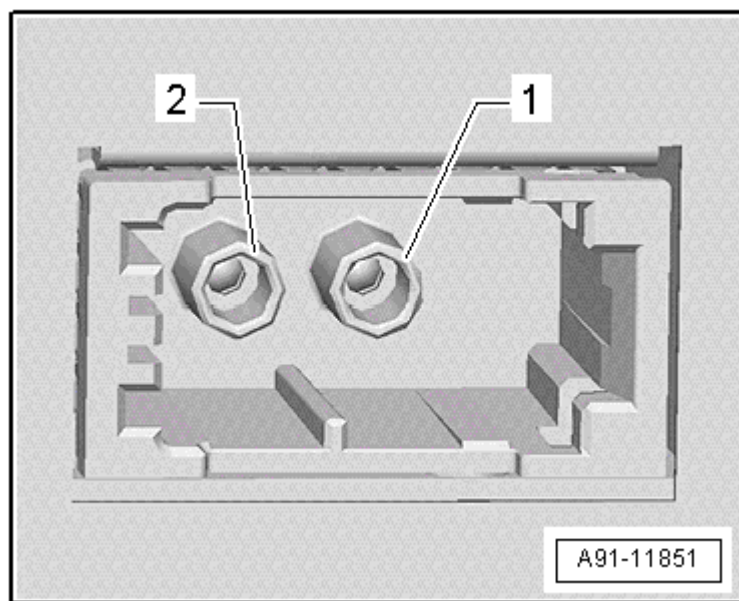
E - FBAS input from TV Tuner -R78- /Rear View Camera System Control Module -J772-

**NOTE:** Unlisted connector terminals are not used.



**Fig. 56: Red 20-Pin Multi-Pin Harness Connector**  
 Courtesy of AUDI OF AMERICA, LLC

- 1 - Terminal 30
- 2 - Terminal 31
- 3 - Ring-break diagnostic cable
- 6 - Wake UP to Multimedia Control Head -E380-
- 7 - Voltage supply to Multimedia Control Head
- 8 - Ground (GND) to Multimedia Control Head
- 13 - RESET from Multimedia Control Head
- 14 - RESET to Multimedia Control Head
- 15 - Data to the Multimedia Control Head
- 16 - Data from Multimedia Control Head
- 20 - NF mute from preliminary setup for cell phone preparation



**Fig. 57: C - MOST Bus**

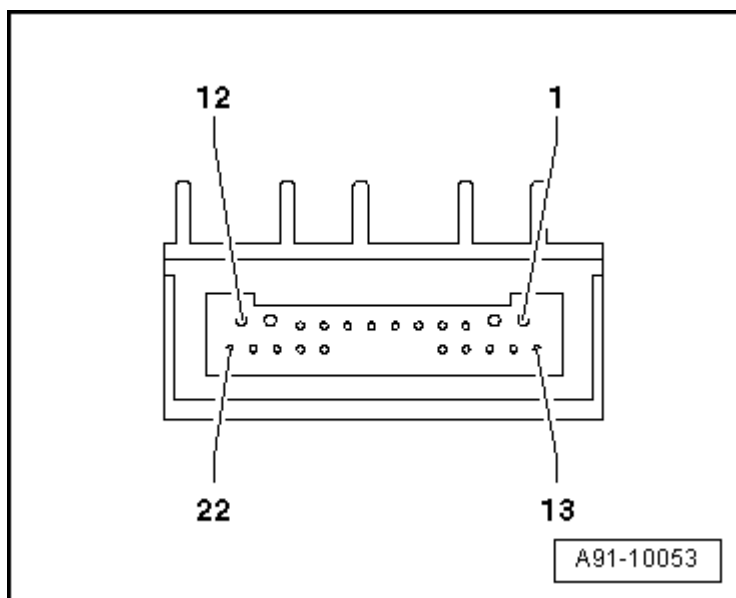
Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT

#### DISPLAY CONNECTORS

Front information display control head -J685-

**NOTE:** Unlisted connector terminals are not used.



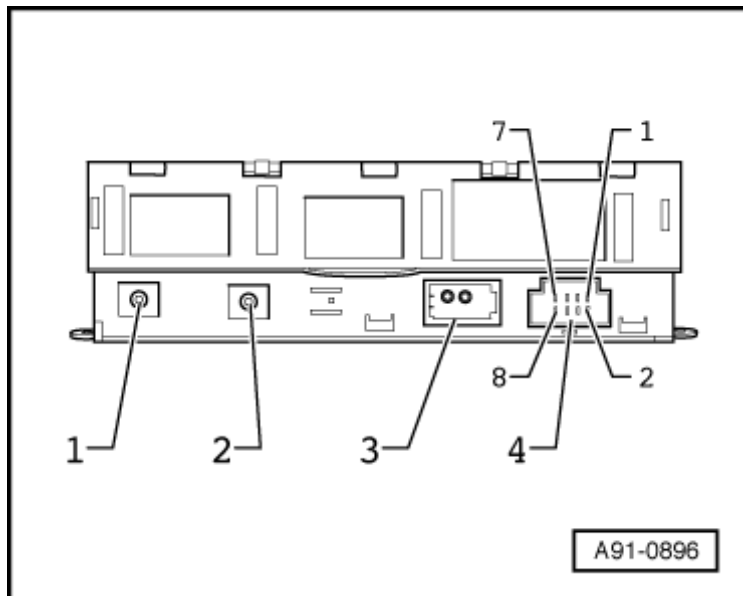
**Fig. 58: Front Information Display Control Head J685 Connectors (MMI)**

**Courtesy of AUDI OF AMERICA, LLC**

**All pins are connected to the front information display control head -J523-.**

1. Voltage Supply
2. Ground
3. Not assigned
4. Ground
5. TMP
6. Rx2 (+)
7. Rx2 (-)
8. FOTO rear
9. INV status
10. FOTO display
11. Ground
12. Ground
13. Rx0 (+)
14. Rx0 (-)
15. Ground
16. Rx1 (-)
17. Rx1 (+)
18. Rxclk (+)
19. Rxclk (-)
20. Cable Diag
21. Rx3 (-)
22. Rx3 (+)

**RADIO CONNECTORS**

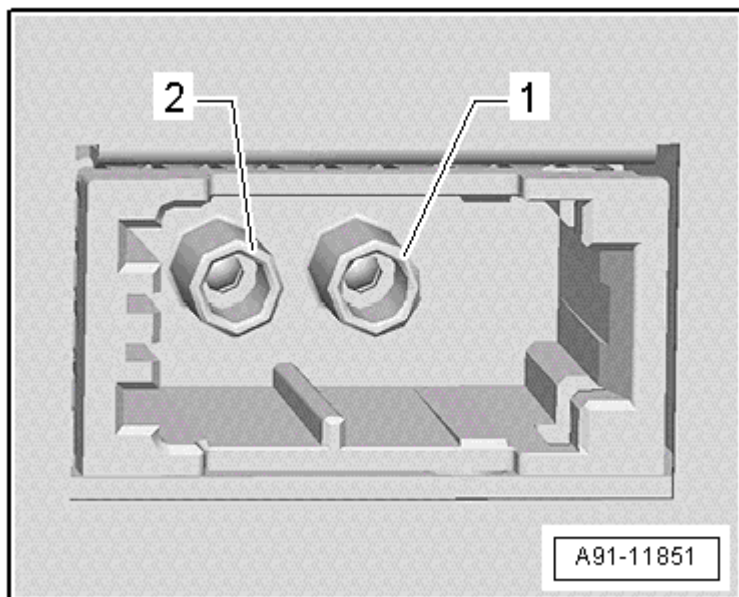


**Fig. 59: Radio -R-**

Courtesy of AUDI OF AMERICA, LLC

1. Antenna Amplifier 3 -R112- HF Connection
2. IF Connection to Antenna Amplifier 3 -R112-
3. MOST bus
4. 8-pin multi-pin connector (T8m)

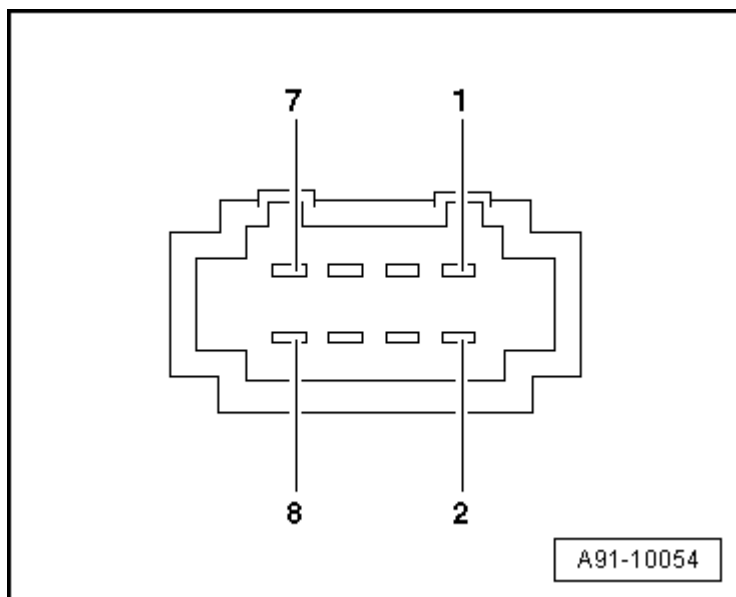
**NOTE:** Unlisted connector terminals are not used.



**Fig. 60: 3 - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT



**Fig. 61: Black 8-Pin Multi-Pin Connector**  
Courtesy of AUDI OF AMERICA, LLC

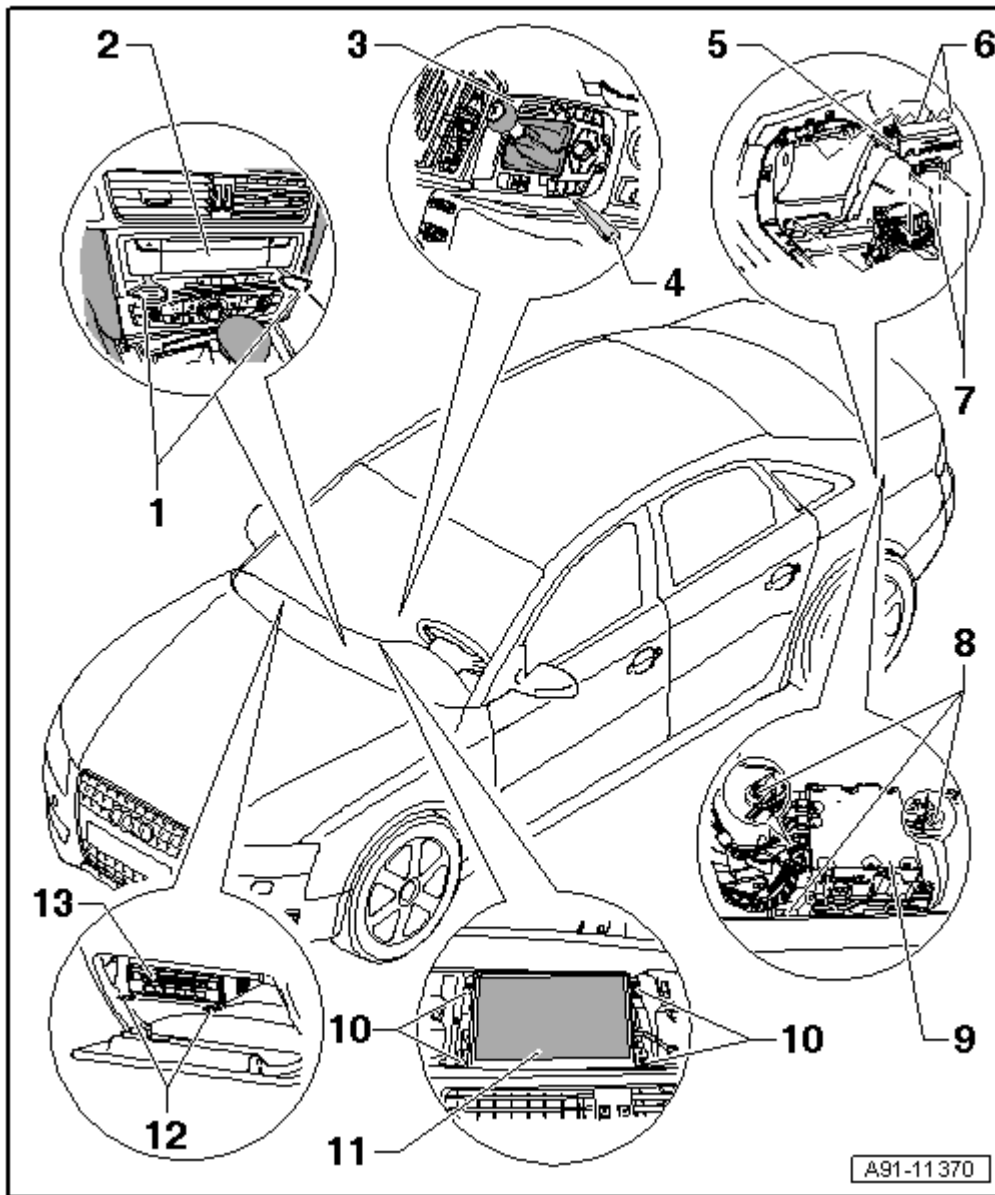
1 - Terminal 31

2 - Terminal 30

5 - Ring-break diagnostic cable

MMI OVERVIEWS AND CONNECTORS, FROM 11.03.2008

COMPONENT LOCATION OVERVIEW



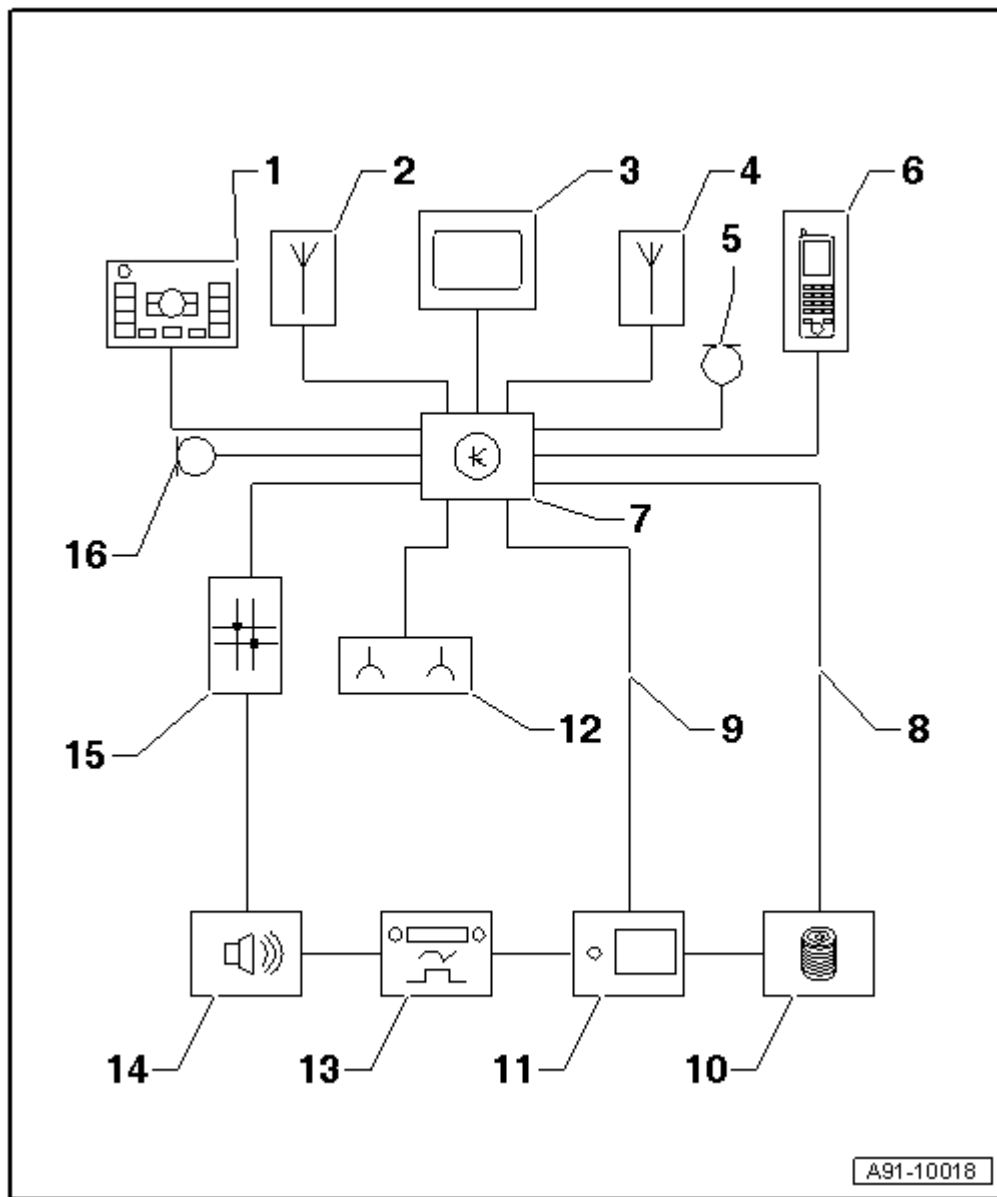
**Fig. 62: Identifying Component Location**

Courtesy of AUDI OF AMERICA, LLC

1. Radio Removal Tool T10057
2. Information Electronics Control Module 1 -J794-
  - For connectors from 11.03.2008, refer to **MAXIMUM EQUIPMENT**
  - Removing and installing, refer to **INFORMATION ELECTRONICS CONTROL MODULE 1 -J794-**
3. Multimedia System Control Head -E380-
  - Connectors, refer to **MULTIMEDIA CONTROL HEAD -E380-**.
  - Removing and installing, refer to **MULTIMEDIA CONTROL HEAD -E380-**
4. Removal Wedge 3409

5. Bracket
6. Nut
  - 3.5 Nm
7. Bolt
  - 3.5 Nm
8. Nut
  - 3.5 Nm
9. Radio -R-
  - For connectors from 11.03.2008, refer to **RADIO CONNECTORS**,
  - For removing and installing from 11.03.2008, refer to **RADIO, MMI FROM 11.03.2008**,
10. Bolt
  - 2 Nm
11. Front Information Display Control Head -J685-
  - For MMI connectors from 11.03.2008, refer to **DISPLAY CONNECTORS**.
  - Removing and installing, refer to **FRONT INFORMATION DISPLAY CONTROL HEAD - J685- (DISPLAY)**.
12. Radio Removal Tool T10057
13. CD Changer -R41-
  - MMI connectors. Refer to **MMI CD CHANGER -R41- CONNECTORS**.
  - For removing and installing from 11.03.2008 refer to **CD CHANGER -R41- FROM 11.03.2008**.
  - External Audio Source Connection -R199- (Interface)
    - Connectors, refer to **INTERFACE**.
    - Removing and installing, refer to **EXTERNAL AUDIO SOURCE CONNECTION -R199-, INTERFACE**.

**SYSTEM OVERVIEW**



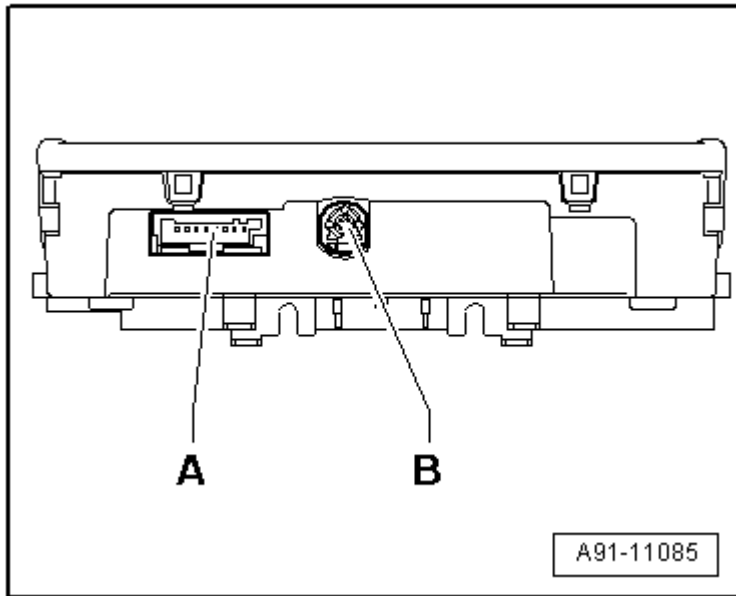
**Fig. 63: Identifying MMI, From 1 June 2009**

Courtesy of AUDI OF AMERICA, LLC

1. Multimedia Control Head -E380- in the center console
2. Radio, Telephone, Navigation System Antenna -R52- roof antenna
3. Front Information Display Control Head -J685- in center of the instrument panel
4. Radio, Telephone, Navigation System Antenna -R52- roof antenna
5. Microphone Unit In Front Roof Module -R164- (Left Front Microphone -R140-) Inside The Front Interior Lamp -W1-
6. Not Installed
7. Information Electronics Control Module 1 -J794- inside the instrument panel
8. MOST Bus

9. FBAS Wire
10. CD Changer -R41- inside the glove compartment
11. Not Installed
12. External Audio Source Connection -R199- (AUX IN socket) in the center console storage compartment
13. Radio -R- behind the left luggage compartment left side trim
14. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
15. Data Bus On Board Diagnostic Interface -J533- Behind the Glove Compartment On the Left Side
16. Microphone Unit In Front Roof Module -R164- (Right Front Microphone -R141-) Inside The Front Interior Light -W1-

#### DISPLAY CONNECTORS

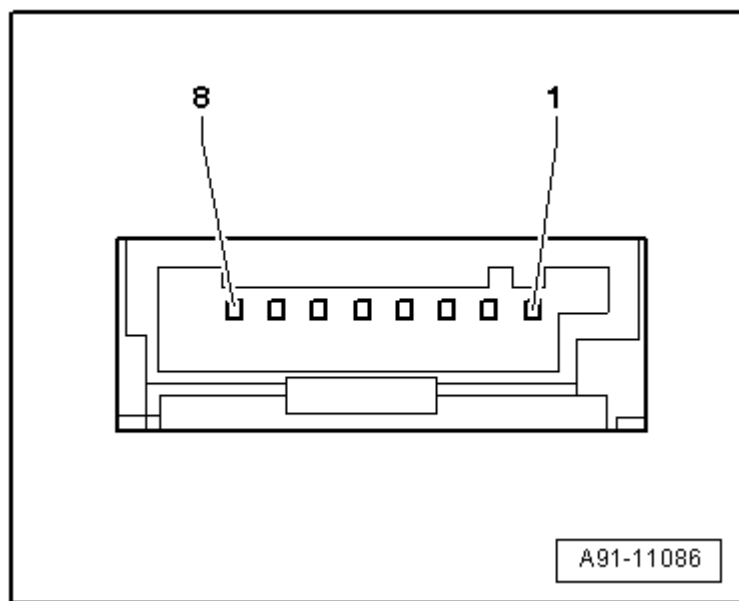


**Fig. 64: Front Information Display Control Head -J685-**  
Courtesy of AUDI OF AMERICA, LLC

A - 8-pin multi-pin connector (T8ai)

B - 4-pin connector (T4an/T4ao) from information electronics control module 1 -J794-

**NOTE:** Unlisted connector terminals are not used.

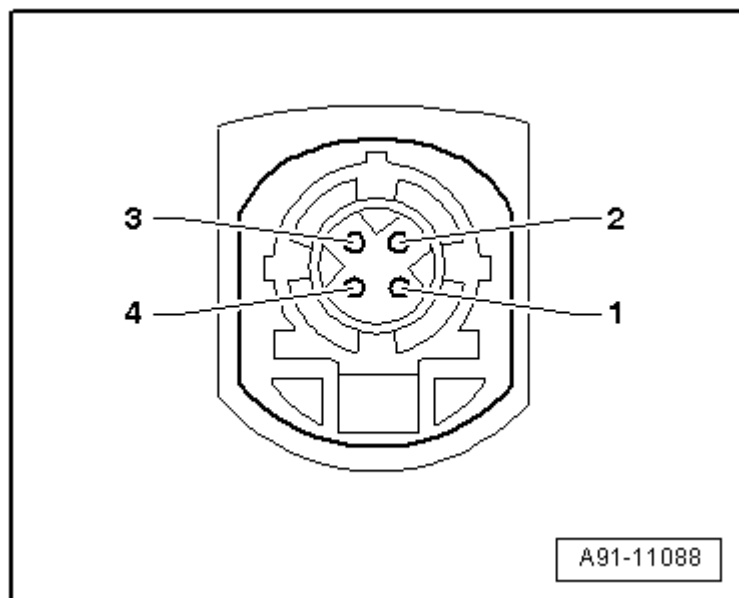


**Fig. 65: A - 8-Pin Connector (T8ai)**

Courtesy of AUDI OF AMERICA, LLC

4 - Terminal 30

5 - Terminal 31



**Fig. 66: B - 4-Pin Connector (T4an/T4ao)**

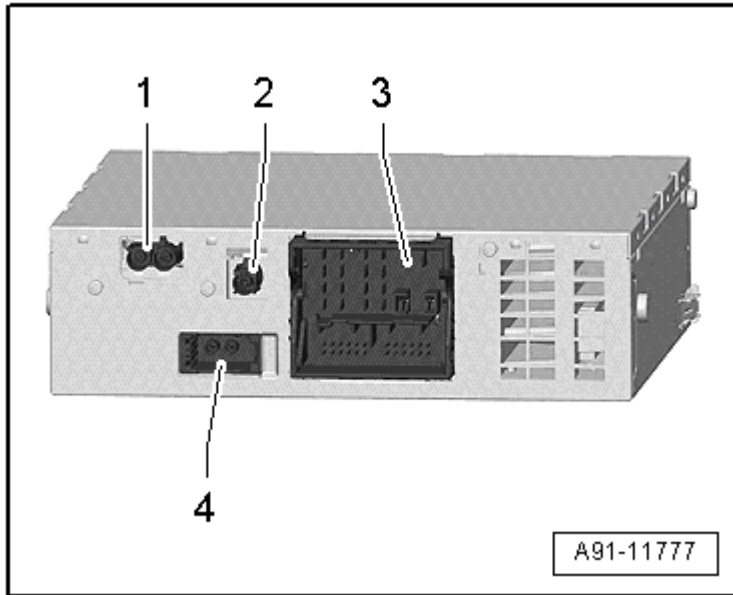
Courtesy of AUDI OF AMERICA, LLC

All pins are connected to the information electronics control module 1 -J794-.

1. LVDS (-)

2. LIN
3. LVDS (+)
4. Ground

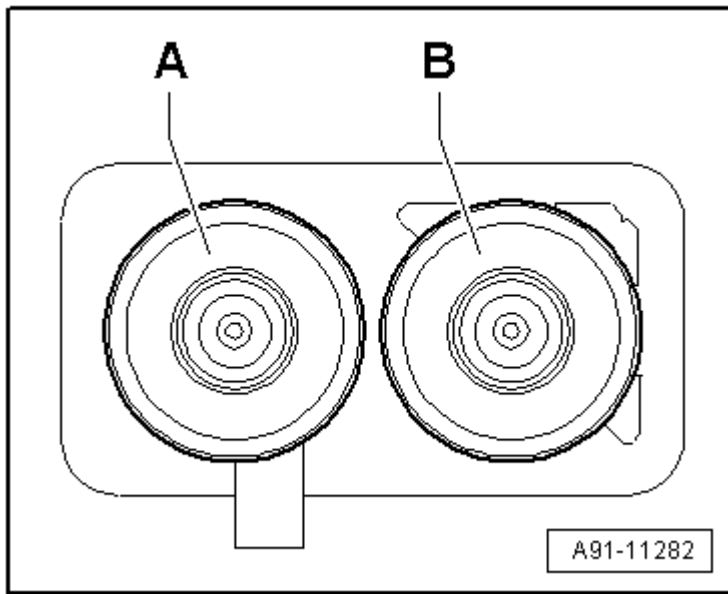
#### RADIO CONNECTORS



**Fig. 67: Radio -R-**  
Courtesy of AUDI OF AMERICA, LLC

1. (AM/FM1/FM2) antenna jack
2. Radio, telephone, navigation system antenna -R52- SAT connection (satellite antenna -R172-)
3. Connection Block with Four Connectors
4. MOST bus

**NOTE:** Unlisted connector terminals are not used.



**Fig. 68: 1 - AM/FM1/FM2 Antenna Connection**  
Courtesy of AUDI OF AMERICA, LLC

**Sedan**

A - Chamber 2 (AM/FM1) antenna amplifier 3 -R112- (radio antenna 2 -R93-)

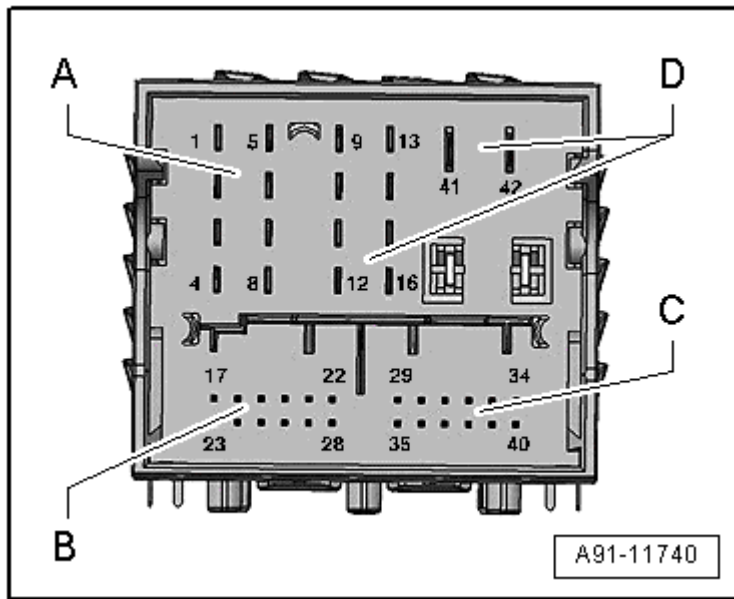
B - FM2 connector 1 from antenna amplifier 3 -R112- (antenna -R11-)

**Avant**

A - Chamber 2 (AM/FM1) antenna amplifier 3 -R112- (radio antenna 2 -R93-)

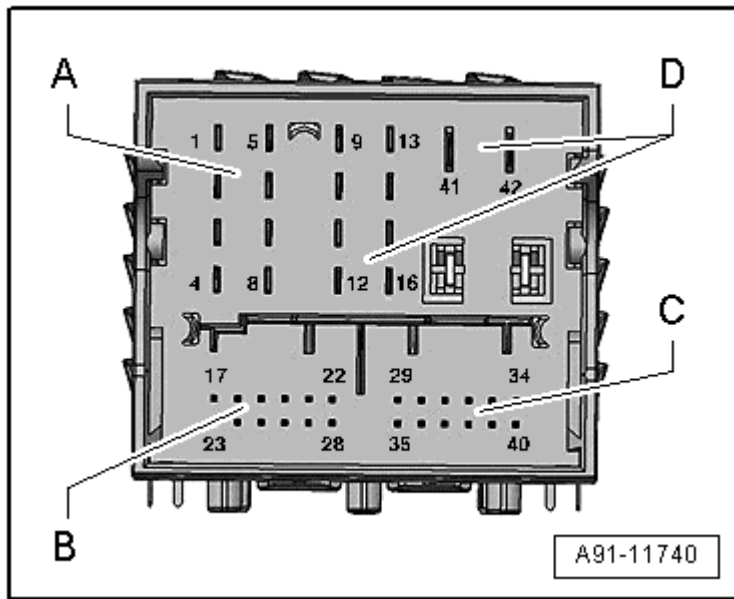
B - Chamber 1 (FM2) antenna amplifier -R24- (antenna -R11-)

3 - Connection Block With Four Connectors



**Fig. 69: A - 8-Pin Multi-Pin Connector (T8ag)**  
Courtesy of AUDI OF AMERICA, LLC

1. Right rear speaker (+)
2. Right front speaker (+)
3. Left front speaker (+)
4. Left rear speaker (+)
5. Right rear speaker (-)
6. Right front speaker (-)
7. Left front speaker (-)
8. Left rear speaker (-)



**Fig. 70: B - 12-Pin Connector (T12w)**

Courtesy of AUDI OF AMERICA, LLC

17 - Left LF-In

18 - LF-In ground

19 - LF-In diag

21 - LF diag

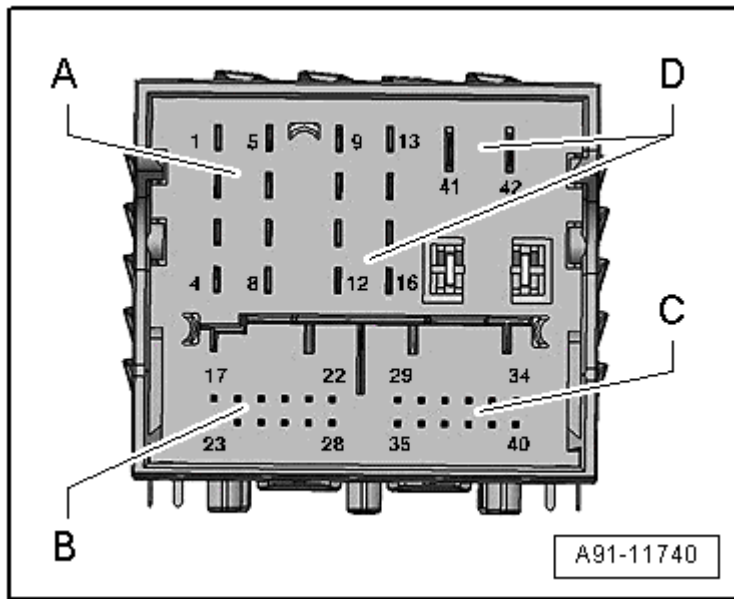
22 - LF (-) from setup for cell phone package

23 - Right LF-In

24 - LF-In ground shielding

27 - LF ground shielding

28 - LF (+) from setup for cell phone package



**Fig. 71: C - 12-Pin Connector**

Courtesy of AUDI OF AMERICA, LLC

29 - Headphones output 1 diag

31 - Headphones output 1/2 diag

34 - Headphones output 2 diag

35 - Headphones output 1 left

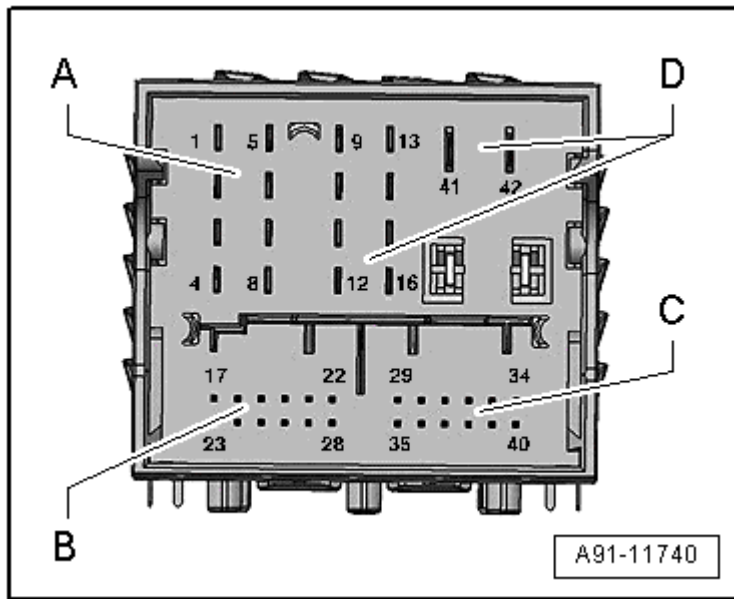
36 - Headphones output 1 ground

37 - Headphones output 1 right

38 - Headphones output 2 left

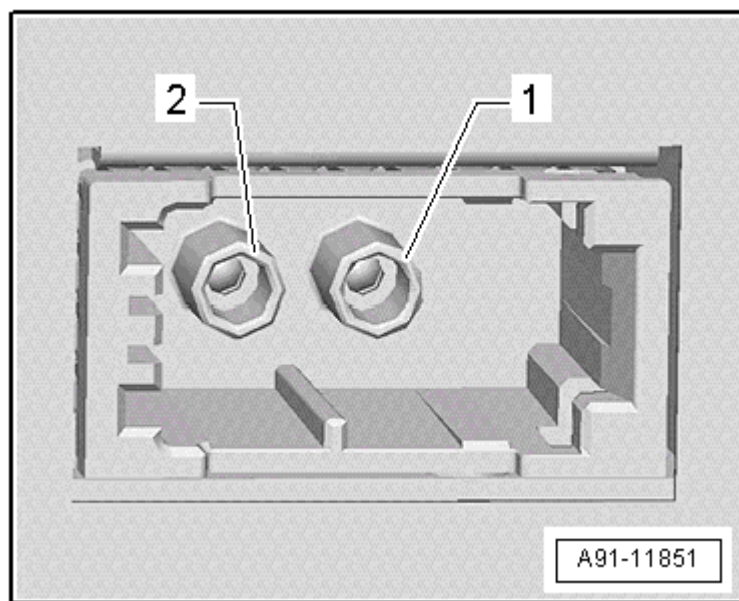
39 - Headphones output 2 ground

40 - Headphones output 1 right



**Fig. 72: D - 10-Pin Connector (T10ag)**  
 Courtesy of AUDI OF AMERICA, LLC

- 9 - Subwoofer in the rear shelf -R157-
- 10 - Center Mid/High Range Loudspeaker -R158-
- 11 - Ring-break diagnostic cable
- 13 - Subwoofer in the rear shelf -R157-
- 14 - Center Mid/High Range Loudspeaker -R158-
- 41 - Terminal 31
- 42 - Terminal 30

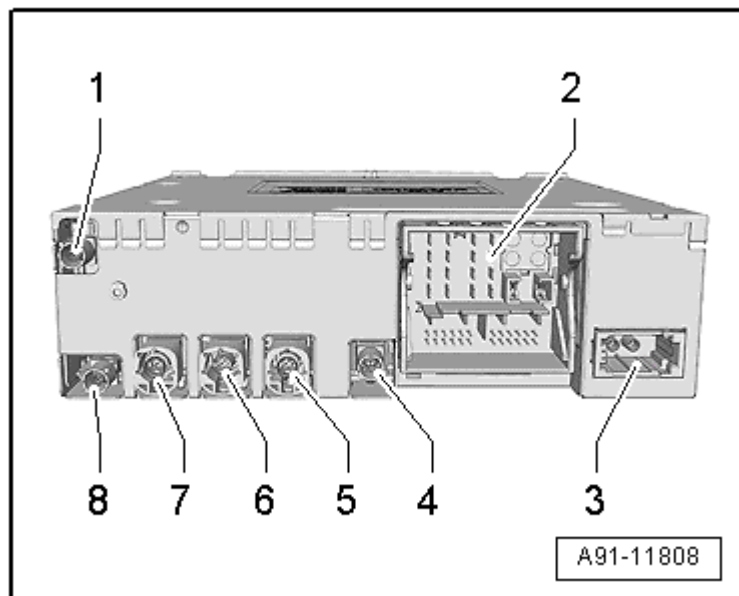


**Fig. 73: 4 - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT

**MINIMUM EQUIPMENT**



**Fig. 74: Information Electronics Control Module 1 -J794-**

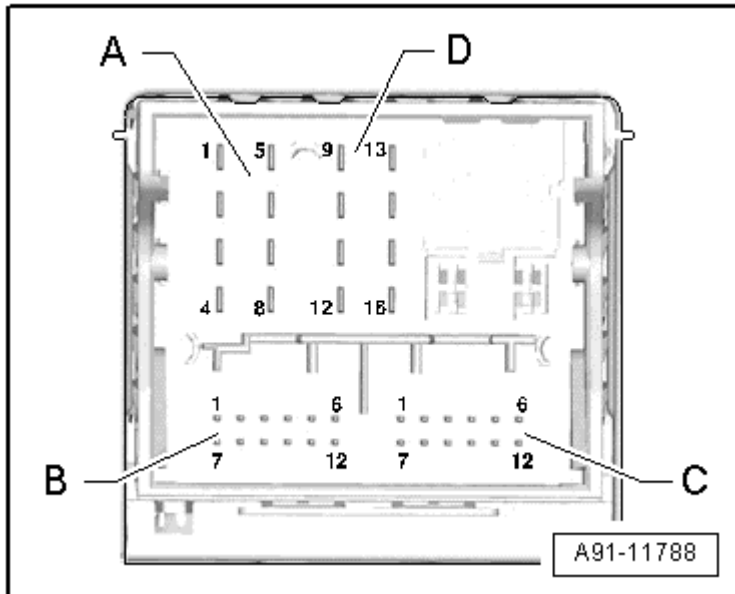
Courtesy of AUDI OF AMERICA, LLC

1. Not assigned

2. Connection Block with Four Connectors
3. MOST bus
4. Not assigned
5. 4-pin connector (T4al) to front information display control head -J685-
6. 4-pin connector (T4ap) to external audio source connection -R199-
7. Not assigned
8. Not assigned

**NOTE:** Unlisted connector terminals are not used.

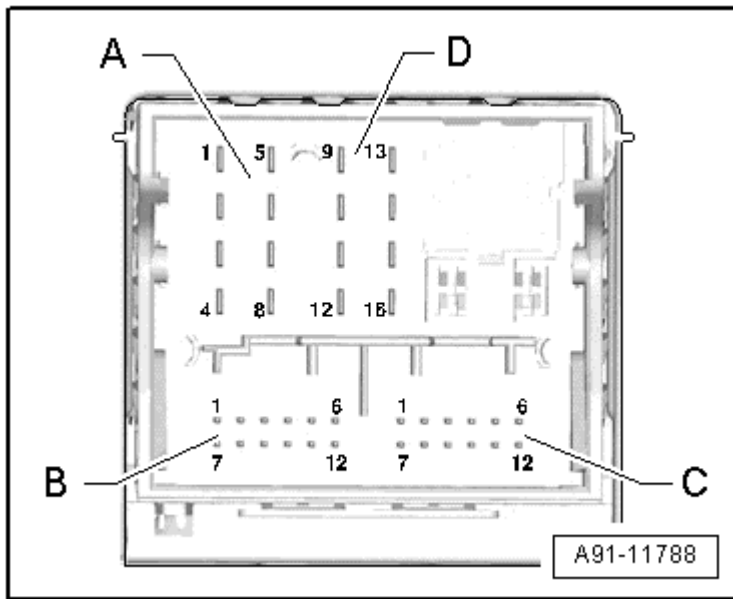
## 2 - Connection Block With Four Connectors



**Fig. 75: A - 8-Pin Multi-Pin Connector (T8ah)**

Courtesy of AUDI OF AMERICA, LLC

1. NF mute from preliminary setup for cell phone preparation
2. Voltage supply to Multimedia Control Head -E380-
3. Wake UP to Multimedia Control Head -E380-
4. Not assigned
5. Not assigned
6. Res MU to multimedia system control head -E380-
7. Ring-break diagnostic cable



**Fig. 76: B - 12-Pin Connector (T12x)**

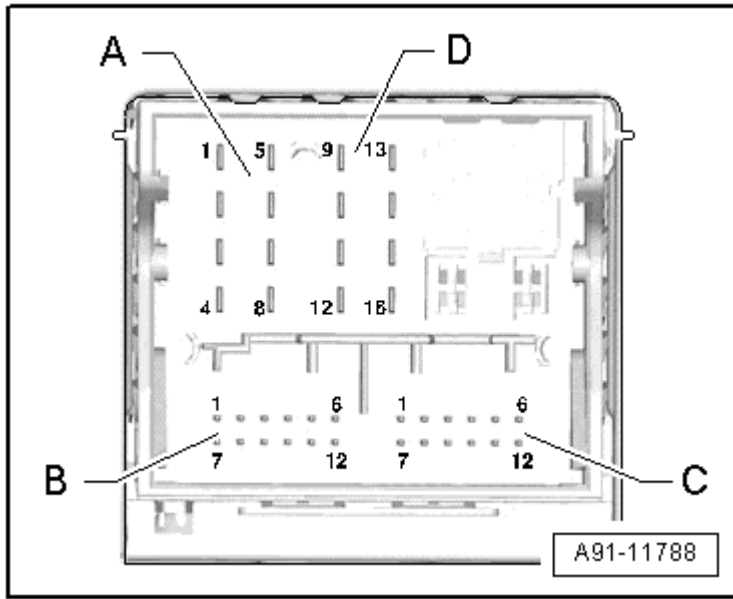
Courtesy of AUDI OF AMERICA, LLC

#### **LHD vehicle**

- 8 - Microphone IN (+) for the microphone unit in front roof module -R164- (left front microphone -R140-)
- 9 - Microphone IN (-) for the microphone unit in front roof module (left front microphone)

#### **RHD vehicle**

- 8 - Microphone IN (+) for the microphone unit in front roof module (right front microphone -R141-)
- 9 - Microphone IN (-) for the microphone unit in front roof module (right front microphone)

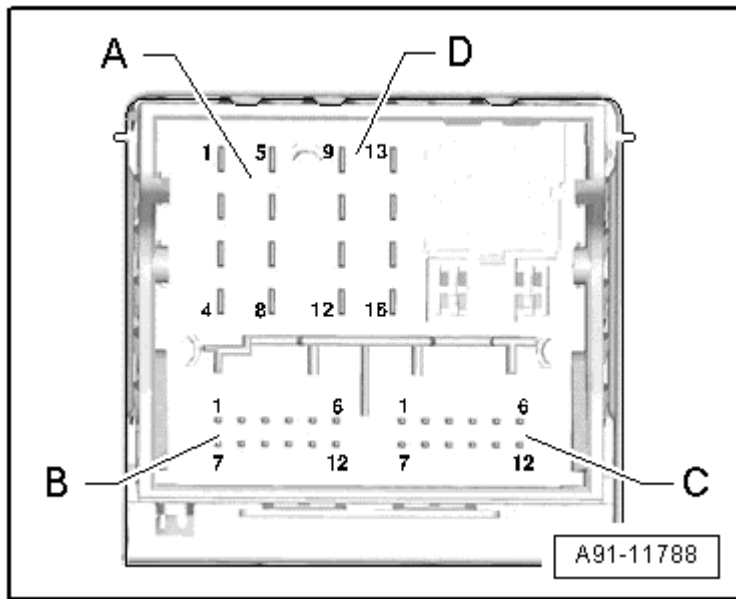


**Fig. 77: C - 12-Pin Connector (T12y)**

Courtesy of AUDI OF AMERICA, LLC

**All pins are connected to the external audio source connection -R199-.**

1. LF-In ground
2. Right LF-In
3. USB (+5V)
4. USB (ground)
5. Not assigned
6. Detect
7. Left LF-In
8. LF-In ground shielding
9. FBAS wire (+)
10. FBAS wire (-)
11. iPod data
12. iPod data



**Fig. 78: D - 8-Pin Connector (T16q)**

Courtesy of AUDI OF AMERICA, LLC

10 - Data from multimedia system control head -E380-

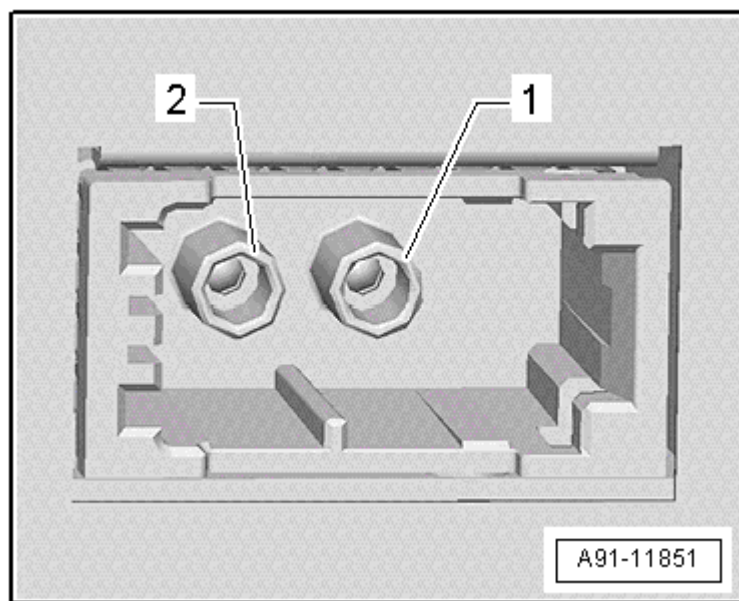
11 - Data to the multimedia system control head

12 - Terminal 31

14 - Res BT from multimedia system control head

15 - Terminal 30

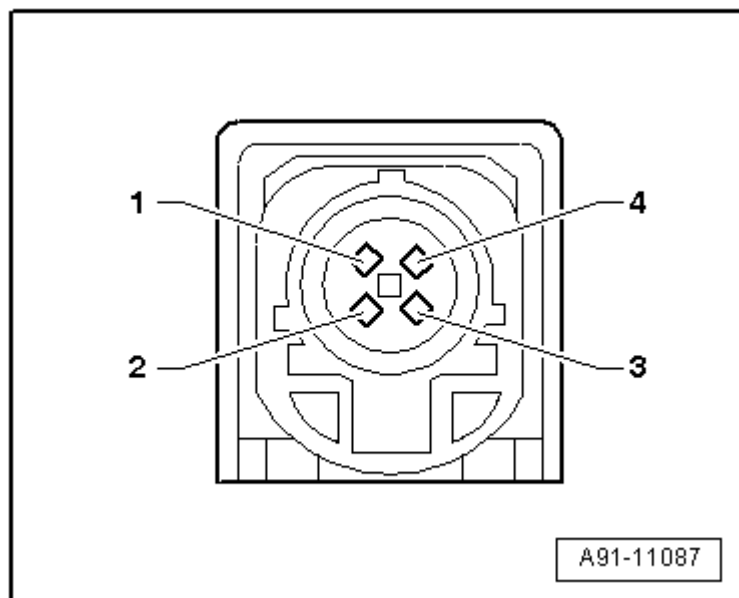
16 - Ground (GND) to multimedia system control head



**Fig. 79: 3 - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT



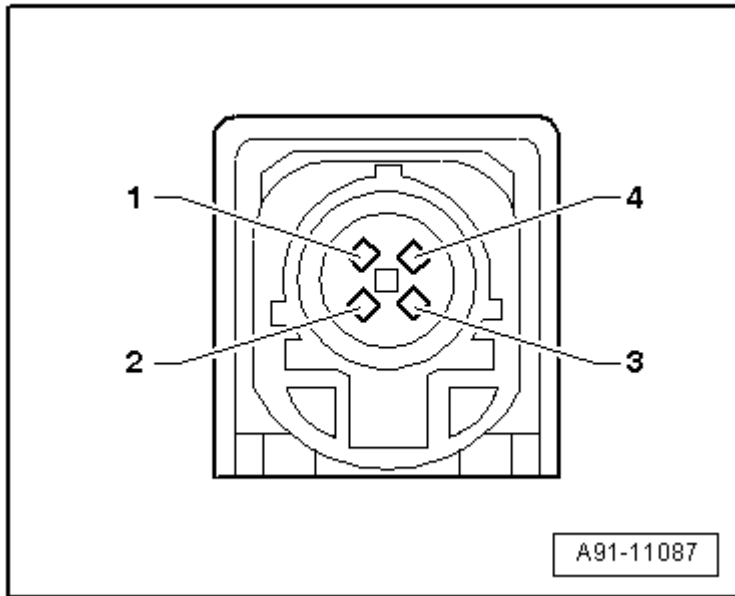
**Fig. 80: 5 - 4-Pin Connector (T4a1)**

Courtesy of AUDI OF AMERICA, LLC

All pins are connected to the front information display control head -J685-.

1. LVDS (-)

2. LIN
3. LVDS (+)
4. Ground



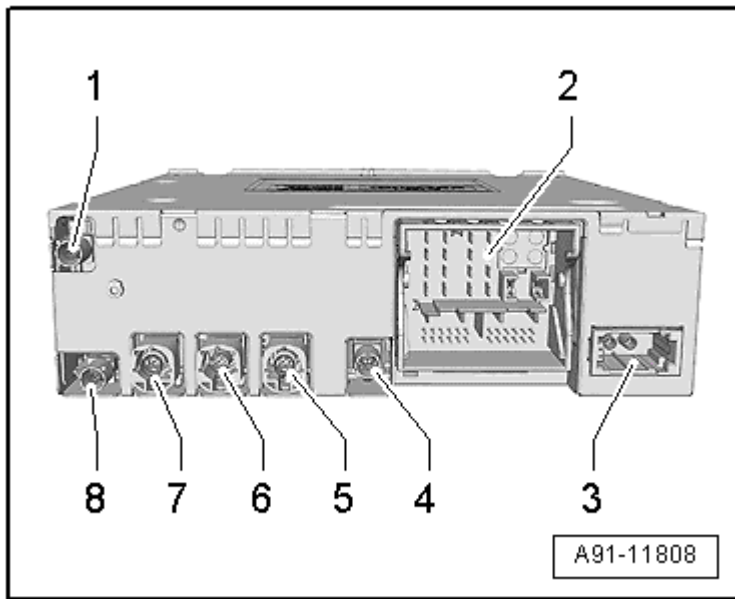
**Fig. 81: 6 - 4-Pin Connector (T4ap)**

Courtesy of AUDI OF AMERICA, LLC

**All pins are connected to the external audio source connection -R199-.**

1. D (+)
2. iPod recognized
3. D (-)
4. Ground

**MAXIMUM EQUIPMENT**

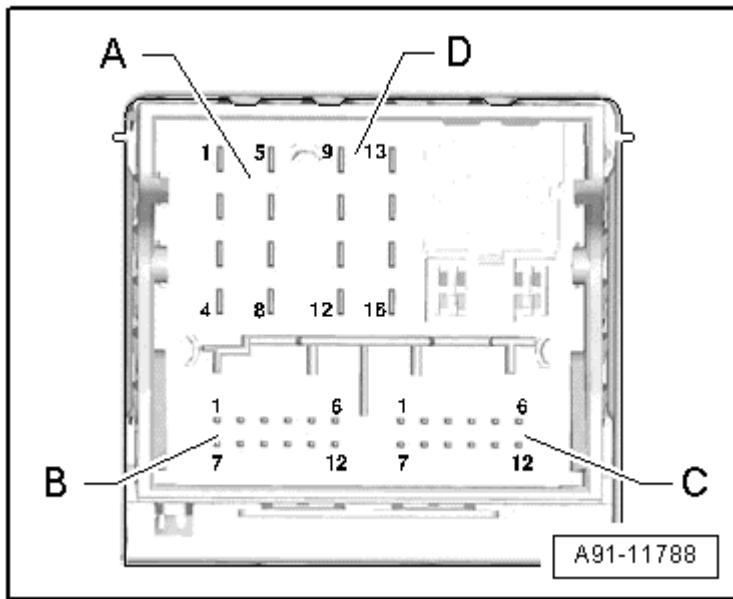


**Fig. 82: Information Electronics Control Module 1 -J794-**  
Courtesy of AUDI OF AMERICA, LLC

1. Radio, Telephone, Navigation System Antenna -R52- GSM connection (roof antenna)
2. Connection Block with Four Connectors
3. MOST bus
4. FBAS input from TV Tuner -R78-
5. 4-pin connector (T4am) to front information display control head -J685-
6. 4-pin connector (T4ap) for the external audio source connection -R199- /internet access control module - J666- (from MY 13)
7. Not assigned
8. Radio, Telephone, Navigation System Antenna -R52- GPS connection (roof antenna)

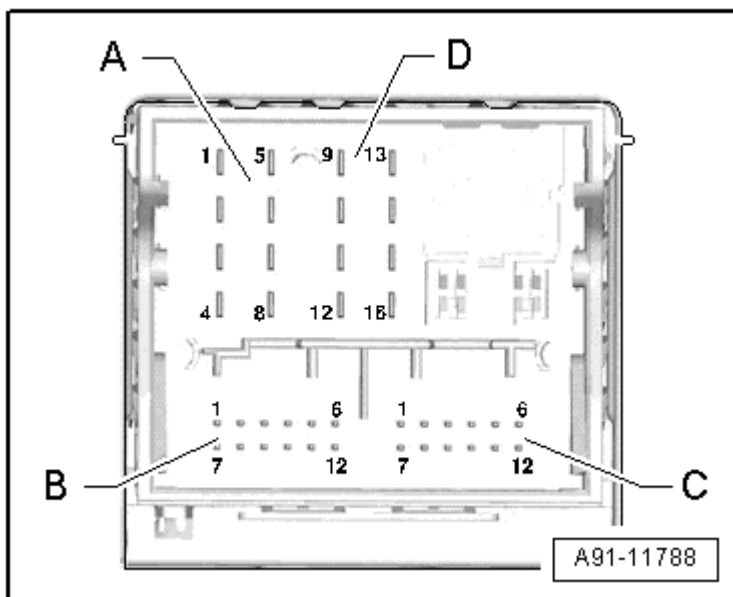
**NOTE:** Unlisted connector terminals are not used.

## 2 - Connection Block With Four Connectors



**Fig. 83: A - 8-Pin Multi-Pin Connector (T8ah)**  
 Courtesy of AUDI OF AMERICA, LLC

1. NF mute from preliminary setup for cell phone preparation
2. Voltage supply to Multimedia Control Head -E380-
3. Wake UP to multimedia system control head
4. Not assigned
5. Switch-on signal for the cellular telephone amplifier -R86-
6. Res MU to multimedia system control head
7. Ring-break diagnostic cable

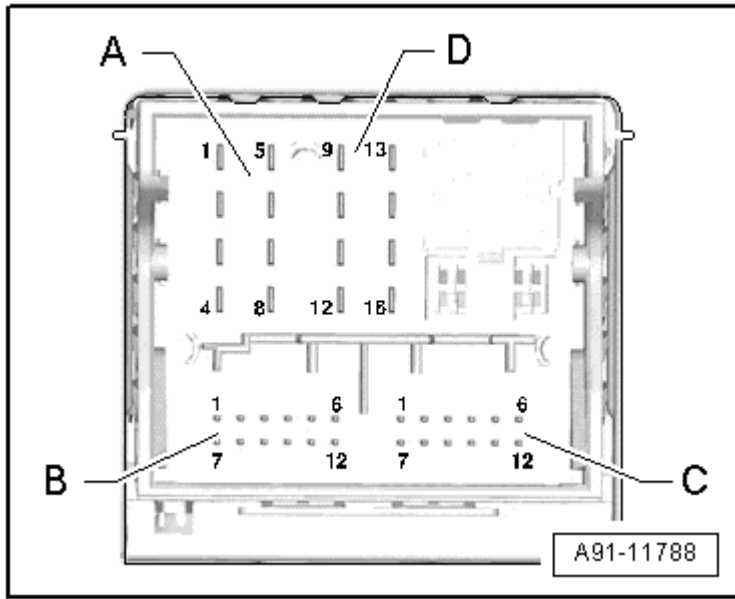


**Fig. 84: B - 12-Pin Connector (T12x)****Courtesy of AUDI OF AMERICA, LLC****LHD vehicle**

- 2 - Microphone IN (+) for the microphone unit in front roof module -R164- (right front microphone -R141-)
- 3 - Microphone IN (-) for the microphone unit in front roof module (right front microphone)
- 5 - Cable (-) for the rearview camera system control module -J772-
- 8 - Microphone IN (+) for the microphone unit in front roof module (left front microphone -R140-)
- 9 - Microphone IN (-) for the microphone unit in front roof module (left front microphone)
- 11 - Cable (+) for the rearview camera system control module

**RHD vehicle**

- 2 - Microphone IN (+) for the microphone unit in front roof module (left front microphone)
- 3 - Microphone IN (-) for the microphone unit in front roof module (left front microphone)
- 5 - Cable (-) for the rearview camera system control module
- 8 - Microphone IN (+) for the microphone unit in front roof module (right front microphone)
- 9 - Microphone IN (-) for the microphone unit in front roof module (right front microphone)
- 11 - Cable (+) for the rearview camera system control module



**Fig. 85: C - 12-Pin Connector (T12y)**

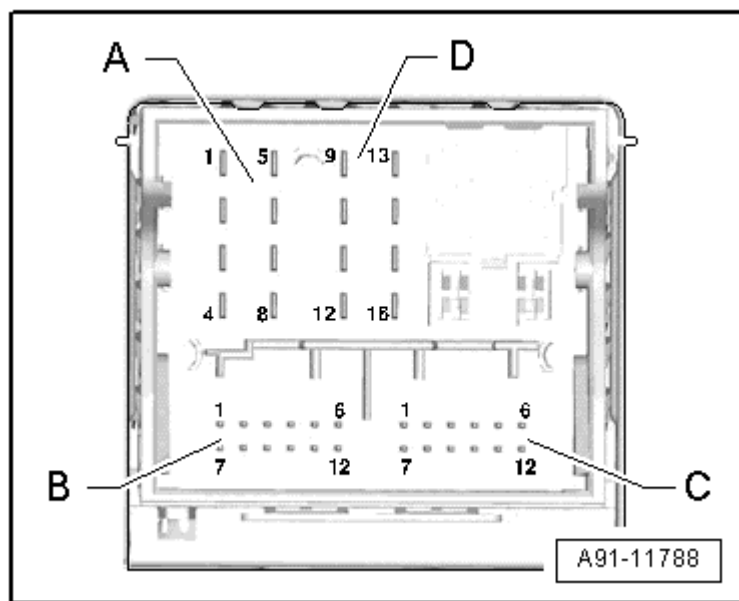
Courtesy of AUDI OF AMERICA, LLC

**All pins are connected to the external audio source connection -R199-.**

1. LF-In ground
2. Right LF-In
3. USB (+5V) not on the internet access control module -J666- (from MY 13)
4. USB (ground)
5. Not assigned
6. Detect not on the internet access control module -J666- (from MY 13)
7. Left LF-In
8. LF-In ground shielding
9. FBAS wire (+)
10. FBAS wire (-)
11. iPod data
12. iPod data

**Following pins are also still connected with the internet access control module -J666- (from MY 13).**

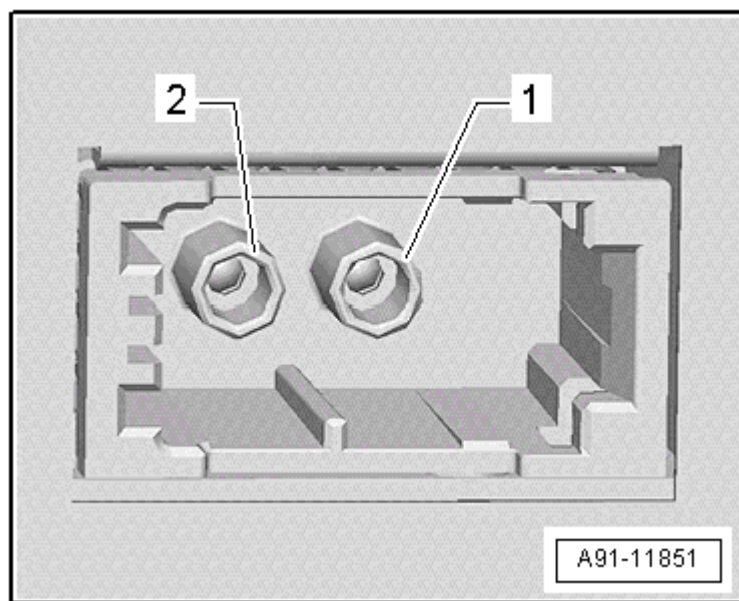
- 3 - USB (+5 V)
- 4 - USB (ground)
- 6 - Detect



**Fig. 86: D - 8-Pin Connector (T16q)**

Courtesy of AUDI OF AMERICA, LLC

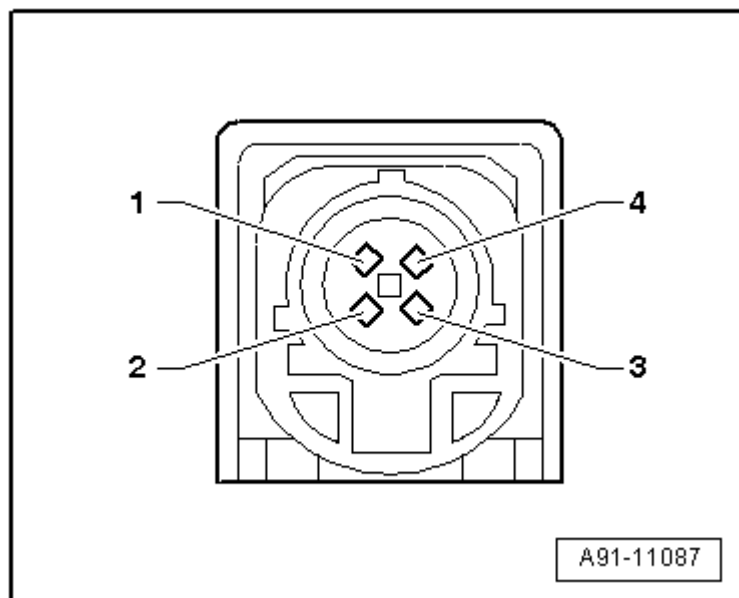
- 9 - Switch-on signal to telephone base plate -R126-
- 10 - Data from multimedia system control head -E380-
- 11 - Data to the multimedia system control head
- 12 - Terminal 31
- 13 - Telephone base plate -R126- DIAG signal
- 14 - Res BT from multimedia system control head
- 15 - Terminal 30
- 16 - Ground (GND) to multimedia system control head



**Fig. 87: 3 - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT



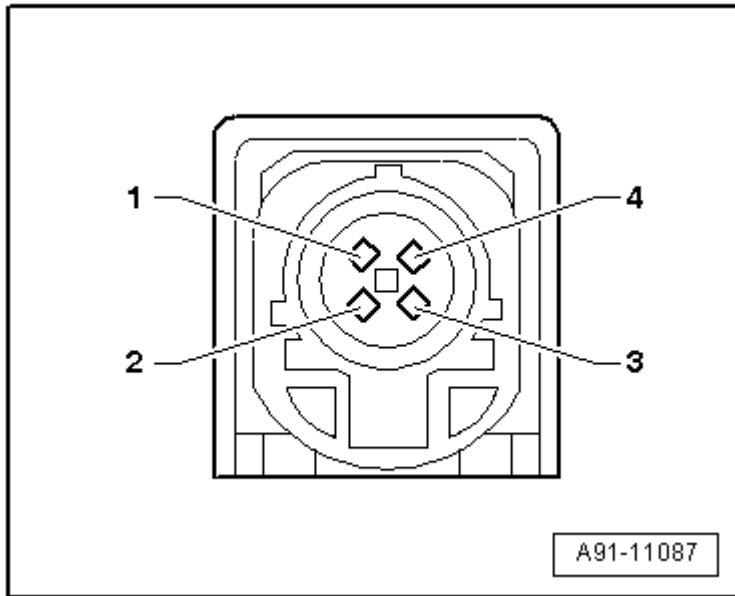
**Fig. 88: 5 - 4-Pin Connector (T4am)**

Courtesy of AUDI OF AMERICA, LLC

All pins are connected to the front information display control head -J685-.

1. LVDS (-)

2. LIN
3. LVDS (+)
4. Ground



**Fig. 89: 6 - 4-Pin Connector (T4ap)**

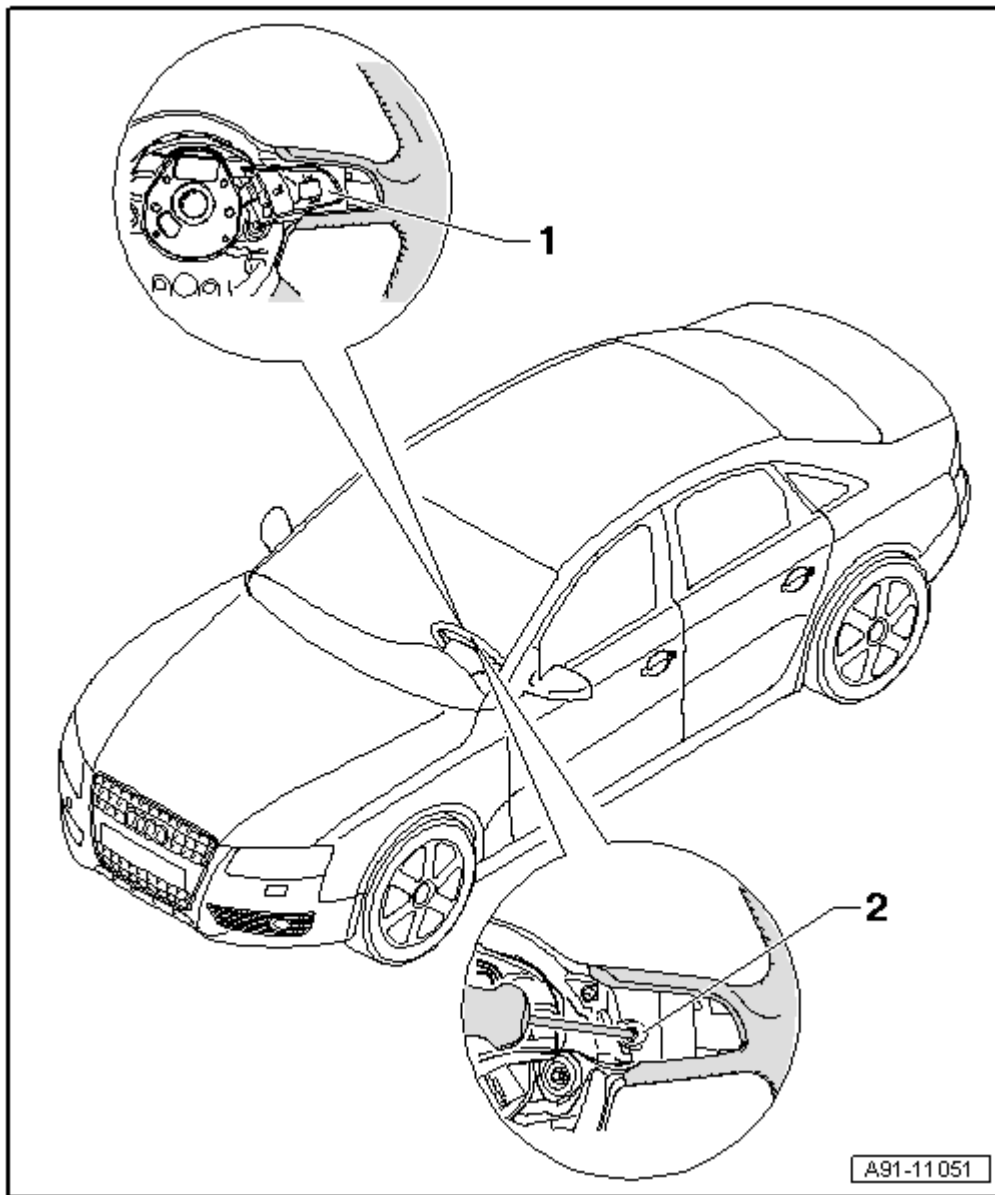
Courtesy of AUDI OF AMERICA, LLC

All pins are connected with the external audio source connection -R199- /internet access control module - J666- (from MY 13).

1. D (+)
2. iPod recognized
3. D (-)
4. Ground

#### MULTIFUNCTION STEERING WHEEL OVERVIEWS

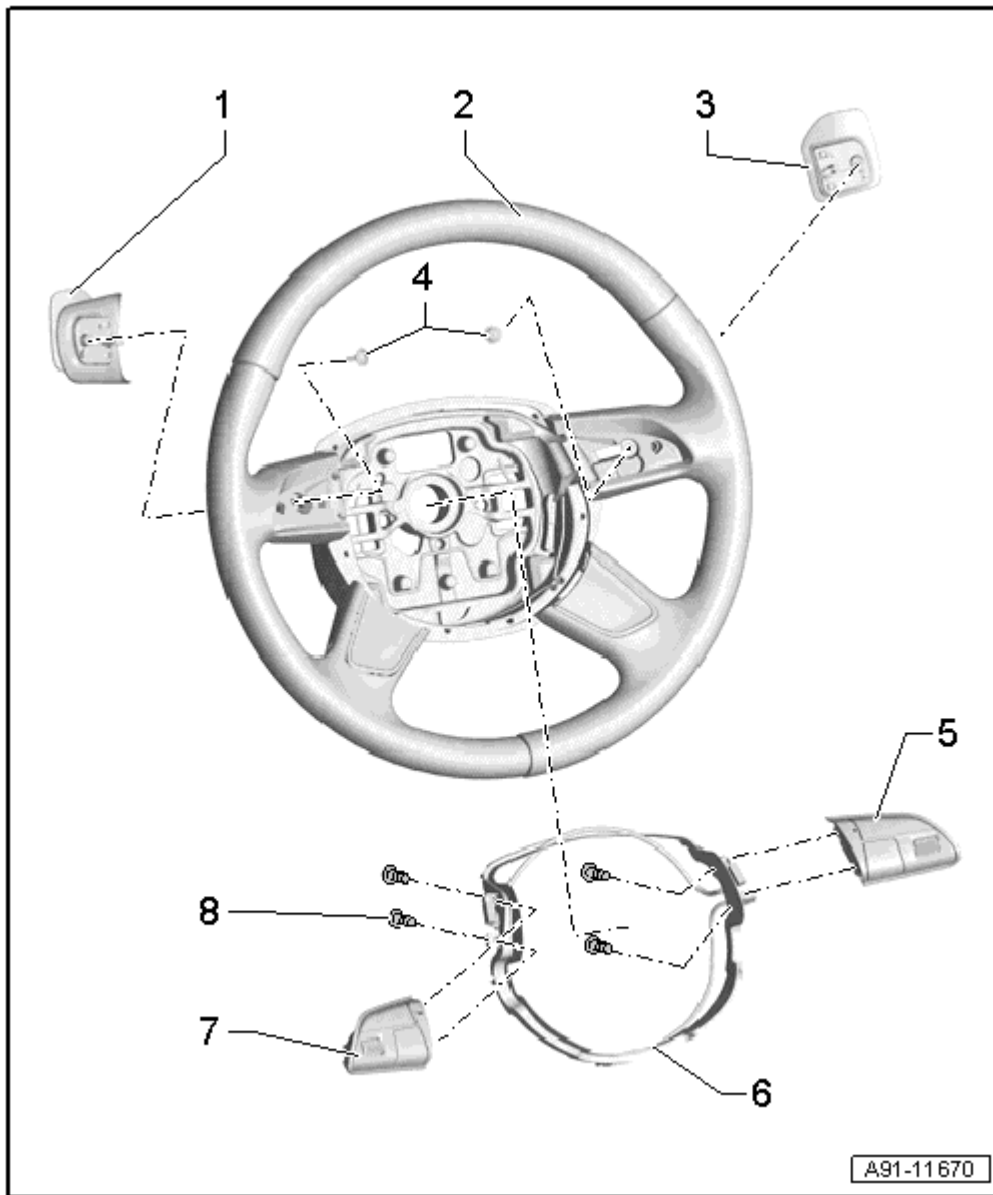
#### MULTIFUNCTION STEERING WHEEL OVERVIEW, THROUGH MY 12



**Fig. 90: Identifying Multifunction Steering Wheel**  
Courtesy of AUDI OF AMERICA, LLC

1. Multifunction Buttons
2. Screw
  - 3 Nm

4-SPOKE STEERING WHEEL OVERVIEW, FROM MY 13



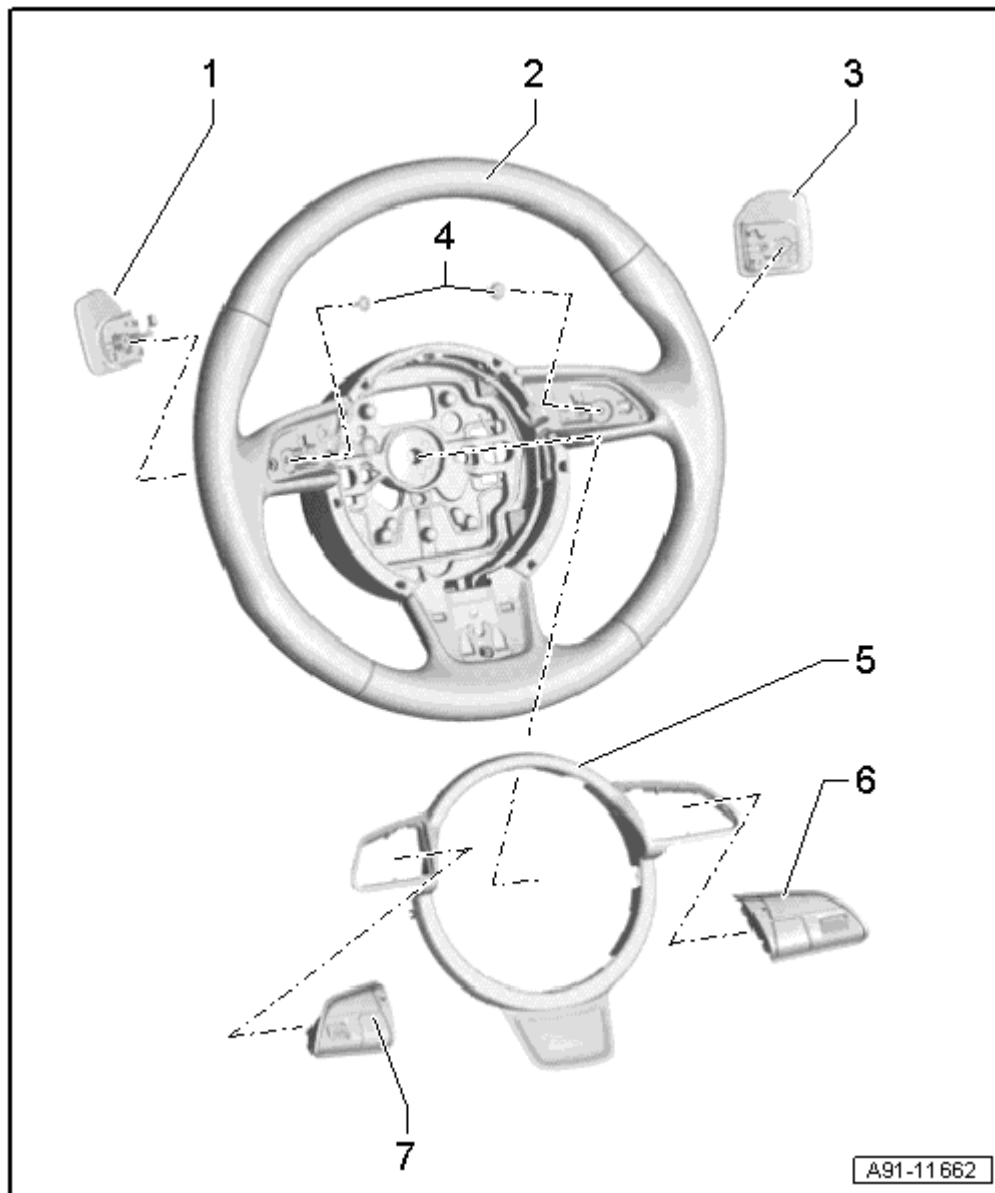
**Fig. 91: Identifying 4 Spoke Steering Wheel**

Courtesy of AUDI OF AMERICA, LLC

1. Steering Wheel Tiptronic Switch, Down -E439-
  - Removing and installing, refer to **TIPTRONIC SWITCH, FROM MY 13**
2. 4-Spoke Steering Wheel
3. Steering Wheel Tiptronic Switch, Up -E438-
  - Removing and installing, refer to **TIPTRONIC SWITCH, FROM MY 13**
4. Screw
  - 1.2 Nm
5. Right Multifunction Buttons On Steering Wheel -E441-
  - Removing and installing, refer to **MULTIFUNCTION BUTTONS, 4-SPOKE STEERING**

**WHEEL, FROM MY 13**

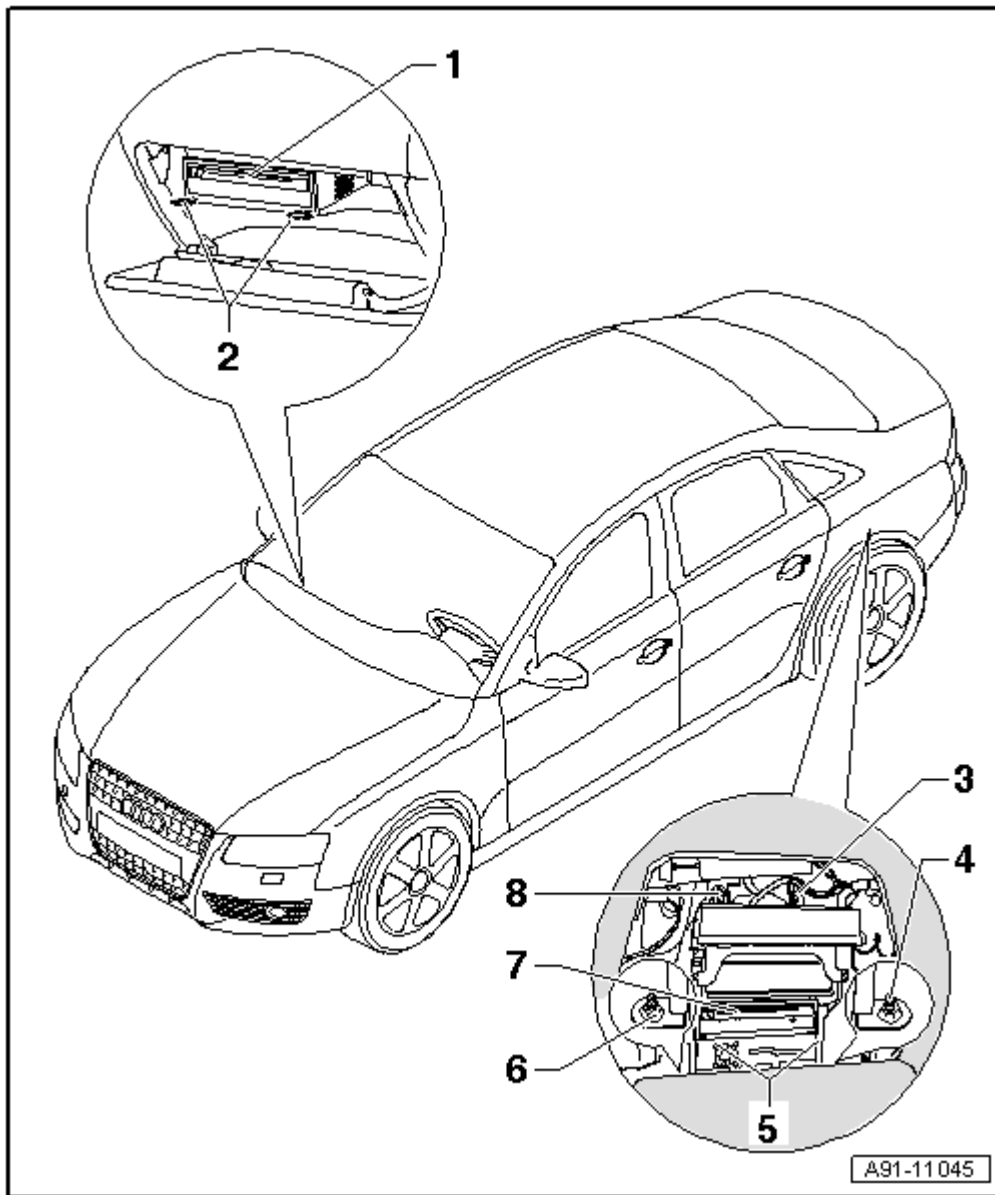
6. Trim
7. Left Multifunction Buttons On Steering Wheel -E440-
  - Removing and installing, refer to **MULTIFUNCTION BUTTONS, 4-SPOKE STEERING WHEEL, FROM MY 13**
8. Bolt
  - 1.2 Nm

**3-SPOKE STEERING WHEEL OVERVIEW, FROM MY 13**

**Fig. 92: Identifying 3 Spoke Steering Wheel**  
Courtesy of AUDI OF AMERICA, LLC

1. Steering Wheel Tiptronic Switch, Down -E439-
  - Removing and installing, refer to **TIPTRONIC SWITCH, FROM MY 13.**
2. 3-Spoke Steering Wheel
3. Steering Wheel Tiptronic Switch, Up -E438-
  - Removing and installing, refer to **TIPTRONIC SWITCH, FROM MY 13.**
4. Bolt
  - 1, 2 Nm
5. Trim
6. Right Multifunction Buttons On Steering Wheel -E441-
  - Removing and installing, refer to **MULTIFUNCTION BUTTONS, 3-SPOKE STEERING WHEEL, FROM MY 13.**
7. Left Multifunction Buttons On Steering Wheel -E440-
  - Removing and installing, refer to **MULTIFUNCTION BUTTONS, 3-SPOKE STEERING WHEEL, FROM MY 13.**

**NAVIGATION SYSTEM OVERVIEWS AND CONNECTORS****COMPONENT LOCATION OVERVIEW, THROUGH 10.31.2008**



A91-11045

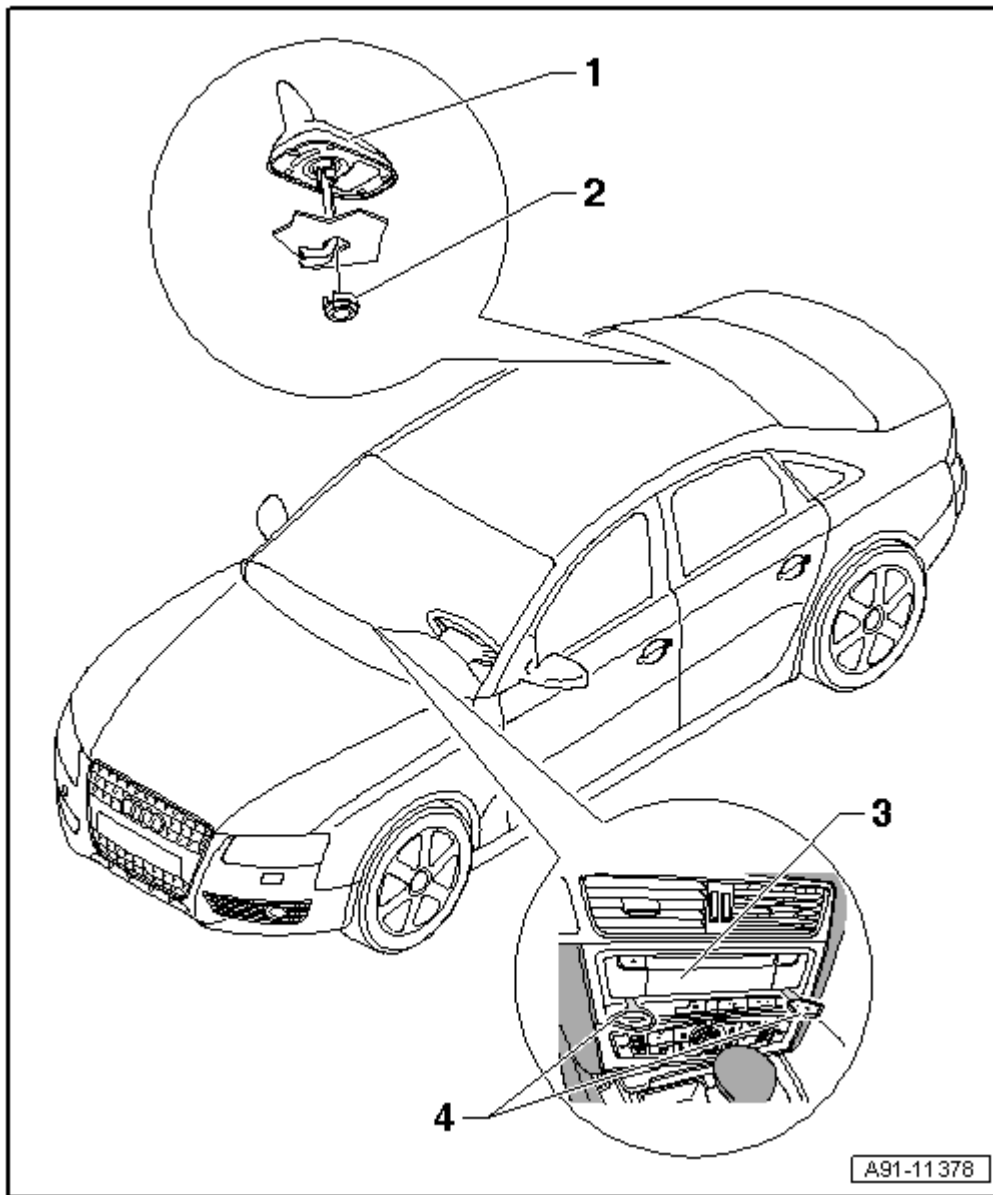
**Fig. 93: Identifying Component Location**

Courtesy of AUDI OF AMERICA, LLC

1. Navigation System with CD Drive Control Module -J401- (MMI basic plus Navigation)
  - Connector assignment, Navigation Basic Plus, refer to **NAVIGATION BASIC PLUS CONNECTORS**.
  - Removing and installing (basic plus), refer to **NAVIGATION SYSTEM WITH CD DRIVE CONTROL MODULE -J401-, MMI BASIC PLUS**.
2. Radio Removal Tool T10057
3. Nut
  - 5 Nm
4. Nut

- 5 Nm
- 5. Radio Removal Tool T10057
- 6. Nut
  - 5 Nm
- 7. Navigation System with CD Drive Control Module -J401- (MMI)
  - Connector assignment, MMI through 10.31.2008, refer to **MMI NAVIGATION CONNECTORS, THROUGH 10.31.2008.**
  - For removing and installing, MMI through 10.31.2008, refer to **NAVIGATION SYSTEM WITH CD DRIVE CONTROL MODULE -J401-, MMI THROUGH 10.31.2008.**
- 8. Nut
  - 5 Nm

**COMPONENT LOCATION OVERVIEW, FROM 11.03.2008**



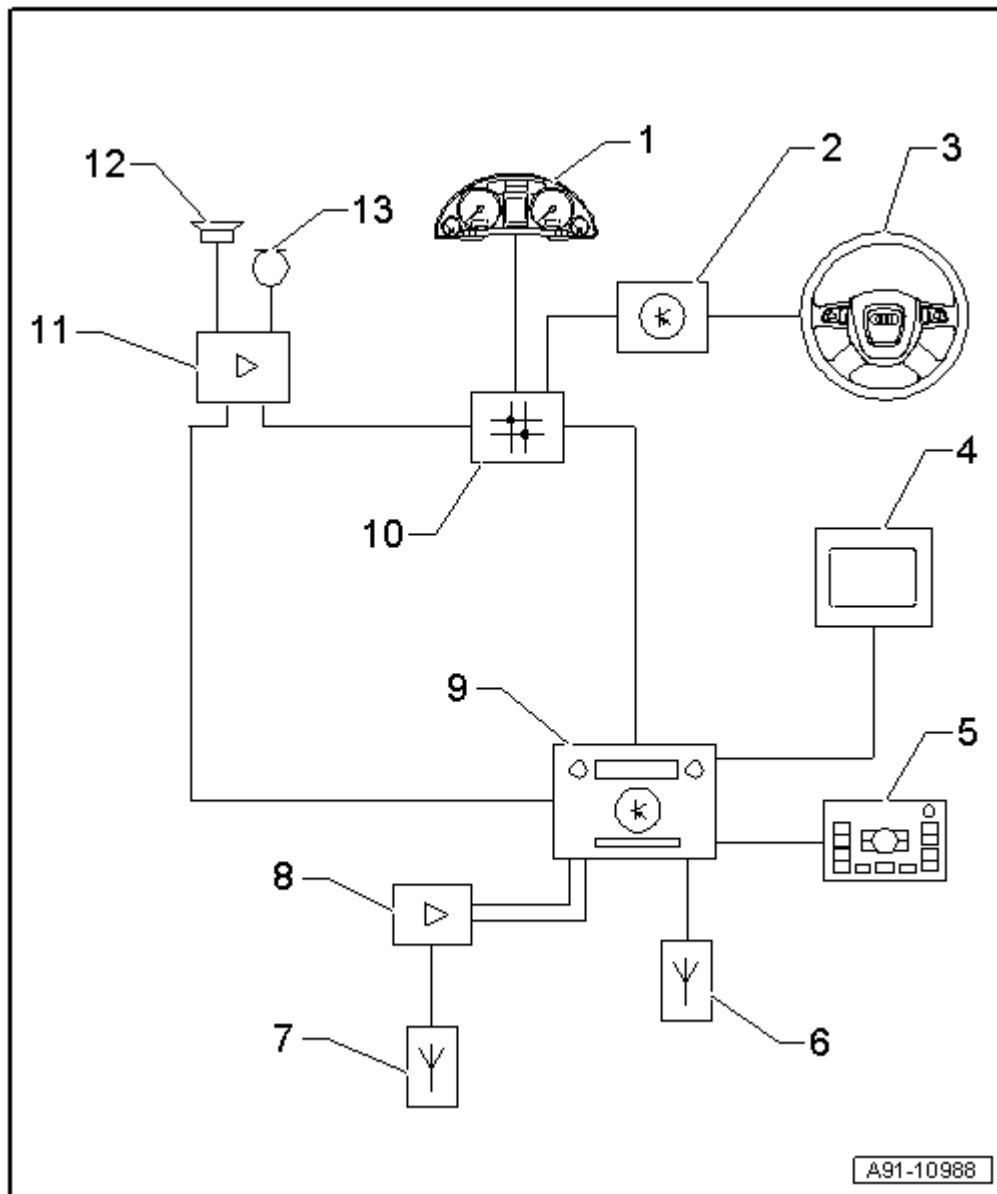
**Fig. 94: Identifying Component Location**

Courtesy of AUDI OF AMERICA, LLC

1. Radio/Telephone/Navigation System Antenna -R52-
  - Overview, Sedan, refer to **ANTENNA SYSTEM**.
  - Overview, Avant, refer to .
2. Nut
  - 6 Nm
3. Information Electronics Control Module 1 -J794-
  - Connector assignment, MMI from 11.03.2008, refer to **MMI NAVIGATION CONNECTORS, FROM 11.03.2008**.
  - Removing and installing, refer to **INFORMATION ELECTRONICS CONTROL MODULE 1 -**

**J794-**

## 4. Radio Removal Tool T10057

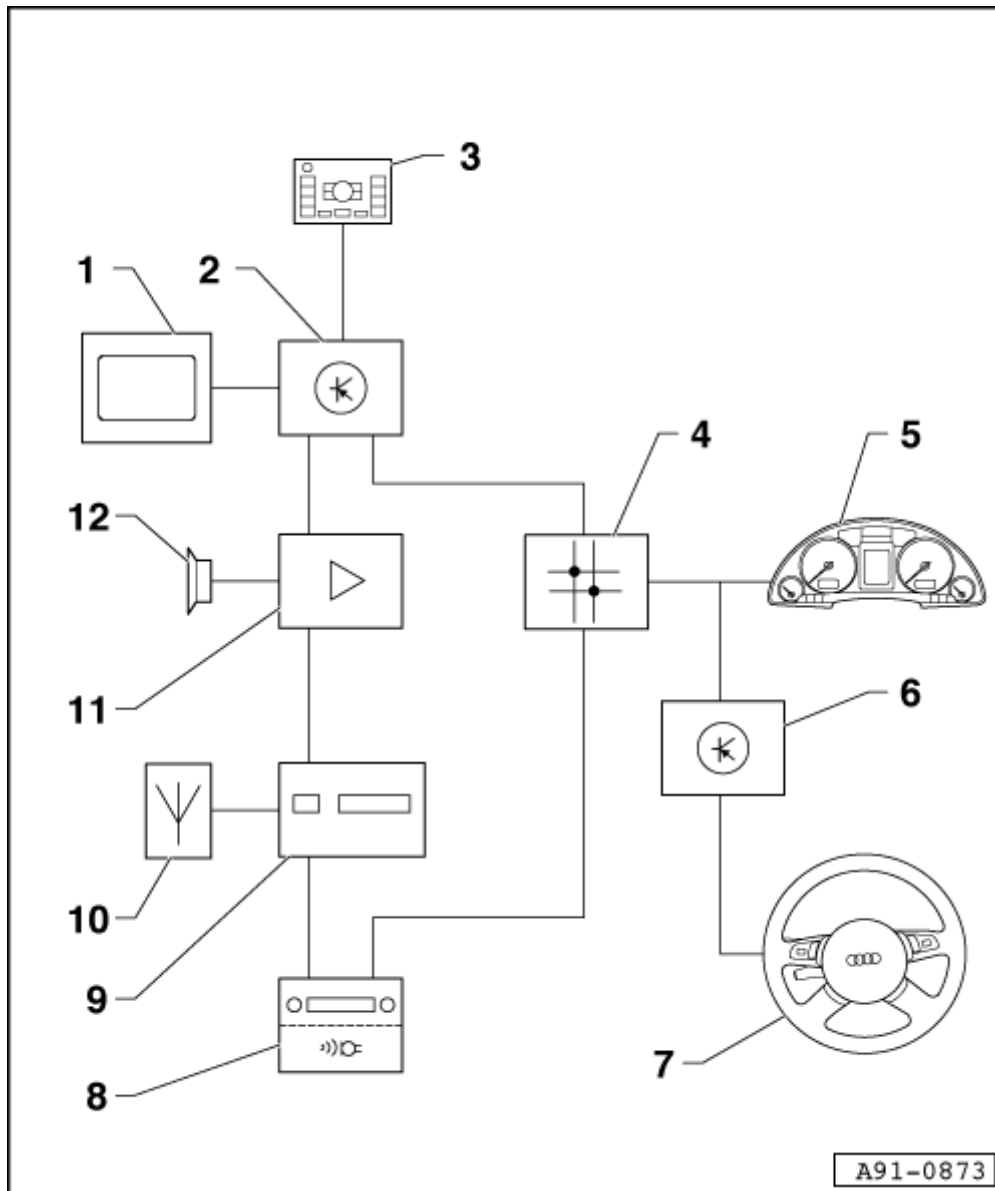
**MMI NAVIGATION, BASIC PLUS, SYSTEM OVERVIEW**

**Fig. 95: Identifying MMI Navigation**  
 Courtesy of AUDI OF AMERICA, LLC

1. Instrument Cluster Control Module -J285- in the instrument panel
2. Steering Column Electronics Control Module -J527- on steering column at steering column switch
3. Multifunction Steering Wheel
4. Front Information Display Control Head -J685- in center of the instrument panel
5. Multimedia Control Head -E380- in the center console

6. Radio, Telephone, Navigation System Antenna -R52- roof antenna
7. Window Antenna
8. Antenna Amplifier 3 -R112- Behind the left luggage compartment side trim panel
9. Navigation System With Cd Drive Control Module -J401- in the left side of the glove compartment
  - Contains front information display control head control module -J523- /radio -R- /CD player -R89-
10. Data Bus On Board Diagnostic Interface -J533- Behind the glove compartment on the left side
11. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
12. Sound Systems
13. Microphone Unit In Front Roof Module -R164- inside the Front Interior Lamp -W1-

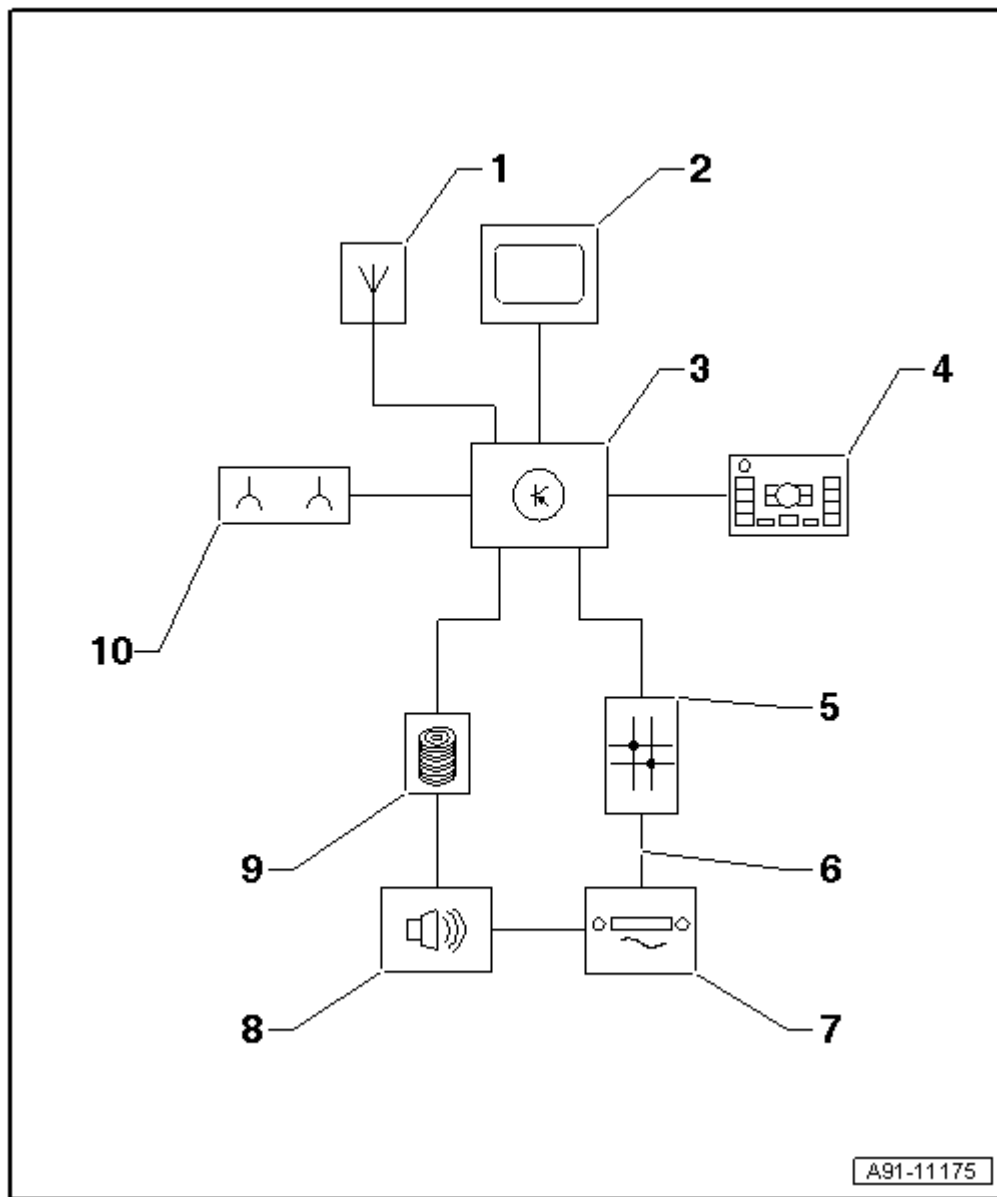
**MMI NAVIGATION SYSTEM OVERVIEW, THROUGH 10.31.2008**



**Fig. 96: Navigation System- MMI, Layout****Courtesy of AUDI OF AMERICA, LLC**

1. Front Information Display Control Head -J685- in center of the instrument panel
2. Front Information Display Control Head Control Module -J523-, behind the instrument panel
3. Multimedia Control Head -E380- in the center console
4. Data Bus On Board Diagnostic Interface -J533- Behind the glove compartment on the left side
5. Instrument Cluster Control Module -J285- in the instrument panel
6. Steering Column Electronics Control Module -J527- on steering column at steering column switch
7. Multifunction Steering Wheel
8. Radio -R- with Speech Input Control Module -J507- behind left luggage compartment side trim
9. Navigation System with CD Drive Control Module -J401- behind luggage compartment left side trim
10. Radio, Telephone, Navigation System Antenna -R52- roof antenna
11. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
12. Sound Systems

**MMI NAVIGATION, MINIMUM EQUIPMENT SYSTEM OVERVIEW, FROM 11.03.2008**



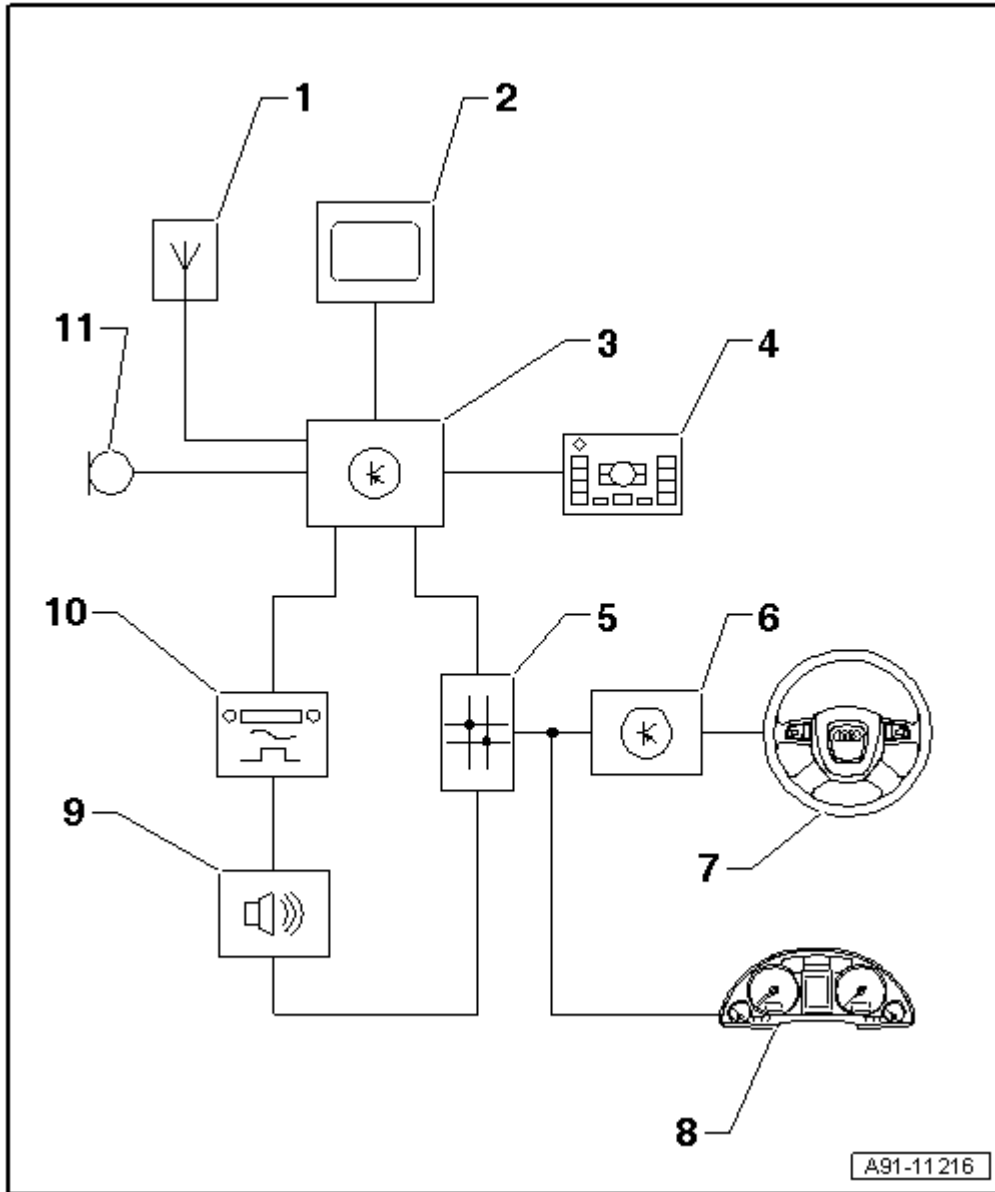
**Fig. 97: Identifying MMI Navigation Minimal Equipment, From 1 June 2009**

Courtesy of AUDI OF AMERICA, LLC

1. Radio, Telephone, Navigation System Antenna -R52- roof antenna
2. Front Information Display Control Head -J685- in center of the instrument panel
3. Information Electronics Control Module 1 -J794- inside the instrument panel
4. Multimedia Control Head -E380- in the center console
5. Data Bus On Board Diagnostic Interface -J533- Behind the Glove Compartment On the Left Side
6. MOST Bus
7. Radio -R- behind the left luggage compartment left side trim
8. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
9. CD Changer -R41- inside the glove compartment

## 10. External Audio Source Connection -R199- (interface) in the glove compartment

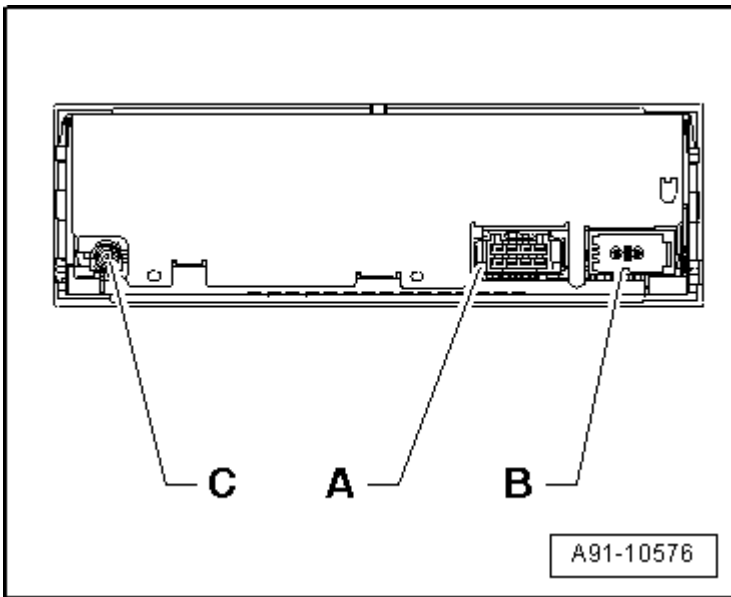
MMI NAVIGATION, MAXIMUM EQUIPMENT SYSTEM OVERVIEW, FROM 11.03.2008



**Fig. 98: Identifying MMI Navigation, Maximum Equipment, From 1 June 2009**  
 Courtesy of AUDI OF AMERICA, LLC

1. Radio, Telephone, Navigation System Antenna -R52- roof antenna
2. Front Information Display Control Head -J685- in center of the instrument panel
3. Information Electronics Control Module 1 -J794- inside the instrument panel
4. Multimedia Control Head -E380- in the center console
5. Data Bus On Board Diagnostic Interface -J533- Behind the Glove Compartment On the Left Side

6. Steering Column Electronics Control Module -J527- on steering column at steering column switch
7. Multifunction Steering Wheel
8. Instrument Cluster Control Module -J285- in the instrument panel
9. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
10. Radio -R- behind the left luggage compartment left side trim
11. Microphone Unit in Front Roof Module -R164- (Right Front Microphone -R141-) inside the Front Interior Lamp -W1-

**MMI NAVIGATION CONNECTORS, THROUGH 10.31.2008**

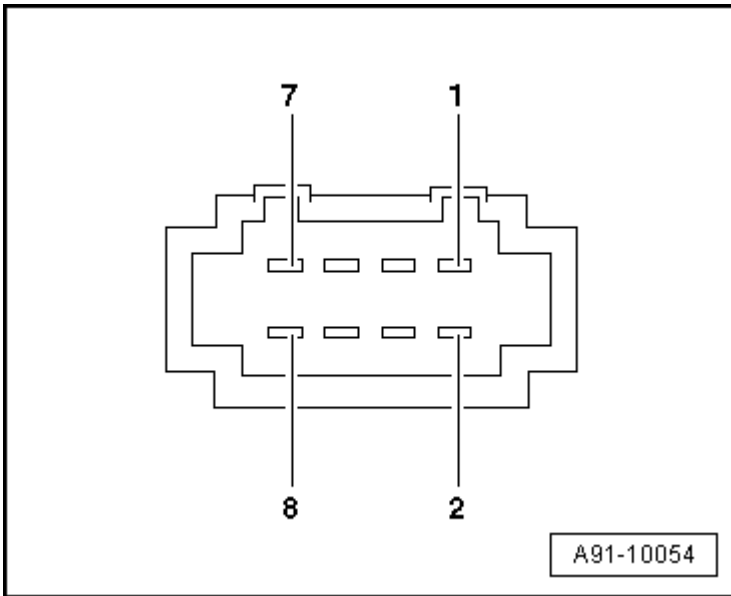
**Fig. 99: Navigation System With CD Drive Control Module J401 - MMI Connections, Overview**  
Courtesy of AUDI OF AMERICA, LLC

A - 8-pin multi-pin connector (T8n)

B - MOST bus

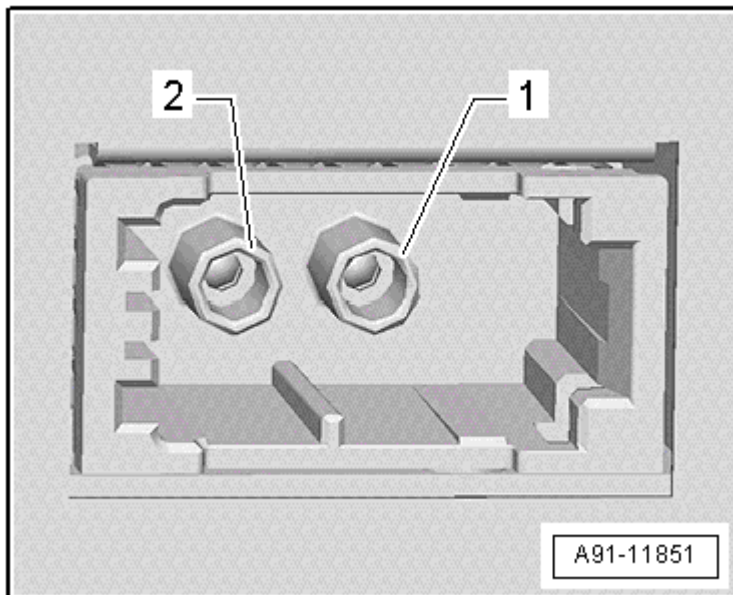
C - Radio, Telephone, Navigation System Antenna -R52- GPS connection (roof antenna)

**NOTE:** Unlisted connector terminals are not used.



**Fig. 100: Black 8-Pin Multi-Pin Connector**  
Courtesy of AUDI OF AMERICA, LLC

- 1 - Terminal 31
- 2 - Terminal 30
- 5 - Ring-break diagnostic cable

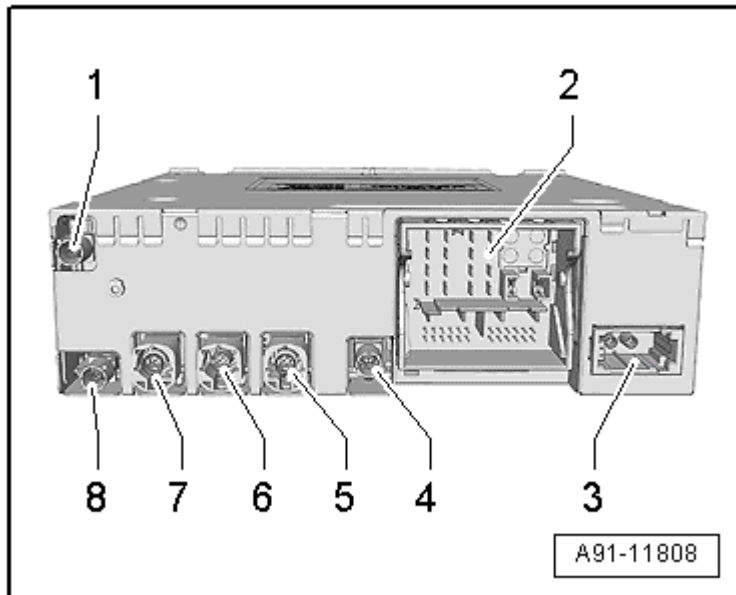


**Fig. 101: B - MOST Bus**  
Courtesy of AUDI OF AMERICA, LLC

- 1. IN

## 2. OUT

MMI NAVIGATION CONNECTORS, FROM 11.03.2008

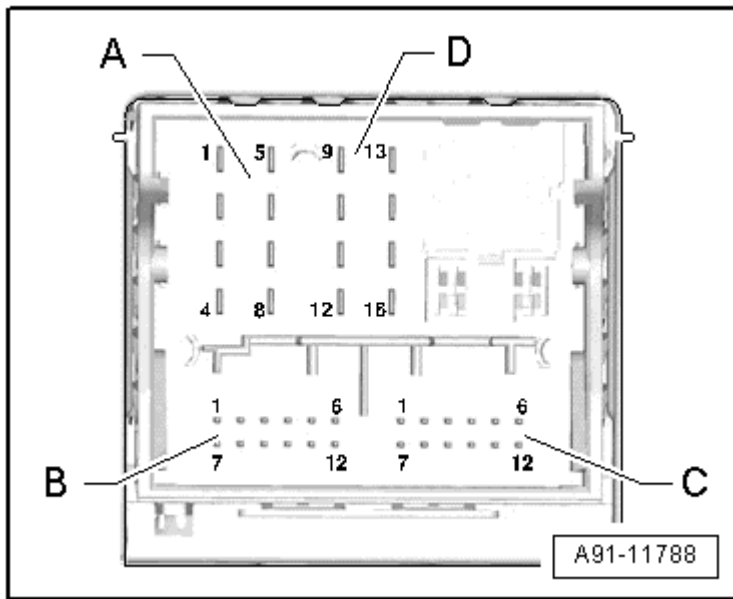


**Fig. 102: Information Electronics Control Module 1 -J794-**  
Courtesy of AUDI OF AMERICA, LLC

1. Not assigned
2. Connection Block with Four Connectors
3. MOST bus
4. FBAS input from TV Tuner -R78-
5. 4-pin multi-pin connector (T4a1/T4a4) to Front information display control head -J685-
6. 4-pin connector (T4a4) for the External audio source connection -R199- /Internet access control module - J666- (from MY 13)
7. Not assigned
8. Radio, Telephone, Navigation System Antenna -R52- GPS connection (roof antenna)

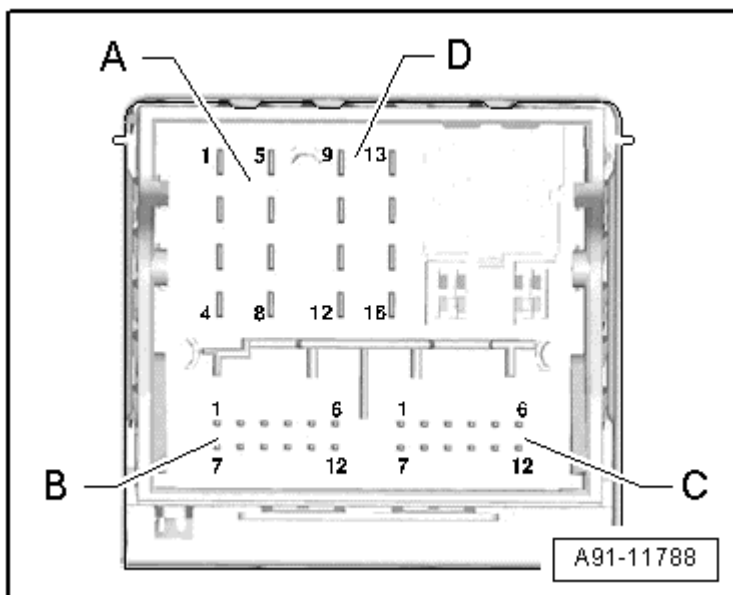
**NOTE:** Unlisted connector terminals are not used.

**2 - Connection Block With Four Connectors**



**Fig. 103: A - 8-Pin Multi-Pin Connector (T8ah)**  
 Courtesy of AUDI OF AMERICA, LLC

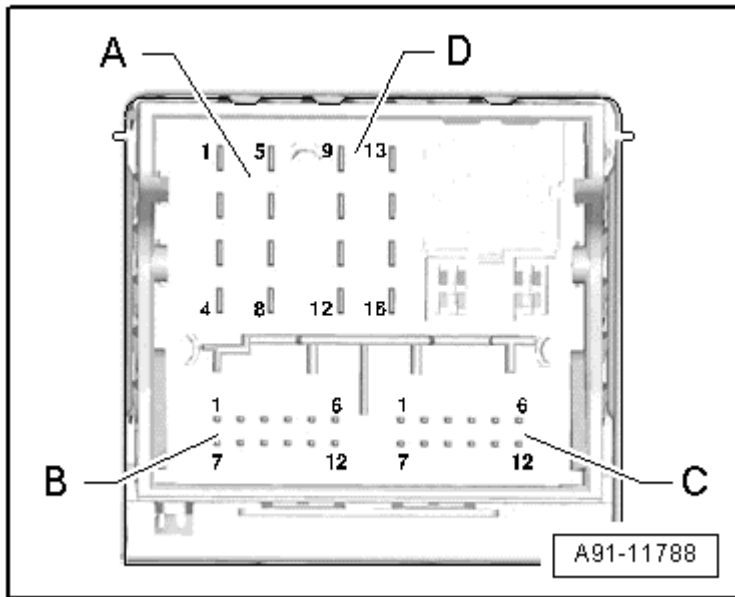
1. NF mute from preliminary setup for cell phone preparation
2. Voltage supply to Multimedia Control Head -E380-
3. Wake UP to multimedia system control head
4. Not assigned
5. Not assigned
6. Res MU to multimedia system control head
7. Ring-break diagnostic cable



**Fig. 104: B - 12-Pin Connector (T12x)**

Courtesy of AUDI OF AMERICA, LLC

- 2 - Microphone IN (+) for the microphone unit in front roof module -R164- (right front microphone -R141-)
- 3 - Microphone IN (-) for the microphone unit in front roof module (right front microphone -R141-)
- 5 - FBAS wire (-) from Rear View Camera System Control Module -J772-
- 11 - FBAS wire (+) from Rear View Camera System Control Module

**Fig. 105: C - 12-Pin Connector (T12y)**

Courtesy of AUDI OF AMERICA, LLC

**All pins are connected to the external audio source connection -R199-.**

- 1. LF-In ground
- 2. Right LF-In
- 3. USB (+5V) not on the internet access control module -J666- (from MY 13)
- 4. USB (ground)
- 5. Not assigned
- 6. Detect not on the internet access control module -J666- (from MY 13)
- 7. Left LF-In
- 8. LF-In ground shielding
- 9. FBAS wire (+)
- 10. FBAS wire (-)
- 11. iPod data

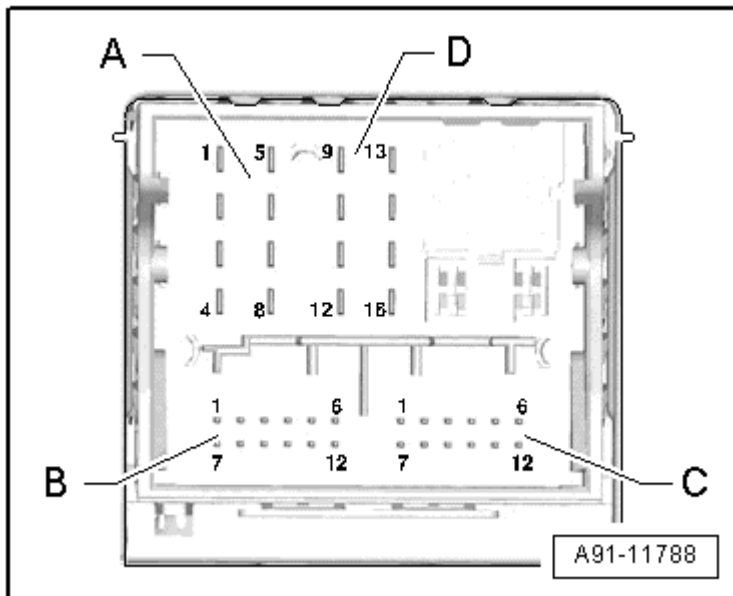
## 12. iPod data

Following pins are also still connected with the internet access control module -J666- (from MY 13).

3 - USB (+5 V)

4 - USB (ground)

6 - Detect



**Fig. 106: D - 8-Pin Connector (T16q)**  
 Courtesy of AUDI OF AMERICA, LLC

10 - Data from multimedia system control head -E380-

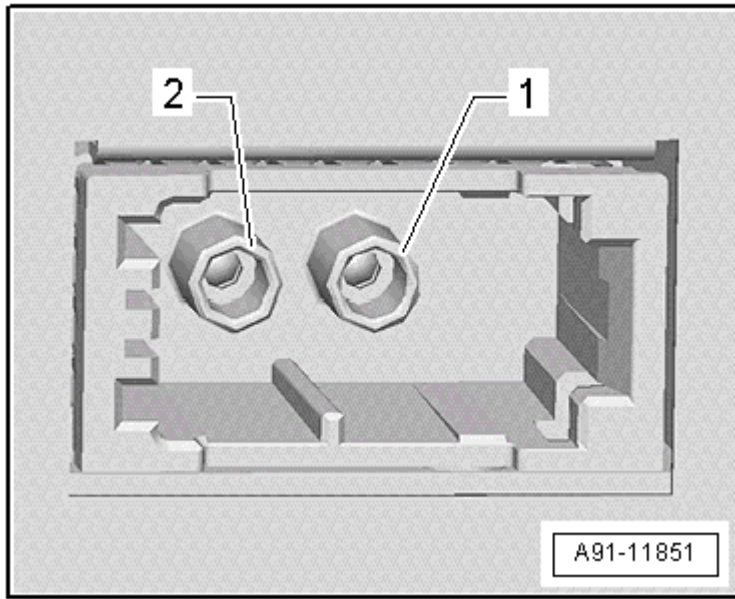
11 - Data to the multimedia system control head

12 - Terminal 31

14 - Res BT from multimedia system control head

15 - Terminal 30

16 - Ground (GND) to multimedia system control head

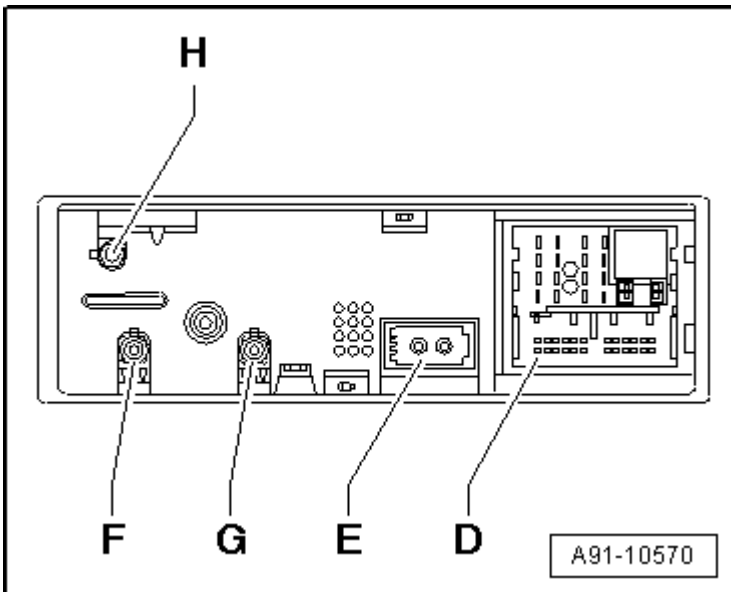


**Fig. 107: 3 - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT

**NAVIGATION BASIC PLUS CONNECTORS**



**Fig. 108: Navigation System With CD Drive Control Module J401 - MMI Basic Plus Connections, Overview**

Courtesy of AUDI OF AMERICA, LLC

D - Connection Block with Four Connectors

E - MOST bus

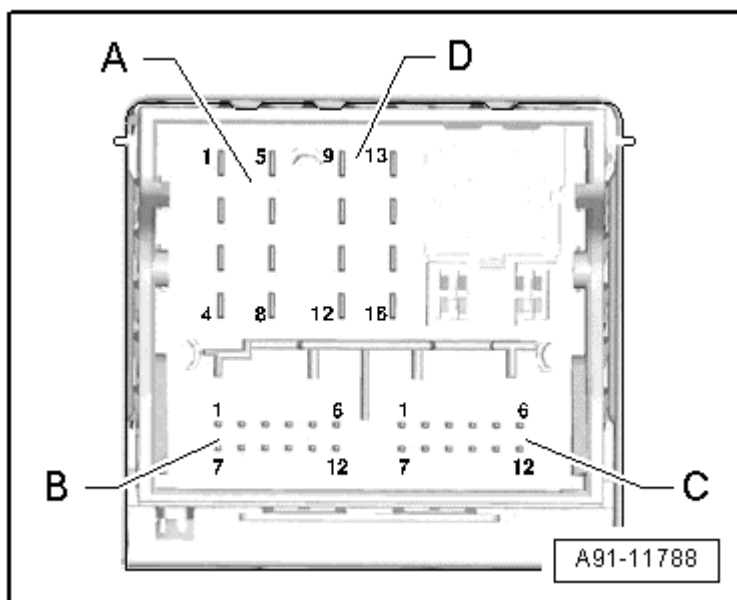
F - Antenna Amplifier 3 -R112- HF Connection

G - IF Connection to Antenna Amplifier 3 -R112-

H - Radio, Telephone, Navigation System Antenna -R52- GPS connection (roof antenna)

**NOTE: Unlisted connector terminals are not used.**

**D - Connection Block With Four Multipin Connectors**



**Fig. 109: A - 8-Pin Multi-Pin Connector (T8ab)**

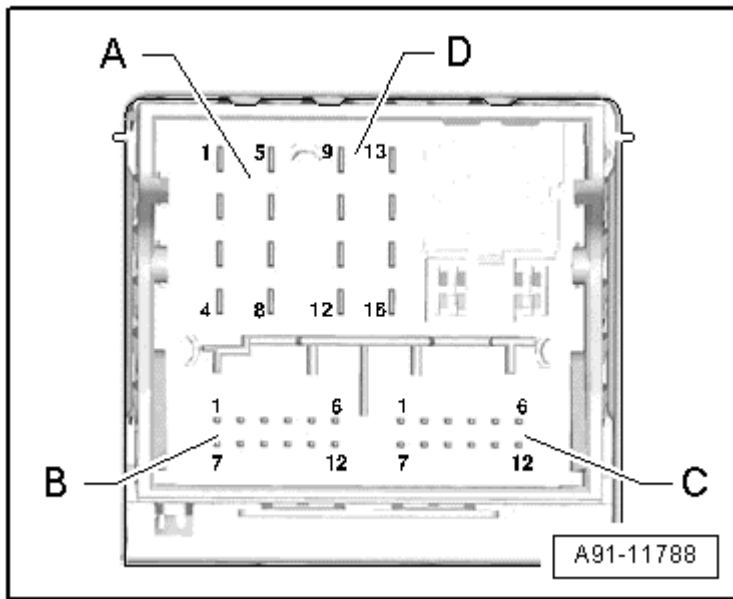
Courtesy of AUDI OF AMERICA, LLC

1 - Wake UP to Multimedia System Control Head -E380-

4 - Res HU to multimedia system control head

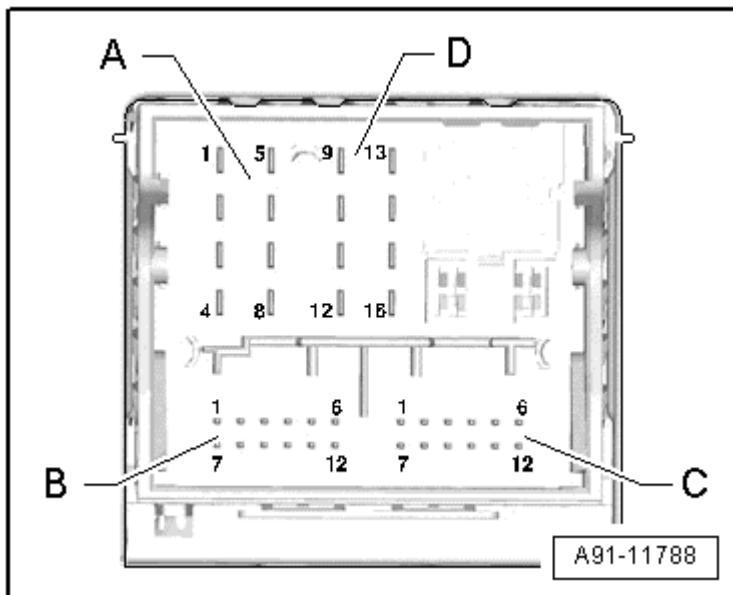
5 - Res BT to multimedia system control head

8 - Ground (GND) to multimedia system control head



**Fig. 110: B - 12-Pin Connector (T12q)**  
 Courtesy of AUDI OF AMERICA, LLC

1. Data to the multimedia system control head -E380-
2. Not assigned
3. Data (+) to Front Information Display Control Head -J685-
4. Data (-) to Front Information Display Control Head
5. Data from multimedia system control head

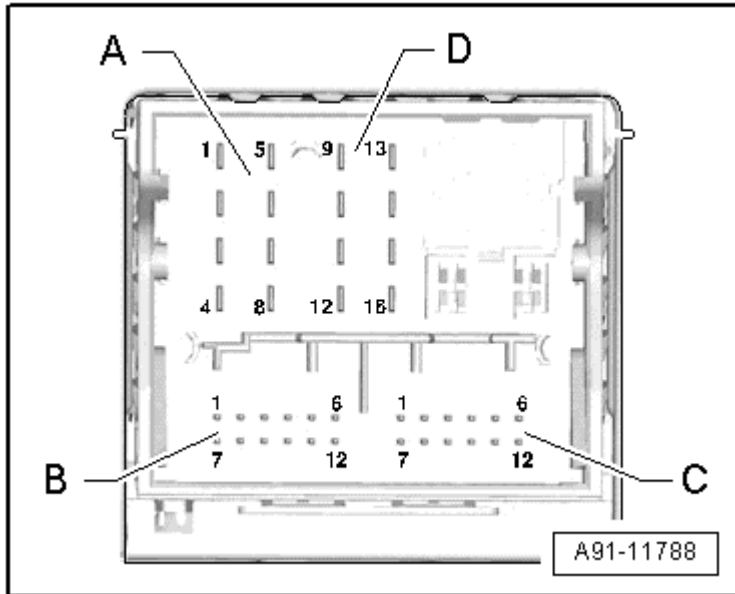


**Fig. 111: C - 12-Pin Connector (T12r)**  
 Courtesy of AUDI OF AMERICA, LLC

5 - Data (-) from Front Information Display Control Head -J685-

7 - Ground (GND) to Multimedia Control Head -E380-

11 - Data (+) from Front Information Display Control Head



**Fig. 112: D - 8-Pin Connector (T16j)**

Courtesy of AUDI OF AMERICA, LLC

11 - NF mute from preliminary setup for cell phone preparation

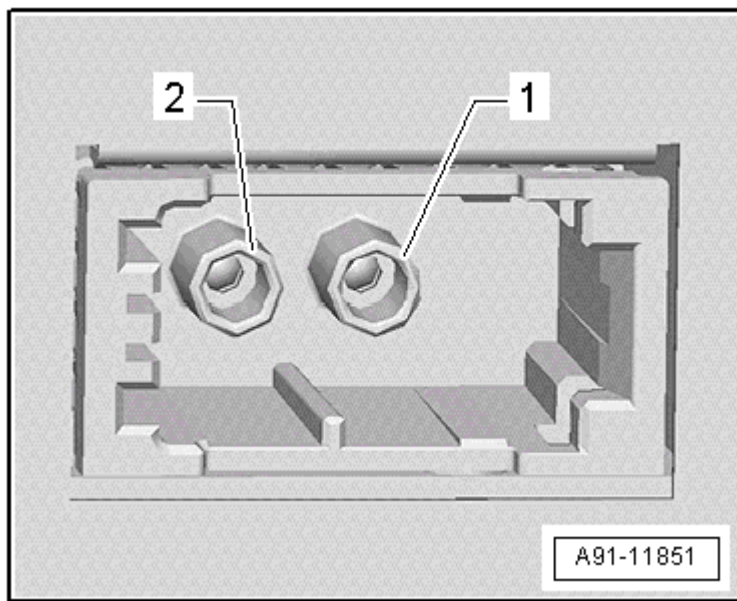
12 - Terminal 31

13 - Voltage supply for the front information display control head -J685-

14 - Ring-break diagnostic cable

15 - Terminal 30

16 - Voltage supply to Multimedia System Control Head -E380-

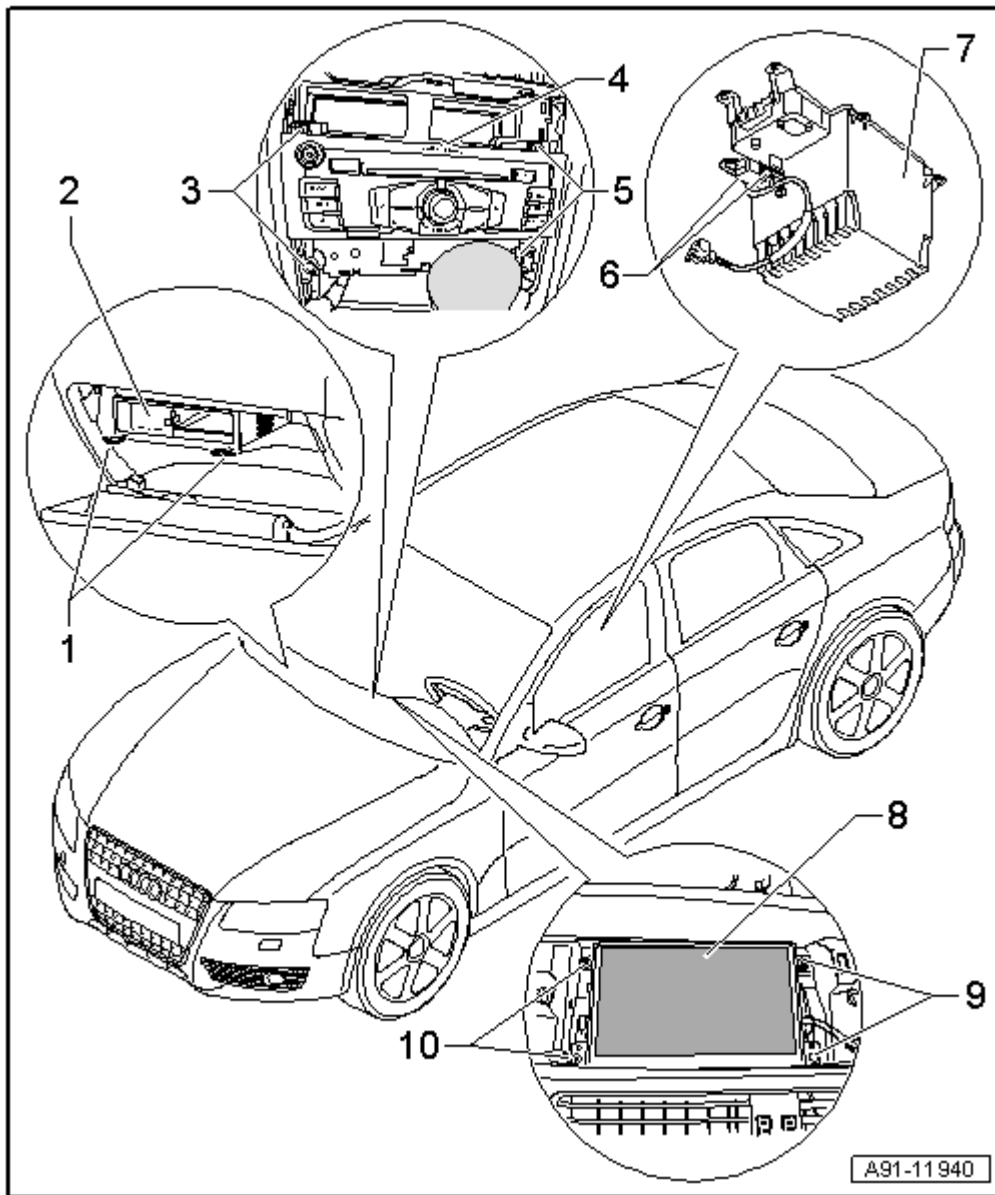


**Fig. 113: E - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT

**RADIO COMPONENT LOCATIONS OVERVIEW**



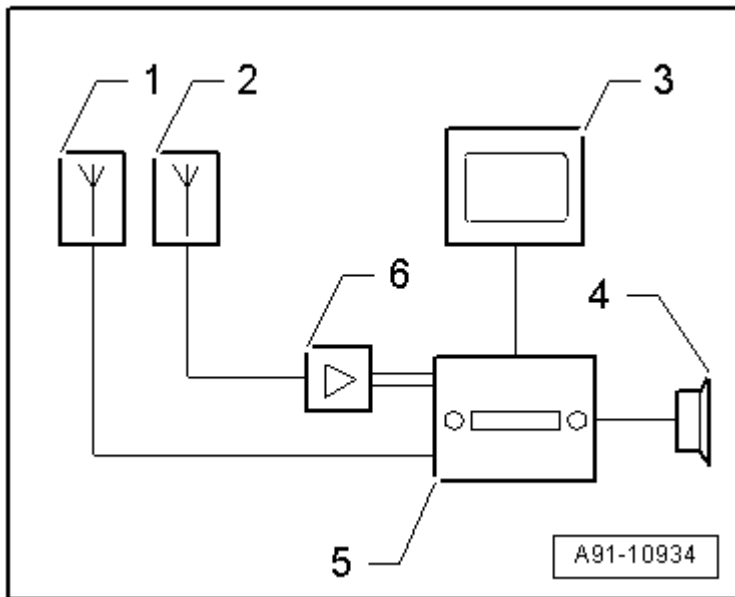
**Fig. 114: Identifying Radio Component Locations**

Courtesy of AUDI OF AMERICA, LLC

1. Radio Removal Tool T10057
2. External Audio Source Connection -R199-
  - CAN connectors, refer to **CAN EXTERNAL AUDIO SOURCE CONNECTION CONNECTORS**.
  - Removing and installing, refer to **EXTERNAL AUDIO SOURCE CONNECTION -R199-**.
3. Screws
  - 3 Nm
4. Radio -R-
  - Concert/symphony connectors, refer to **CONCERT/SYMPHONY CONNECTORS**.

- Removing and installing, refer to **RADIO**.
5. Screw
    - 3 Nm
  6. External Audio Source Connection -R199- (AUX IN)
    - AUX IN connectors, refer to **AUX IN CONNECTORS**.
    - AUX IN, removing and installing, refer to **EXTERNAL AUDIO SOURCE CONNECTION - R199- AUX IN**.
  7. Storage Compartment
  8. Front Information Display Control Head -J685-
    - CAN connectors. Refer to **DISPLAY, CONNECTORS**.
    - Removing and installing, refer to **FRONT INFORMATION DISPLAY CONTROL HEAD - J685- (DISPLAY)**.
  9. Screw
    - 2 Nm
  10. Screw
    - 2 Nm

#### RADIO SYSTEM OVERVIEW

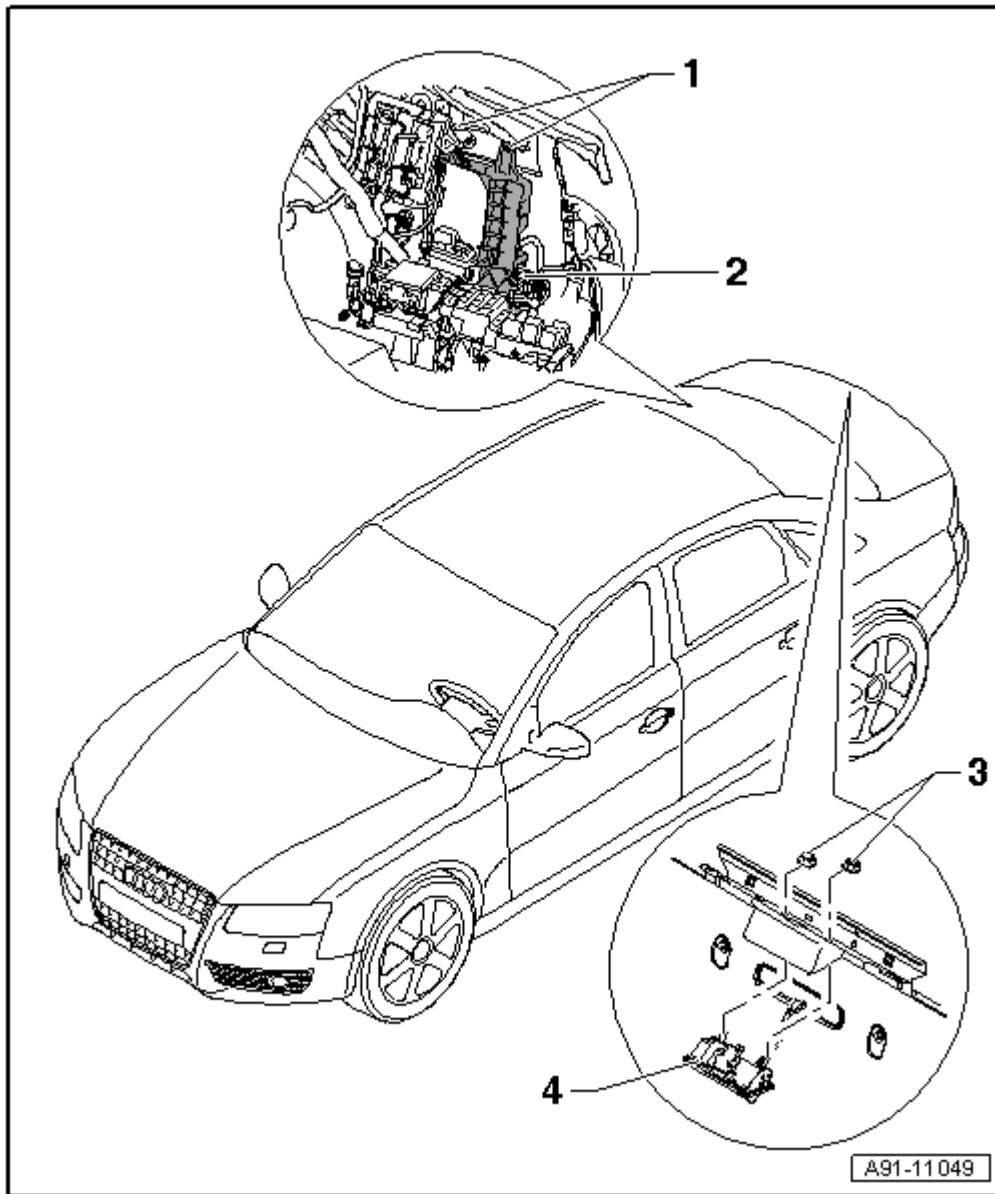


**Fig. 115: Identifying Radio System**

Courtesy of AUDI OF AMERICA, LLC

1. Radio, telephone, navigation system antenna -R52- (satellite antenna -R170-) roof antenna
2. Antenna -R11- inside the rear window
3. Front Information Display Control Head -J685- inside the instrument panel
4. Sound Systems

5. Radio -R- inside the instrument panel
6. Antenna Amplifier 3 -R112- behind the left D-pillar trim

**REARVIEW CAMERA SYSTEM OVERVIEWS AND CONNECTORS****REARVIEW CAMERA SYSTEM COMPONENT LOCATION OVERVIEW**

**Fig. 116: Identifying Rearview Camera System**  
Courtesy of AUDI OF AMERICA, LLC

1. Screw
  - 2 Nm
2. Rearview Camera System Control Module -J772-

- Connector assignment, refer to **REARVIEW CAMERA SYSTEM CONTROL MODULE - J772- CONNECTORS**.
- Removing and installing, refer to **REARVIEW CAMERA SYSTEM CONTROL MODULE - J772-**.
- Calibrating, refer to **REARVIEW CAMERA SYSTEM, CALIBRATING**.

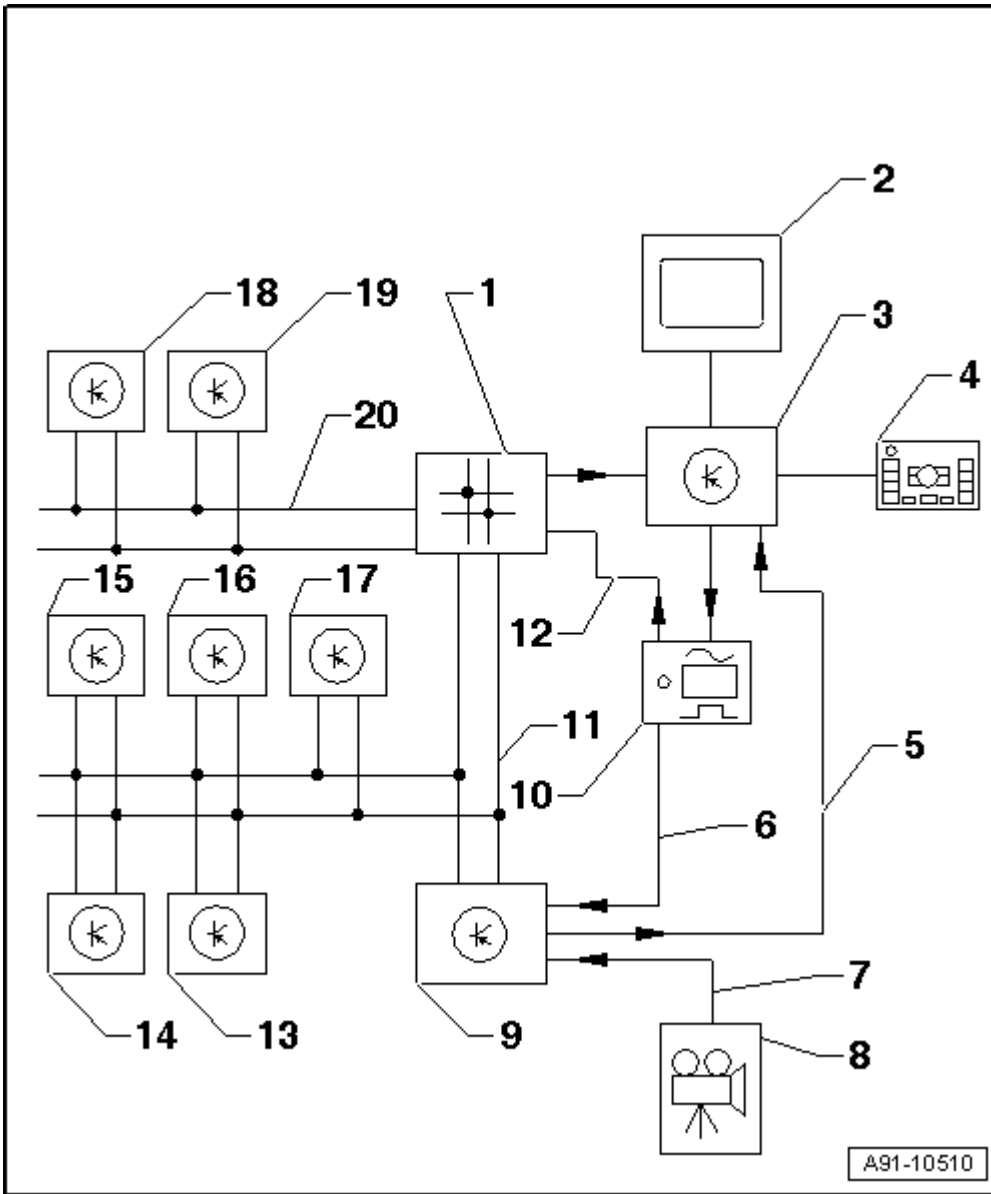
3. Nut

- 6 Nm

4. Rear View Camera -R189-

- Removing and installing, Sedan, refer to **REARVIEW CAMERA -R189-**.
- Removing and installing, Avant, refer to .
- Calibrating, refer to **REARVIEW CAMERA SYSTEM, CALIBRATING**.

**REARVIEW CAMERA SYSTEM OVERVIEW, THROUGH 10.31.2008**



**Fig. 117: Overview Of Rear View Camera System**

Courtesy of AUDI OF AMERICA, LLC

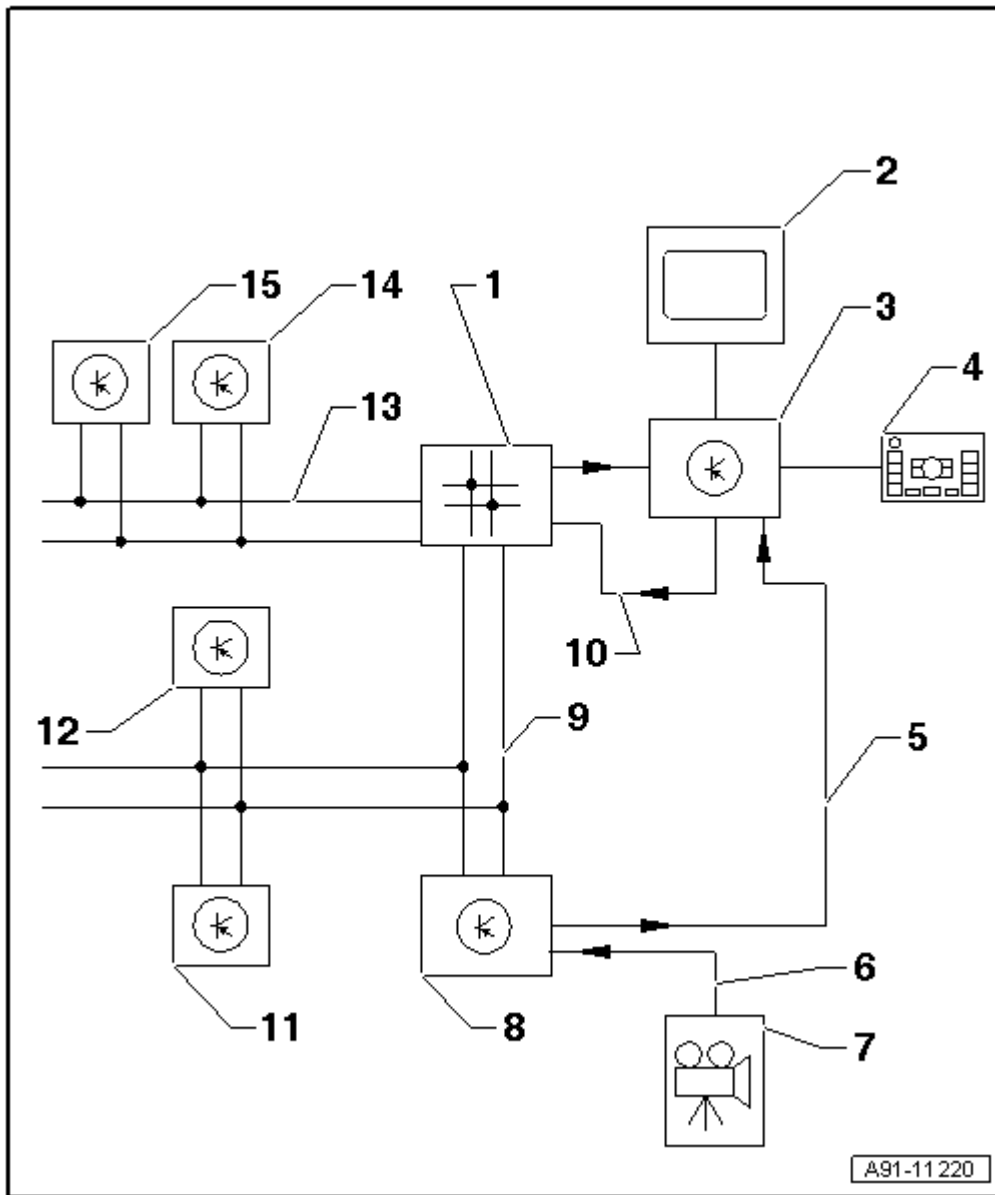
1. Data Bus On Board Diagnostic Interface -J533- behind the glove compartment on the left side
2. Front Information Display Control Head -J685- in center of the instrument panel
3. Front Information Display Control Head Control Module, behind the instrument panel
4. Multimedia Control Head -E380- in the center console
5. FBAS line to the Front Information Display Control Head Control Module
6. FBAS wire from TV Tuner -R78-
7. FBAS wire from Rearview Camera -R189-
8. Rear View Camera -R189- in rear lid
9. Rearview Camera System Control Module -J772- behind the luggage compartment right side trim

## 2012 Audi S4

### ACCESSORIES & EQUIPMENT Communication (Sedan)

10. TV Tuner -R78- behind the luggage compartment left side trim
11. CAN Bus (comfort)
12. MOST Bus
13. Parking Aid Control Module -J446- behind the luggage compartment right side trim
14. Vehicle Electrical System Control Module -J519- behind instrument panel cover on driver's side
15. Comfort System Central Control Module -J393- behind the luggage compartment right side trim
16. Towing Recognition Control Module -J345- behind the luggage compartment right side trim
17. Climatronic Control Module -J255- in the instrument panel
18. ABS Control Module -J104- in the engine compartment
19. Steering Angle Sensor -G85- on steering column at Steering Column Electronic Systems Control Module -J527-
20. CAN Bus (powertrain)

**REARVIEW CAMERA SYSTEM OVERVIEW, FROM 11.03.2008**



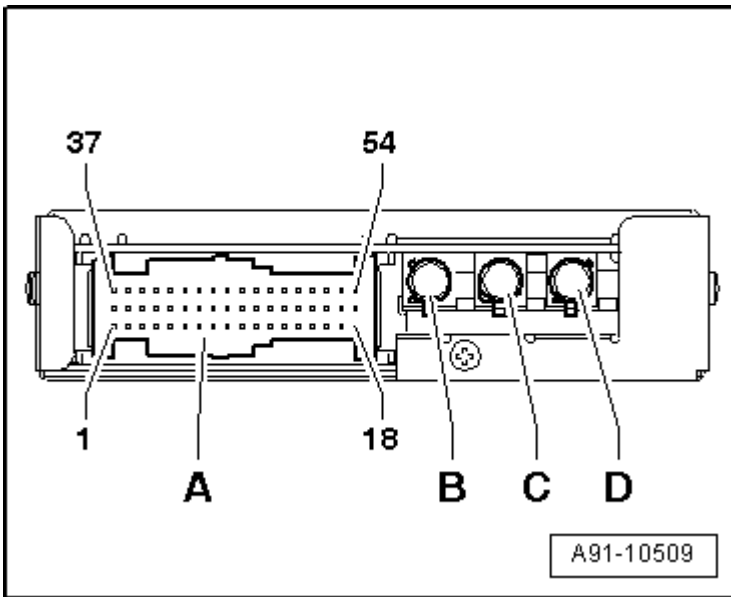
**Fig. 118: Identifying Rearview Camera System, From 1 June 2009**

Courtesy of AUDI OF AMERICA, LLC

1. Data Bus On Board Diagnostic Interface -J533- behind the glove compartment on the left side
2. Front Information Display Control Head -J685- in center of the instrument panel
3. Information Electronics Control Module 1 -J794- inside the instrument panel
4. Multimedia Control Head -E380- in the center console
5. FBAS wire from Rearview Camera System Control Module -J772-
6. FBAS wire from Rearview Camera -R189-
7. Rear View Camera -R189- in rear lid
8. Rearview Camera System Control Module -J772- behind the luggage compartment right side trim
9. CAN Bus (comfort)

10. MOST Bus
11. Parking Aid Control Module -J446- behind the luggage compartment right side trim
12. Towing Recognition Control Module -J345- behind the luggage compartment right side trim
13. CAN Bus (powertrain)
14. ABS Control Module -J104- in the engine compartment
15. Steering Angle Sensor -G85- on steering column at Steering Column Electronic Systems Control Module -J527-

#### REARVIEW CAMERA SYSTEM CONTROL MODULE -J772- CONNECTORS



**Fig. 119: Harness Connectors On Rear View Camera System Control Module J772**  
Courtesy of AUDI OF AMERICA, LLC

A - 54-pin connector (T54b)

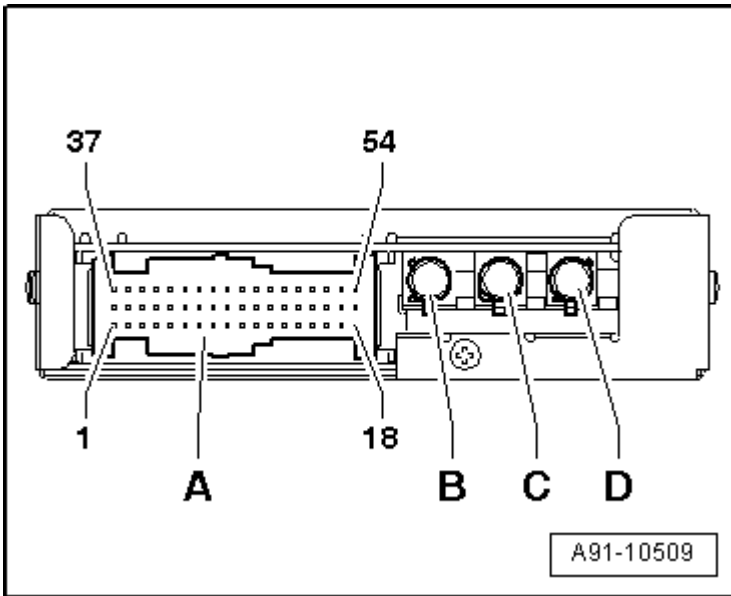
B - TV Tuner -R78- FBAS Input (through 10.31.2008)

B - FBAS input not assigned, from 11.03.2008

C - FBAS output to front information display control head control module/information electronics control module 1 -J794-

D - FBAS input from Rear View Camera -R189-

**NOTE:** Unlisted connector terminals are not used.



**Fig. 120: Harness Connectors On Rear View Camera System Control Module J772**  
Courtesy of AUDI OF AMERICA, LLC

39 - CAN bus Low (Comfort)

40 - CAN bus High (Comfort)

43 - Terminal 30

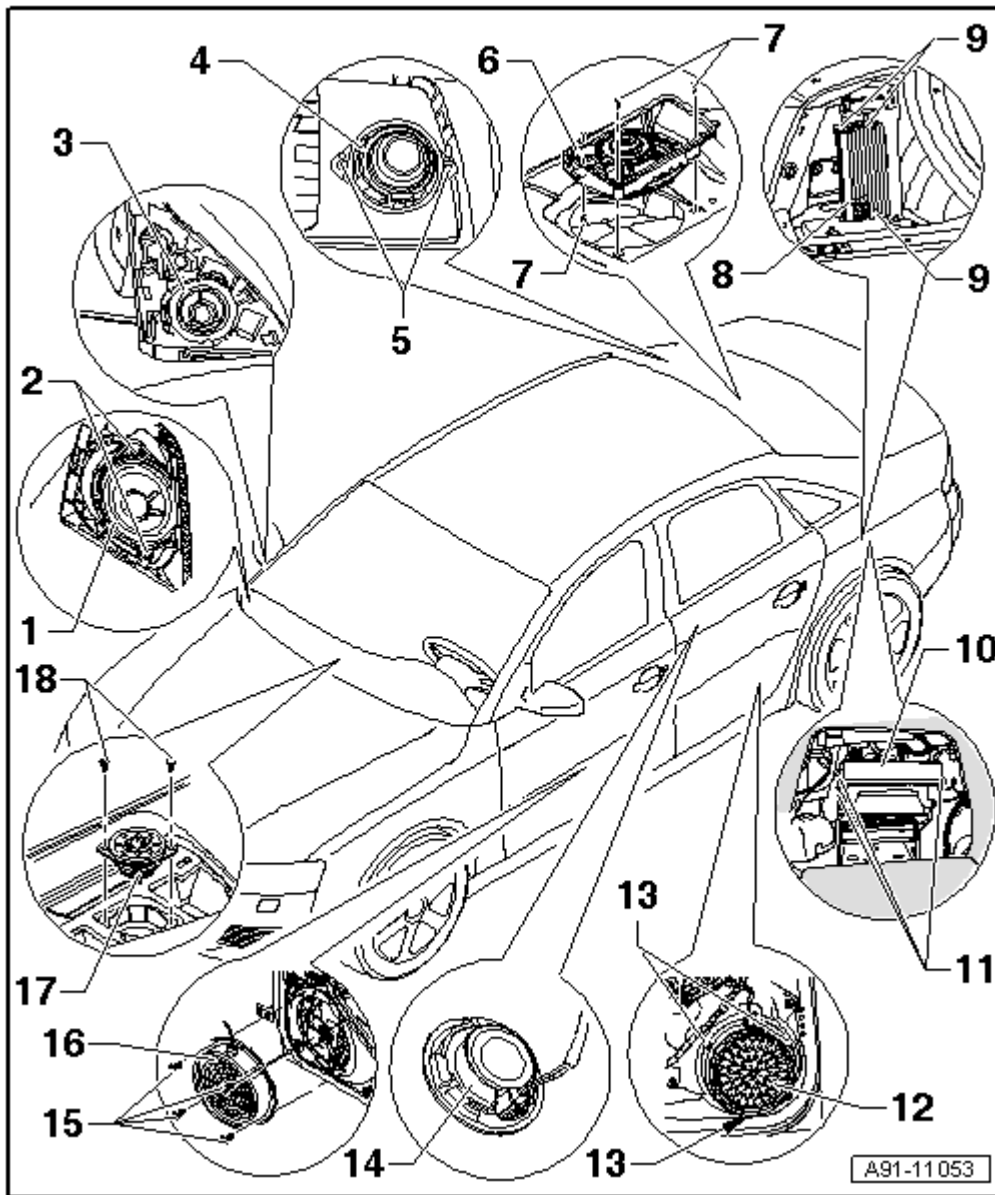
44 - Terminal 31

47 - Terminal 31 to Rear View Camera -R189-

48 - Voltage supply Rear View Camera -R189-

#### **SOUND SYSTEM COMPONENT AND SYSTEM OVERVIEWS**

**SOUND SYSTEM COMPONENT LOCATION OVERVIEW, THROUGH 10.31.2008**



**Fig. 121: Identifying Sounds System Component Location**

Courtesy of AUDI OF AMERICA, LLC

1. Left Front Treble Speaker -R20- /Left Front Midrange Speaker -R103- /Right Front Treble Speaker -R22- /Right Front Midrange Speaker -R104-
  - Removing and installing, refer to **FRONT MIDRANGE AND TREBLE SPEAKERS**.
2. Screw
  - 1 Nm
3. Left Front Treble Speaker -R20- /right front treble speaker -R22- (B+O)
  - Removing and installing, refer to **FRONT TREBLE SPEAKER, BAND & OLUFSEN**.
4. Left Rear Midrange Speaker -R105- /Right Rear Midrange Speaker -R106-
  - Removing and installing, refer to **REAR MIDRANGE SPEAKERS**

5. Bolt
  - 2 Nm
6. Subwoofer In The Rear Shelf -R157-
  - Removing and installing, refer to **SUBWOOFER IN REAR SHELF -R157-**.
7. Bolt
  - 2 Nm
8. Digital Sound System Control Module -J525- (CAN)
  - For standard CAN connectors refer to **SOUND SYSTEM STANDARD, CAN.**
  - Connector B+O (CAN). Refer to **SOUND SYSTEM BANG & OLUFSEN, CAN.**
  - CAN, removing and installing, refer to **DIGITAL SOUND SYSTEM CONTROL MODULE - J525-, CAN.**
9. Bolt
  - 3.5 Nm
10. Digital Sound System Control Module -J525- (MOST)
  - For basic plus connectors, through 10.31.2008, refer to **SOUND SYSTEM BASIC PLUS, MMI, THROUGH 10.31.2008.**
  - Standard connectors, through 10.31.2008, refer to **SOUND SYSTEM STANDARD, MMI, THROUGH 10.31.2008.**
  - Connectors B+O (MMI). Refer to **SOUND SYSTEM CONNECTORS, BANG & OLUFSEN MMI.**
  - For removing and installing, MMI through 10.31.2008, refer to **DIGITAL SOUND SYSTEM CONTROL MODULE -J525-, MMI THROUGH 10.31.2008.**
11. Bolt
  - 4.5 Nm
12. Left Rear Mid-Bass Speaker -R159- /Right Rear Mid-Bass Speaker -R160-
  - Removing and installing, refer to **REAR MID-BASS SPEAKER.**
13. Bolt
  - 3 Nm
14. Left Rear Treble Speaker -R14- /Right Rear Treble Speaker -R16-
  - Removing and installing, refer to **REAR TREBLE SPEAKER.**
15. Bolt
  - 3 Nm
16. Left Front Mid-Bass Speaker -R101- /Right Effects Speaker -R21- /Right Front Mid-Bass Speaker - R102- /Right Front Bass Speaker -R23-
  - Removing and installing, refer to **FRONT MID/LOW RANGE AND FRONT BASS SPEAKERS.**
17. Center Mid/High Range Speaker -R158-
  - Removing and installing, refer to **CENTER MID/HIGH RANGE LOUDSPEAKER -R158-**.
18. Bolt

- 1 Nm

## SOUND SYSTEM COMPONENT LOCATION OVERVIEW, FROM 11.03.2008

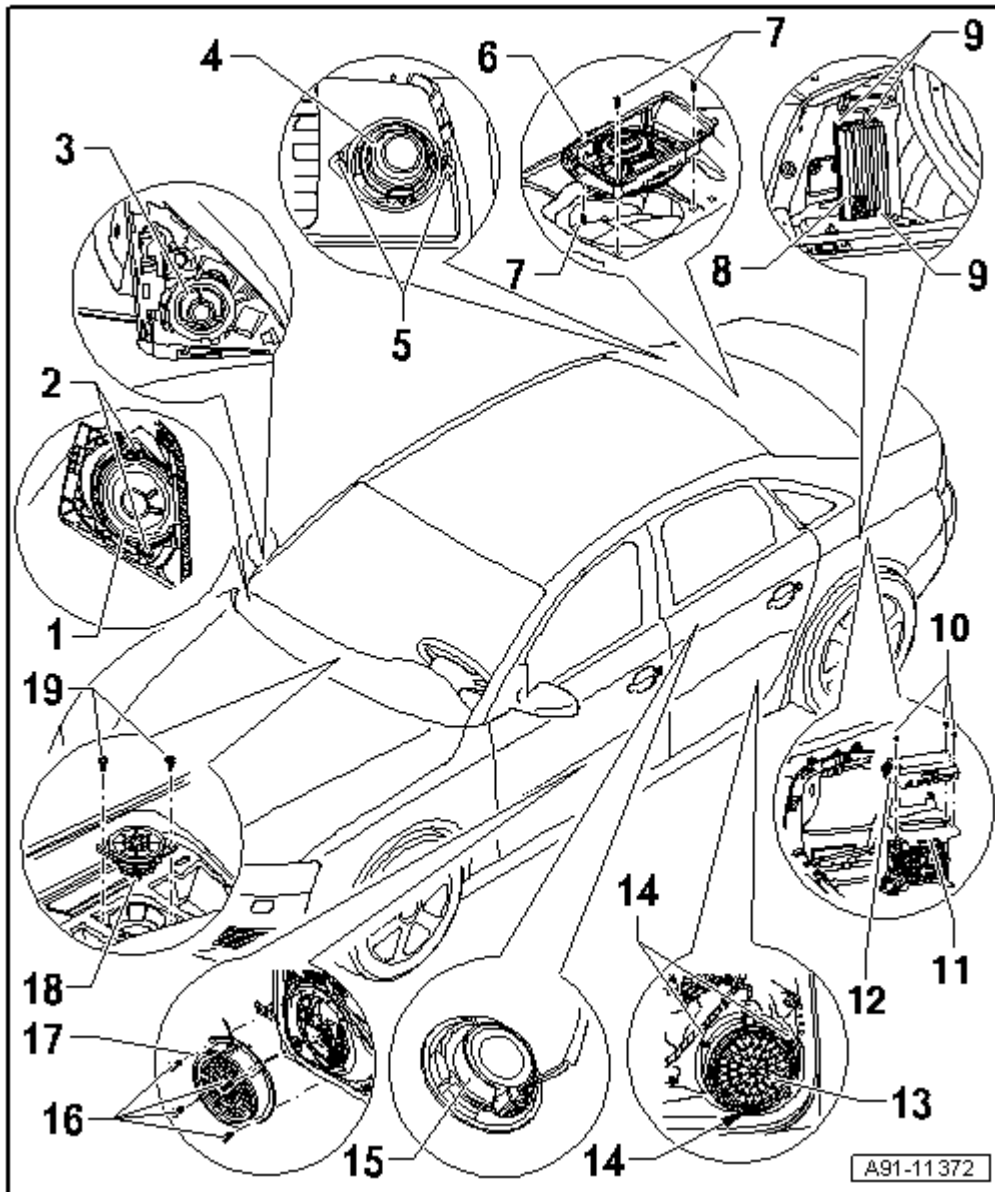


Fig. 122: Identifying Sound Component Location

Courtesy of AUDI OF AMERICA, LLC

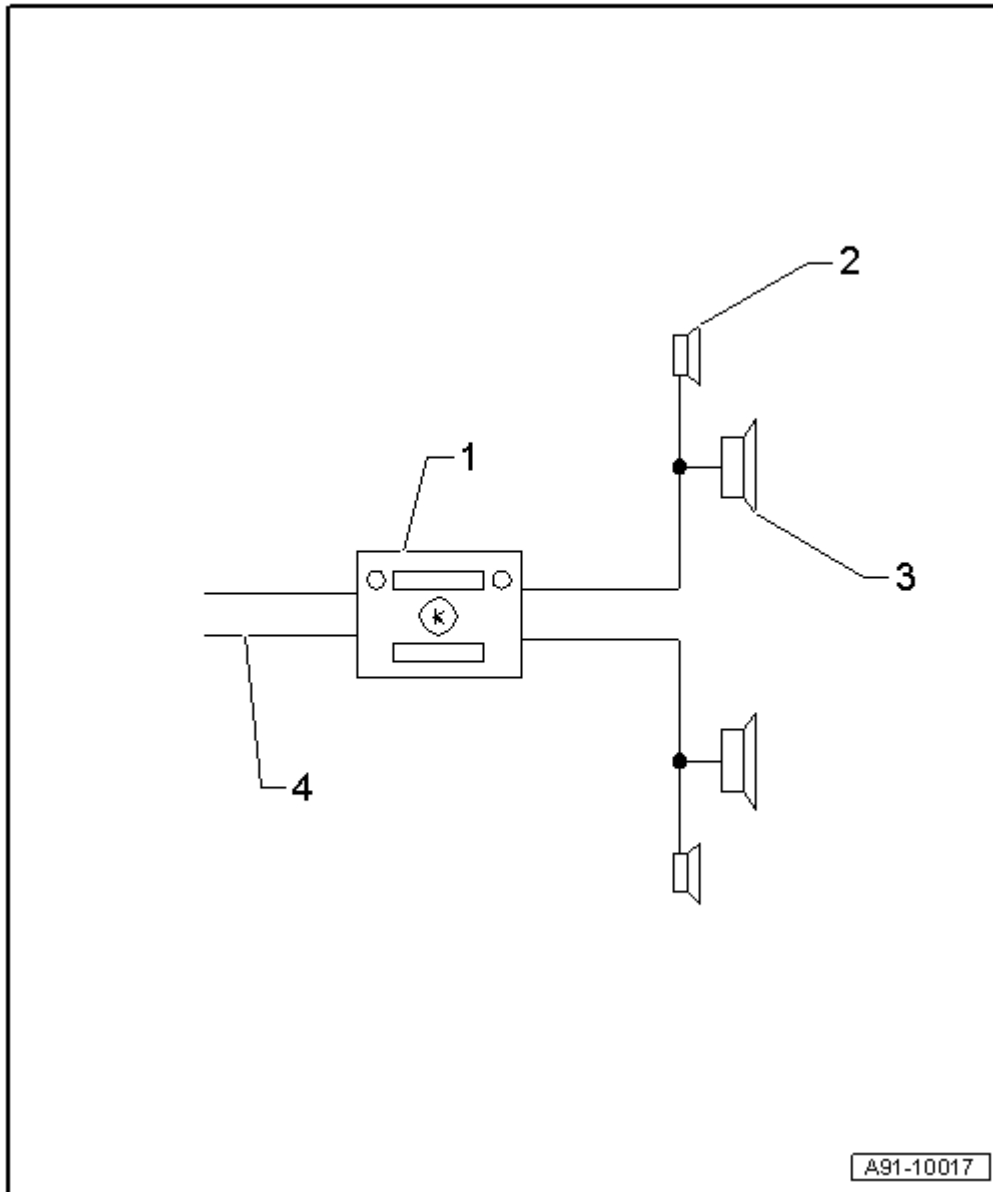
1. Left Front Treble Speaker -R20- /Left Front Midrange Speaker -R103- /Right Front Treble Speaker -R22- /Right Front Midrange Speaker -R104-
  - Removing and installing, refer to **FRONT MIDRANGE AND TREBLE SPEAKERS**.
2. Bolt
  - 1 Nm
3. Left Front Treble Speaker -R20- /Right Front Treble Speaker -R22- (B+O)

- Removing and installing, refer to **FRONT TREBLE SPEAKER, BANG & OLUFSEN**.
- 4. Left Rear Midrange Speaker -R105- /Right Rear Midrange Speaker -R106-
  - Removing and installing, refer to **REAR MIDRANGE SPEAKERS**.
- 5. Bolt
  - 2 Nm
- 6. Subwoofer In Rear Shelf -R157-
  - Removing and installing, refer to **SUBWOOFER IN REAR SHELF -R157-**.
- 7. Bolt
  - 2 Nm
- 8. Digital Sound System Control Module -J525- (CAN)
  - For standard CAN connectors, refer to **SOUND SYSTEM STANDARD, CAN**.
  - Connector B+O (CAN). Refer to **SOUND SYSTEM BANG & OLUFSEN, CAN**.
  - CAN, removing and installing, refer to **DIGITAL SOUND SYSTEM CONTROL MODULE - J525-, CAN**.
- 9. Bolt
  - 3.5 Nm
- 10. Bolt
  - 3.5 Nm
- 11. Bracket
- 12. Digital Sound System Control Module -J525- MMI
  - Connectors B+O (MMI). Refer to **SOUND SYSTEM CONNECTORS, BANG & OLUFSEN MMI**
  - MMI from 11.03.2008, removing and installing, refer to **DIGITAL SOUND SYSTEM CONTROL MODULE -J525-, MMI FROM 11.03.2008**.
- 13. Left Rear Mid-Bass Speaker -R159- /Right Rear Mid-Bass Speaker -R160-
  - Removing and installing, refer to **REAR MID-BASS SPEAKER**.
- 14. Bolt
  - 3 Nm
- 15. Left Rear Treble Speaker -R14- /Right Rear Treble Speaker -R16-
  - Removing and installing, refer to **REAR TREBLE SPEAKER**.
- 16. Bolt
  - 3 Nm
- 17. Left Front Mid-Bass Speaker -R101- /Right Effects Speaker -R21- /Right Front Mid-Bass Speaker -R102- /Right Front Bass Speaker -R23-
  - Removing and installing, refer to **FRONT MID/LOW RANGE AND FRONT BASS SPEAKERS**.
- 18. Center Mid/High Range Loudspeaker -R158-
  - Removing and installing, refer to **CENTER MID/HIGH RANGE LOUDSPEAKER -R158-**.
- 19. Bolt

- 1 Nm

## SOUND SYSTEM OVERVIEWS

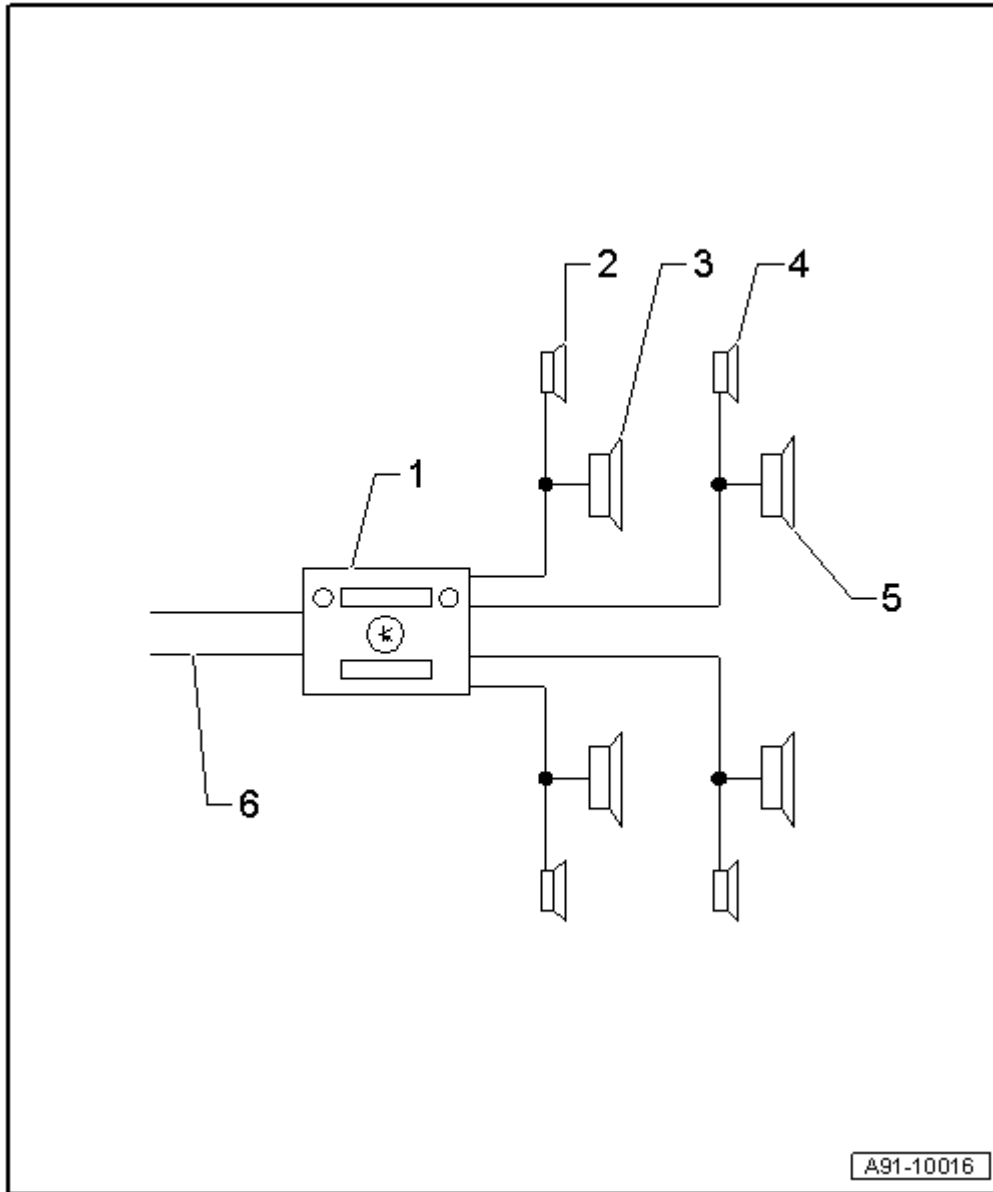
### Radio (CAN) Sound System Basic



**Fig. 123: Identifying Sound System**

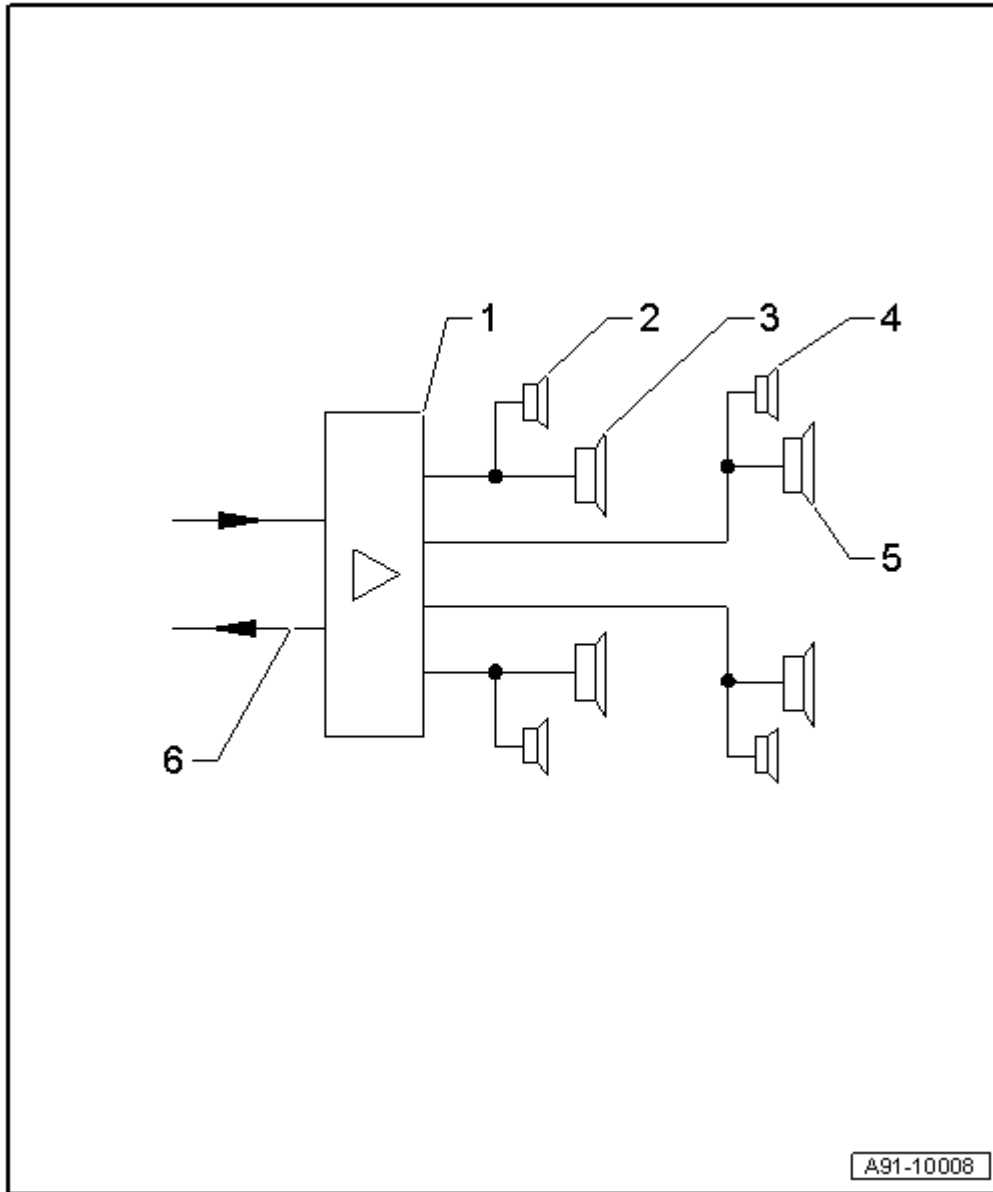
Courtesy of AUDI OF AMERICA, LLC

1. Radio -R- Inside the Instrument Panel
2. Left Front Treble Speaker -R20- /Right Front Treble Speaker -R22- in the instrument panel
3. Left Front Mid-Bass Speaker -R101- /Right Front Mid-Bass Speaker -R102- at bottom in front doors
4. CAN Bus (Infotainment)

**Radio CAN/MMI, Sound System Basic Plus, from 11.03.2008****Fig. 124: Identifying Radio Can/MMI, Sound System Basic Plus**

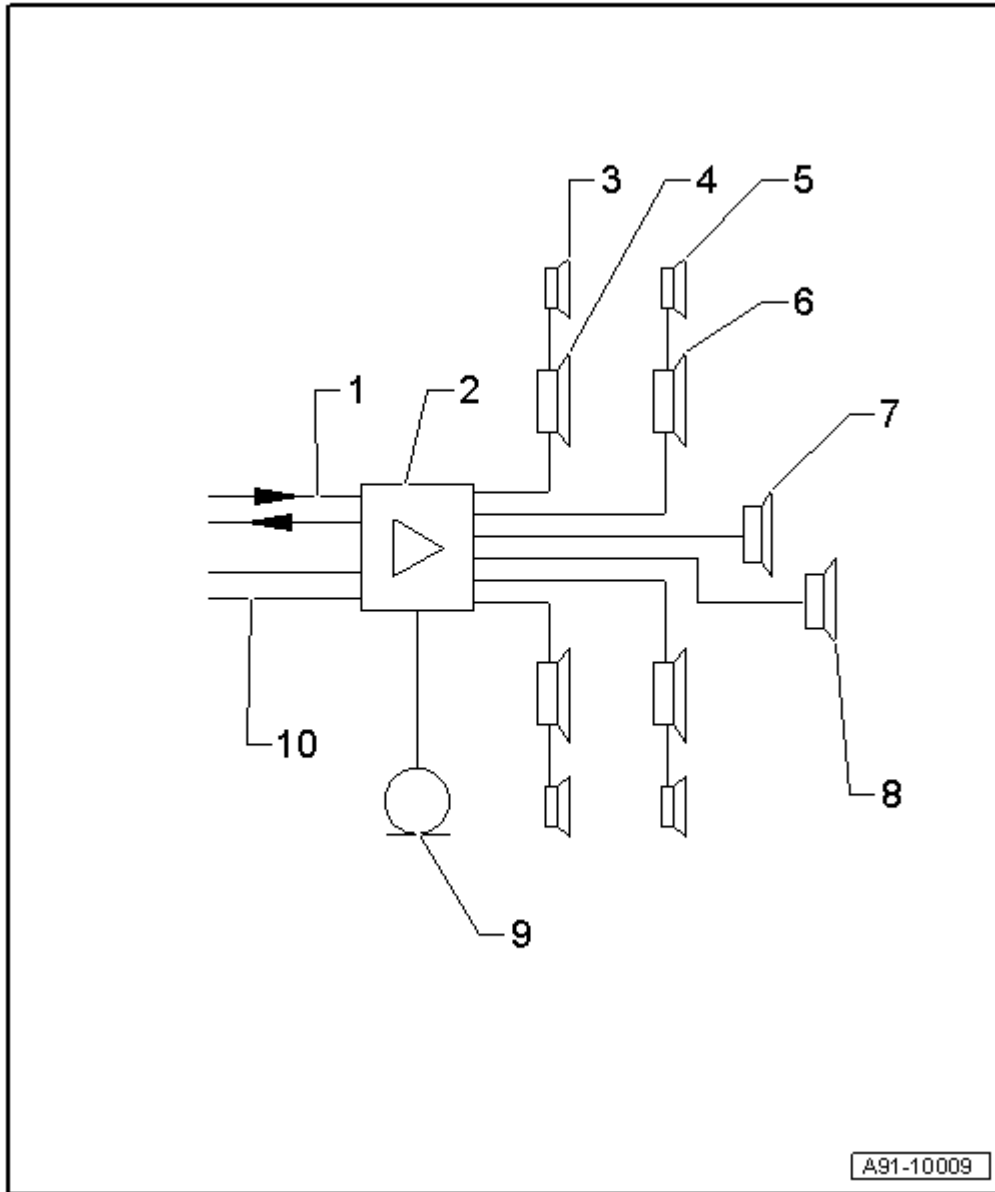
Courtesy of AUDI OF AMERICA, LLC

1. Radio -R- Inside the Instrument Panel
2. Left Front Treble Speaker -R20- /Right Front Treble Speaker -R22- in the instrument panel
3. Left Front Mid-Bass Speaker -R101- /Right Front Mid-Bass Speaker -R102- at bottom in front doors
4. Left Rear Treble Speaker -R14- /Right Rear Treble Speaker -R16- at top in rear doors
5. Left Rear Mid/Low Range Speaker -R159- /Right Rear Mid/Low Range Speaker -R160- at bottom in rear doors
6. CAN Bus (Infotainment)

**MMI Sound System Basic Plus, through 10.31.2008****Fig. 125: Identifying MMI Sound System Basic Plus**

Courtesy of AUDI OF AMERICA, LLC

1. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
2. Left Front Treble Speaker -R20- /Right Front Treble Speaker -R22- in the instrument panel
3. Left Front Mid-Bass Speaker -R101- /Right Front Mid-Bass Speaker -R102- at bottom in front doors
4. Left Rear Treble Speaker -R14- /Right Rear Treble Speaker -R16- at top in rear doors
5. Left Rear Mid/Low Range Speaker -R159- /Right Rear Mid/Low Range Speaker -R160- at bottom in rear doors
6. MOST Bus

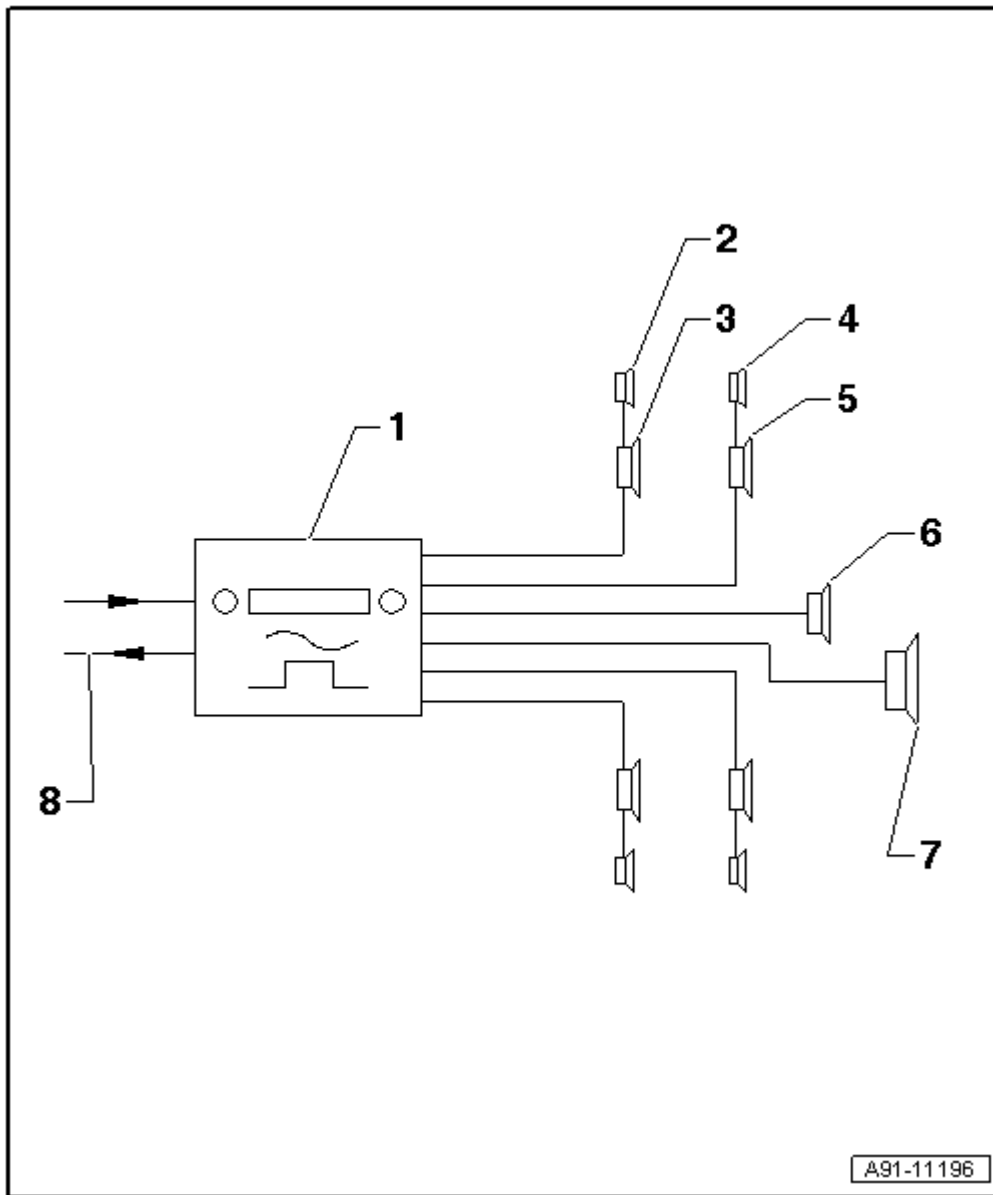
**Radio CAN/MMI, sound system standard, through 10.31.2008****Fig. 126: Identifying Radio Can/MMI Sound System**

Courtesy of AUDI OF AMERICA, LLC

1. MOST bus
2. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
3. Left Front Treble Speaker -R20- /Right Front Treble Speaker -R22- in the instrument panel
4. Left Front Mid-Bass Speaker -R101- /Right Front Mid-Bass Speaker -R102- at bottom in front doors
5. Left Rear Treble Speaker -R14- /Right Rear Treble Speaker -R16- at top in rear doors
6. Left Rear Mid/Low Range Speaker -R159- /Right Rear Mid/Low Range Speaker -R160- at bottom in rear doors

7. Center Mid/High Range Speaker -R158- in center instrument panel
8. Subwoofer On Rear Shelf -R157- (sedan)
  - Subwoofer On Rear Shelf -R157- in the spare wheel well (Avant)
9. Microphone unit in front roof module -R164- (Voice Control Microphone -R206-) in the Front Interior Lamp -W1- (MOST only)
10. CAN Bus (Infotainment)

**MMI sound system standard, from 11.03.2008**



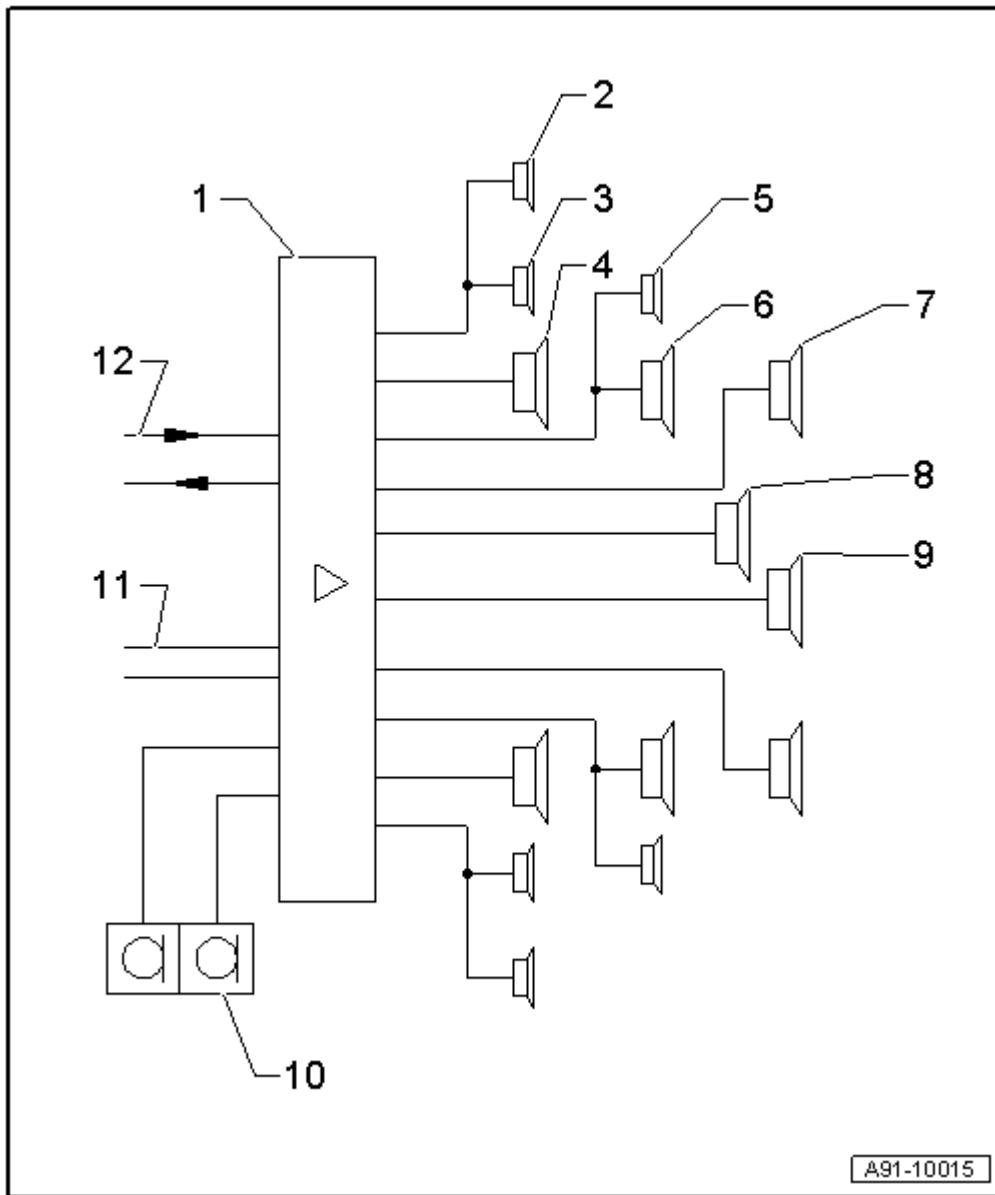
**Fig. 127: Identifying MMI Sound System Standard**  
 Courtesy of AUDI OF AMERICA, LLC

## 2012 Audi S4

### ACCESSORIES & EQUIPMENT Communication (Sedan)

1. Radio -R- behind the left luggage compartment left side trim
2. Left Front Treble Speaker -R20- /Right Front Treble Speaker -R22- in the instrument panel
3. Left Front Mid-Bass Speaker -R101- /Right Front Mid-Bass Speaker -R102- at bottom in front doors
4. Left Rear Treble Speaker -R14- /Right Rear Treble Speaker -R16- at top in rear doors
5. Left Rear Mid/Low Range Speaker -R159- /Right Rear Mid/Low Range Speaker -R160- at bottom in rear doors
6. Center Mid/High Range Speaker -R158- in center instrument panel
7. Subwoofer On Rear Shelf -R157- (Sedan)
  - Subwoofer On Rear Shelf -R157- in the spare wheel well (Avant)
8. MOST bus

### Radio CAN/MMI Sound System Premium Bang & Olufsen

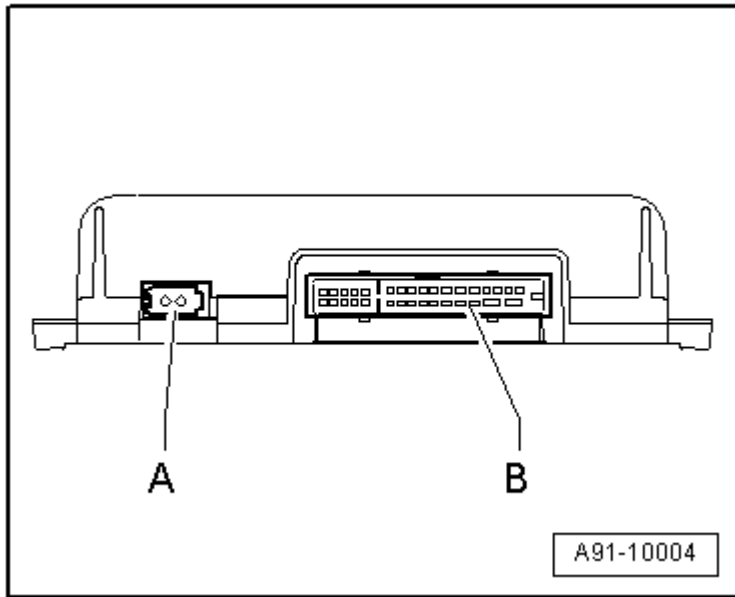


A91-10015

**Fig. 128: Identifying Radio Can/MMI Sound System Premium Bang & Olufsen**  
 Courtesy of AUDI OF AMERICA, LLC

1. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
2. Left Front Treble Speaker -R20- /Right Front Treble Speaker -R22- in mirror triangle
3. Left Front Midrange Speaker -R103- /Right Front Midrange Speaker -R104- in the instrument panel
4. Left Front Bass Speaker -R21- /Right Front Bass Speaker -R23- at bottom in front doors
5. Left Rear Treble Speaker -R14- /Right Rear Treble Speaker -R16- at top in rear doors
6. Left Rear Mid/Low Range Speaker -R159- /Right Rear Mid/Low Range Speaker -R160- at bottom in rear doors
7. Left Rear Midrange Speaker -R105- /Right Rear Midrange Speaker -R106- in the rear shelf (sedan)

- Left Rear Midrange Speaker -R105- /Right Rear Midrange Speaker -R106- in the D-pillars (Avant)
- 8. Center Mid/High Range Speaker -R158- in center instrument panel
- 9. Subwoofer On Rear Shelf -R157- (Sedan)
  - Subwoofer On Rear Shelf -R157- in the spare wheel well (Avant)
- 10. Microphone Unit In Front Roof Module -R164- (Inside Microphone -R74- all/Voice Control Microphone -R206- MMI through 10.31.2009, in the Front Interior Lamp -W1-
- 11. CAN Bus (Infotainment)
- 12. MOST Bus

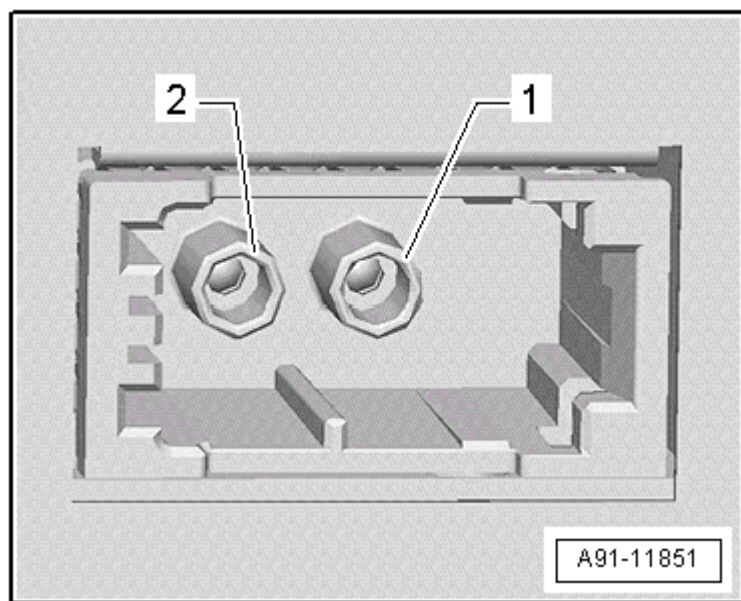
**SOUND SYSTEM CONNECTORS****SOUND SYSTEM BASIC PLUS, MMI, THROUGH 10.31.2008**

**Fig. 129: Digital Sound System Control Module -J525-**  
Courtesy of AUDI OF AMERICA, LLC

A - MOST bus

B - 32-pin connector (T32h)

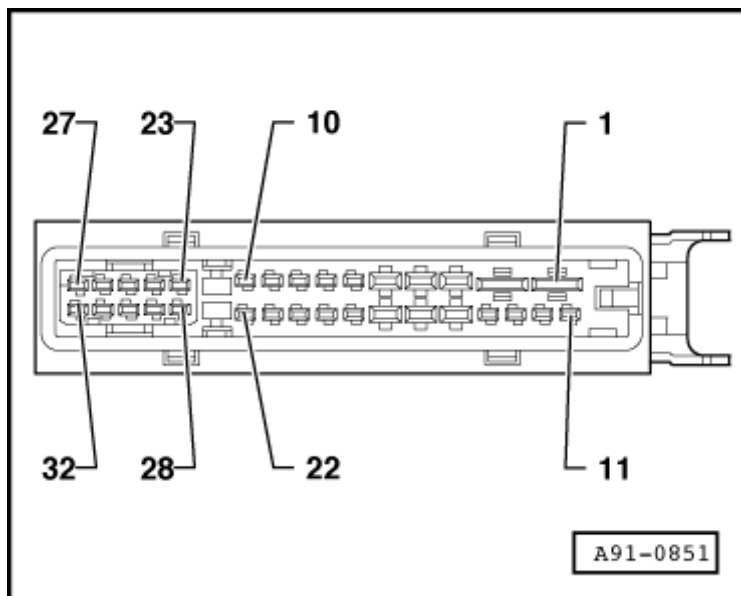
**NOTE:** Unlisted connector terminals are not used.



**Fig. 130: A - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT



**Fig. 131: Black 32-Pin Multi-Pin Harness Connector**

Courtesy of AUDI OF AMERICA, LLC

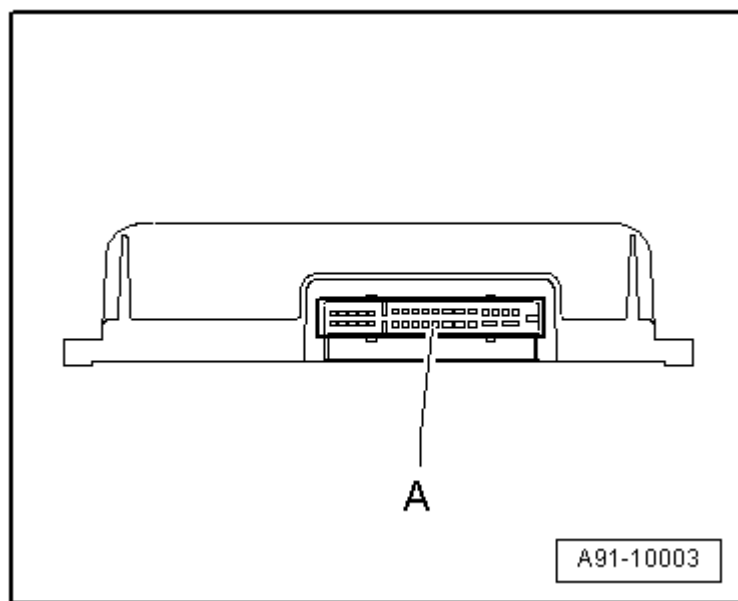
- 1 - Terminal 30
- 2 - Terminal 31

## 2012 Audi S4

### ACCESSORIES & EQUIPMENT Communication (Sedan)

- 3 - Speaker, left front (+)
- 4 - Speaker, right front (+)
- 6 - Speaker, left rear (+)
- 7 - Speaker, right rear (+)
- 15 - Speaker, left front (-)
- 16 - Speaker, right front (-)
- 18 - Speaker, left rear (-)
- 19 - Speaker, right rear (-)
- 24 - Left LF IN for the external audio source connection -R199-
- 25 - LF (+) from the cell phone preparation/Japan Nav
- 26 - Right LF IN for the external audio source connection -R199-
- 27 - Ring-break diagnostic cable
- 29 - Left LF-In ground from the external audio source connection -R199-
- 30 - LF (-) from the cell phone preparation/Japan Nav
- 31 - Right LF-In ground from the external audio source connection -R199-

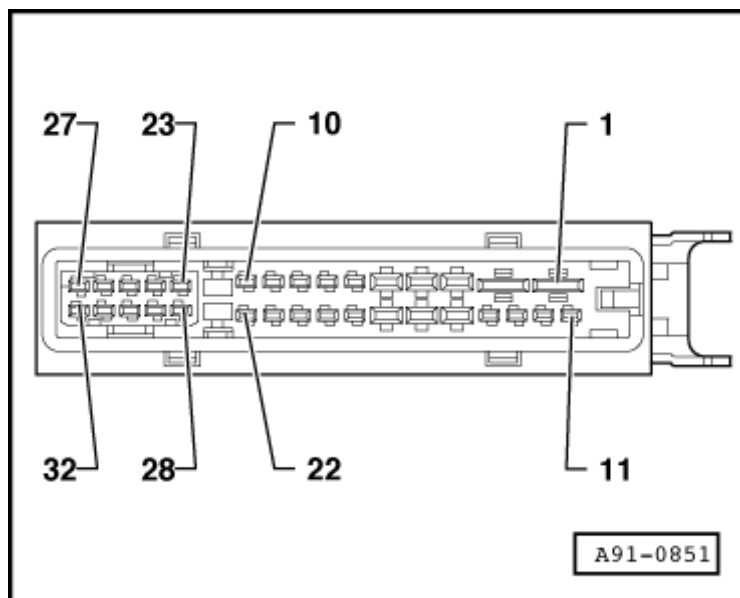
**SOUND SYSTEM STANDARD, CAN**



**Fig. 132: Digital Sound System Control Module -J525-**  
 Courtesy of AUDI OF AMERICA, LLC

A - 32-pin connector (T32h)

**NOTE:** Unlisted connector terminals are not used.



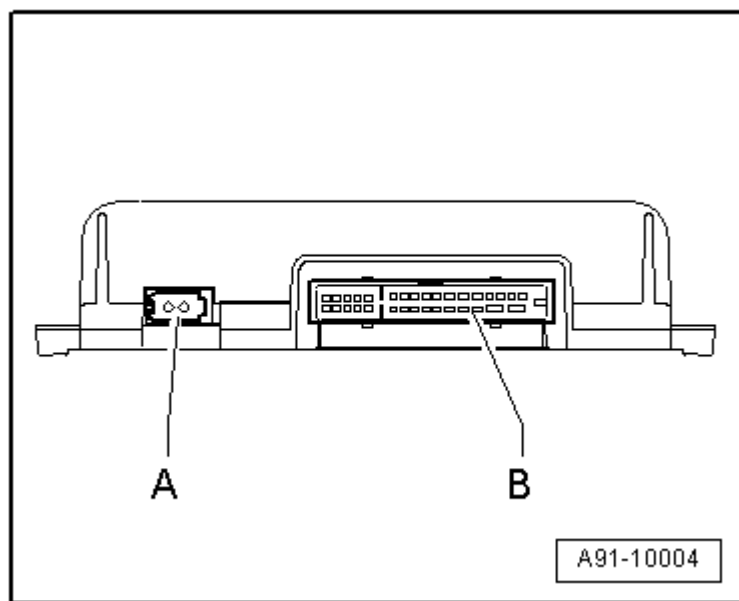
**Fig. 133: Black 32-Pin Multi-Pin Harness Connector**  
 Courtesy of AUDI OF AMERICA, LLC

1 - Terminal 30

2 - Terminal 31

- 3 - Subwoofer in rear shelf -R157- (+)
- 4 - Speaker, left front (+)
- 5 - Speaker, right front (+)
- 6 - Speaker, left rear (+)
- 7 - Speaker, right rear (+)
- 8 - Center Mid/High Range Speaker -R158- (+)
- 13 - CAN bus high (Infotainment)
- 14 - CAN bus low (Infotainment)
- 15 - Subwoofer on rear shelf -R157- (-)
- 16 - Speaker, left front (-)
- 17 - Speaker, right front (-)
- 18 - Speaker, left rear (-)
- 19 - Speaker, right rear (-)
- 20 - Center Mid/High Range Speaker -R158- (-)
- 23 - Rear right signal (+) from the radio -R-
- 24 - Rear left signal (+) from radio
- 25 - Front right signal(+) from radio
- 26 - Front left signal (+) from the radio
- 28 - Rear right signal (-) from the radio
- 29 - Rear left signal (-) from the radio
- 30 - Front right signal (-) from radio
- 31 - Front left signal (-) from the radio

**SOUND SYSTEM STANDARD, MMI, THROUGH 10.31.2008**

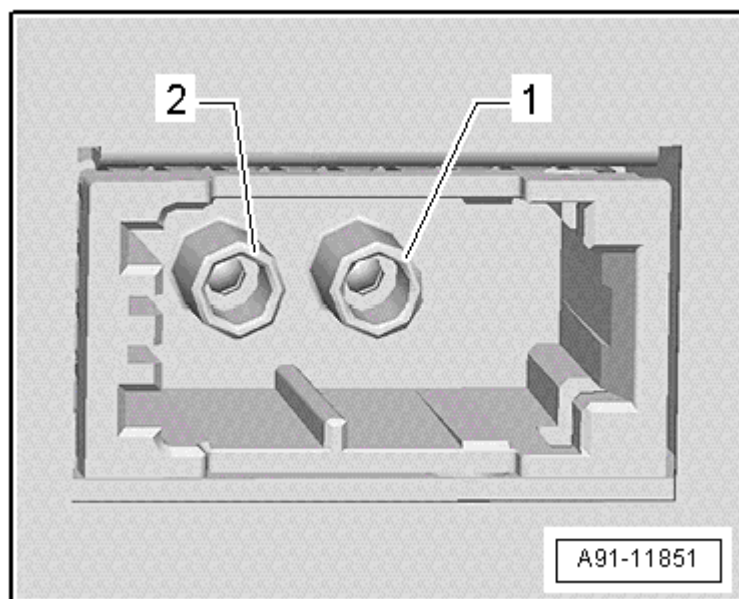


**Fig. 134: Digital Sound System Control Module -J525-**  
Courtesy of AUDI OF AMERICA, LLC

A - MOST bus

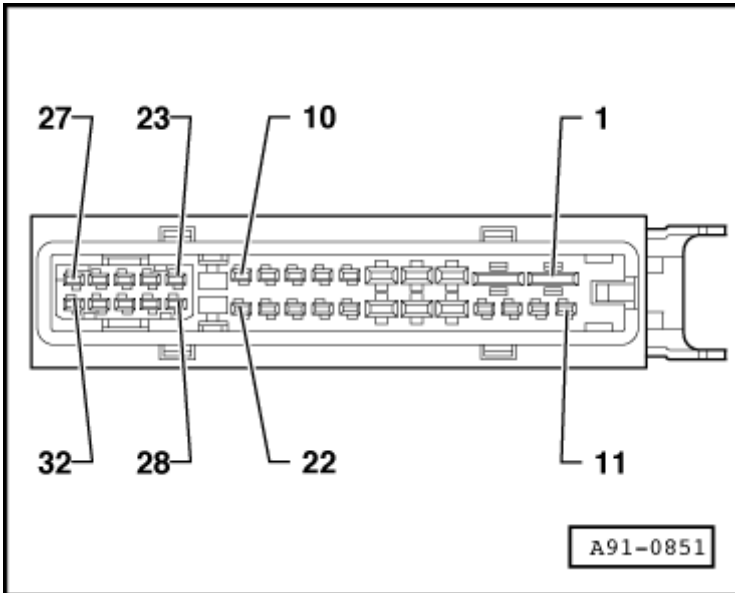
B - 32-pin connector (T32h)

**NOTE:** Unlisted connector terminals are not used.



**Fig. 135: A - MOST Bus**  
Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT

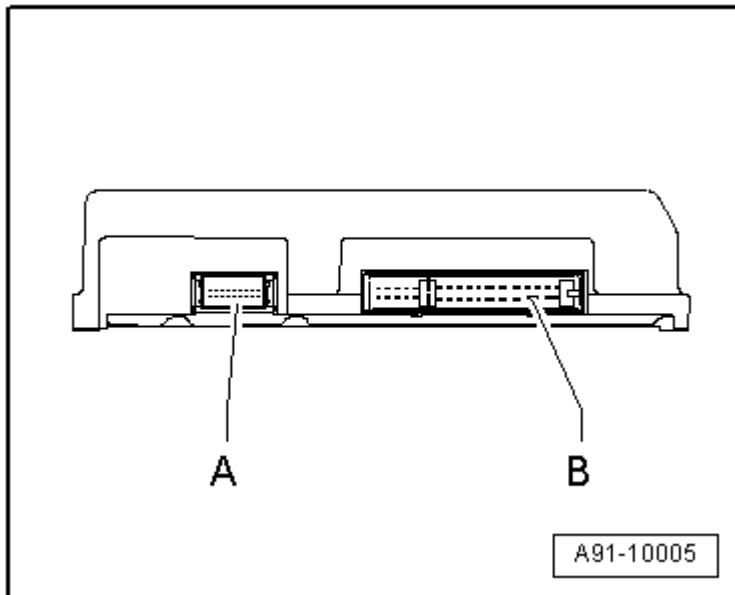


**Fig. 136: Black 32-Pin Multi-Pin Harness Connector**  
Courtesy of AUDI OF AMERICA, LLC

- 1 - Terminal 30
- 2 - Terminal 31
- 3 - Subwoofer in rear shelf -R157- (+)
- 4 - Speaker, left front (+)
- 5 - Speaker, right front (+)
- 6 - Speaker, left rear (+)
- 7 - Speaker, right rear (+)
- 8 - Center Mid/High Range Speaker -R158- (+)
- 15 - Subwoofer on rear shelf -R157- (-)
- 16 - Speaker, left front (-)
- 17 - Speaker, right front (-)
- 18 - Speaker, left rear (-)

- 19 - Speaker, right rear (-)
- 20 - Center Mid/High Range Speaker -R158- (-)
- 23 - Microphone 1 (+) from Microphone Unit in front roof module -R164- (Voice Control Microphone -R206-)
- 24 - Left LF IN for the external audio source connection -R199-
- 25 - LF (+) from the cell phone preparation/Japan Nav
- 26 - Right LF IN for the external audio source connection -R199-
- 27 - Ring-break diagnostic cable
- 28 - Microphone 1 (-) from Microphone Unit in front roof module -R164- (Voice Control Microphone -R206-)
- 29 - Left LF-In ground from the external audio source connection -R199-
- 30 - LF (-) from the cell phone preparation/Japan Nav
- 31 - Right LF-In ground from the external audio source connection -R199-

**SOUND SYSTEM BANG & OLUFSEN, CAN**

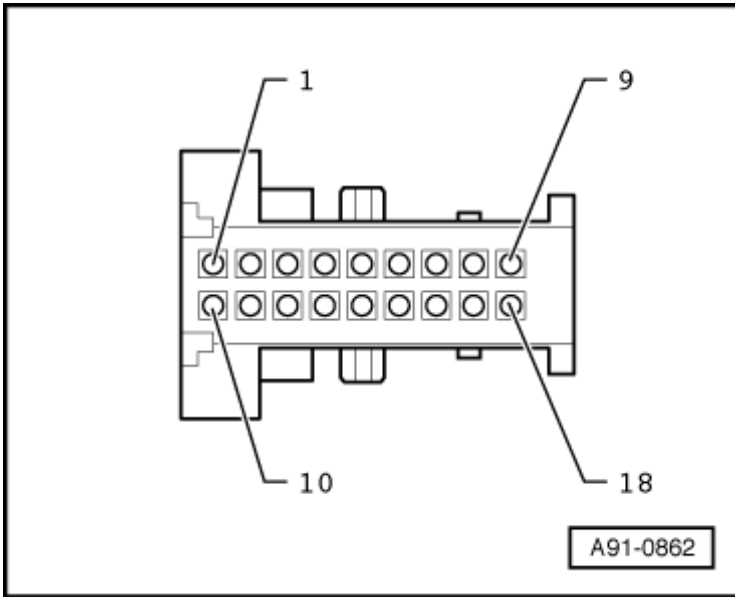


**Fig. 137: Digital Sound System Control Module -J525-**  
**Courtesy of AUDI OF AMERICA, LLC**

A - 18-pin connector (T18b)

B - 32-pin connector (T32h)

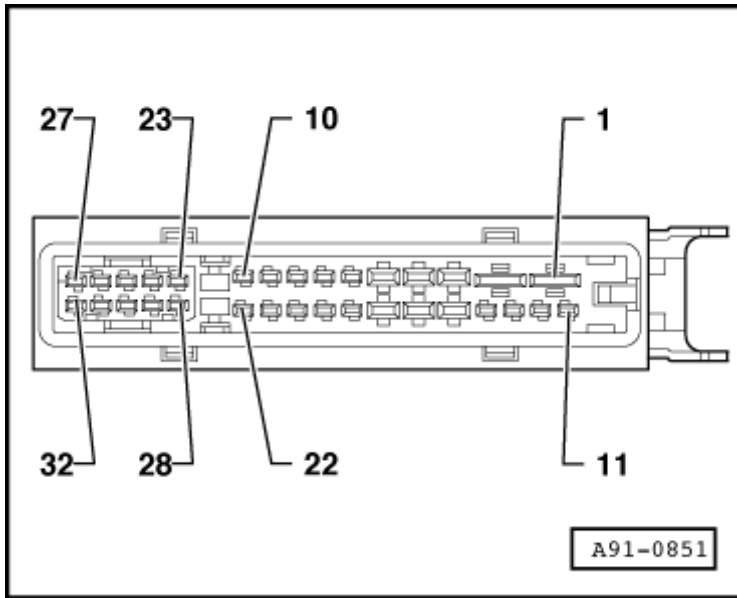
**NOTE:** Unlisted connector terminals are not used.



**Fig. 138: Black 18-Pin Multi-Pin Harness Connector**  
Courtesy of AUDI OF AMERICA, LLC

- 1 - Microphone input 1 (+) from Microphone Unit in front roof module -R164- (Inside Microphone -R74-)
- 2 - Microphone input 1 (ground shielding) from Microphone Unit in front roof module -R164- (Inside Microphone -R74-)
- 4 - Rear right signal (+) from radio -R-
- 5 - Rear left signal (+) from radio
- 6 - Front right signal (+) from radio
- 7 - Front left signal (+) from radio
- 9 - CAN bus high (Infotainment)
- 10 - Microphone input 1 (-) from Microphone Unit in front roof module -R164- (Inside Microphone -R74-)
- 13 - Rear right signal (-) from radio
- 14 - Rear left signal (-) from radio
- 15 - Front right signal (-) from radio
- 16 - Front left signal (-) from radio

18 - CAN bus low (Infotainment)



**Fig. 139: Black 32-Pin Multi-Pin Harness Connector**  
**Courtesy of AUDI OF AMERICA, LLC**

1 - Terminal 30

2 - Terminal 31

3 -

3 - Speaker, left rear (+)

4 - Speaker, right rear (+)

5 - Center Mid/High Range Speaker -R158- (+)

6 - Speaker, left front (+)

7 - Speaker, right front (+)

8 - Left Rear Midrange Speaker -R105- (+)

9 - Right Rear Midrange Speaker -R106- (+)

10 - Right Front Bass Speaker -R23- (+)

15 - Speaker, left rear (-)

16 - Speaker, right rear (-)

17 - Center Mid/High Range Speaker -R158- (-)

18 - Speaker, left front (-)

19 - Speaker, right front (-)

20 - Left Rear Midrange Speaker -R105- (-)

21 - Right Rear Midrange Speaker -R106- (-)

22 - Right Front Bass Speaker -R23- (-)

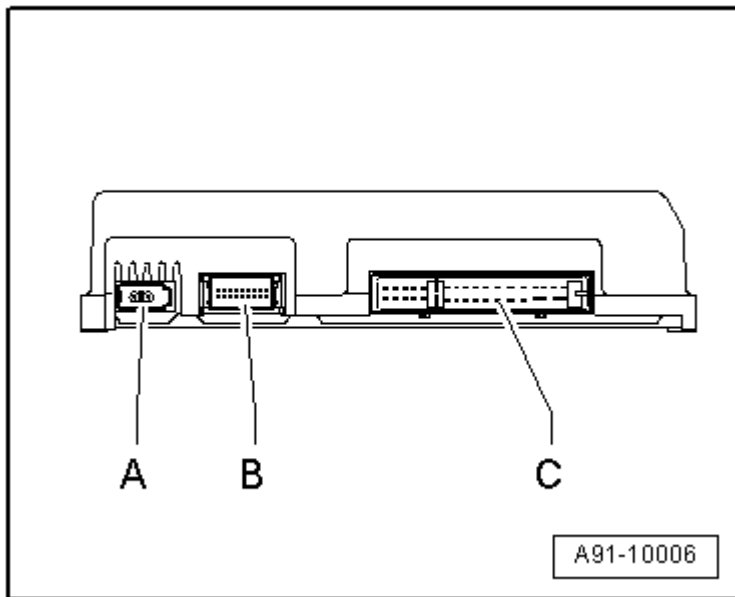
23 - Left Front Bass Speaker -R21- (+)

25 - Subwoofer in rear shelf -R157- (+)

28 - Left Front Bass Speaker -R21- (-)

30 - Subwoofer in rear shelf -R157- (-)

**SOUND SYSTEM CONNECTORS, BANG & OLUFSEN MMI**



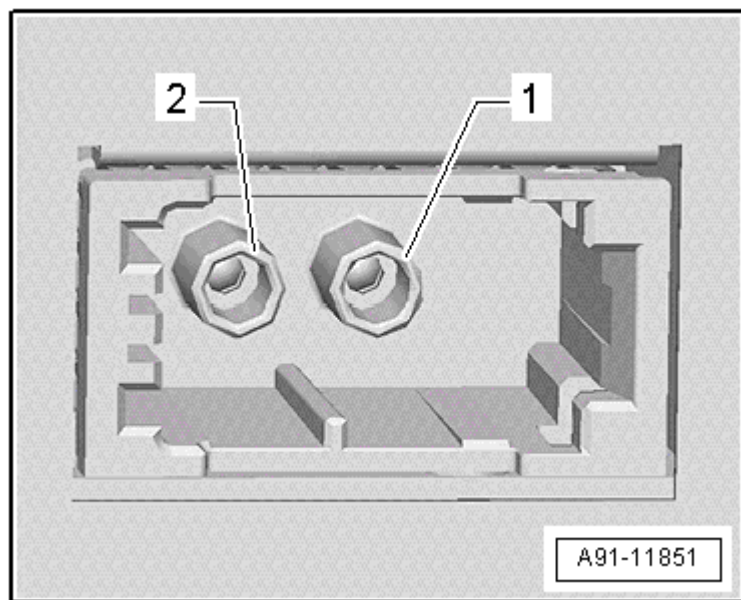
**Fig. 140: Digital Sound System Control Module -J525-**  
**Courtesy of AUDI OF AMERICA, LLC**

A - MOST bus

B - 18-pin connector (T18b)

C - 32-pin connector (T32h)

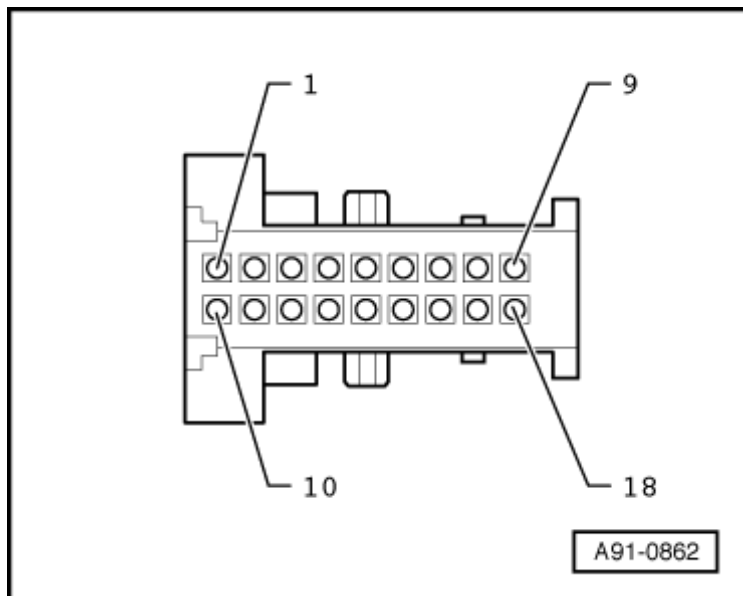
**NOTE:** Unlisted connector terminals are not used.



**Fig. 141: A - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

- 1. IN
- 2. OUT

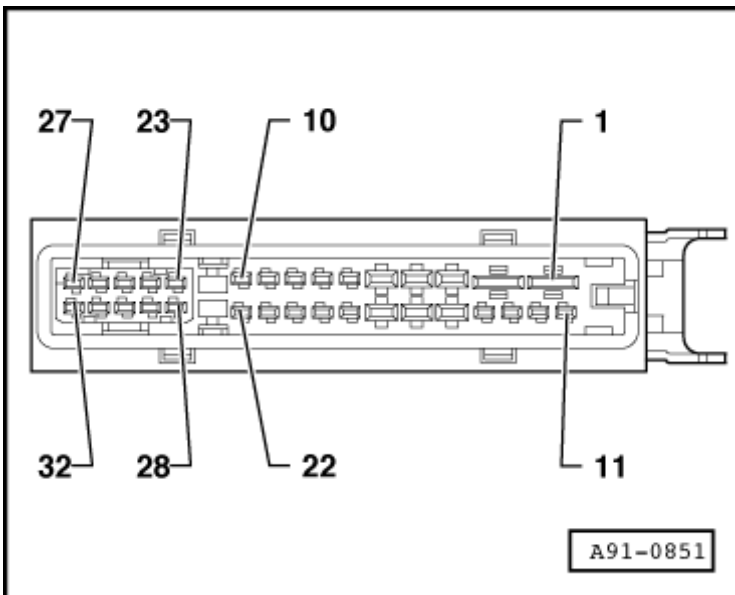


**Fig. 142: Black 18-Pin Multi-Pin Harness Connector**

Courtesy of AUDI OF AMERICA, LLC

1 - Microphone input 1 (+) from Microphone Unit in front roof module -R164- (Inside Microphone -R74-)

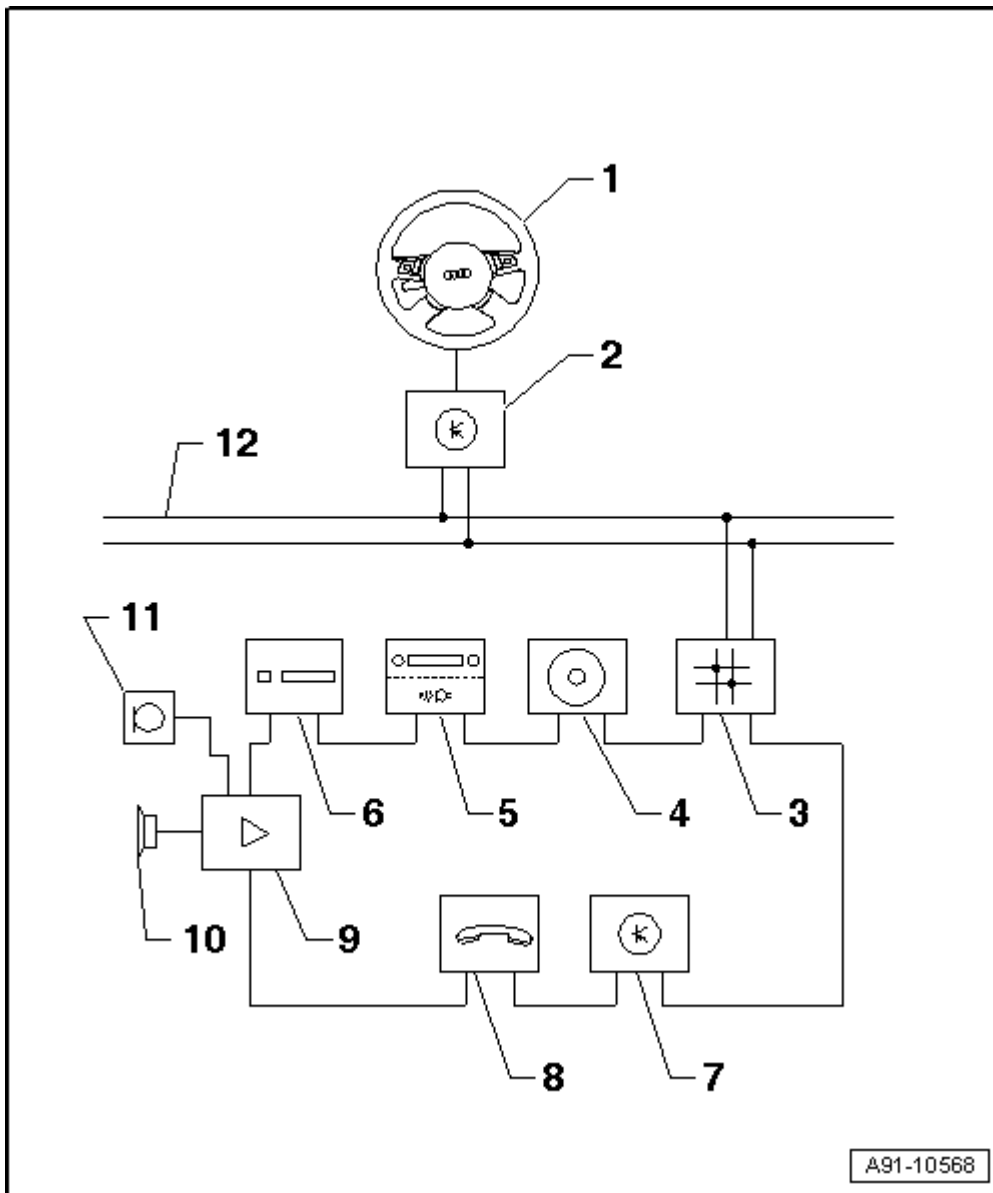
- 2 - Microphone input 1 (ground shielding) from Microphone Unit in front roof module -R164- (Inside Microphone -R74-)
- 3 - Microphone input 2 (+) from Microphone Unit in front roof module -R164- (Voice Control Microphone -R206-) through 10.31.2008
- 4 - LF (+) cell phone preparation preliminary setup/Japan navigation through 10.31.2008
- 6 - Right LF-In from external audio source connection -R199- through 10.31.2008
- 7 - Left LF-In from external audio source connection -R199- through 10.31.2008
- 10 - Microphone input 1 (-) from Microphone Unit in front roof module -R164- (Inside Microphone -R74-)
- 11 - Microphone input 2 (screen ground) from Microphone Unit in front roof module -R164- (Voice Control Microphone -R206-) through 10.31.2008
- 12 - Microphone input 2 (-) from Microphone Unit in front roof module -R164- (Voice Control Microphone -R206-) through 10.31.2008
- 13 - LF (-) cell phone preparation preliminary setup/Japan navigation through 10.31.2008
- 15 - Right LF-In ground from external audio source connection -R199- through 10.31.2008
- 16 - Left LF-In ground from external audio source connection -R199- through 10.31.2008
- 17 - Ring-break diagnostic cable



**Fig. 143: Black 32-Pin Multi-Pin Harness Connector**  
 Courtesy of AUDI OF AMERICA, LLC

- 1 - Terminal 30
- 2 - Terminal 31
- 3 - Speaker, left rear (+)
- 4 - Speaker, right rear (+)
- 5 - Center Mid/High Range Speaker -R158- (+)
- 6 - Speaker, left front (+)
- 7 - Speaker, right front (+)
- 8 - Left Rear Midrange Speaker -R105- (+)
- 9 - Right Rear Midrange Speaker -R106- (+)
- 10 - Right Front Bass Speaker -R23- (+)
- 15 - Speaker, left rear (-)
- 16 - Speaker, right rear (-)
- 17 - Center Mid/High Range Speaker -R158- (-)
- 18 - Speaker, left front (-)
- 19 - Speaker, right front (-)
- 20 - Left Rear Midrange Speaker -R105- (-)
- 21 - Right Rear Midrange Speaker -R106- (-)
- 22 - Right Front Bass Speaker -R23- (-)
- 23 - Left Front Bass Speaker -R21- (+)
- 25 - Subwoofer in rear shelf -R157- (+)
- 28 - Left Front Bass Speaker -R21- (-)
- 30 - Subwoofer in rear shelf -R157- (-)

**SPEECH CONTROL SYSTEM OVERVIEWS AND CONNECTORS****MMI OVERVIEW, THROUGH 10.31.2008**

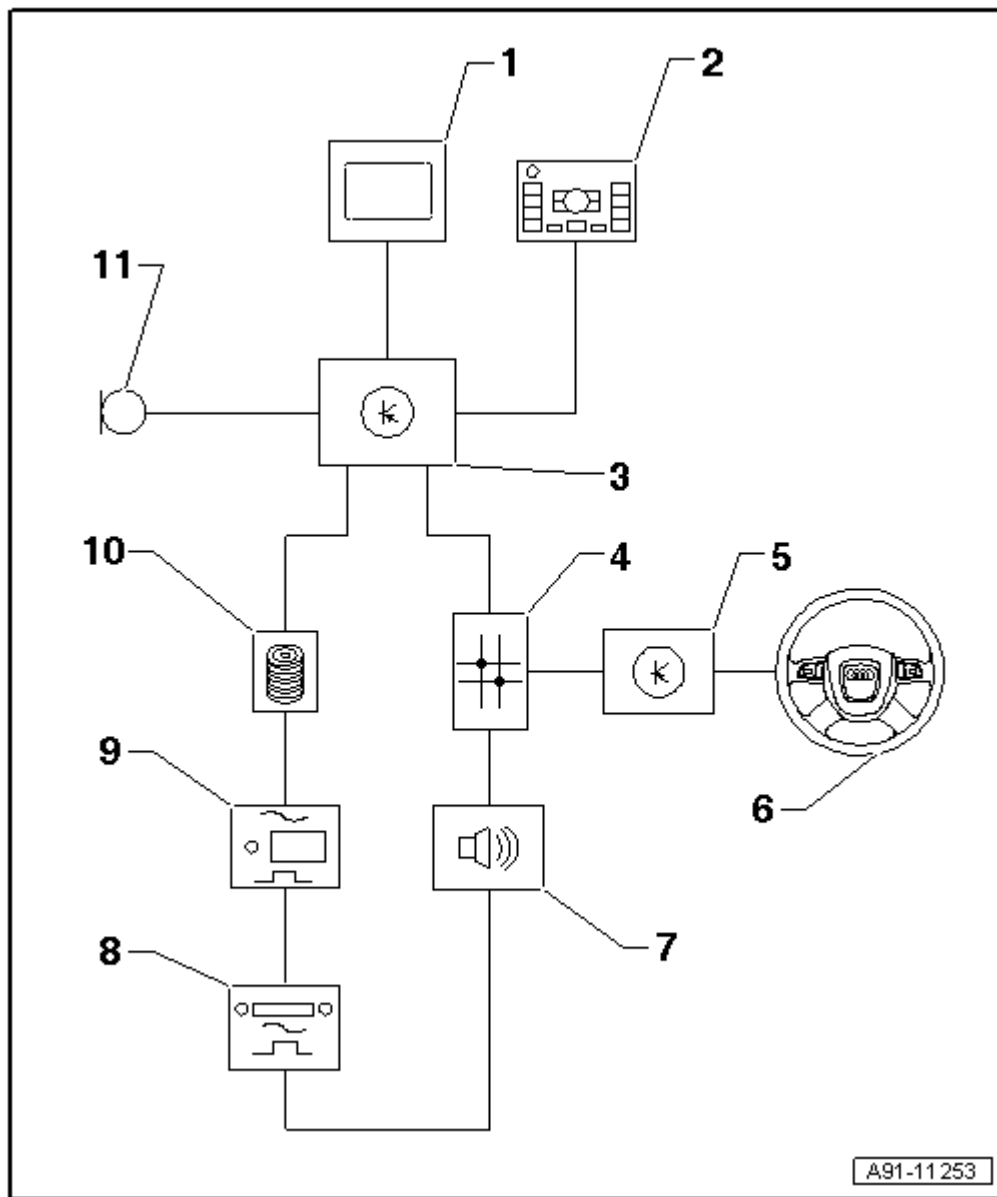


**Fig. 144: Identifying Voice Control System, Through 29 May 2009**  
 Courtesy of AUDI OF AMERICA, LLC

1. Multifunction Steering Wheel
  - Overview, refer to **MULTIFUNCTION STEERING WHEEL**.
2. Steering Column Electronic Systems Control Module -J527-
  - On steering column at steering column switches
3. Data Bus On Board Diagnostic Interface -J533-
  - Behind the glove compartment on the left side
4. CD Changer -R41-
  - In instrument panel
5. Radio -R-

- With Speech Input Control Module -J507-
  - Behind the luggage compartment left side trim
  - Pin assignment Speech Input Control Module -J507-, refer to **HARNES CONNECTOR OF SPEECH INPUT CONTROL MODULE -J507-**.
  - Removing and installing Speech Input Control Module -J507-, refer to **SPEECH INPUT CONTROL MODULE -J507- THROUGH 10.31.2008.**
6. Navigation System With CD Drive Control Module -J401-
    - Behind the luggage compartment left side trim
  7. Front Information Display Control Head Control Module -J523-
    - Behind instrument panel
  8. Telephone Transceiver -R36-
    - Under the right front seat
  9. Digital Sound System Control Module -J525-
    - Behind the luggage compartment left side trim
  10. Sound Systems
  11. Microphone Unit in Front Roof Module -R164-
    - Overview, refer to **MICROPHONE UNIT IN FRONT ROOF MODULE -R164-, THROUGH 10.31.2008.**
  12. CAN Bus (Comfort)

**MMI OVERVIEW, FROM 11.03.2008**



**Fig. 145: Identifying Voice Control System, From 1 June 2009**

Courtesy of AUDI OF AMERICA, LLC

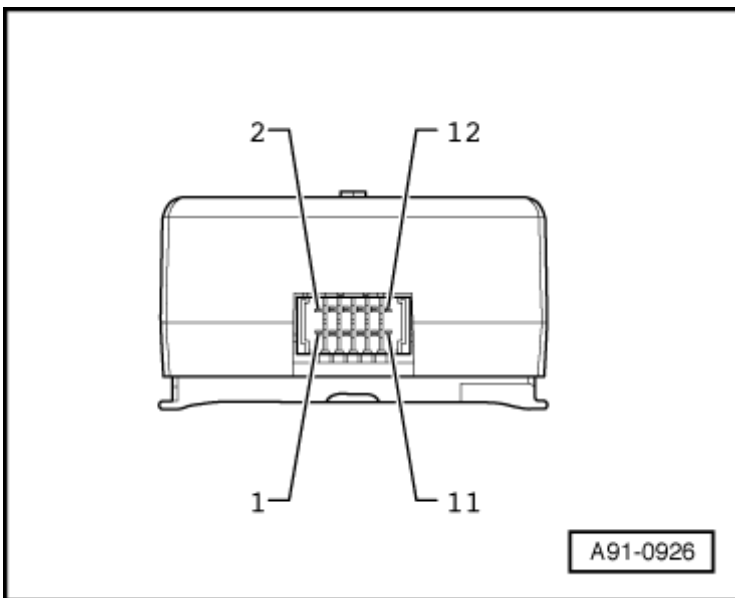
1. Front Information Display Control Head -J685-
  - In the center of the instrument panel
2. Multimedia System Control Head -E380-
  - In center console
3. Information Electronics Control Module 1 -J794-
  - In instrument panel
  - For connector assignment, from 11.03.2008, refer to **MMI OVERVIEWS AND CONNECTORS, FROM 11.03.2008.**
  - Removing and installing, refer to **INFORMATION ELECTRONICS CONTROL MODULE 1 -**

**J794-**

4. Data Bus On Board Diagnostic Interface -J533-
  - Behind the glove compartment on the left side
5. Steering Column Electronic Systems Control Module -J527-
  - On steering column at steering column switches
6. Multifunction Steering Wheel
  - Overview, refer to **4-SPOKE STEERING WHEEL OVERVIEW, FROM MY 13.**
7. Digital Sound System Control Module -J525-
  - Behind the luggage compartment left side trim
8. Radio -R-
  - Behind the luggage compartment left side trim
9. TV Tuner -R78-
  - Not available in the NAR market
10. CD Changer -R41-
  - In the glove compartment
11. Microphone Unit in Front Roof Module -R164-
  - Overview, refer to **MICROPHONE UNIT IN FRONT ROOF MODULE -R164-, FROM 11.03.2008.**

**HARNESS CONNECTOR OF SPEECH INPUT CONTROL MODULE -J507-**

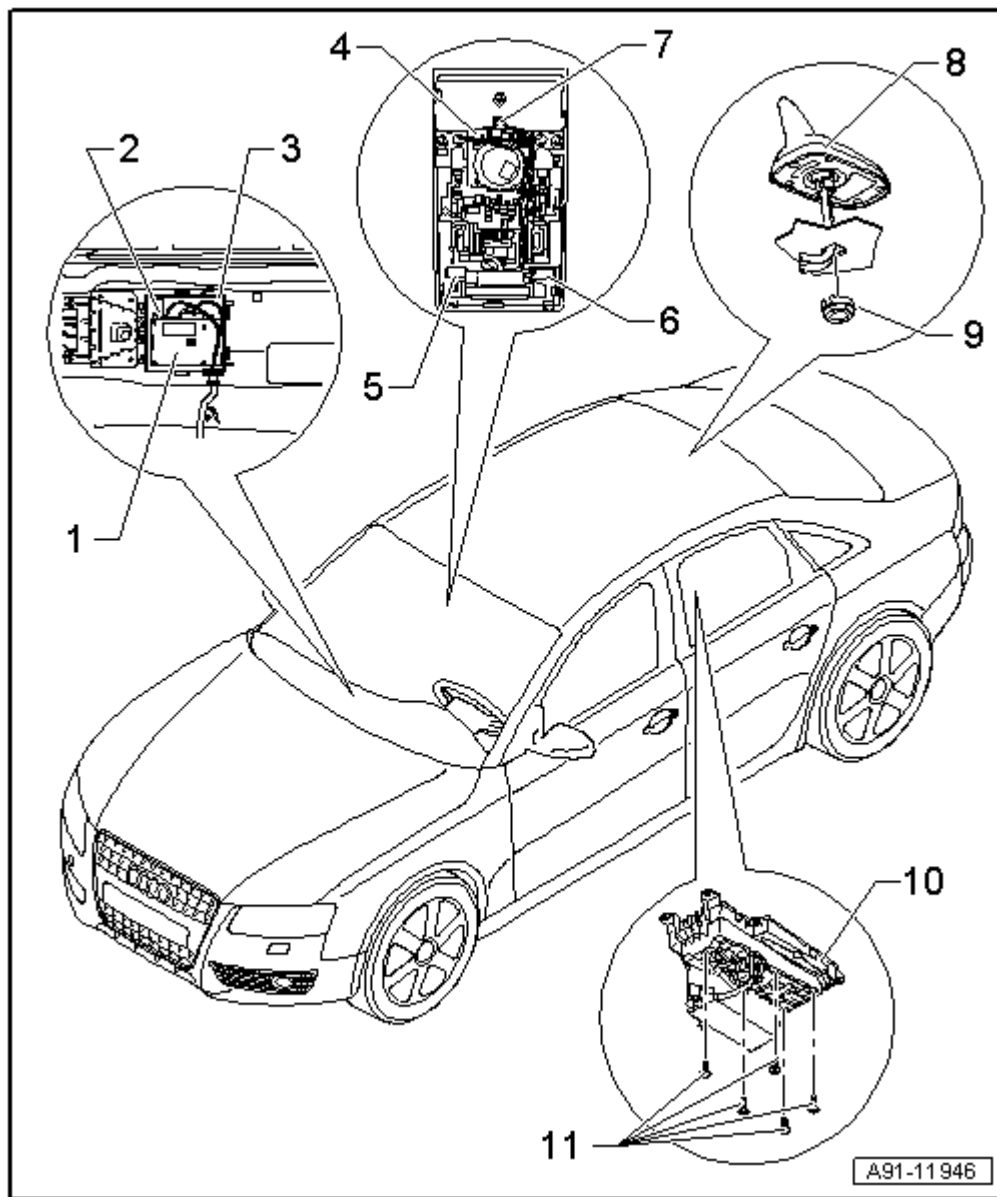
**NOTE:** Unlisted connector terminals are not used.



**Fig. 146: Speech Input Control Module J507, Multi-Pin Connector Assignments**  
Courtesy of AUDI OF AMERICA, LLC

1. Not assigned
2. Not assigned
3. Status
4. Diagnosis
5. Terminal 30
6. Reset signal
7. Power good
8. Power on
9. Terminal 31
10. MOST out
11. Enabled
12. MOST in

**TELEPHONE SYSTEM AND COMPONENT OVERVIEWS****COMPONENT LOCATION OVERVIEW, THROUGH 10.31.2008**



**Fig. 147: Identifying Component Location**

Courtesy of AUDI OF AMERICA, LLC

1. Telephone Transceiver -R36-

- Cell Phone Preparation Connector Assignment (CAN), refer to **CELL PHONE PREPARATION, CAN, THROUGH MY 08.**
- Cell Phone Preparation Connector Assignment, MMI through 10.31.2008, refer to **MMI CELL PHONE PREPARATION, THROUGH 10.31.2008.**
- Removing and installing, refer to **TELEPHONE TRANSCEIVER -R36-**.

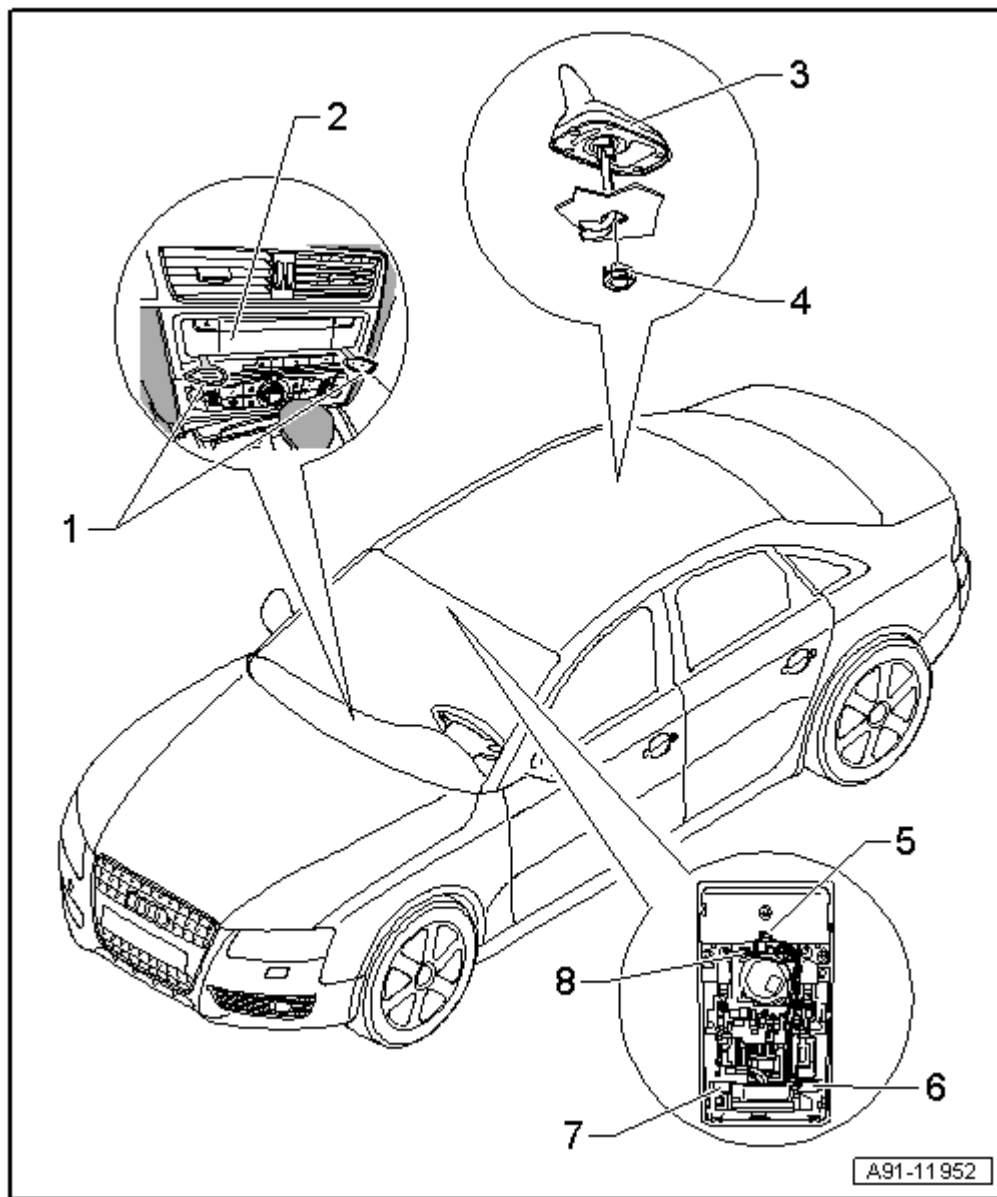
2. Bluetooth Antenna -R152-

3. E-Box

4. Connector T6c

5. Left Front Microphone -R140-
  - Removing and installing, refer to
6. Right Front Microphone -R141-
  - Removing and installing, refer to **MICROPHONE UNIT IN FRONT ROOF MODULE -R164-**.
7. Front Interior Lamp -W1-
  - Microphone Unit in Front Roof Module -R164-
  - Overview through 10.31.2008, refer to **MICROPHONE UNIT IN FRONT ROOF MODULE - R164-, THROUGH 10.31.2008.**
8. Radio/Telephone/Navigation System Antenna -R52-
  - Overview, Sedan, refer to **ANTENNA OVERVIEW.**
9. Nut
  - 6 Nm
10. Telephone Baseplate -R126-
  - Removing and installing (cell phone mount), refer to **TELEPHONE BASEPLATE -R126- FOR CELL PHONE.**
11. Bolt
  - 1 Nm

**COMPONENT LOCATION OVERVIEW, FROM 11.03.2008**



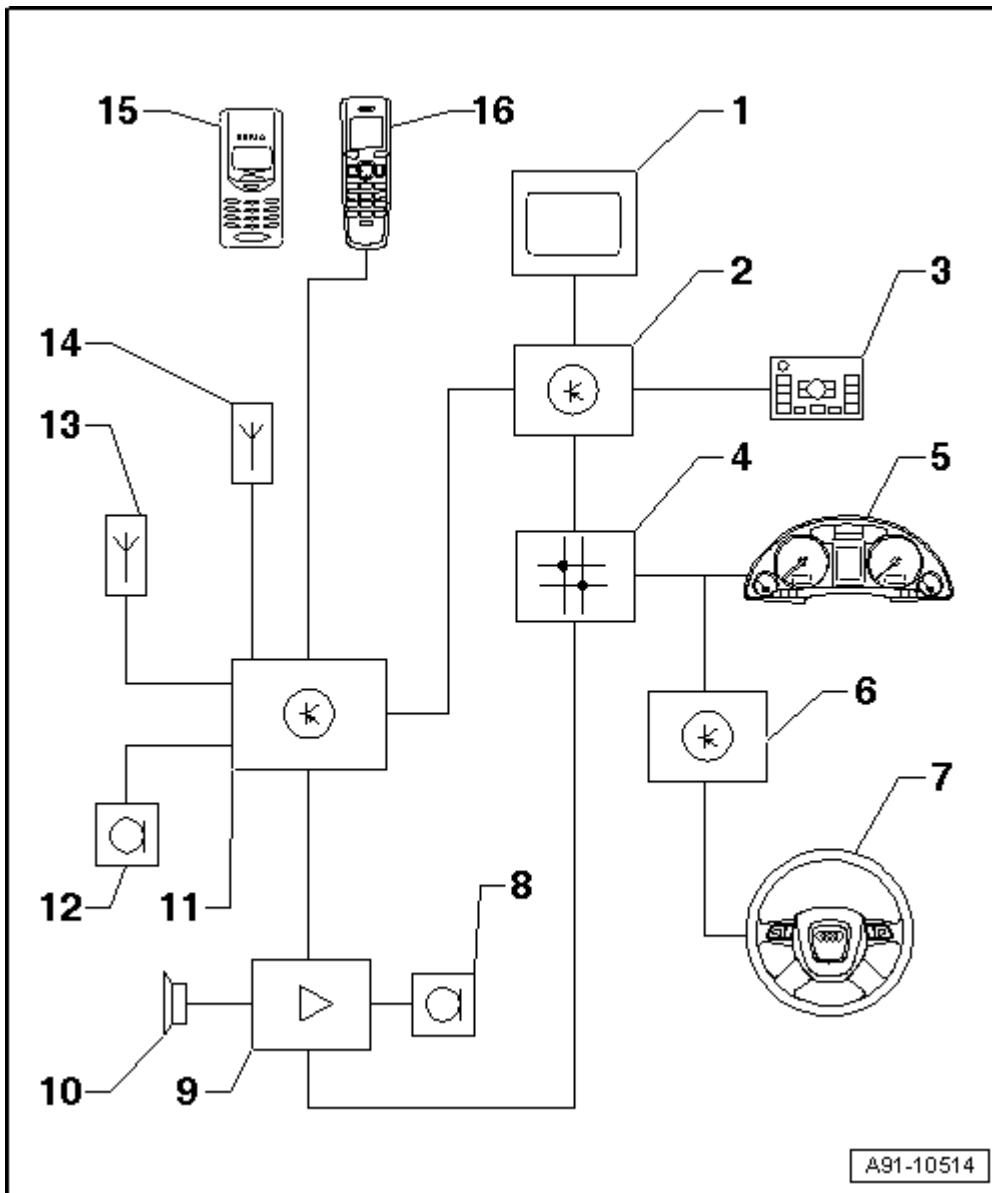
**Fig. 148: Identifying Component Location**

Courtesy of AUDI OF AMERICA, LLC

1. Radio Removal Tool T10057
2. Information Electronics Control Module 1 -J794-
  - For connector assignment, MMI cell phone preparation from 11.03.2008, refer to **MMI CELL PHONE PREPARATION, FROM 11.03.2008**.
  - MMI Bluetooth Hands-Free setup connectors, refer to **MMI BLUETOOTH HANDS-FREE CALLING**.
  - Removing and installing, refer to **INFORMATION ELECTRONICS CONTROL MODULE 1 -J794-**.
3. Radio/Telephone/Navigation System Antenna -R52-

- Overview, Sedan, refer to **ANTENNA OVERVIEW**.
  - Overview, Avant, refer to .
4. Nut
    - 6 Nm
  5. Front Interior Lamp -W1-
    - Microphone Unit in Front Roof Module -R164-
    - Overview, from 11.03.2008, refer to **MICROPHONE UNIT IN FRONT ROOF MODULE - R164-, FROM 11.03.2008**.
  6. Right Front Microphone -R141-
    - Removing and installing, refer to **MICROPHONE UNIT IN FRONT ROOF MODULE -R164-**.
  7. Left Front Microphone -R140-
    - Removing and installing, refer to **MICROPHONE UNIT IN FRONT ROOF MODULE -R164-**.
  8. Connector T6c

**BLUETOOTH TELEPHONE OVERVIEW, THROUGH 10.31.2008**

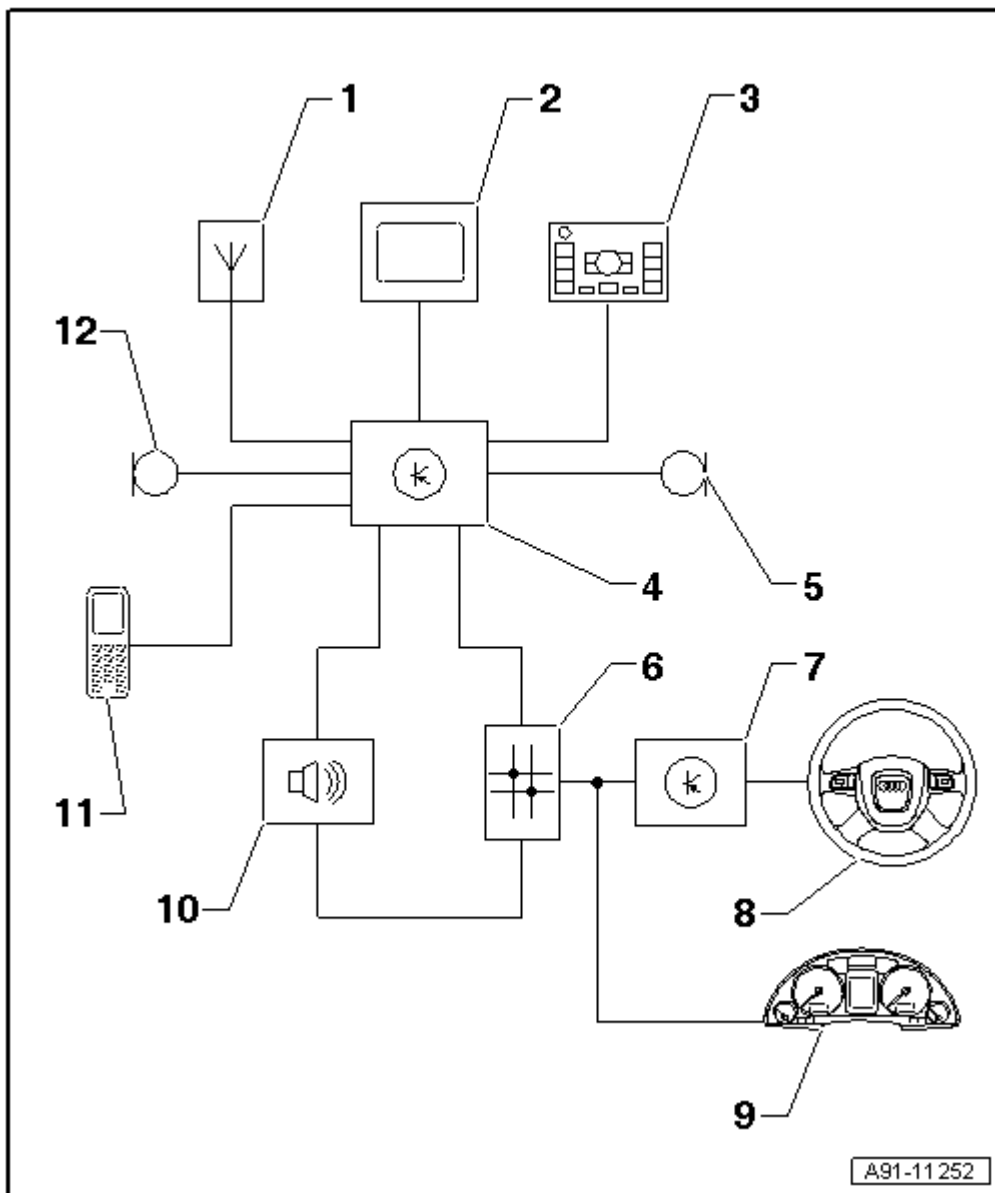


**Fig. 149: Bluetooth Car Phone, Layout**  
 Courtesy of AUDI OF AMERICA, LLC

1. Front Information Display Control Head -J685- in center of the instrument panel
2. Front Information Display Control Head Control Module -J523- inside the glove compartment on the left side (MMI basic)/behind the instrument panel (MMI)
3. Multimedia Control Head -E380- in the center console
4. Data Bus On Board Diagnostic Interface -J533- Behind the Glove Compartment On the Left Side
5. Instrument Cluster Control Module -J285- in the instrument panel
6. Steering Column Electronics Control Module -J527- on steering column at steering column switch
7. Multifunction Steering Wheel
8. Microphone Unit In Front Roof Module -R164- inside the front interior lamp -W1-

9. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
10. Sound Systems
11. Telephone Transceiver -R36- under the front passenger seat
12. Microphone Unit In Front Roof Module -R164- (Telephone Microphone -R38-) In Front Interior Lamp - W1-
13. Radio, Telephone, Navigation System Antenna -R52- roof antenna
14. Bluetooth Antenna -R152- at Telephone Transceiver -R36-
15. Cell Phone -R54-
16. Telephone Baseplate -R126- with Telephone Handset -R37-

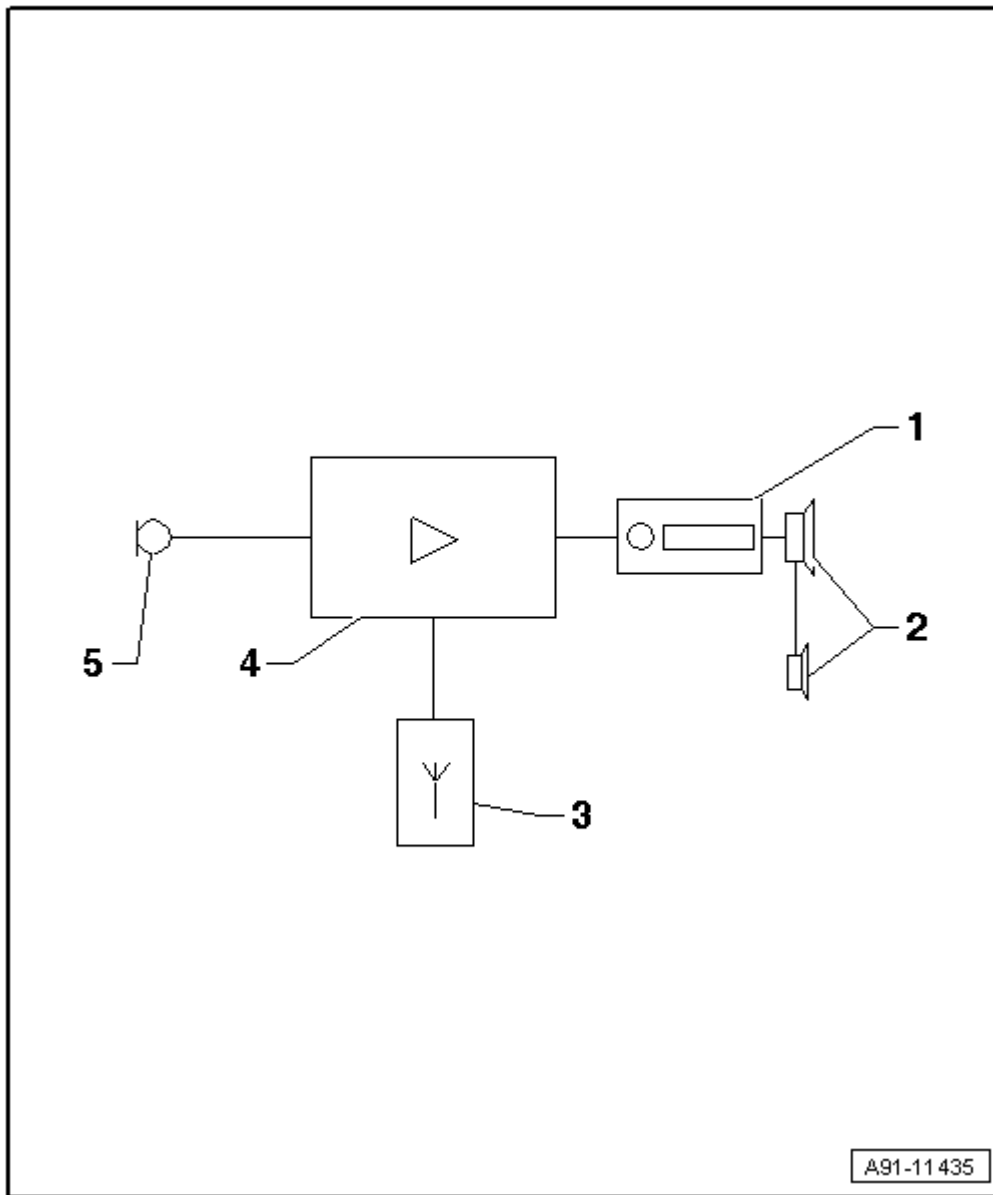
**BLUETOOTH TELEPHONE OVERVIEW, FROM 11.03.2008**



**Fig. 150: Identifying Bluetooth Telephone****Courtesy of AUDI OF AMERICA, LLC**

1. Radio, Telephone, Navigation System Antenna -R52- roof antenna
2. Front Information Display Control Head -J685- in center of the instrument panel
3. Multimedia Control Head -E380- in the center console
4. Information Electronics Control Module 1 -J794- inside the instrument panel
5. Microphone Unit In Front Roof Module -R164- (Right Front Microphone -R141-) Inside the Front Interior Lamp -W1-
6. Data Bus On Board Diagnostic Interface -J533- Behind the Glove Compartment On the Left Side
7. Steering Column Electronics Control Module -J527- on steering column at steering column switch
8. Multifunction Steering Wheel
9. Instrument Cluster Control Module -J285- in the instrument panel
10. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
11. Telephone Baseplate -R126- with telephone handset -R37-
12. Microphone Unit In Front Roof Module -R164- (Left Front Microphone -R140-) Inside the Front Interior Light -W1-

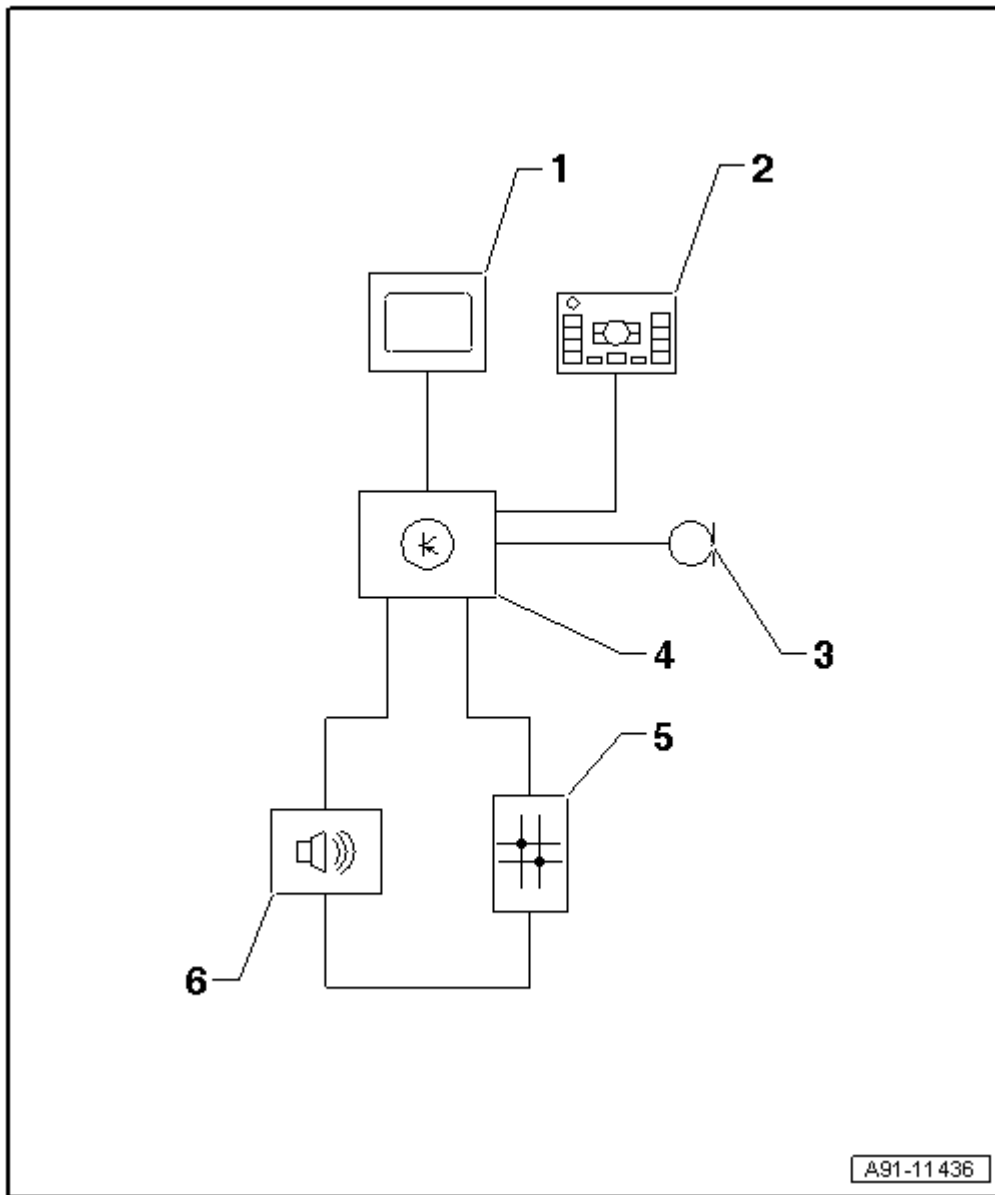
**CAN BLUETOOTH HANDS-FREE CALLING OVERVIEW**



**Fig. 151: Identifying CAN Bluetooth Hands Free Calling**  
Courtesy of AUDI OF AMERICA, LLC

1. Radio -R- Inside the Instrument Panel
2. Sound Systems
3. Bluetooth Antenna -R152- at Telephone Transceiver -R36-
4. Telephone Transceiver -R36- under the front passenger seat
5. Microphone Unit In Front Roof Module -R164- (Right Front Microphone -R141-) Inside The Front Interior Light -W1-

#### MMI BLUETOOTH HANDS-FREE CALLING OVERVIEW

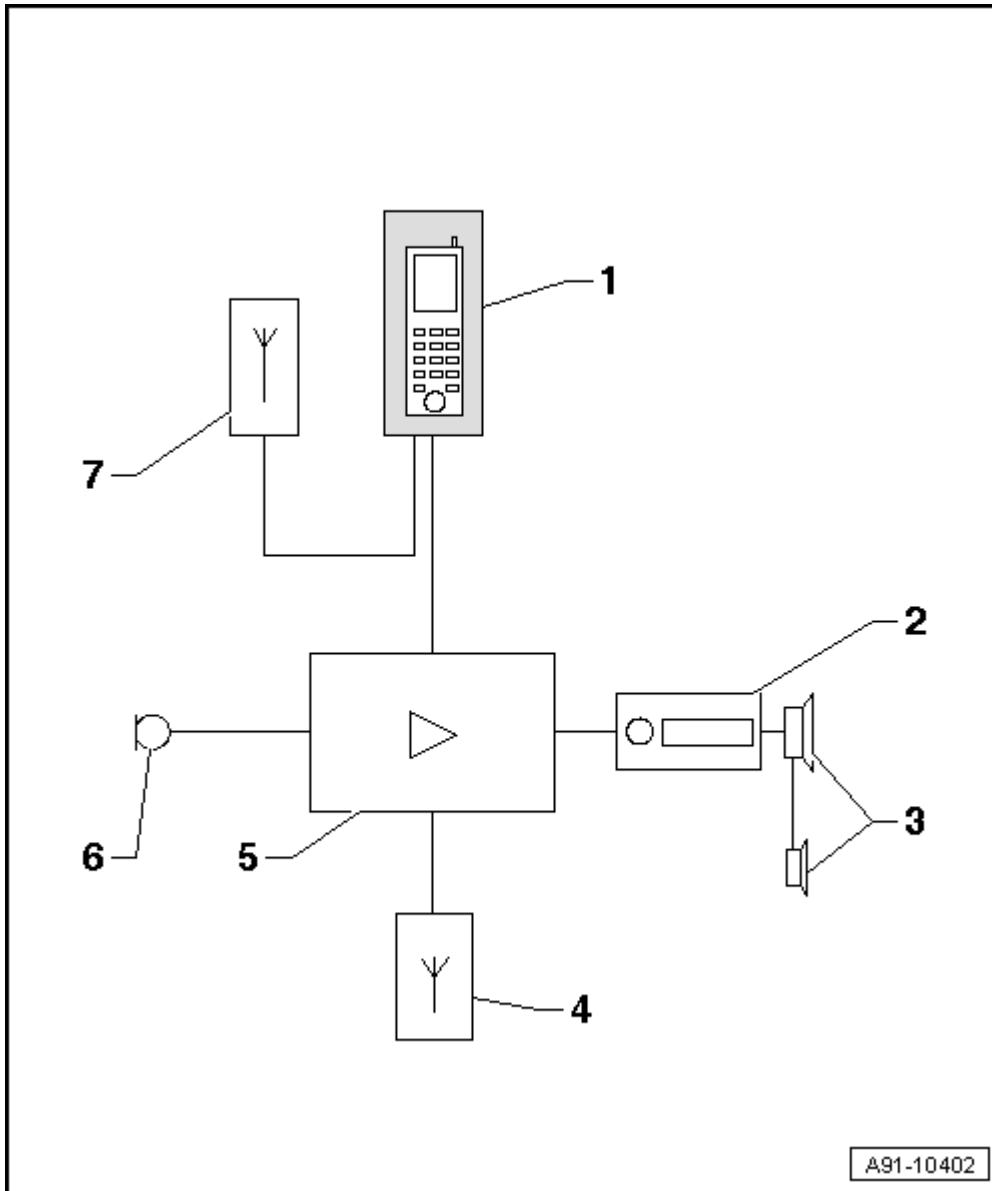


**Fig. 152: Identifying Bluetooth Hands-Free Calling, From 1 June 2009**

Courtesy of AUDI OF AMERICA, LLC

1. Front Information Display Control Head -J685- in center of the instrument panel
2. Multimedia Control Head -E380- in the center console
3. Microphone Unit In Front Roof Module -R164- (Right Front Microphone -R141-) Inside The Front Interior Lamp -W1-
4. Information Electronics Control Module 1 -J794- with Bluetooth Antenna -R152- inside the instrument panel
5. Data Bus On Board Diagnostic Interface -J533- Behind the Glove Compartment On the Left Side
6. Digital Sound System Control Module -J525- behind the luggage compartment left side trim

#### CAN CELL PHONE PREPARATION OVERVIEW

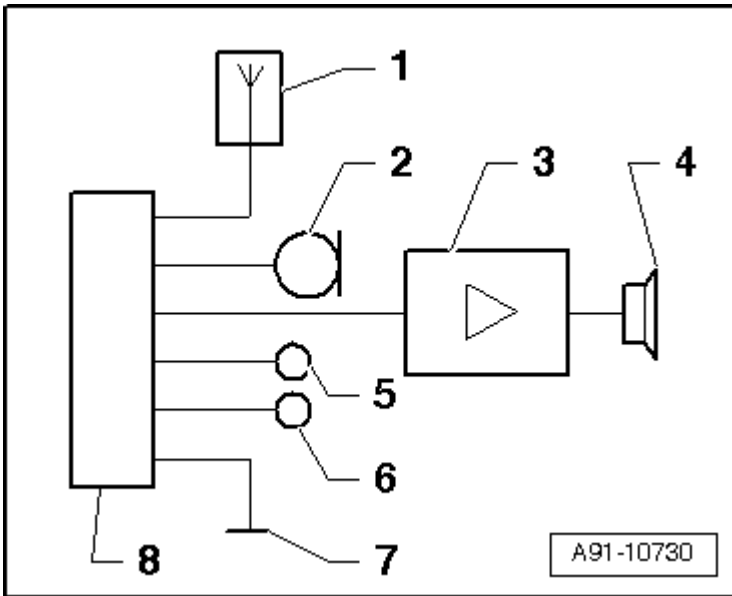


**Fig. 153: Cellular Phone Preparation, Layout**

Courtesy of AUDI OF AMERICA, LLC

1. Telephone Base Plate -R126- With Cellular Telephone -R54- through MY 08
2. Radio -R- Inside the Instrument Panel
3. Sound Systems
4. Bluetooth Antenna -R152- at Telephone Transceiver -R36-
5. Telephone Transceiver -R36- under the front passenger seat
6. Microphone Unit In Front Roof Module -R164- inside the front interior lamp -W1-
7. Radio, Telephone, Navigation System Antenna -R52- roof antenna

**CELL PHONE PREPARATION PRELIMINARY SETUP OVERVIEW**

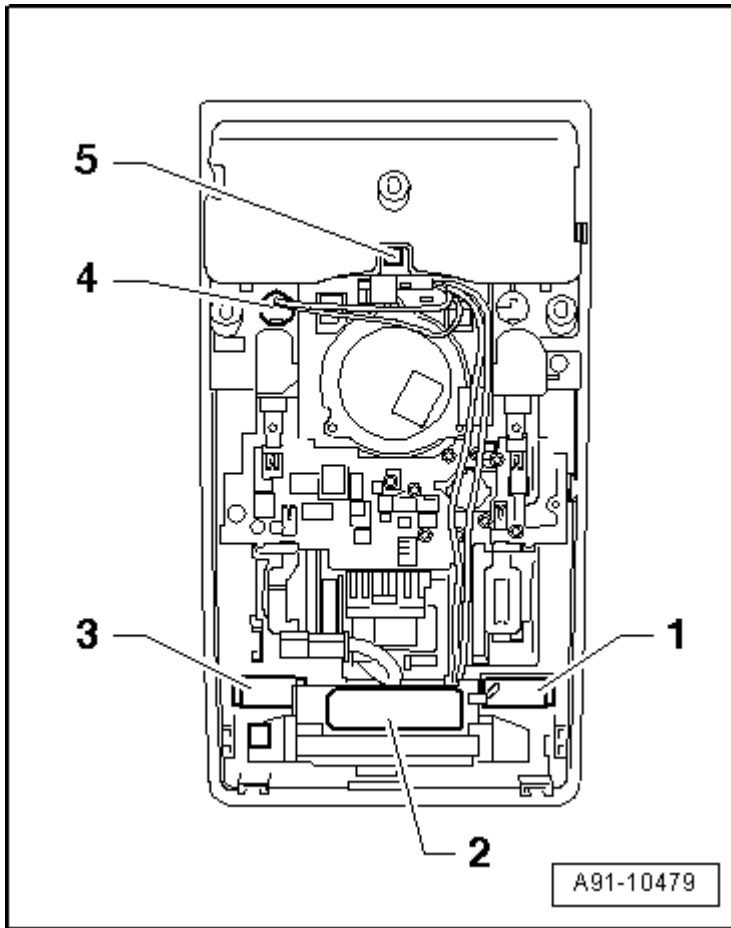


**Fig. 154: Cell Phone Preparation Preliminary Setup, Layout**  
 Courtesy of AUDI OF AMERICA, LLC

1. Radio, telephone, navigation system antenna -R52- roof antenna
2. Microphone unit in front roof module -R164- inside the front interior lamp -W1-
3. Radio -R- /digital sound system control module -J525-
4. Sound Systems
5. Terminal 15
6. Terminal 30
7. Terminal 31
8. 18-pin connector (T18a) in the center console

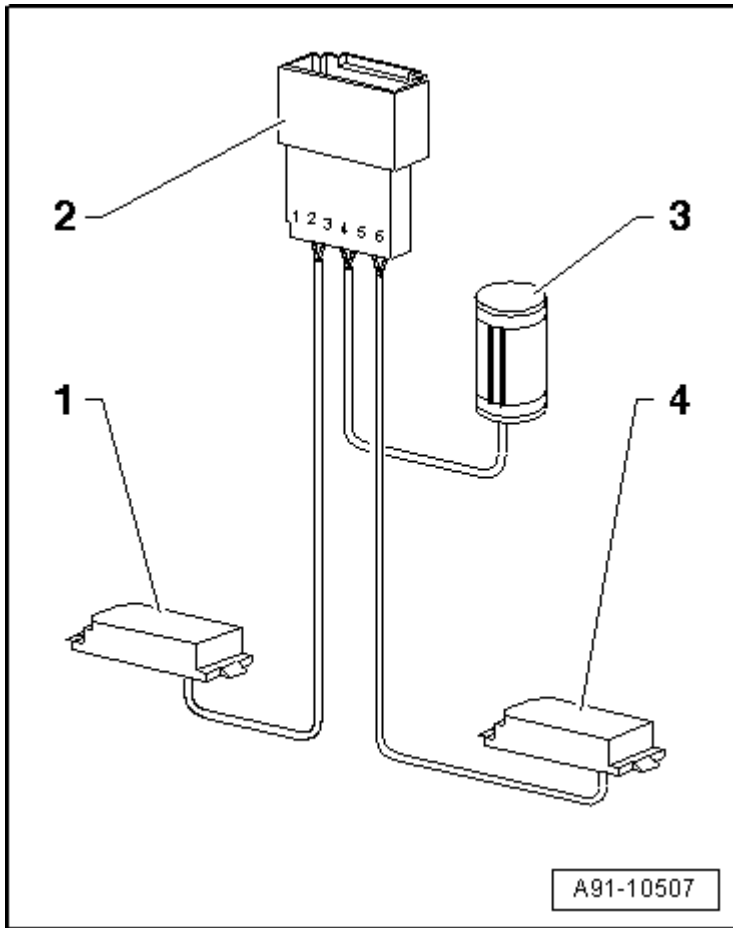
**MICROPHONE UNIT IN FRONT ROOF MODULE -R164-, THROUGH 10.31.2008**

One microphone (telephone microphone -R38-) is connected directly with the telephone transceiver -R36-. The other microphones are connected to the digital sound system control module -J525- (from Standard MMI).



**Fig. 155: Microphone Unit (In Front Roof Module) R164 From MY07**  
Courtesy of AUDI OF AMERICA, LLC

1. Microphone (blue) for the Telephone Transceiver -R36- (left-hand drive)/Digital Sound System Control Module -J525- (right-hand drive)
2. Radar Interior Monitoring Control Module 1 -G303-
3. Microphone (black) for the Digital Sound System Control Module -J525-
4. Inside microphone -R74- (black) to the digital sound system control module -J525- (from the standard sound system)
5. 6-pin multi-pin connector (T6c)



**Fig. 156: Multi-Pin Connector Assignments**

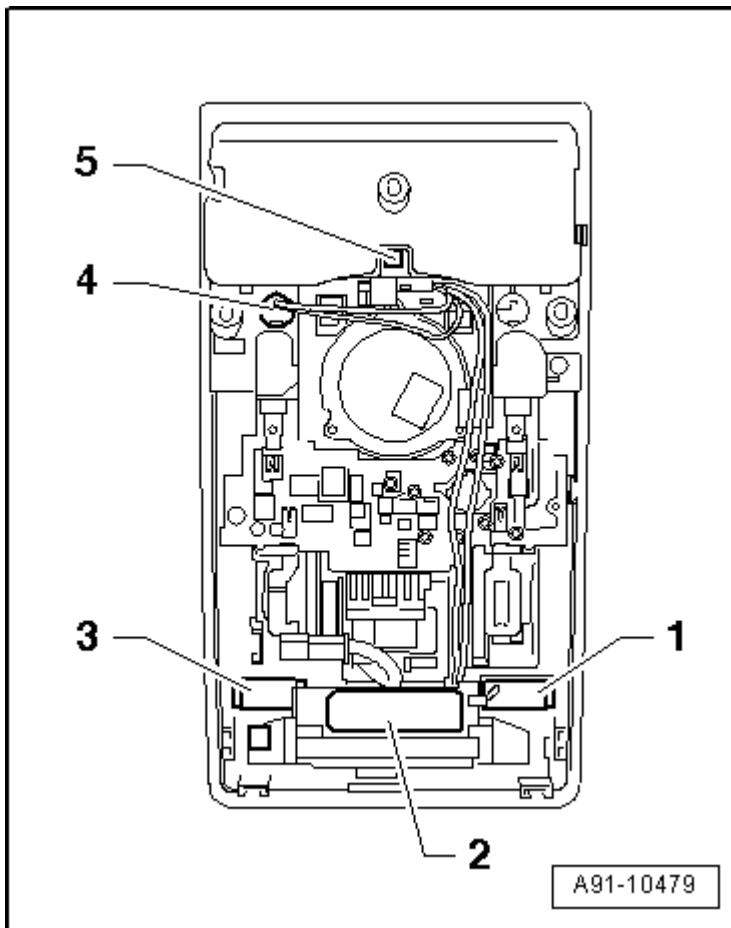
Courtesy of AUDI OF AMERICA, LLC

1. Telephone Microphone -R38- (black):
2. 6-pin connector (T6c), pins 1 and 2: telephone microphone -R38- (black), pins 3 and 4: interior microphone -R74- (black), pins 5 and 6: speech recognition system microphone -R206- (blue)
3. Inside microphone -R74- (black)
4. Voice Control Microphone -R206- (blue)

Microphone Unit in Front Roof Module -R164-, removing and installing, refer to **MICROPHONE UNIT IN FRONT ROOF MODULE -R164-**.

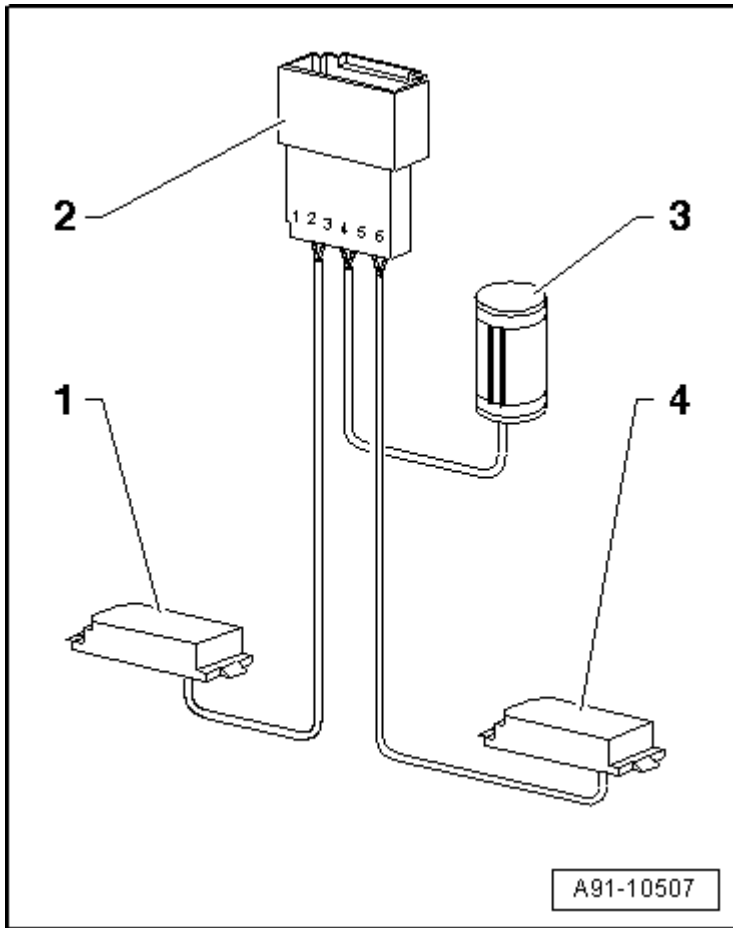
**MICROPHONE UNIT IN FRONT ROOF MODULE -R164-, FROM 11.03.2008**

One microphone (inside microphone -R74-) is connected directly to the digital sound system control module -J525-. The other microphones are connected to the information electronics control module 1 -J794-.



**Fig. 157: Microphone Unit (In Front Roof Module) R164 From MY07**  
Courtesy of AUDI OF AMERICA, LLC

1. Information electronics control module 1 -J794- microphone (blue)
2. Radar Interior Monitoring Control Module 1 -G303-
3. Microphone(black) to the information electronics control module 1 -J794-
4. Inside microphone -R74- (black) for the digital sound system control module -J525-
5. 6-pin multi-pin connector (T6c)



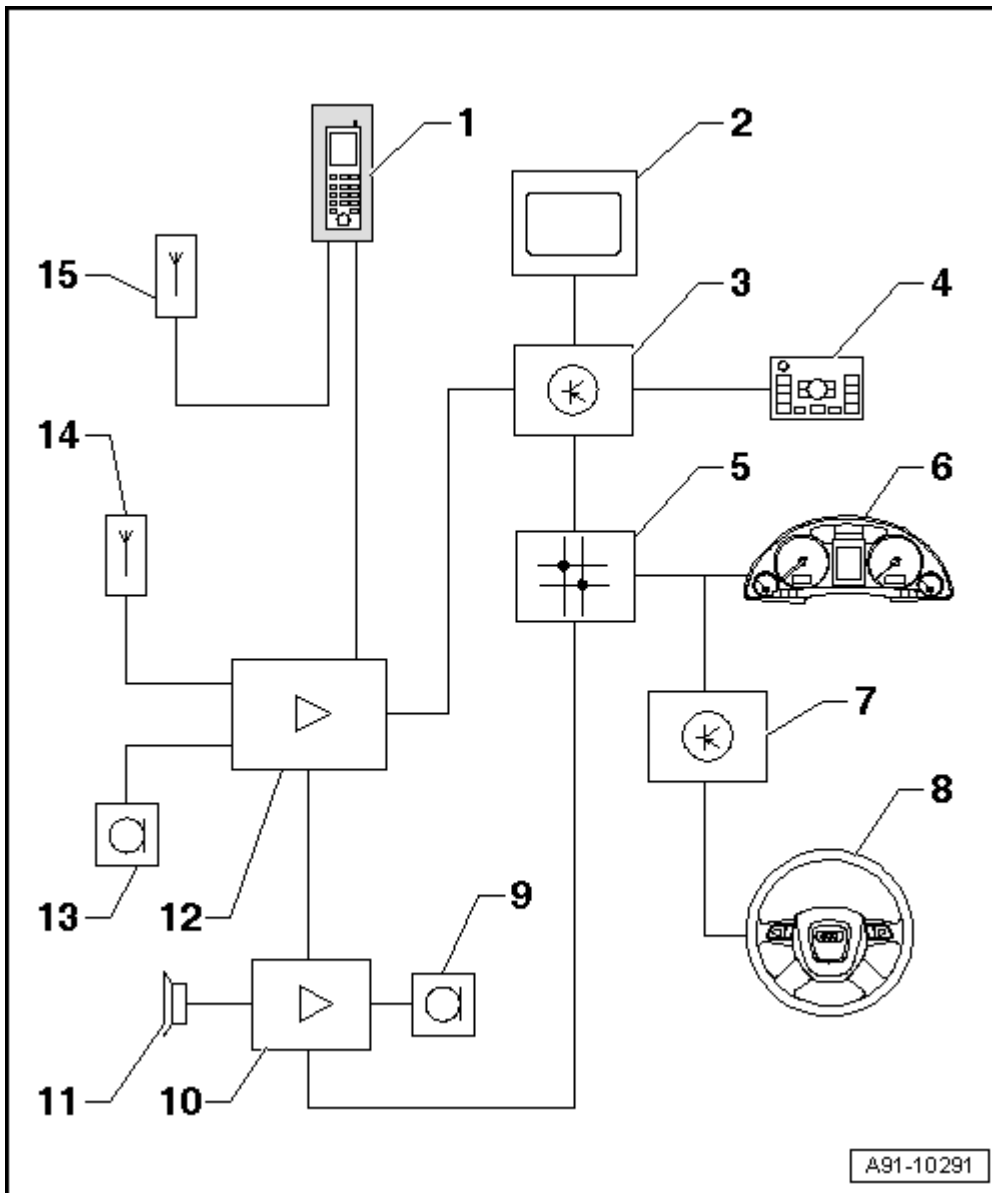
**Fig. 158: Multi-Pin Connector Assignments**

Courtesy of AUDI OF AMERICA, LLC

1. Left front microphone -R140- (black)
2. 6-pin connector (T6c); pins 1 and 2: left front microphone -R140- (black), pins 3 and 4: inside microphone -R74- (black), pins 5 and 6:right front microphone -R141- (blue)
3. Inside microphone -R74- (black)
4. Right front microphone -R141- (blue)

Microphone Unit in Front Roof Module -R164-, removing and installing, refer to **MICROPHONE UNIT IN FRONT ROOF MODULE -R164-**.

MMI CELL PHONE PREPARATION OVERVIEW, THROUGH 10.31.2008



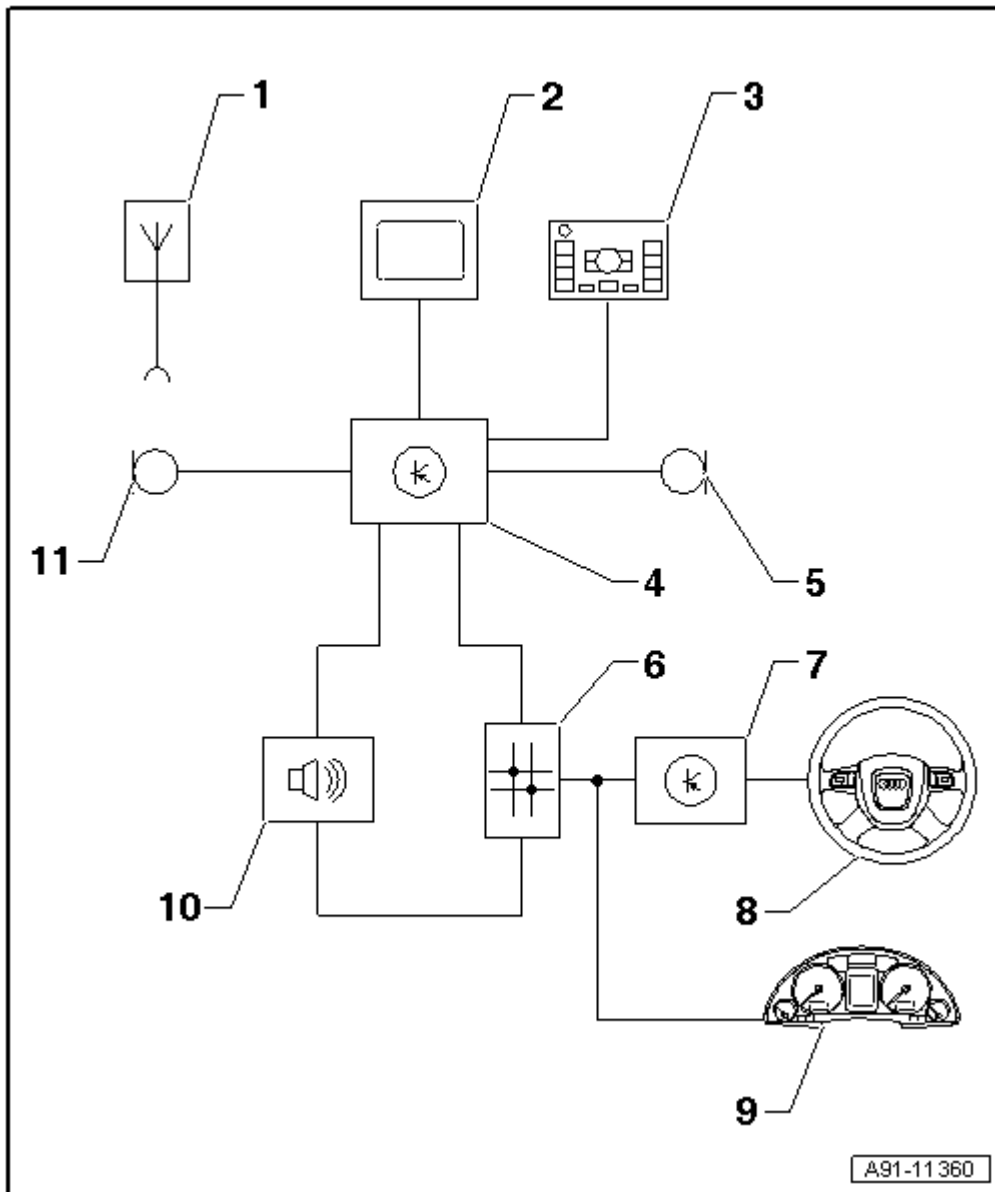
**Fig. 159: Hands-Free Mobile Telephone System - MMI, Layout**

Courtesy of AUDI OF AMERICA, LLC

1. Telephone Base Plate -R126- With Cell Phone -R54-
2. Front Information Display Control Head -J685- in center of the instrument panel
3. Front Information Display Control Head Control Module -J523-, behind the instrument panel
4. Multimedia Control Head -E380- in the center console
5. Data Bus On Board Diagnostic Interface -J533- Behind the Glove Compartment On the Left Side
6. Instrument Cluster Control Module -J285- in the instrument panel
7. Steering Column Electronics Control Module -J527- on steering column at steering column switch
8. Multifunction Steering Wheel
9. Microphone Unit In Front Roof Module -R164- Inside The Front Interior Lamp -W1-

10. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
11. Sound Systems
12. Telephone Transceiver -R36- under the front passenger seat
13. Microphone Unit In Front Roof Module -R164- (Telephone Microphone -R38-) In Front Interior Light - W1-
14. Bluetooth Antenna -R152- at Telephone Transceiver -R36-
15. Radio, Telephone, Navigation System Antenna -R52- roof antenna

**MMI CELL PHONE PREPARATION OVERVIEW, FROM 11.03.2008**

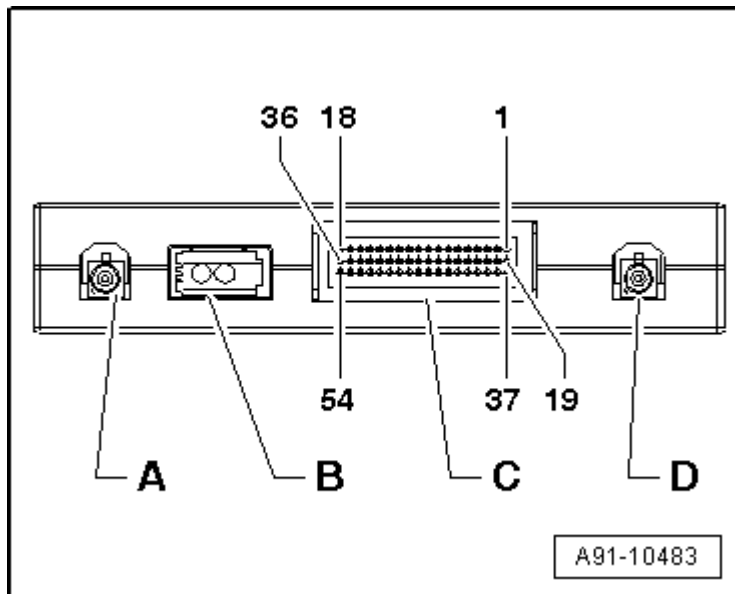


**Fig. 160: Identifying MMI Cell Phone Preparation Overview**  
 Courtesy of AUDI OF AMERICA, LLC

1. Radio, Telephone, Navigation System Antenna -R52- roof antenna
2. Front Information Display Control Head -J685- in center of the instrument panel
3. Multimedia Control Head -E380- in the center console
4. Information Electronics Control Module 1 -J794- inside the instrument panel
5. Microphone Unit In Front Roof Module -R164- (Right Front Microphone -R141-) Inside The Front Interior Light -W1-
6. Data Bus On Board Diagnostic Interface -J533- Behind the Glove Compartment On the Left Side
7. Steering Column Electronics Control Module -J527- on steering column at steering column switch
8. Multifunction Steering Wheel
9. Instrument Cluster Control Module -J285- in the instrument panel
10. Digital Sound System Control Module -J525- behind the luggage compartment left side trim
11. Microphone Unit In Front Roof Module -R164- (Left Front Microphone -R140-) Inside The Front Interior Lamp -W1-

#### TELEPHONE SYSTEM CONNECTORS

BLUETOOTH TELEPHONE, THROUGH 10.31.2008



**Fig. 161: Telephone Transceiver R36 - Bluetooth Car Telephone, Harness Connectors**  
 Courtesy of AUDI OF AMERICA, LLC

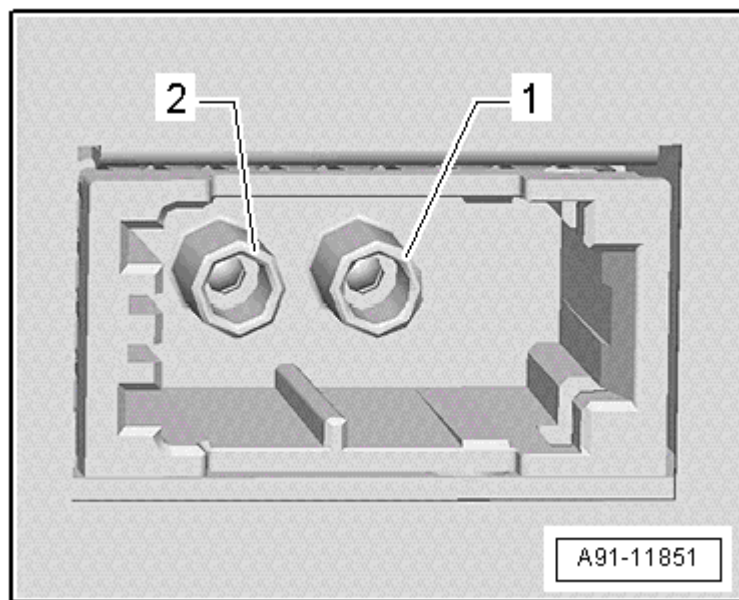
A - Connection for Bluetooth Antenna -R152-

B - MOST bus

C - 54-pin connector (T54a)

D - Radio, Telephone, Navigation System Antenna -R52- GSM connection (roof antenna)

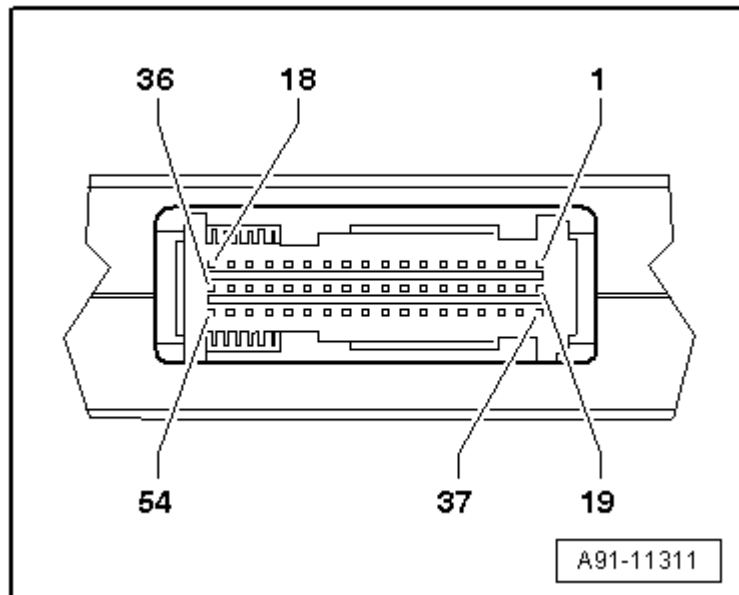
**NOTE:** Unlisted connector terminals are not used.



**Fig. 162: B - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT



**Fig. 163: Identifying 54-pin Connector And Terminals**

Courtesy of AUDI OF AMERICA, LLC

- 1 - Terminal 30

2 - Terminal 31

3 - Switch-on signal from the telephone base plate -R126-

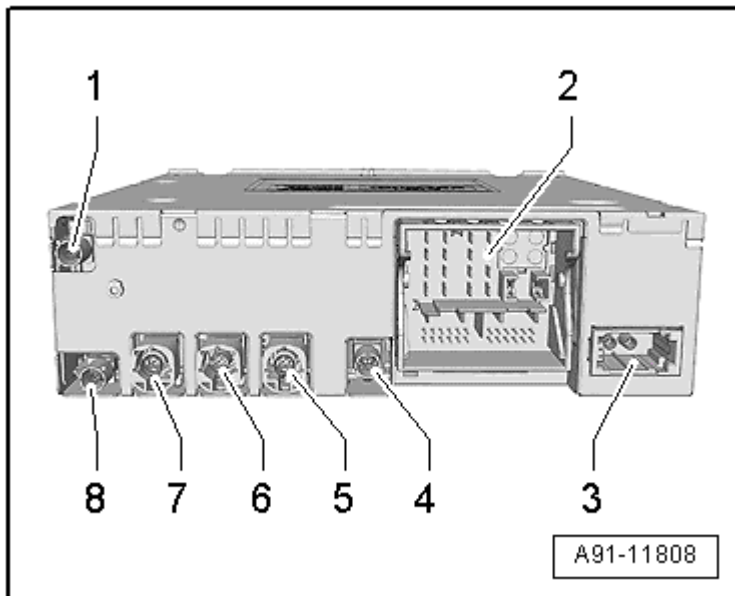
10 - Terminal 31 (screen ground)

11 - Microphone input (+) from Microphone unit in front roof module -R164- (telephone microphone -R38-)

12 - Microphone input (-) from Microphone Unit in front roof module -R164- (telephone microphone -R38-)

14 - Ring-break diagnostic cable

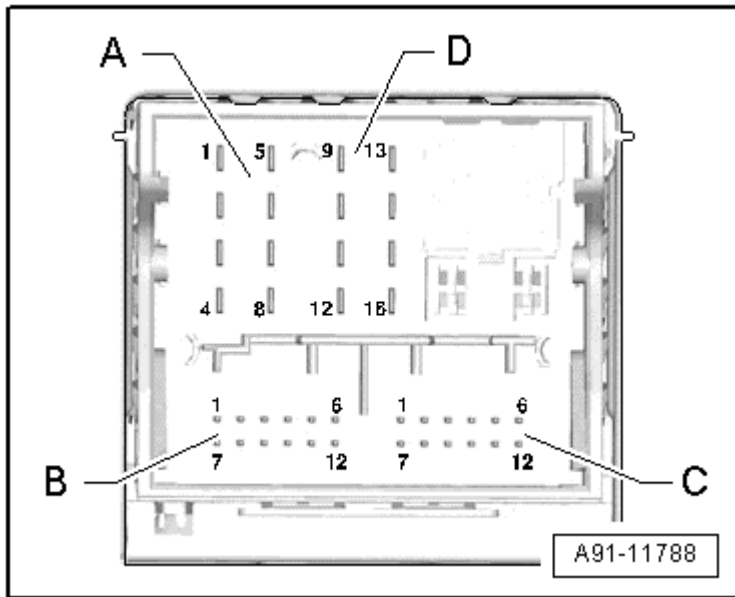
**BLUETOOTH TELEPHONE, FROM 11.03.2008**



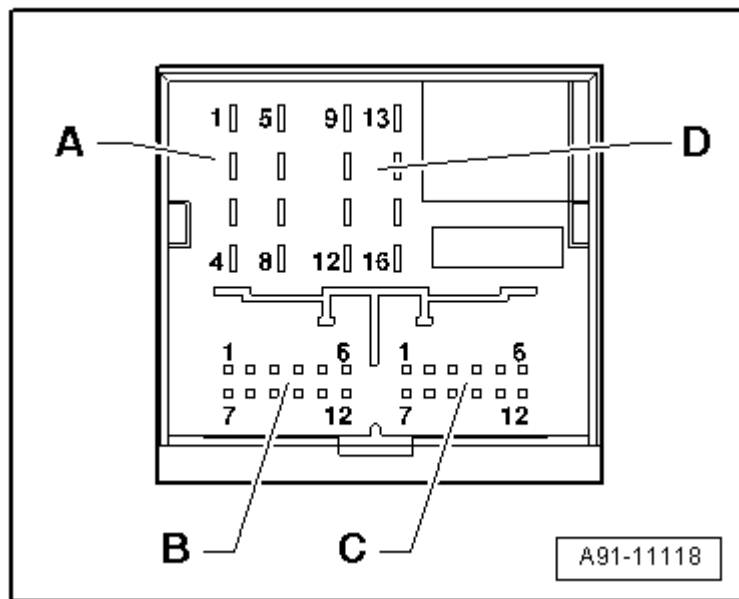
**Fig. 164: Information Electronics Control Module 1 -J794-**  
**Courtesy of AUDI OF AMERICA, LLC**

1. Radio, Telephone, Navigation System Antenna -R52- GSM connection (roof antenna)
2. Connection Block with Four Connectors
3. MOST bus
4. FBAS input from TV Tuner -R78-
5. 4-pin connector (T4am) to front information display control head -J685-
6. 4-pin connector (T4ap) for the external audio source connection -R199- /internet access control module -J666- (from MY 13)
7. Not assigned
8. Not assigned

**NOTE:** Unlisted connector terminals are not used.

**2 - Connection Block With Four Connectors****Fig. 165: A - 8-Pin Multi-Pin Connector (T8ah)****Courtesy of AUDI OF AMERICA, LLC**

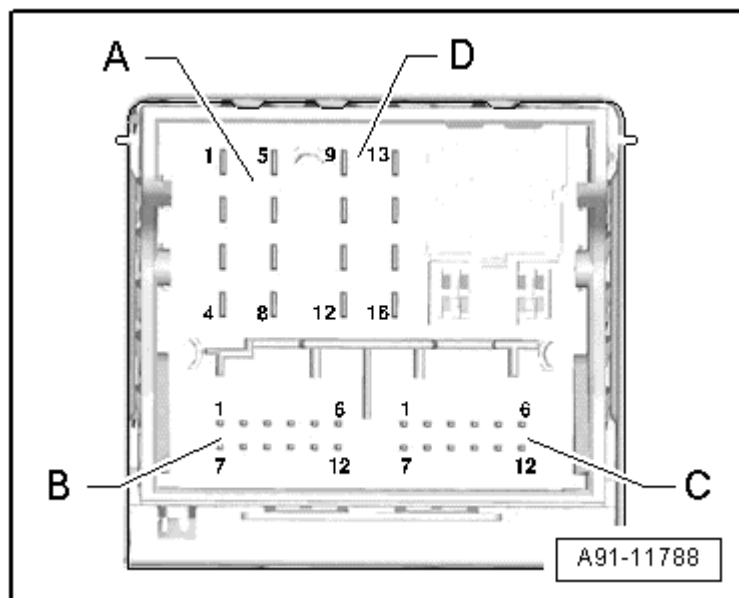
1. Not assigned
2. Voltage supply to Multimedia system control head -E380-
3. Wake UP to multimedia system control head
4. Not assigned
5. Not assigned
6. Res MU to multimedia system control head
7. Ring-break diagnostic cable



**Fig. 166: B - 12-Pin Connector (T12x)**  
Courtesy of AUDI OF AMERICA, LLC

8 - Microphone input (+) from Microphone unit in front roof module -R164- (left front microphone -R140-)

9 - Microphone input (-) from Microphone unit in front roof module -R164- (left front microphone -R140-)



**Fig. 167: C - 12-Pin Connector (T12y)**  
Courtesy of AUDI OF AMERICA, LLC

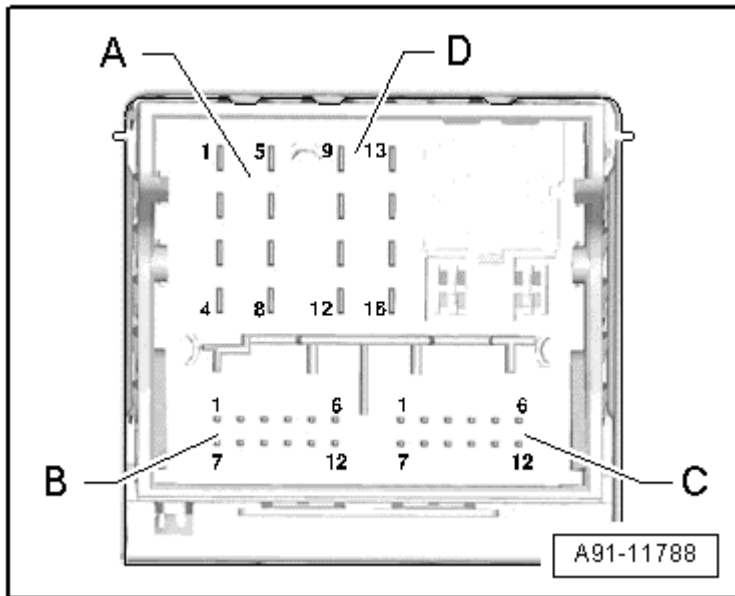
All pins are connected to the external audio source connection -R199-.

1. LF-In ground

2. Right LF-In
3. USB (+5V) not on the internet access control module -J666- (from MY 13)
4. USB (ground)
5. Not assigned
6. Detect not on the internet access control module -J666- (from MY 13)
7. Left LF-In
8. LF-In ground shielding
9. FBAS wire (+)
10. FBAS wire (-)
11. iPod data
12. iPod data

Following pins are also still connected with the internet access control module -J666- (from MY 13).

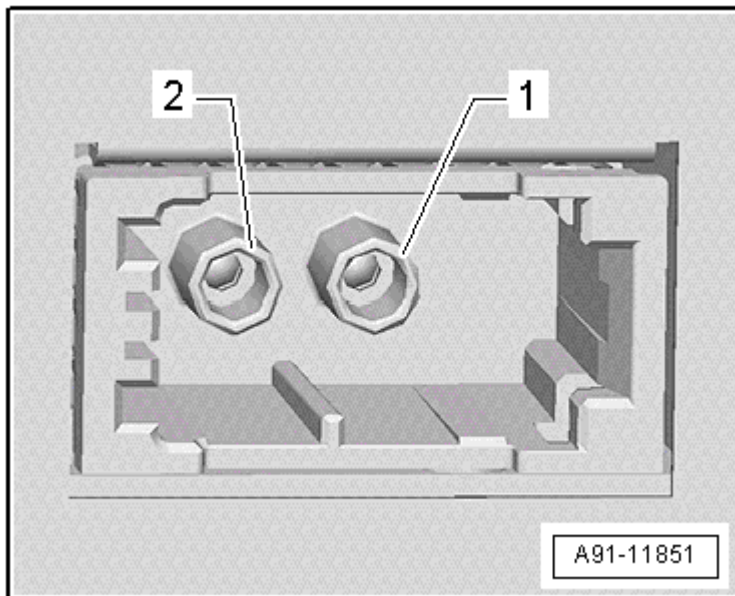
- 3 - USB (+5 V)
- 4 - USB (ground)
- 6 - Detect



**Fig. 168: D - 8-Pin Connector (T16q)**  
 Courtesy of AUDI OF AMERICA, LLC

- 9 - Switch-on signal to telephone base plate -R126-
- 10 - Data from multimedia system control head -E380-

- 11 - Data to the multimedia system control head
- 12 - Terminal 31
- 14 - Res BT from multimedia system control head
- 15 - Terminal 30
- 16 - Ground (GND) to multimedia system control head



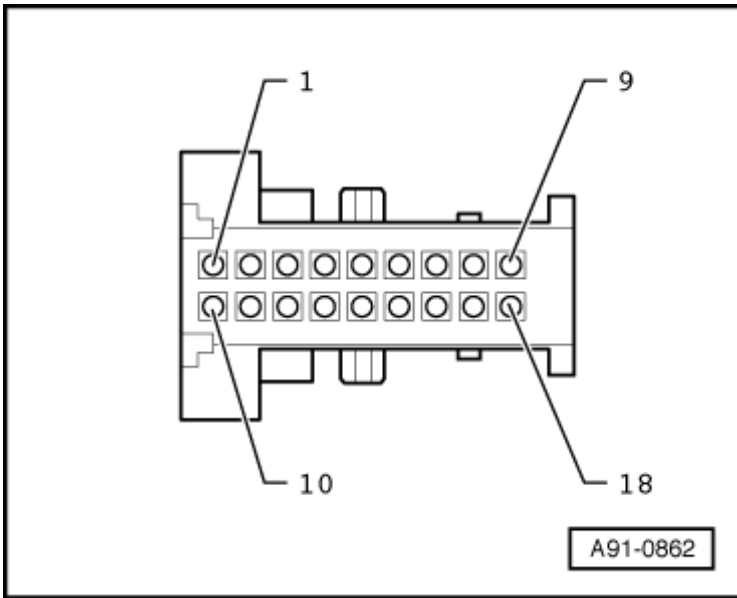
**Fig. 169: 3 - MOST bus**

Courtesy of AUDI OF AMERICA, LLC

- 1. IN
- 2. OUT

**CELL PHONE PREPARATION PRELIMINARY SETUP**

**NOTE:** Unlisted connector terminals are not used.



**Fig. 170: Black 18-Pin Multi-Pin Harness Connector**  
Courtesy of AUDI OF AMERICA, LLC

1 - Terminal 31

4 - LF mute to the radio -R- /Front Information Display Control Head Control Module -J523- /information electronics control module 1 -J794-

7 - LF (-) to the Radio -R- /Digital Sound System Control Module -J525-

9 - Microphone input wire (-) from the microphone unit in front roof module -R164-

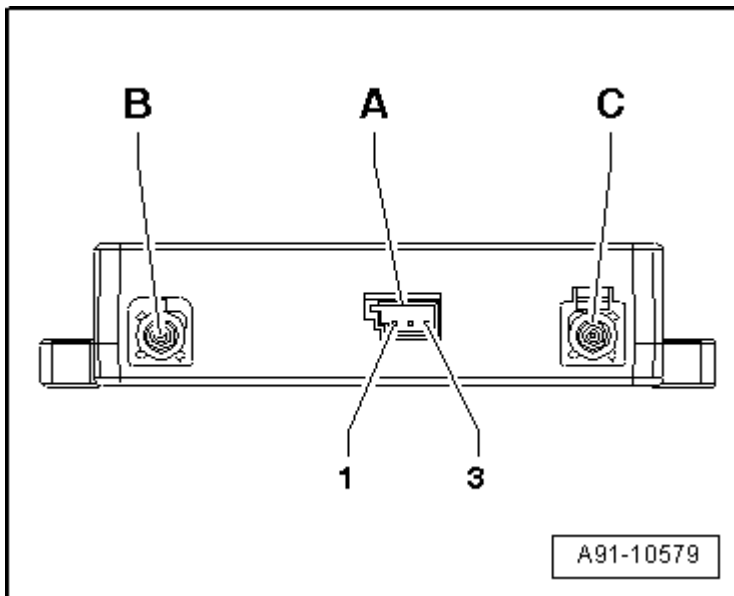
10 - Terminal 15

11 - Terminal 30

16 - LF (+) to the Radio -R- /Digital Sound System Control Module -J525-

18 - Microphone input wire (+) from the microphone unit in front roof module -R164-

TELEPHONE AMPLIFIER -R86-, THROUGH MY 08



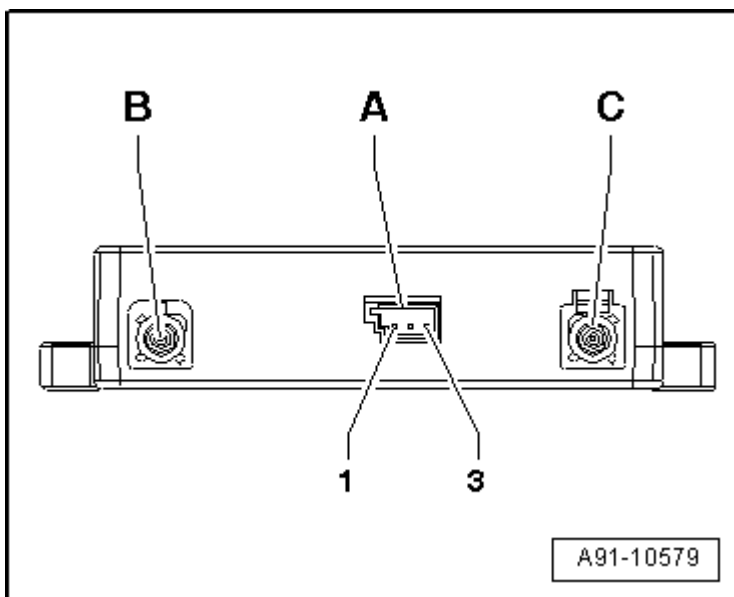
**Fig. 171: Harness Connectors On Telephone Amplifier R86**  
 Courtesy of AUDI OF AMERICA, LLC

A - 3-pin multi-pin connector (T3w)

B - Radio, Telephone, Navigation System Antenna -R52- GSM connection (roof antenna)

C - Antenna connection to Telephone Base plate -R126-

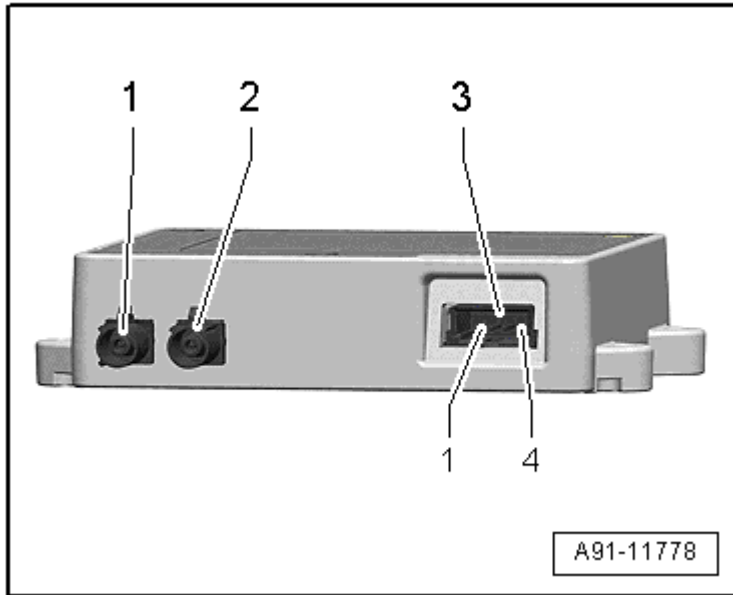
**NOTE:** Unlisted connector terminals are not used.



**Fig. 172: Harness Connectors On Telephone Amplifier R86**  
 Courtesy of AUDI OF AMERICA, LLC

1. Terminal 30
2. Terminal 31
3. Switch on signal from Telephone Transceiver -R36-

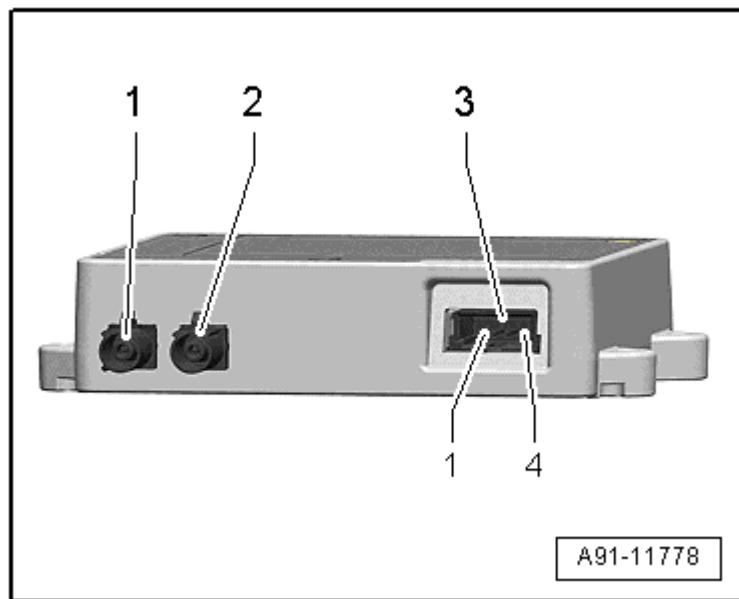
**TELEPHONE AMPLIFIER -R86-, FROM MY 09**



**Fig. 173: Cell Phone Amplifier -R86-  
Courtesy of AUDI OF AMERICA, LLC**

1. Radio, Telephone, Navigation System Antenna -R52- GSM connection (roof antenna)
2. Antenna connection to Telephone Base plate -R126-
3. 4- pin multi-pin harness connector (T4ak)

**NOTE: Unlisted connector terminals are not used.**

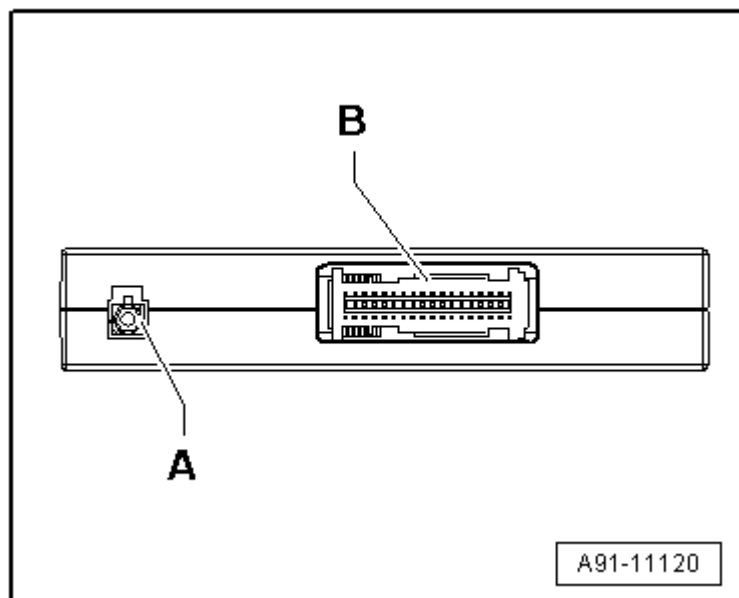


**Fig. 174: 3 - 4-Pin Connector (T4ak)**

Courtesy of AUDI OF AMERICA, LLC

1. Terminal 30
2. Terminal 31
3. Switch-on signal for the telephone transceiver -R36- (CAN)/information electronics control module 1 - J794- (MMI)
4. Control pin (not used)

#### CELL PHONE PREPARATION, CAN, THROUGH MY 08



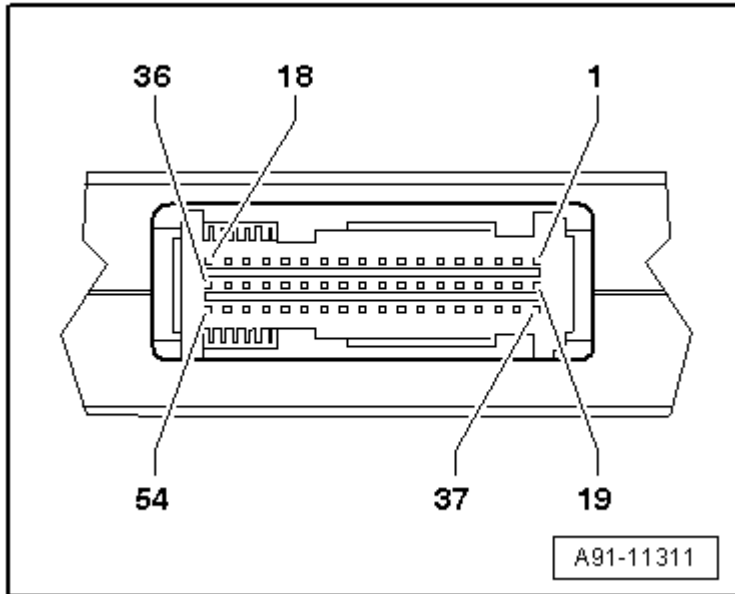
**Fig. 175: Identifying Connectors A And B**

Courtesy of AUDI OF AMERICA, LLC

A - Connection for Bluetooth Antenna -R152-

B - 54-pin connector (T54a)

**NOTE:** Unlisted connector terminals are not used.



**Fig. 176: Identifying 54-pin Connector And Terminals**

Courtesy of AUDI OF AMERICA, LLC

1 - Terminal 30

2 - Terminal 31

8 - LF (+) to Radio -R-

9 - LF (-) to Radio

10 - Terminal 31 (screening ground) (not used)

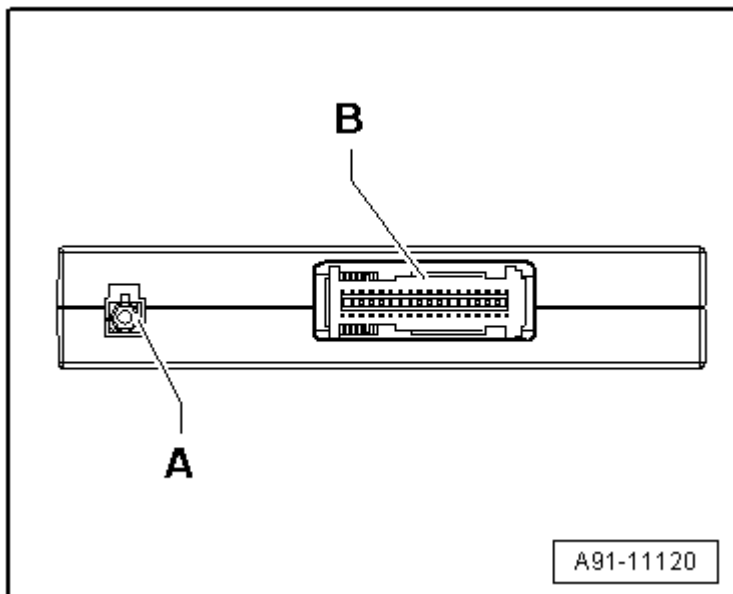
11 - Microphone input (+) from Microphone unit in front roof module -R164- (telephone microphone -R38-)

12 - Microphone input (-) from Microphone unit in front roof module -R164- (telephone microphone -R38-)

16 - NF mute, not used

17 - CAN bus high (Infotainment)

- 18 - CAN bus low (Infotainment)
- 37 - Terminal 30 to Telephone Base -R126-
- 39 - Terminal 31 to Telephone baseplate
- 41 - Terminal 30 to Telephone baseplate
- 42 - Microphone output (+) to Telephone baseplate
- 43 - Microphone output (-) to Telephone baseplate
- 44 - Terminal 31 (screening ground)
- 45 - LF (+) from Telephone baseplate
- 46 - LF (-) from Telephone baseplate
- 47 - Telephone base plate -R126- DIAG signal
- 49 - Ser-Tx (+) to Telephone baseplate
- 50 - Ser-Tx (-) to Telephone baseplate
- 51 - Ser-Rx (+) from Telephone baseplate
- 52 - Ser-Rx (-) from Telephone baseplate

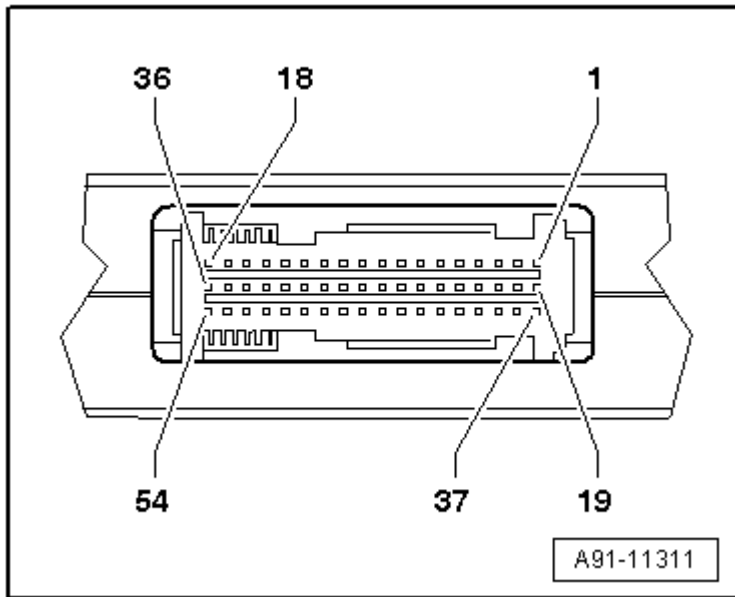
**CELL PHONE PREPARATION, CAN FROM MY 09**

**Fig. 177: Identifying Connectors A And B**

Courtesy of AUDI OF AMERICA, LLC

A - Connection for Bluetooth Antenna -R152-

B - 54-pin connector (T54a)

**NOTE:** Unlisted connector terminals are not used.**Fig. 178: Identifying 54-pin Connector And Terminals**

Courtesy of AUDI OF AMERICA, LLC

1 - Terminal 30

2 - Terminal 31

8 - LF (+) to Radio -R-

9 - LF (-) to Radio

10 - Terminal 31 (screening ground) (not used)

11 - Microphone input wire (+) from the microphone unit in front roof module -R164-

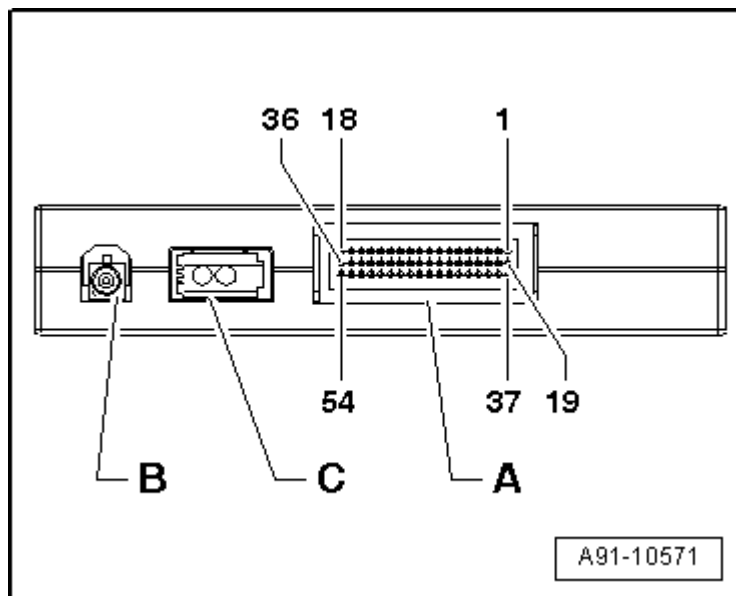
12 - Microphone input wire (-) from the microphone unit in front roof module -R164-

16 - NF mute, not used

17 - CAN bus high (Infotainment)

18 - CAN bus low (Infotainment)

**MMI CELL PHONE PREPARATION, THROUGH 10.31.2008**



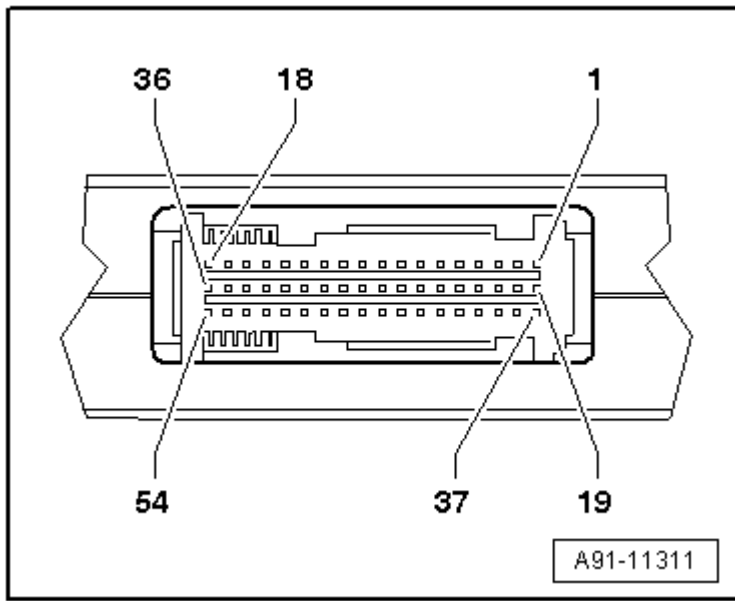
**Fig. 179: Telephone Transceiver R36 - Cellular Telephone Preparation, Harness Connectors**  
 Courtesy of AUDI OF AMERICA, LLC

A - 54-pin connector (T54a)

B - Connection for Bluetooth Antenna -R152-

C - MOST bus

**NOTE:** Unlisted connector terminals are not used.



**Fig. 180: Identifying 54-pin Connector And Terminals**  
 Courtesy of AUDI OF AMERICA, LLC

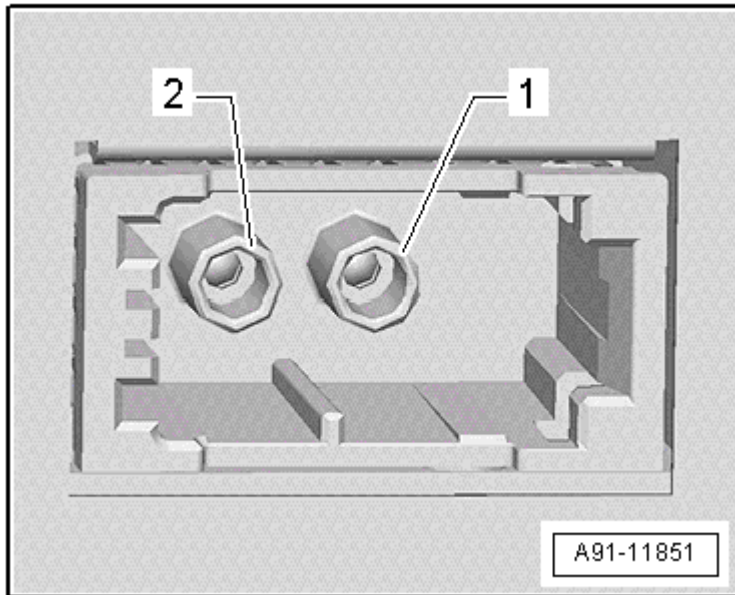
- 1 - Terminal 30
- 2 - Terminal 31
- 11 - Microphone input (+) from Microphone unit in front roof module -R164- (telephone microphone -R38-)
- 12 - Microphone input (-) from Microphone Unit in front roof module -R164- (telephone microphone -R38-)
- 14 - Ring-break diagnostic cable
- 37 - Terminal 30 to Telephone Base -R126-
- 39 - Terminal 31 to Telephone Baseplate
- 41 - Terminal 30 to Telephone Baseplate
- 42 - Microphone output (+) to Telephone Baseplate
- 43 - Microphone output (-) to Telephone Baseplate
- 44 - Terminal 31 (screening ground) to Telephone Baseplate
- 45 - LF (+) from Telephone Baseplate
- 46 - LF (-) from Telephone Baseplate
- 47 - Telephone base plate -R126- DIAG signal

49 - Data (+) to Telephone Baseplate

50 - Data (-) to Telephone Baseplate

51 - Data (+) from Telephone Baseplate

52 - Data (-) from v

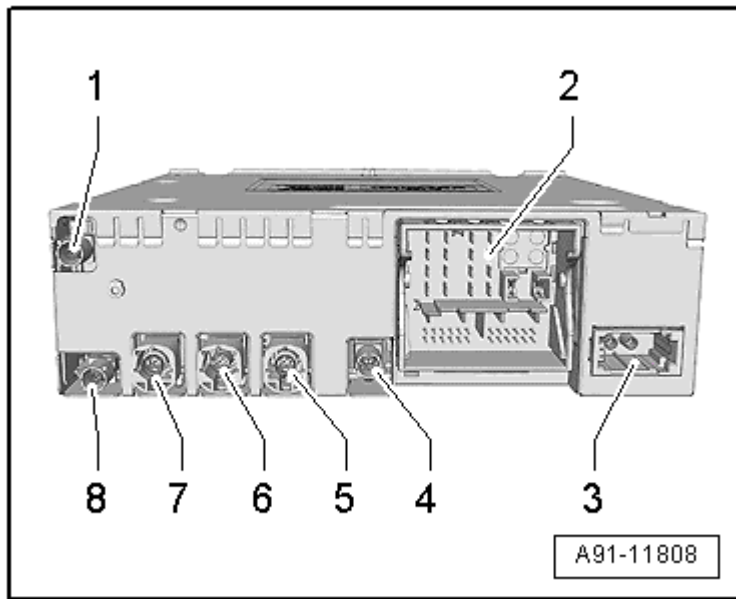


**Fig. 181: C - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT

MMI CELL PHONE PREPARATION, FROM 11.03.2008

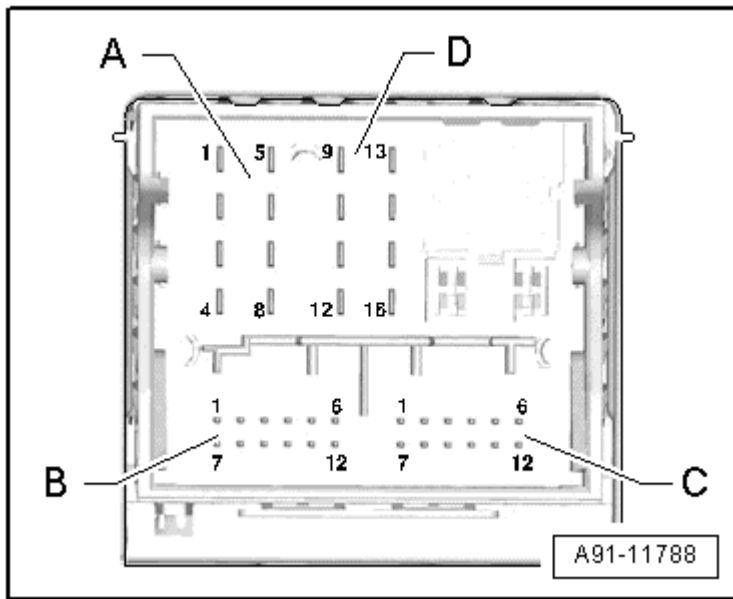


**Fig. 182: Information Electronics Control Module 1 -J794-**  
Courtesy of AUDI OF AMERICA, LLC

1. Not assigned
2. Connection Block with Four Connectors
3. MOST bus
4. Not assigned
5. 4-pin connector (T4am) to front information display control head -J685-
6. 4-pin connector (T4ap) for the external audio source connection -R199- /internet access control module - J666- (from MY 13)
7. Not assigned
8. Not assigned

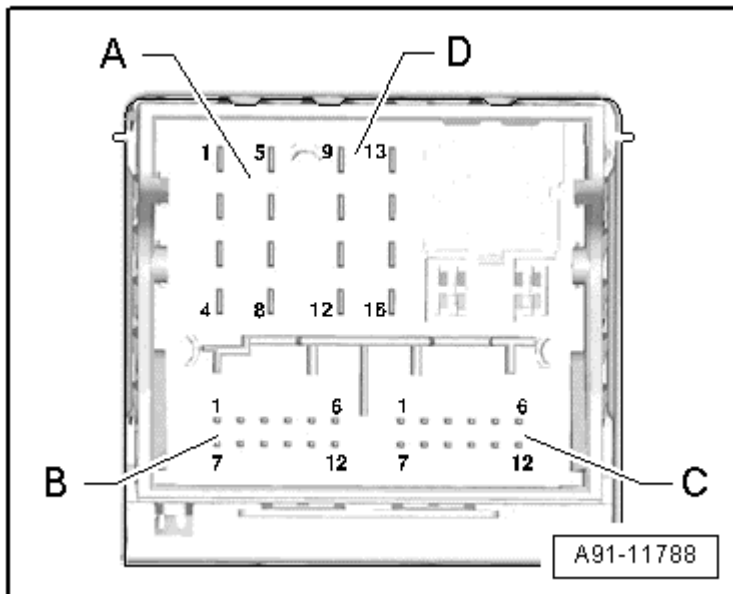
**NOTE:** Unlisted connector terminals are not used.

## 2 - Connection Block With Four Connectors



**Fig. 183: A - 8-pin Multi-Pin Connector (T8ah)**  
 Courtesy of AUDI OF AMERICA, LLC

1. Not assigned
2. Voltage supply to Multimedia Control Head -E380-
3. Wake UP to Multimedia Control Head -E380-
4. Not assigned
5. Switch-on signal to telephone base plate -R126-
6. Res MU to multimedia system control head -E380-
7. Ring-break diagnostic cable

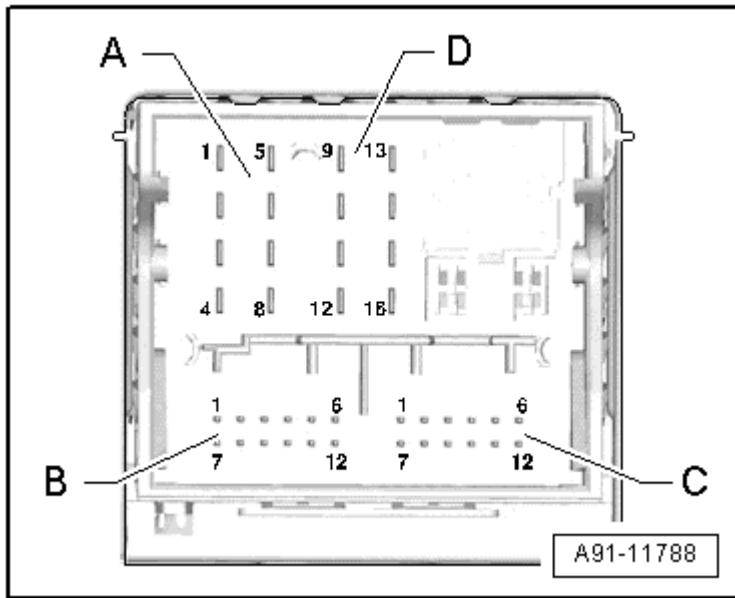


**Fig. 184: B - 12-Pin Connector (T12x)**

Courtesy of AUDI OF AMERICA, LLC

8 - Microphone input (+) from Microphone unit in front roof module -R164- (left front microphone -R140-)

9 - Microphone input (-) from Microphone unit in front roof module -R164- (left front microphone -R140-)

**Fig. 185: C - 12-Pin Connector (T12y)**

Courtesy of AUDI OF AMERICA, LLC

**All pins are connected to the external audio source connection -R199-.**

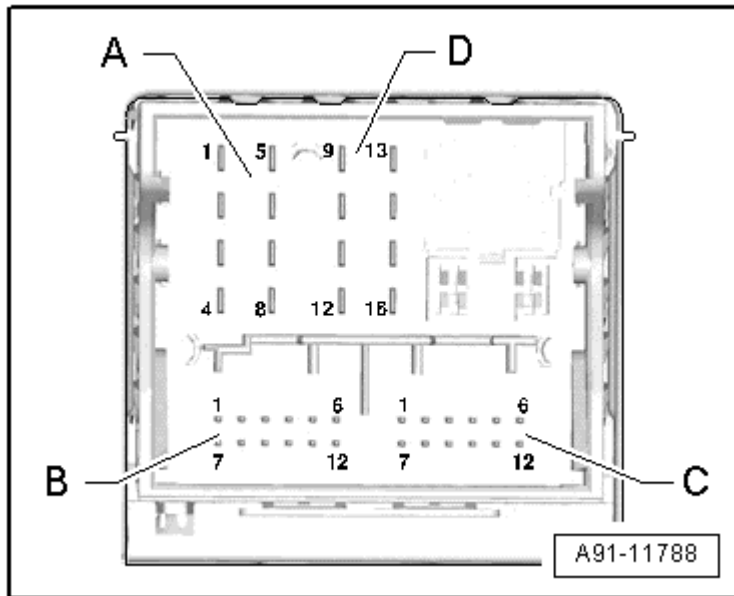
1. LF-In ground
2. Right LF-In
3. USB (+5V) not on the internet access control module -J666- (from MY 13)
4. USB (ground)
5. Not assigned
6. Detect not on the internet access control module -J666- (from MY 13)
7. Left LF-In
8. LF-In ground shielding
9. FBAS wire (+)
10. FBAS wire (-)
11. iPod data
12. iPod data

**Following pins are also still connected with the internet access control module -J666- (from MY 13).**

3 - USB (+5 V)

4 - USB (ground)

6 - Detect



**Fig. 186: D - 8-Pin Connector (T16q)**  
 Courtesy of AUDI OF AMERICA, LLC

10 - Data from multimedia system control head -E380-

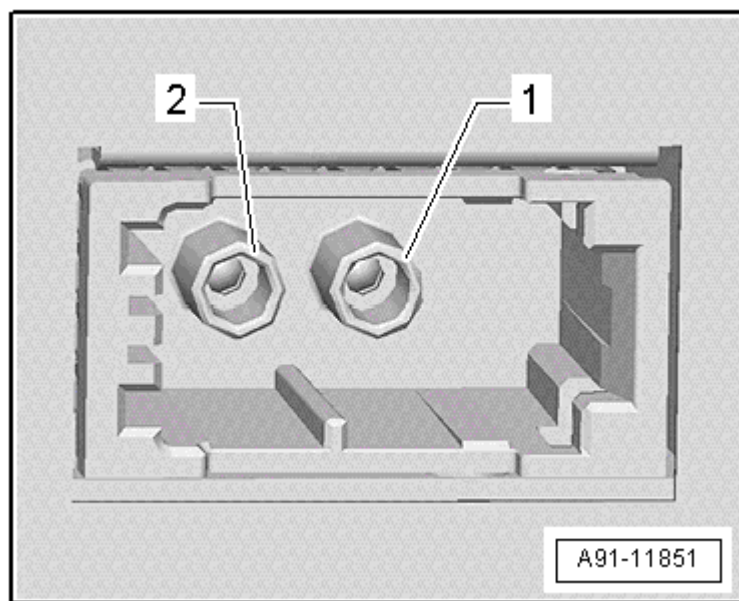
11 - Data to the multimedia system control head

12 - Terminal 31

14 - Res BT from multimedia system control head

15 - Terminal 30

16 - Ground (GND) to multimedia system control head

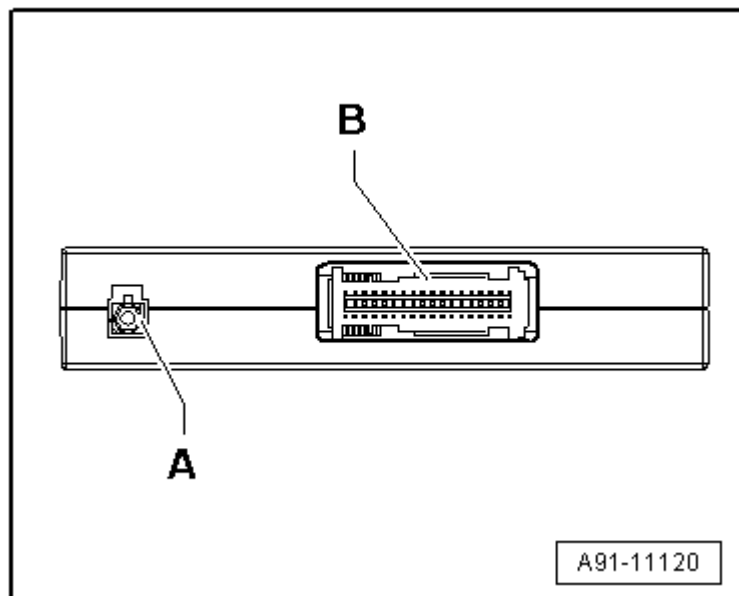


**Fig. 187: 3 - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT

#### CAN BLUETOOTH



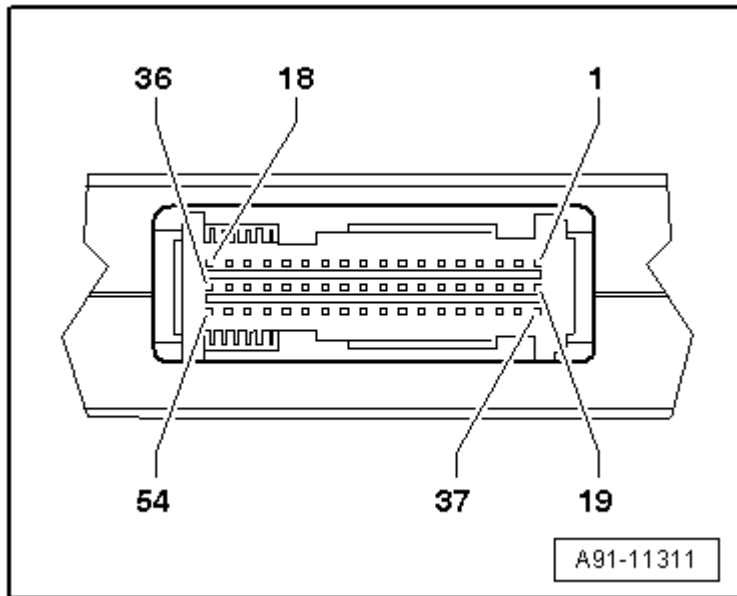
**Fig. 188: Identifying Connectors A And B**

Courtesy of AUDI OF AMERICA, LLC

A - Connection for Bluetooth Antenna -R152-

B - 54-pin connector (T54a)

**NOTE:** Unlisted connector terminals are not used.



**Fig. 189: Identifying 54-pin Connector And Terminals**  
Courtesy of AUDI OF AMERICA, LLC

1 - Terminal 30

2 - Terminal 31

8 - LF (+) to Radio -R-

9 - LF (-) to Radio -R-

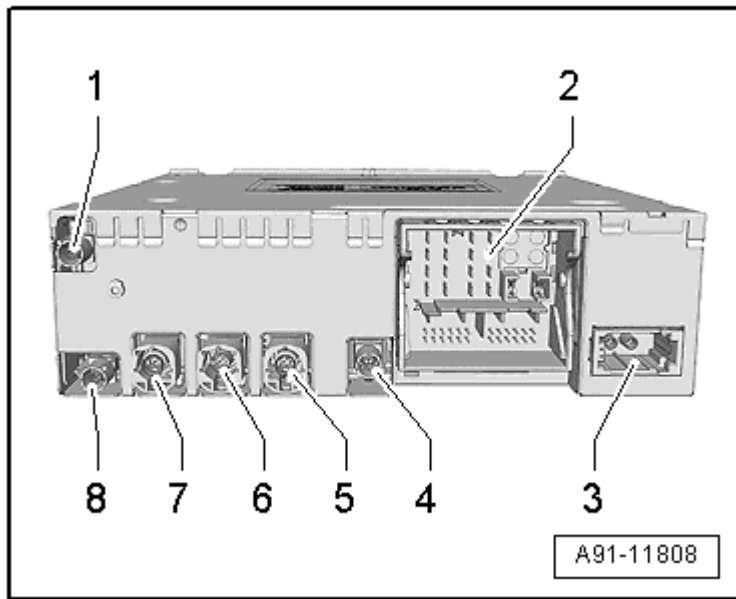
11 - Microphone IN (+) for the microphone unit in front roof module -R164- (left front microphone -R140-)

12 - Microphone IN (-) for the microphone unit in front roof module -R164- (left front microphone -R140-)

17 - CAN bus high (Infotainment)

18 - CAN bus low (Infotainment)

**MMI BLUETOOTH HANDS-FREE CALLING**

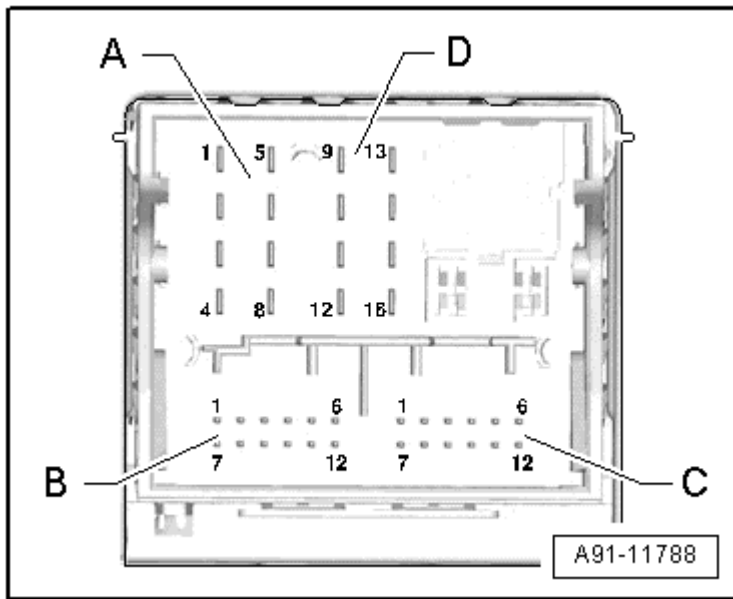


**Fig. 190: Information Electronics Control Module 1 -J794-**  
Courtesy of AUDI OF AMERICA, LLC

1. Not assigned
2. Connection Block with Four Connectors
3. MOST bus
4. Not assigned
5. Gray 4-pin connector (T4am) to the front information display control head -J685-
6. 4-pin connector (T4ap) for the external audio source connection -R199- /internet access control module - J666- (from MY 13)
7. Not assigned
8. Not assigned

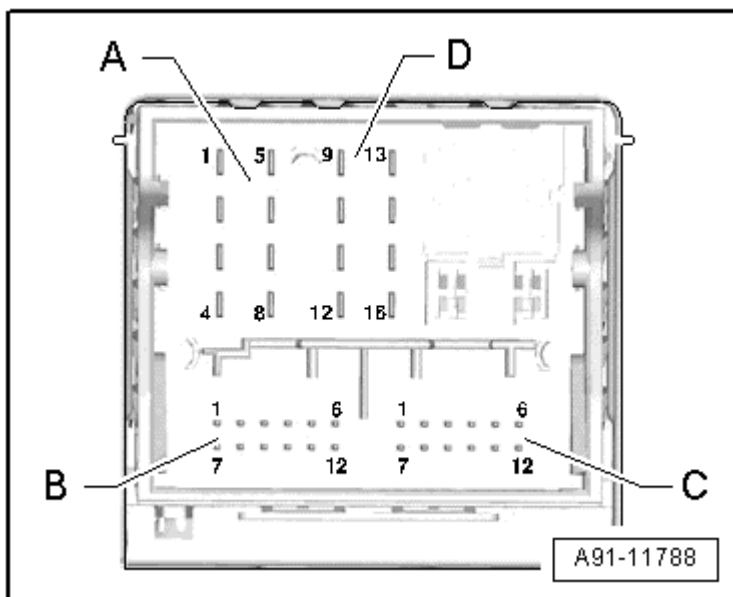
**NOTE:** Unlisted connector terminals are not used.

## 2 - Connection Block With Four Connectors



**Fig. 191: A - 8-Pin Multi-Pin Connector (T8ah)**  
 Courtesy of AUDI OF AMERICA, LLC

1. Not assigned
2. Voltage supply to multimedia system control head -E380-
3. Wake UP to multimedia system control head
4. Not assigned
5. Not assigned
6. Res MU to multimedia system control head
7. Ring-break diagnostic cable

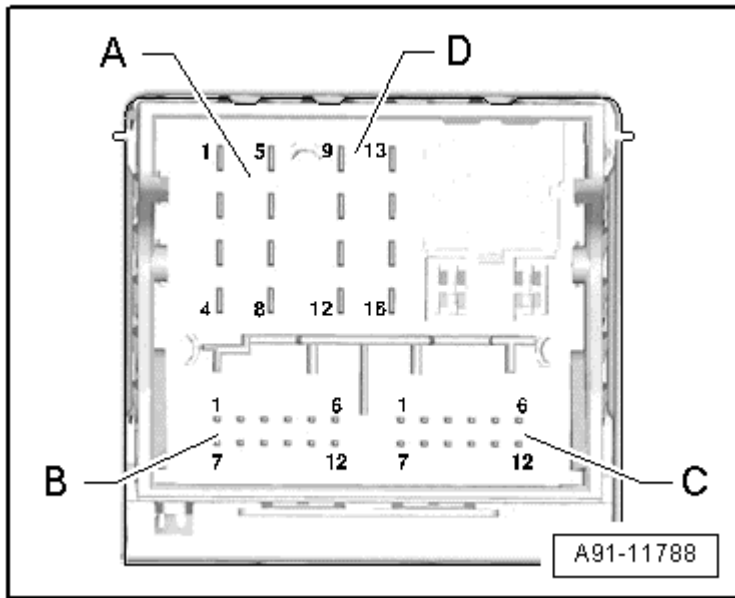


**Fig. 192: B - 12-Pin Connector (T12x)**

Courtesy of AUDI OF AMERICA, LLC

8 - Microphone input (+) from Microphone unit in front roof module -R164- (left front microphone -R140-)

9 - Microphone input (-) from Microphone unit in front roof module -R164- (left front microphone -R140-)

**Fig. 193: C - 12-Pin Connector (T12y)**

Courtesy of AUDI OF AMERICA, LLC

**All pins are connected to the external audio source connection -R199-.**

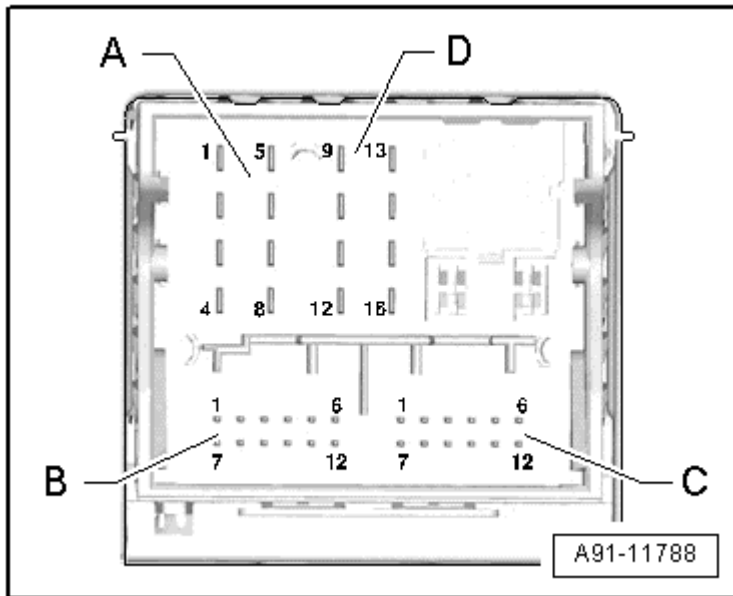
1. LF-In ground
2. Right LF-In
3. USB (+5V) not on the internet access control module -J666- (from MY 13)
4. USB (ground)
5. Not assigned
6. Detect not on the internet access control module -J666- (from MY 13)
7. Left LF-In
8. LF-In ground shielding
9. FBAS wire (+)
10. FBAS wire (-)
11. iPod data
12. iPod data

**Following pins are also still connected with the internet access control module -J666- (from MY 13).**

3 - USB (+5 V)

4 - USB (ground)

6 - Detect



**Fig. 194: D - 8-Pin Connector (T16q)**  
 Courtesy of AUDI OF AMERICA, LLC

10 - Data from multimedia system control head -E380-

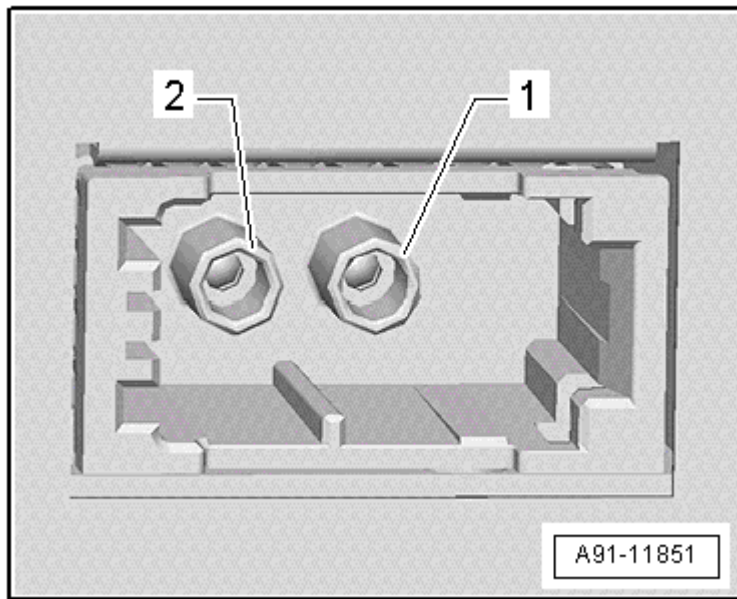
11 - Data to the multimedia system control head

12 - Terminal 31

14 - Res BT from multimedia system control head

15 - Terminal 30

16 - Ground (GND) to multimedia system control head

**Fig. 195: 3 - MOST Bus**

Courtesy of AUDI OF AMERICA, LLC

1. IN
2. OUT

**SPECIFICATIONS****FASTENER TIGHTENING SPECIFICATIONS**

| Component                                                                                                                   | Fastener Size | Nm  |
|-----------------------------------------------------------------------------------------------------------------------------|---------------|-----|
| Antenna Amplifier 2 and 3                                                                                                   | -             | 2   |
| Antenna, Radio/Telephone/Navigation System                                                                                  | -             | 6   |
| Digital Sound System Control Module <sup>1</sup>                                                                            | -             | 3.5 |
| Digital Sound System Control Module <sup>2</sup>                                                                            | -             | 5   |
| External Audio Source Connection                                                                                            | -             | 2   |
| Front Information Display Control Head                                                                                      | -             | 2   |
| Front Information Display Control Head Control Module                                                                       | -             | 2   |
| Multifunction Buttons                                                                                                       | -             | 3   |
| Navigation System with CD Drive Control Module                                                                              | -             | 5   |
| Radio                                                                                                                       | -             | 3   |
| Rearview Camera System Control Module Screws                                                                                | -             | 2   |
| Rearview Camera System Control Module Nuts                                                                                  | -             | 6   |
| Steering Wheel Tiptronic Switch                                                                                             | -             | 1.2 |
| <ul style="list-style-type: none"> <li>• <sup>1</sup> through 10.31.2008</li> <li>• <sup>2</sup> from 11.03.2008</li> </ul> |               |     |

## REMOVAL AND INSTALLATION

### ANTENNAS

#### ANTENNA AMPLIFIERS 2 AND 3 -R111- / -R112-

The antenna amplifier 2 -R111- /antenna amplifier 3 -R112- are on the left and right D-pillars.

**Removing and installing is identical.**

-- Turn off all electrical consumers.

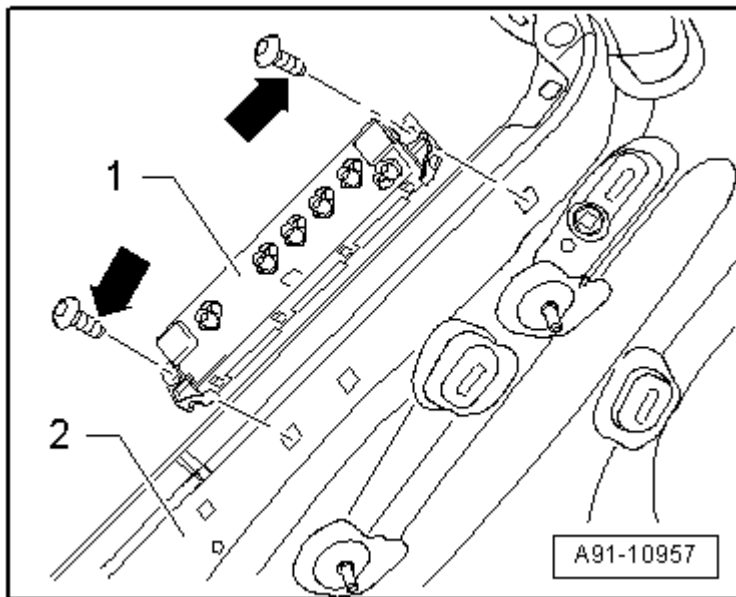
-- Remove the key.

#### Removing

-- Remove the trim from the D-pillar. Refer to **Removal and Installation** .

-- Release and disconnect the connector from the antenna amplifier 2.

-- Remove the screws -arrows- and remove the antenna amplifier 2 -1- from the D-pillar -2-.



**Fig. 196: Removing Screws And Removing Antenna Amplifier**  
Courtesy of AUDI OF AMERICA, LLC

#### Installing

-- Install in reverse order of removal.

#### ROOF ANTENNA -R52-

The roof antenna Radio, Telephone, Navigation System Antenna (GSM/GPS/RC/SAT), has maximum 4 connectors.

The antenna wires are connected on the left and right D-pillars.

To remove the radio, telephone, navigation system antenna, remove the D-pillar trim and the headliner.

-- Turn off all electrical consumers.

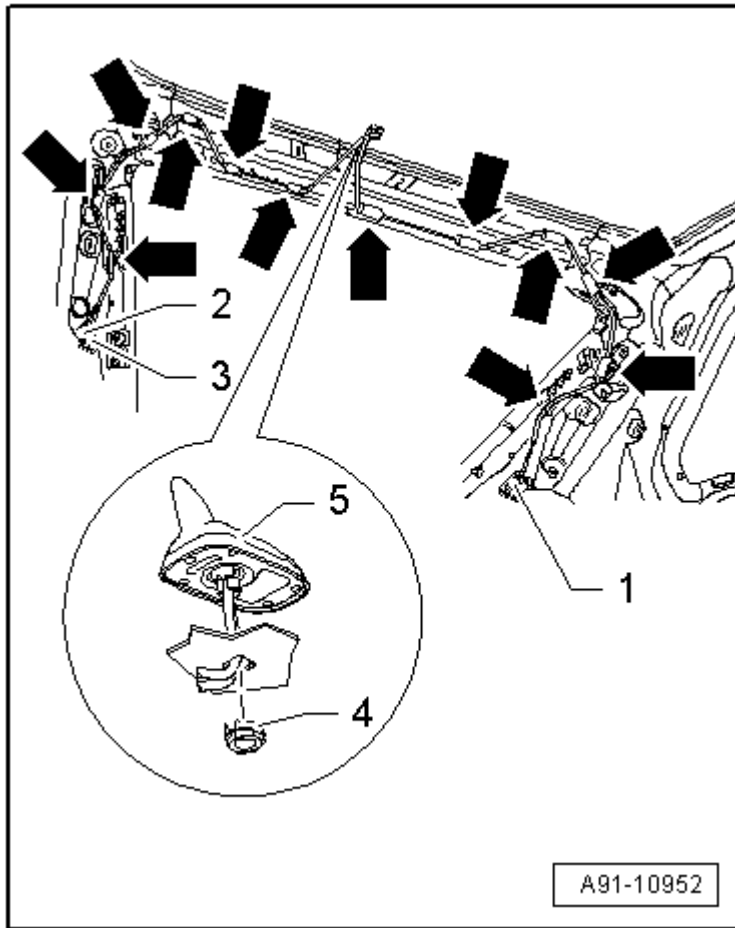
-- Remove the key.

### Removing

-- Remove the left and right D-pillar trim. Refer to **Removal and Installation** .

-- Remove the headliner completely. Refer to **Removal and Installation** and lay it on the instrument panel.

-- Release and disconnect the connectors -1-, -2- and -3- from the antenna wires.



**Fig. 197: Release And Disconnect Connectors**  
Courtesy of AUDI OF AMERICA, LLC

-- Remove the antenna wires up to the radio, telephone, navigation system antenna -arrows-.

-- Remove nut -4-.

-- Remove the radio, telephone, navigation system antenna -5- upward from the roof.

### **Installing**

-- Guide in antenna wires the opening in the roof and carefully attach radio, telephone, navigation system antenna on the roof.

-- Make sure the seal fits correctly.

-- Install in reverse order of removal.

### **CD CHANGER -R41- THROUGH 10.31.2008**

#### **Special tools and workshop equipment required**

- Radio Removal Tool T10057
- Fiber Optic Pliers Repair Set VAS 6223
- Protective Cap For Cable Connector VAS 6223/9

-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

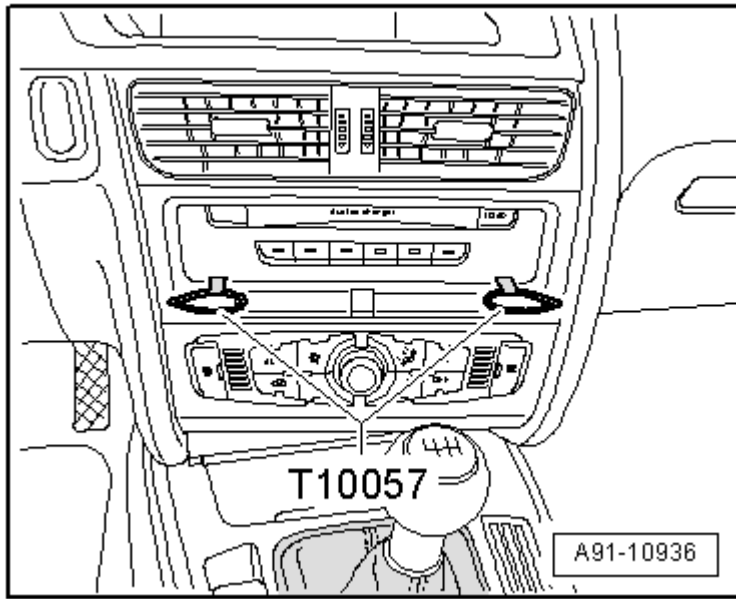
#### **Use Vehicle Diagnostic Tester.**

-- Turn off all electrical consumers.

-- Remove the key.

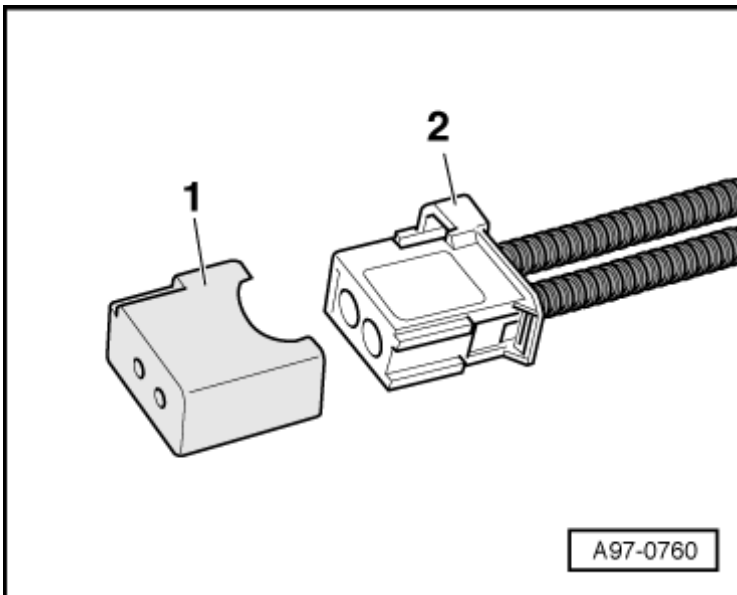
### **Removing**

-- Insert two clips on T10057 in release slits on CD Changer until they engage. Points on the grip eyelets of tool face outward.



**Fig. 198: Insert Two Clips On T10057 In Release Slits On Cd Changer Until They Engage**  
 Courtesy of AUDI OF AMERICA, LLC

- Remove CD Changer from mounting frame.
- Disconnect all of the connectors from the CD Changer.
- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 199: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
 Courtesy of AUDI OF AMERICA, LLC

- Remove T10057, push locking tabs on CD Changer to do so.

-- Unclip the front trim piece from the CD Changer.

**Installing**

-- Connect all harness connectors.

-- Slide CD Changer into mounting frame until it engages.

**CD CHANGER -R41- FROM 11.03.2008****Special tools and workshop equipment required**

- Radio Removal Tool T10057
- Fiber Optic Pliers Repair Set VAS 6223
- Protective Cap For Cable Connector VAS 6223/9

**The CD changer is inside the glove compartment.**

-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use Vehicle Diagnostic Tester.

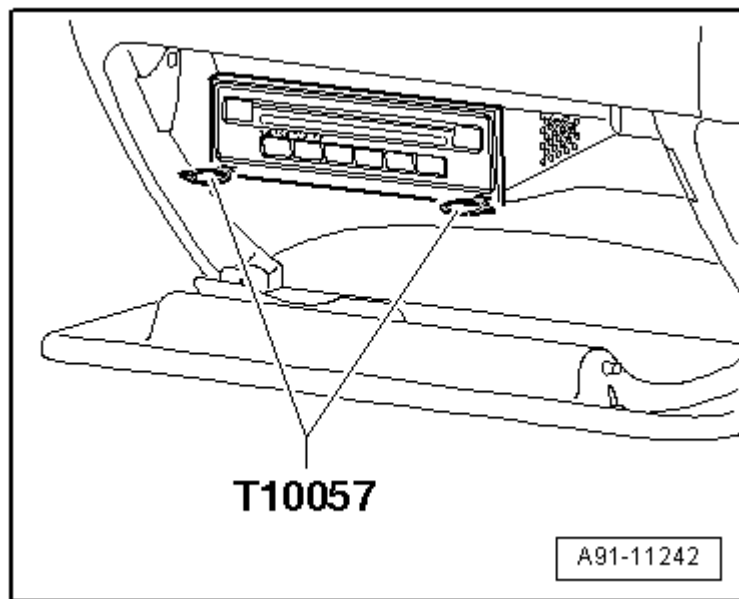
-- Turn off all electrical consumers.

-- Remove the key.

**Removing**

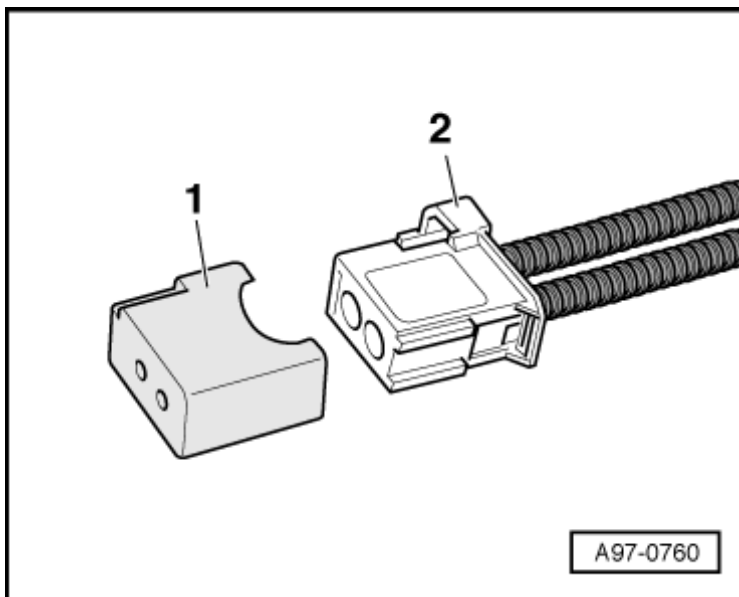
-- Open the glove compartment.

-- Insert two clips on T10057 in release slits on CD Changer until they engage. Points on the grip eyelets of tool face outward.



**Fig. 200: Insert Two Clips On T10057 In Release Slits On Cd Changer Until They Engage**  
Courtesy of AUDI OF AMERICA, LLC

- Remove CD Changer from mounting frame.
- Disconnect all of the connectors from the CD Changer.
- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 201: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
Courtesy of AUDI OF AMERICA, LLC

- Remove T10057, push locking tabs on CD Changer to do so.

**Installing**

- Connect all harness connectors.
- Slide CD Changer into mounting frame until it engages.

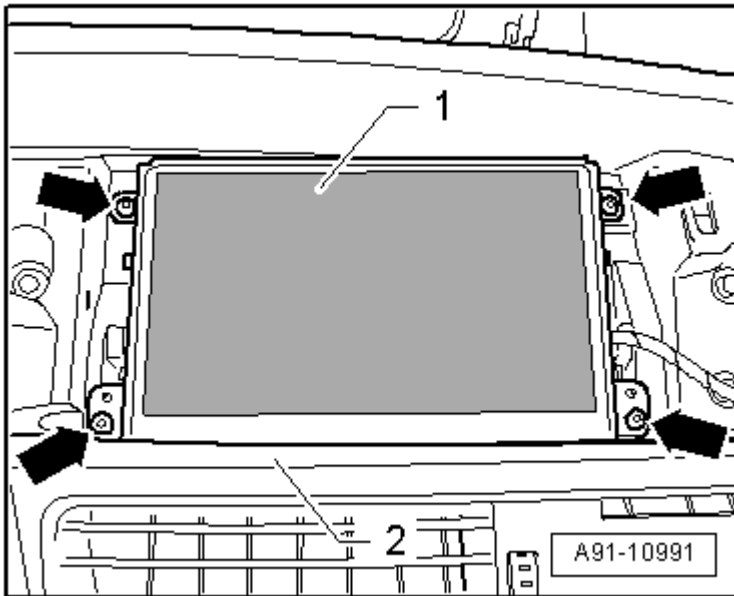
**FRONT INFORMATION DISPLAY CONTROL HEAD -J685- (DISPLAY)**

The display is located in the center of the instrument panel.

- Turn off all electrical consumers.
- Remove the key.

**Removing**

- Remove the MMI screen cover. Refer to **Removal and Installation** .
- Remove the screws -arrows- from the display -1-.



**Fig. 202: Removing Screws From Display**  
Courtesy of AUDI OF AMERICA, LLC

- Remove the display -1- from the instrument panel -2-.
- Unlock and disconnect the connectors from the display.

**Installing**

- Install in reverse order of removal.

**EXTERNAL AUDIO SOURCE CONNECTION -R199-****Special tools and workshop equipment required**

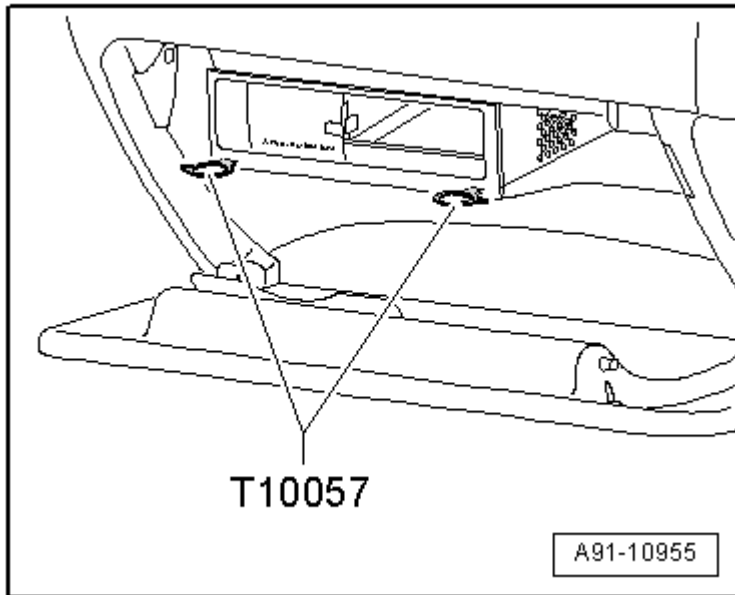
- Radio Removal Tool T10057
- Fiber Optic Pliers Repair Set VAS 6223
- Protective Cap For Cable Connector VAS 6223/9

**The external audio source connection is located inside the glove compartment.**

- Turn off all electrical consumers.
- Remove the key.

**Removing**

- Open the glove compartment.
- Insert the two clips of the T10057 into the slits on the external audio source connection until they engage. Points on the grip eyelets of tool face outward.



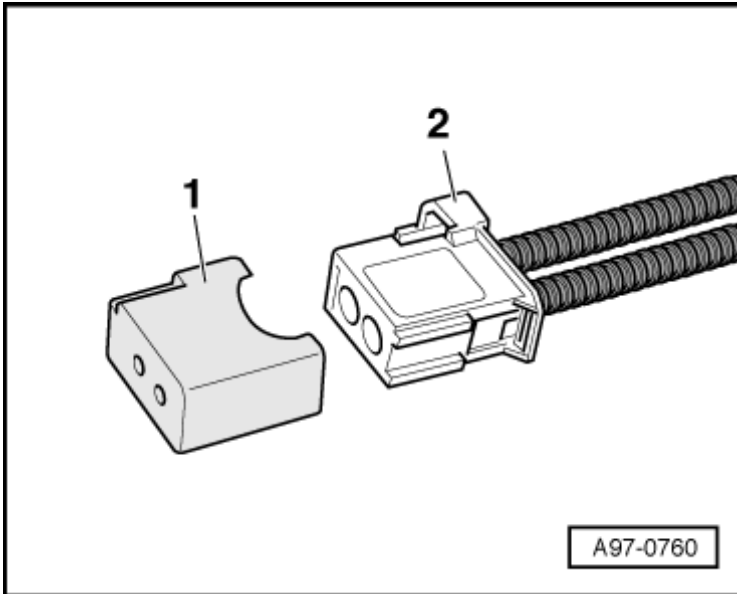
**Fig. 203: Insert Two Clips Of Radio Removal Tool Into Release Slits On External Audio Source Connection Until They Engage**

Courtesy of AUDI OF AMERICA, LLC

- Pull the external audio source connection out of mounting frame.
- Disconnect all of the connectors from the external audio source connection.

**Versions with MOST bus**

-- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



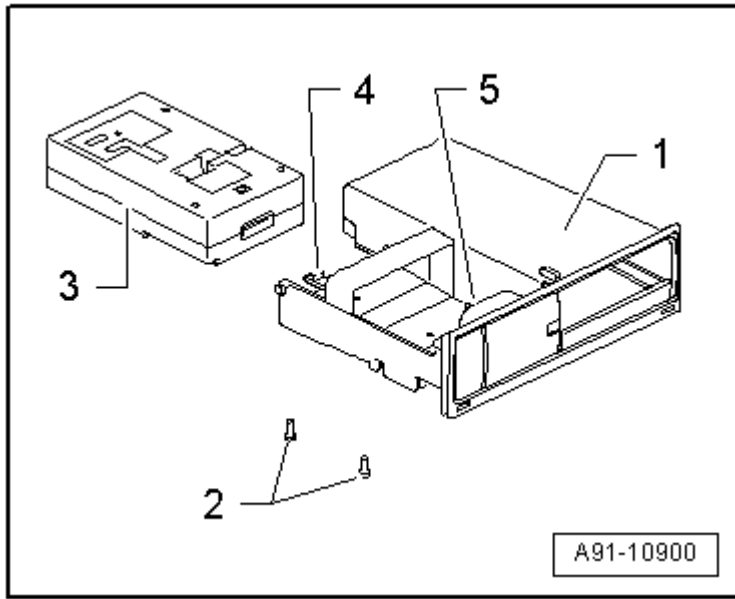
**Fig. 204: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
Courtesy of AUDI OF AMERICA, LLC

**All**

-- Remove the T10057, push locking tabs on the external audio source connection to do so.

Remove the internal control unit

-- Remove the screw -2- on back side (2 Nm).



**Fig. 205: Removing Screws On Back Side**  
Courtesy of AUDI OF AMERICA, LLC

-- Press the tabs -4- and -5- down and up and remove the control module -5- back from the frame -1-.

### Installing

-- Connect all harness connectors.

-- Slide the external audio source connection on the mounting frame until it engages.

### EXTERNAL AUDIO SOURCE CONNECTION -R199- AUX IN

The external audio source connection (AUX IN) is located in the center console storage compartment.

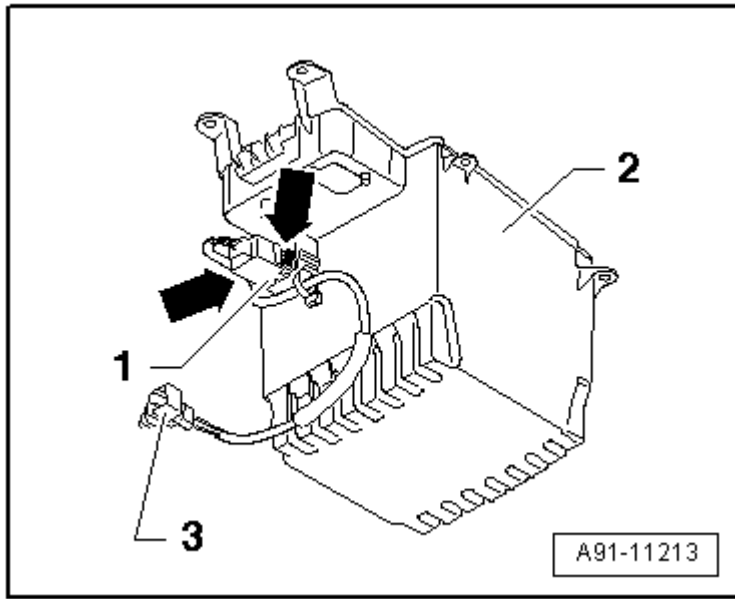
-- Turn off all electrical consumers.

-- Remove the key.

### Removing

-- Remove the storage compartment from the center console. Refer to **Removal and Installation**

-- Disconnect the connector -3- from the external audio source connection -1-.



**Fig. 206: Disconnecting Connector From External Audio Source Connection**  
Courtesy of AUDI OF AMERICA, LLC

-- Squeeze together the tabs -arrows- on the external audio source connection -1- and remove the external audio source connection -1- from the storage compartment -2-.

### Installing

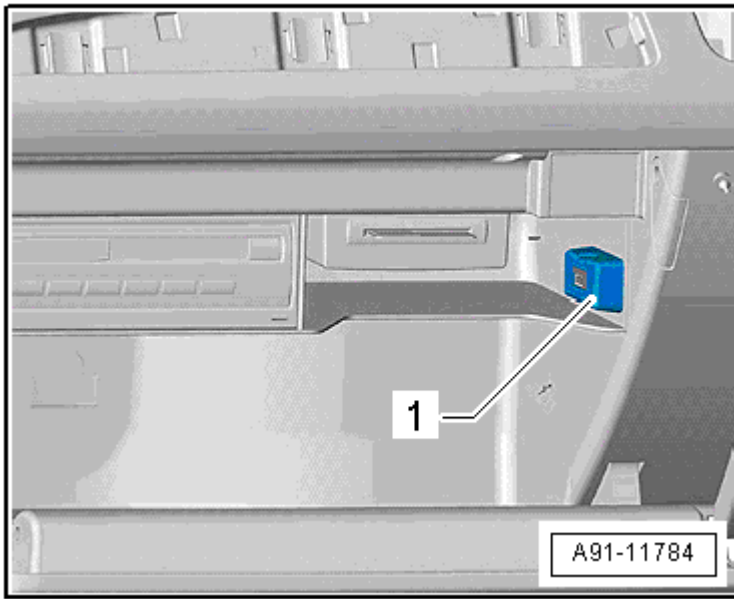
-- Install in reverse order of removal.

### EXTERNAL AUDIO SOURCE CONNECTION -R199-, INTERFACE

### Special tools and workshop equipment required

- Removal Wedge 3409

The external audio source connection (interface) -1- is located inside the glove compartment.



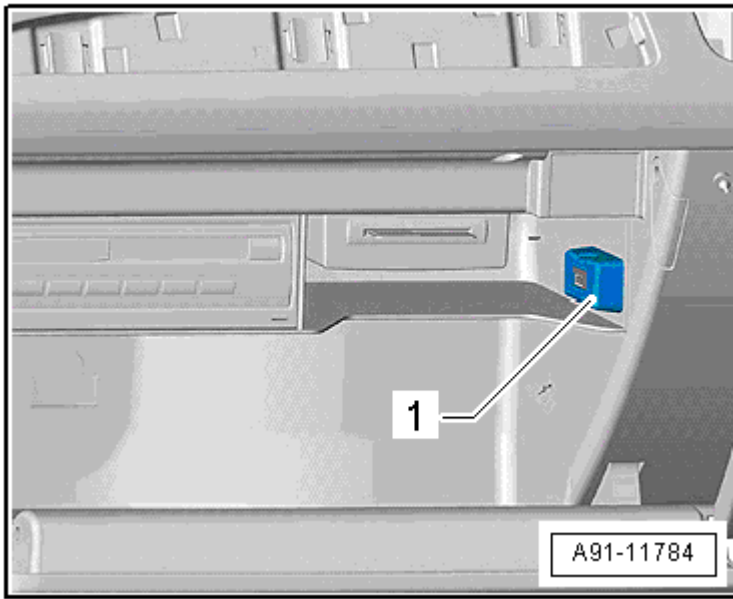
**Fig. 207: External Audio Source Connection (Interface) Is Located Inside Glove Compartment**  
Courtesy of AUDI OF AMERICA, LLC

- Turn off all electrical consumers.
- Turn off the ignition and remove the key.

### **Removing**

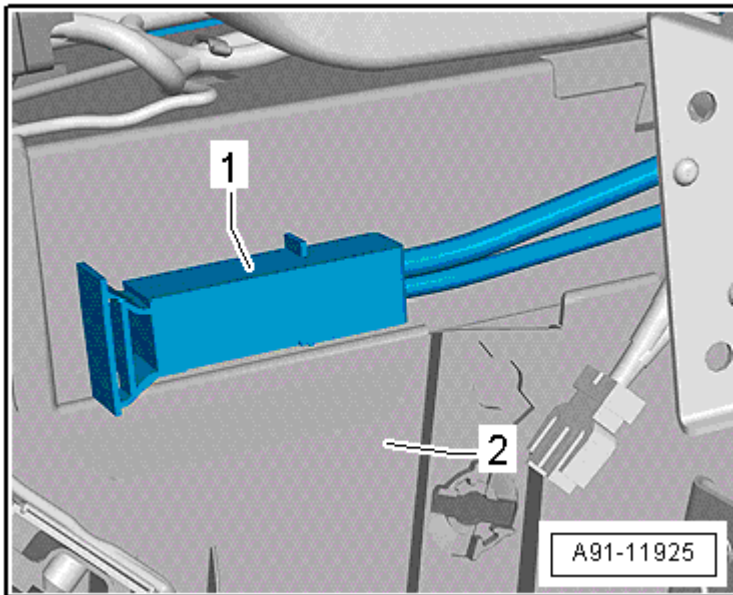
The wires for the interface are components of the wiring harness. They cannot be replaced separately. If faulty, the adapter cable must be installed.

- Open the glove compartment.
- Remove the trim -1- using the VAS 3409.



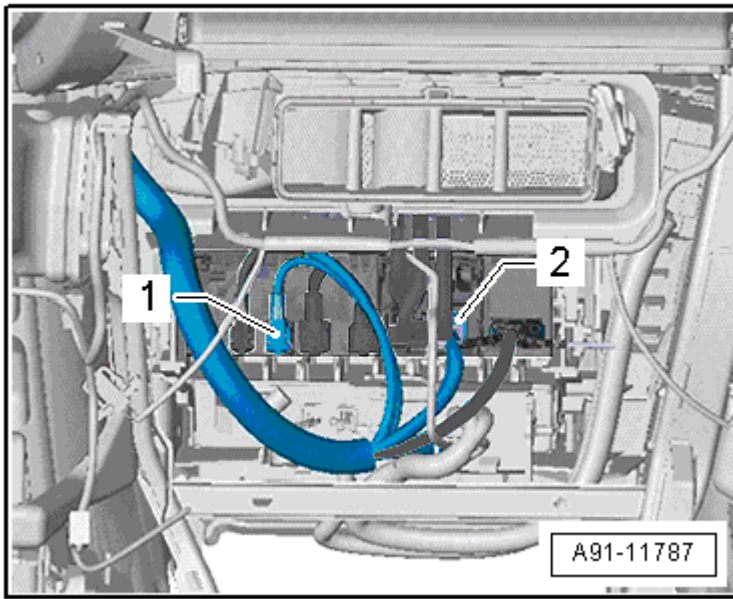
**Fig. 208: Removing Trim Using VAS 3409**  
Courtesy of AUDI OF AMERICA, LLC

The interface (T30b) -1- is installed from behind in the glove compartment -2-.



**Fig. 209: Interface (T30B) Is Installed From Behind In Glove Compartment**  
Courtesy of AUDI OF AMERICA, LLC

The connectors for the interface T4ap -1- and T12y -2- are found on the Information electronics control module 1 -J794-.



**Fig. 210: Connectors From Interface Are Found On Information Electronics Control Module**  
Courtesy of AUDI OF AMERICA, LLC

### Installing

-- Install in reverse order of removal.

### FRONT INFORMATION DISPLAY CONTROL HEAD CONTROL MODULE -J523-, MMI BASIC

### Special tools and workshop equipment required

- Radio Removal Tool T10057
- Protective Cap For Cable Connector VAS 6223/9

**The Front Information Display Control Head Control Module is located in the glove compartment.**

-- Turn off all electrical consumers.

-- Remove the key.

-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

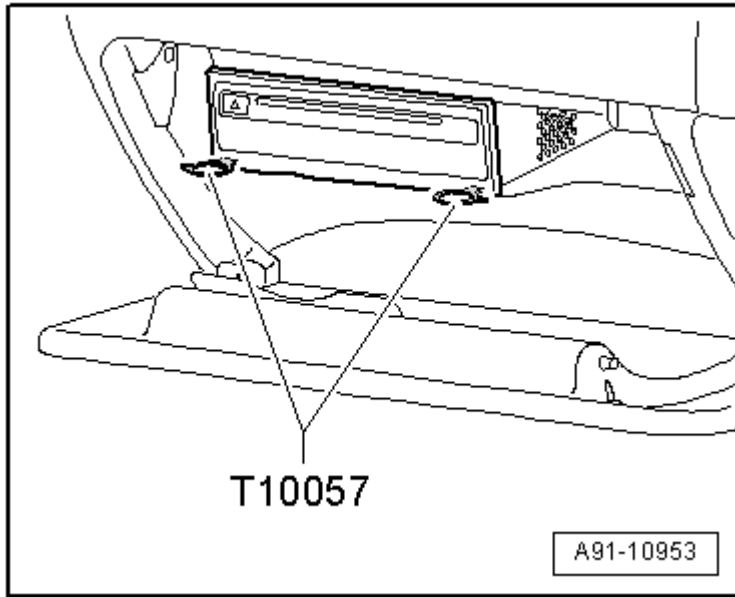
Use the Vehicle Diagnostic Tester.

### Removing

-- Open the glove compartment.

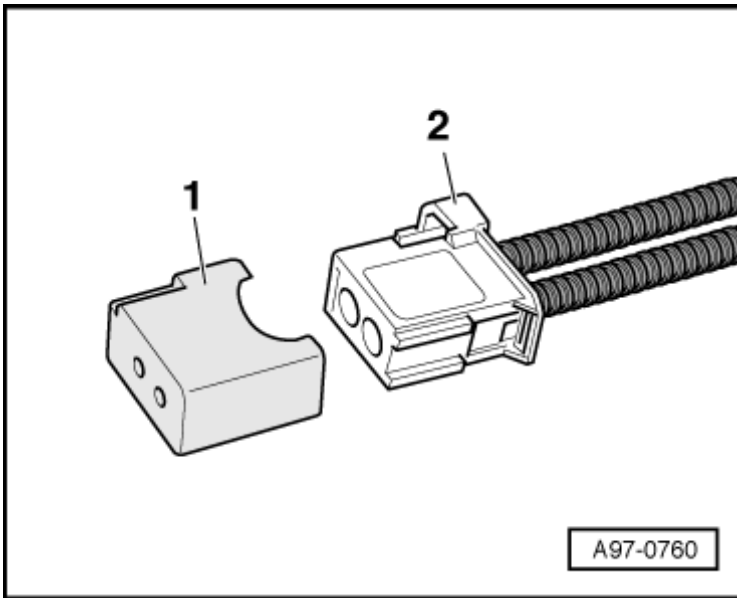
-- Insert two hooks of T10057 into the release slits on the Front Information Display Control Head Control

Module until they engage. Points on the grip eyelets of tool face outward.



**Fig. 211: Insert Two Hooks Of T10057 Into Release Slits On Front Information Display Control**  
Courtesy of AUDI OF AMERICA, LLC

- Remove the Front Information Display Control Head Control Module from the mounting frame.
- Pull T10057 out while pressing on locking tabs on the Front Information Display Control Head Control Module.
- Release and disconnect the connectors from the Front Information Display Control Head Control Module.
- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 212: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
 Courtesy of AUDI OF AMERICA, LLC

### Installing

- Connect all harness connectors.
- Slide Front Information Display Control Head Control Module into installation frame until it engages.

**FRONT INFORMATION DISPLAY CONTROL HEAD CONTROL MODULE -J523-, THROUGH 10.31.2008**

### Special tools and workshop equipment required

- Protective Cap For Cable Connector VAS 6223/9

**The Front Information Display Control Head Control Module is located behind the instrument panel.**

- Turn off all electrical consumers.
- Remove the key.
- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

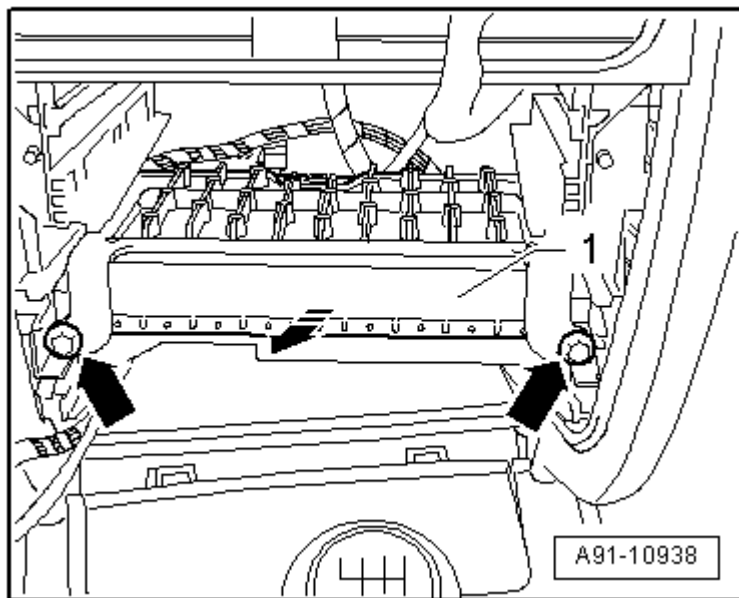
Use the Vehicle Diagnostic Tester.

### Removing

- Remove the climate controls. Refer to **Removal and Installation** .
- Remove the CD changer -R41- from the instrument panel. Refer to **CD CHANGER -R41- THROUGH**

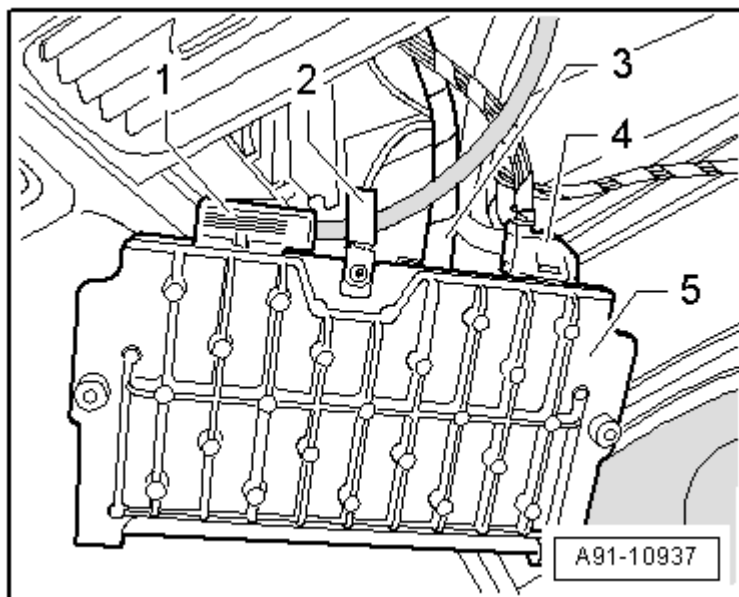
**10.31.2008.**

-- Remove the screws -arrows- and remove the Front Information Display Control Head Control Module -1- in the direction of the -arrow- from the mount frame.



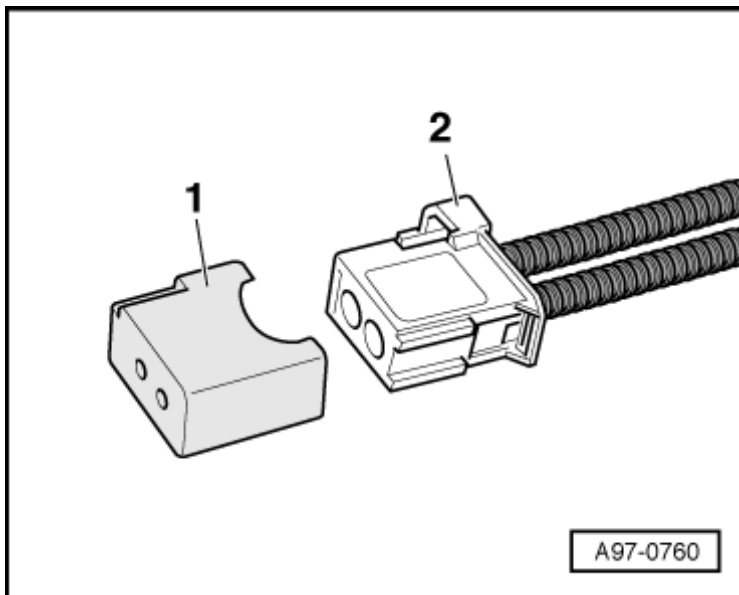
**Fig. 213: Removing Screws And Front Control Module**  
Courtesy of AUDI OF AMERICA, LLC

-- Release and disconnect the connection for the MOST-Bus -3-.



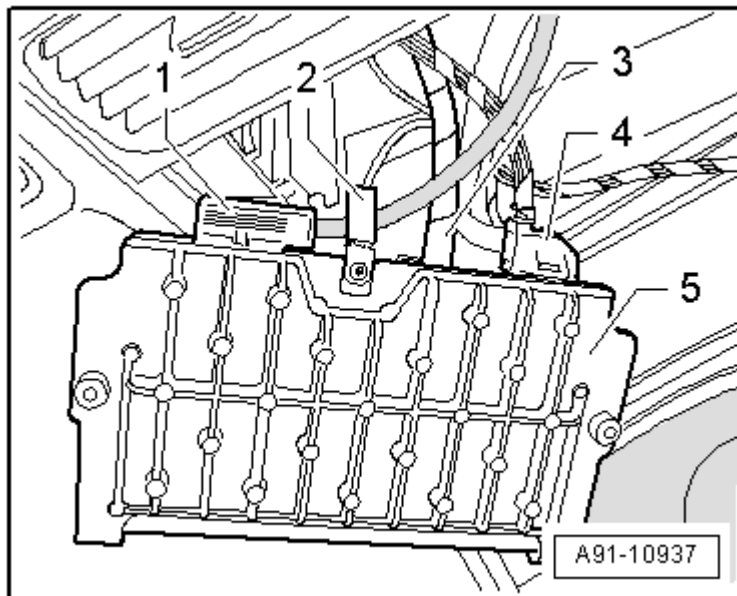
**Fig. 214: Release And Disconnect Connection**  
Courtesy of AUDI OF AMERICA, LLC

-- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 215: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
Courtesy of AUDI OF AMERICA, LLC

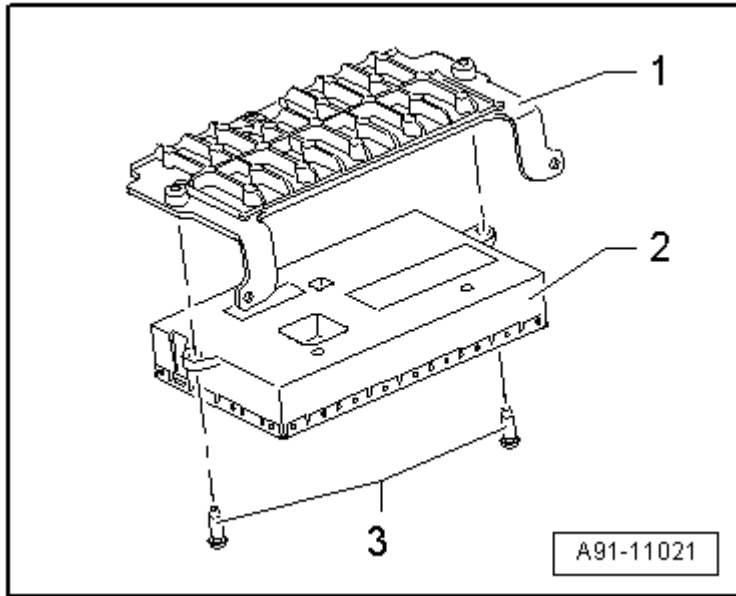
-- Loosen the ground connection -2-.



**Fig. 216: Loosen Ground Connection**  
Courtesy of AUDI OF AMERICA, LLC

-- Release and disconnect the connections -1- and -4- from the Front Information Display Control Head Control Module -5-.

- Rotate the Front Information Display Control Head Control Module control unit together with the bracket -5-.
- Remove the bolts -3- and remove Front Information Display Control Head Control Module -2- from the bracket -1-.



**Fig. 217: Removing Bolts And Control Module**  
Courtesy of AUDI OF AMERICA, LLC

### Installing

- Install in reverse order of removal.

### INFORMATION ELECTRONICS CONTROL MODULE 1 -J794-

#### Special tools and workshop equipment required

- Radio Removal Tool T10057
- Protective Cap For Cable Connector VAS 6223/9

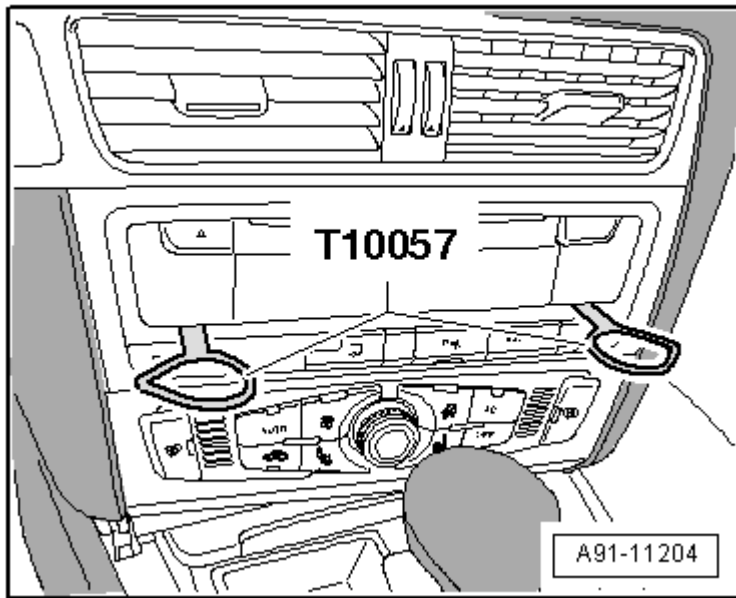
**The information electronics control module 1 is located inside the instrument panel.**

- Turn off all electrical consumers.
- Remove the key.
- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Vehicle Diagnostic Tester.

## Removing

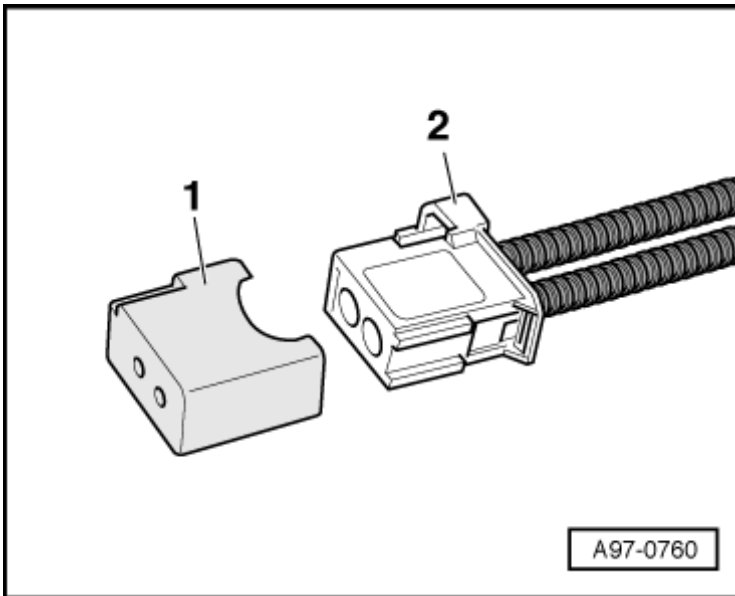
-- Insert the two clips from the T10057 into the slots on the information electronics control module 1 until they engage. Points on the grip eyelets of tool face outward.



**Fig. 218: Insert Two Clips From T10057 Into Slots On Information Electronics Control Module Until They Engage**

Courtesy of AUDI OF AMERICA, LLC

- Remove the information electronics control module 1 from the installation frame.
- Remove the T10057 by pushing the locking tabs on information electronics control module 1.
- Release and disconnect the connections from the information electronics control module 1.
- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 219: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
Courtesy of AUDI OF AMERICA, LLC

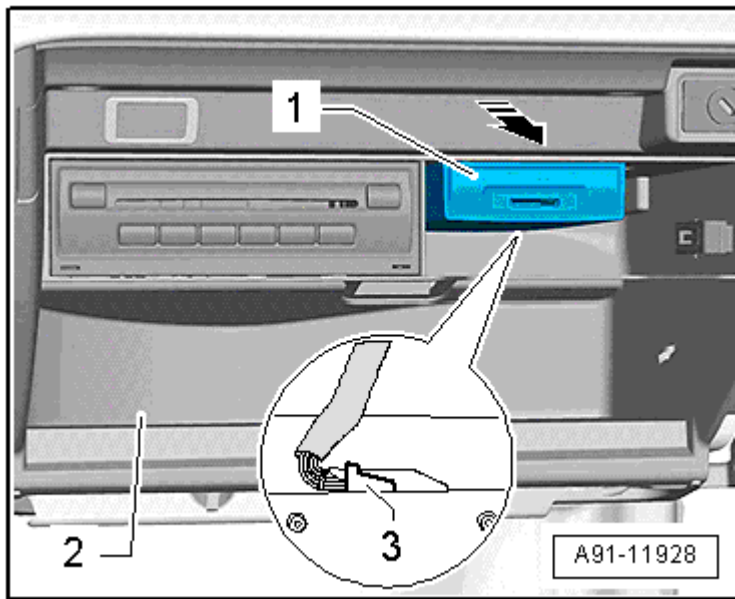
### Installing

- Connect all harness connectors.
- Slide the information electronics control module 1 into the installation frame until it engages.

**INTERNET ACCESS CONTROL MODULE -J666-, FROM MY 13**

**INTERNET ACCESS CONTROL MODULE -J666-**

The internet access control module -1- is located in the glove compartment -2-.



**Fig. 220: Identifying Internet Access Control Module**  
Courtesy of AUDI OF AMERICA, LLC

-- Turn off all electrical consumers.

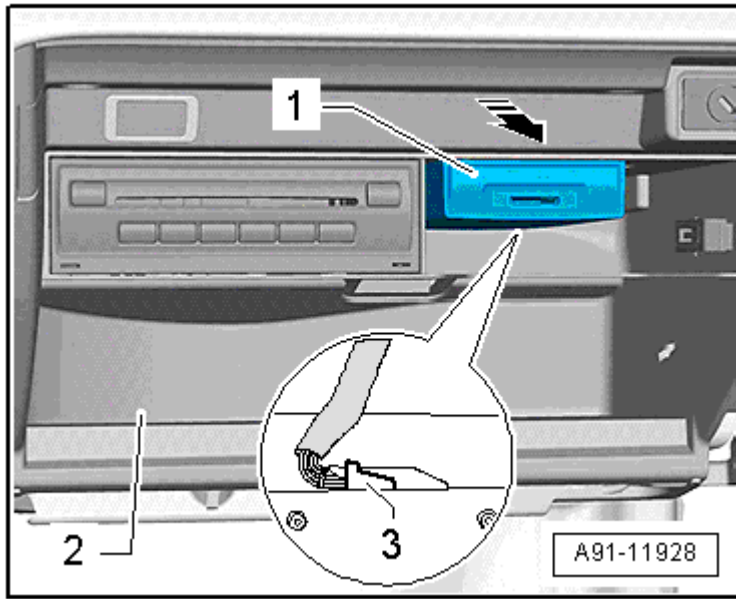
-- Remove the key.

### Removing

-- Open the glove compartment.

-- Remove the chip card.

-- Slide the internet access control module -1- in the -direction of the arrow- until it can be removed from the trim -2-.



**Fig. 221: Identifying Internet Access Control Module**  
 Courtesy of AUDI OF AMERICA, LLC

-- Disconnect the connectors -3- from the chip card reader control module -J676- -1-.

### Installing

-- Install in reverse order of removal.

-- Peel off the protective backing from the internal battery.

If the internet access control module is replaced, the consumer must re-configure it again.

### INTERNET ACCESS CONTROL MODULE -J666- INTERNAL BATTERY

The internet access control module has a battery. If information electronics control module 1 -J794- has stored a fault regarding the battery, then it is necessary to replace the battery.

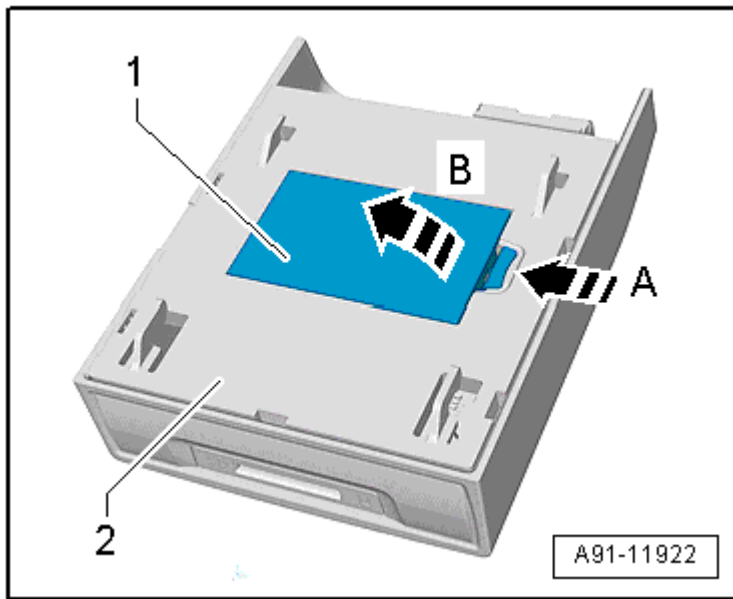
-- Turn off all electrical consumers.

-- Remove the key.

### Removing

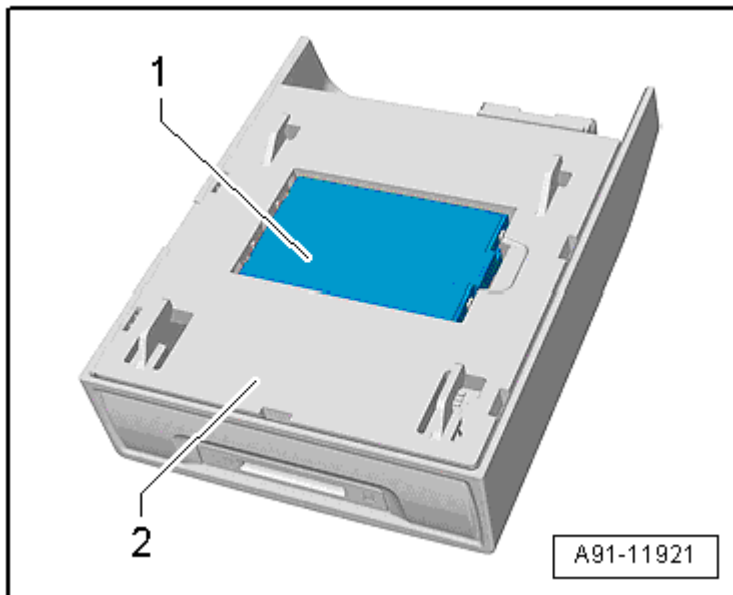
-- Remove the internet access control module. Refer to **INTERNET ACCESS CONTROL MODULE -J666-**.

-- Press the tab -arrow A- on the cover -1-, then fold the cover -1- in the -direction of the arrow B- and remove it from the internet access control module -2-.



**Fig. 222: Pressing Tab On Cover Then Fold Cover**  
Courtesy of AUDI OF AMERICA, LLC

-- Remove the battery -1- from the internet access control module -2-.



**Fig. 223: Removing Battery From Internet Access Control Module**  
Courtesy of AUDI OF AMERICA, LLC

### Installing

-- Install in reverse order of removal.

INTERNET ACCESS ANTENNA -R266-

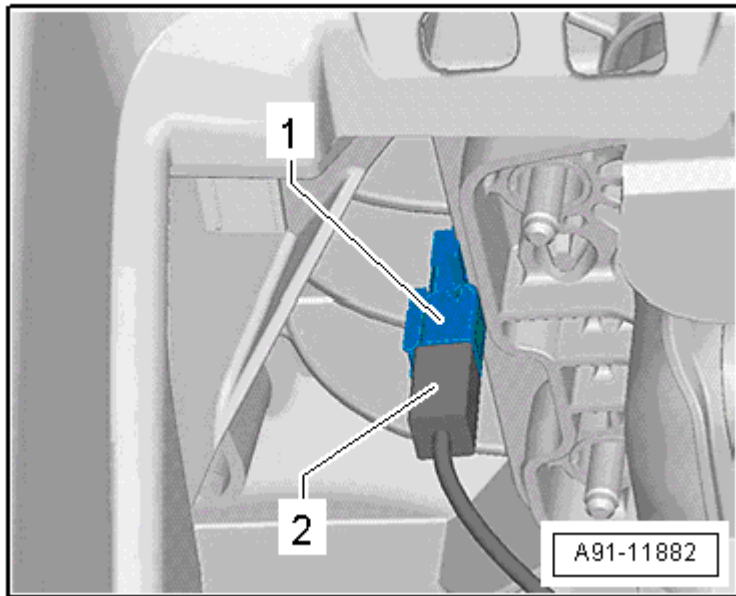
The internet access antenna (WLAN-Antenna) is located under the glove compartment on the air guide channel.

### Removing

-- Remove the glove compartment. Refer to **Removal and Installation** .

The internet access antenna is attached to the air guide channel.

-- Disconnect the connector -2- from the internet access antenna -1-.



**Fig. 224: Disconnecting Connector From Internet Access Antenna**

Courtesy of AUDI OF AMERICA, LLC

-- Loosen the internet access antenna -1- off the adhesive surface using a small screwdriver.

### Installing

-- Clean the adhesive surface on the air guide channel thoroughly with isopropanol.

-- Remove the protective film from the adhesive surface of the internet access antenna.

-- Press the internet access antenna -1- against the adhesive surface on the air guide channel and hold it for about 10 seconds.

-- Perform the rest of the installation in reverse order.

**MULTIMEDIA CONTROL HEAD -E380-**

**Special tools and workshop equipment required**

- Removal Wedge 3409

-- Turn off all electrical consumers.

### Removing

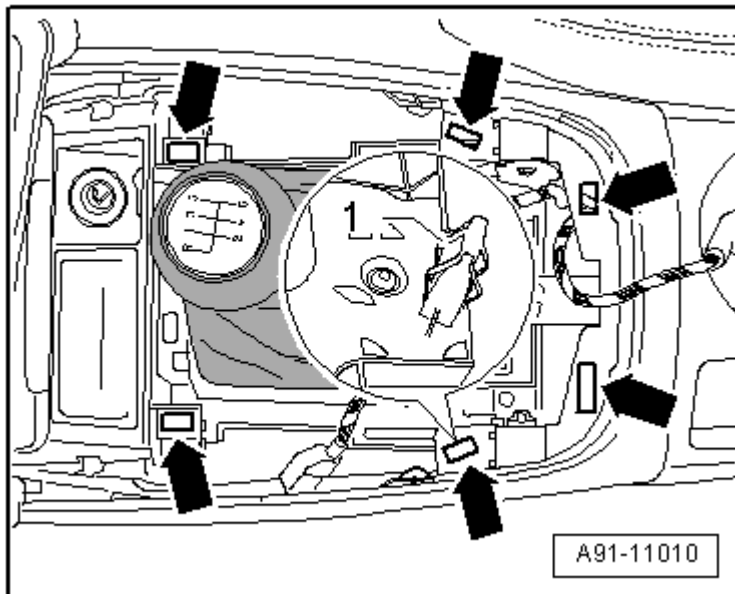
#### Vehicles with an automatic transmission

- Turn on the ignition.
- Place the selector lever in the "S" position.
- Turn off the ignition.

#### All vehicles

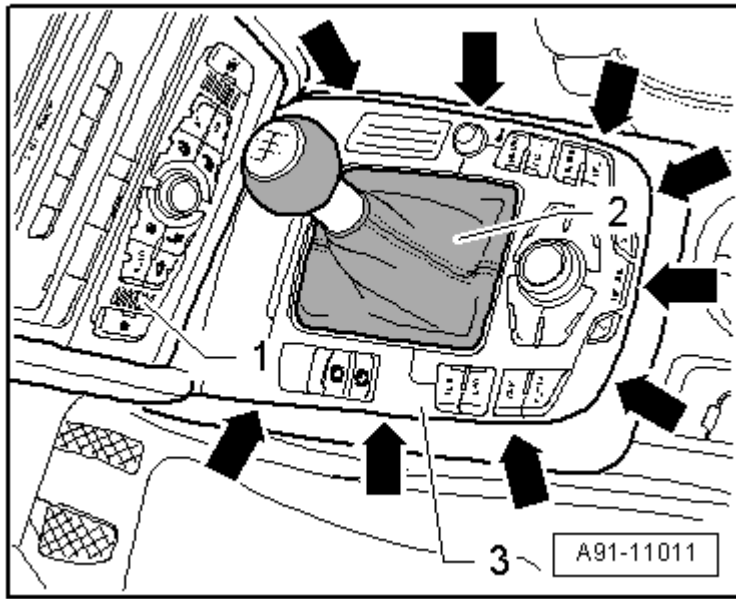
- Remove the key.

The multimedia control head is fastened -1- with springs in the center console -arrows-.



**Fig. 225: Multimedia Control Head Is Fastened With Springs In Center Console**  
Courtesy of AUDI OF AMERICA, LLC

- Remove the A/C System control head -1-. Refer to **Removal and Installation** and fold the grommet -2- on the gearshift lever upward.



**Fig. 226: Unlocking Springs With The 3409 And Lift Multimedia Control Head Upward**  
 Courtesy of AUDI OF AMERICA, LLC

-- Unlock the springs -arrows- with the 3409 and lift the multimedia control head -3- upward out of the center console.

Be careful of the short wires to the multimedia control head, the electro-mechanical parking brake button - E538- and the access/start authorization button -E408-.

-- Unlock and disconnect the connectors from the back of the multimedia control head.

Remove the electro-mechanical parking brake button and the access/start authorization button. Refer to [For engine(s) CAEB, CALA, CCBA] Removal and Installation .

### Installing

-- Install in reverse order of removal.

### MULTIFUNCTION STEERING WHEEL

### MULTIFUNCTION BUTTONS, THROUGH MY 12

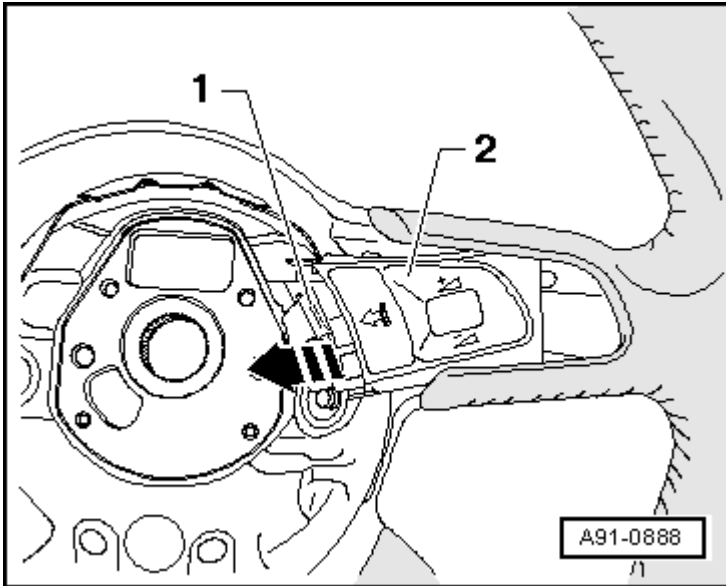
-- Turn off all electrical consumers.

-- Remove the key.

### Removing

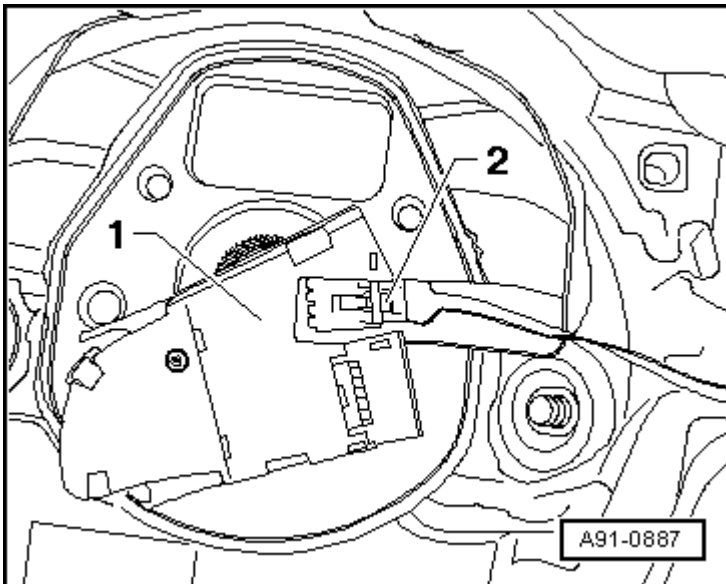
-- Remove driver's airbag. Refer to Removal and Installation .

- Disconnect trim ring from steering wheel.
- Disconnect and remove the connector -1- from the button -2-.



**Fig. 227: Identifying Harness Connector And Slide Button**  
Courtesy of AUDI OF AMERICA, LLC

- Slide multifunction button -2- out of steering wheel in direction of arrow.
- Rotate multifunction button.
- Release and disconnect the connector -2- for the tiptronic switch from the multifunction button -1- and then remove it.



**Fig. 228: Identifying Harness Connector And Tiptronic Switch At Multi-Function Button**  
Courtesy of AUDI OF AMERICA, LLC

### Installing

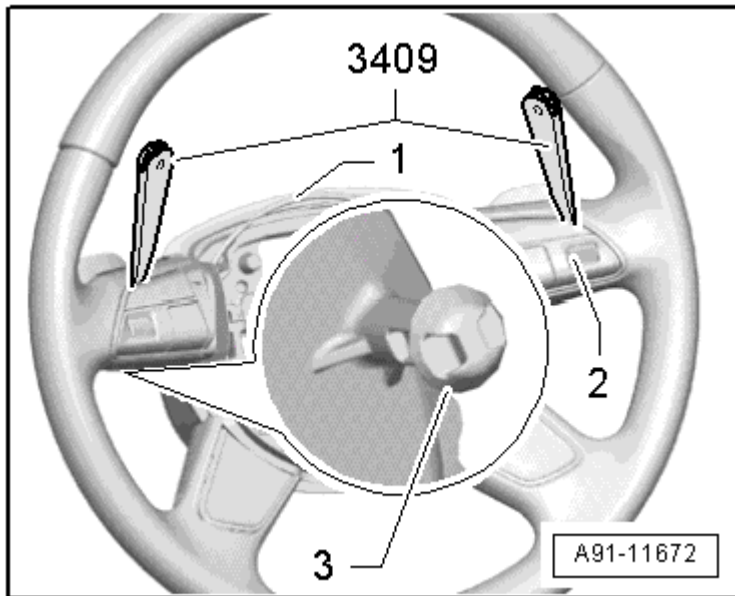
-- Install in reverse order of removal.

MULTIFUNCTION BUTTONS, 4-SPOKE STEERING WHEEL, FROM MY 13

### Special tools and workshop equipment required

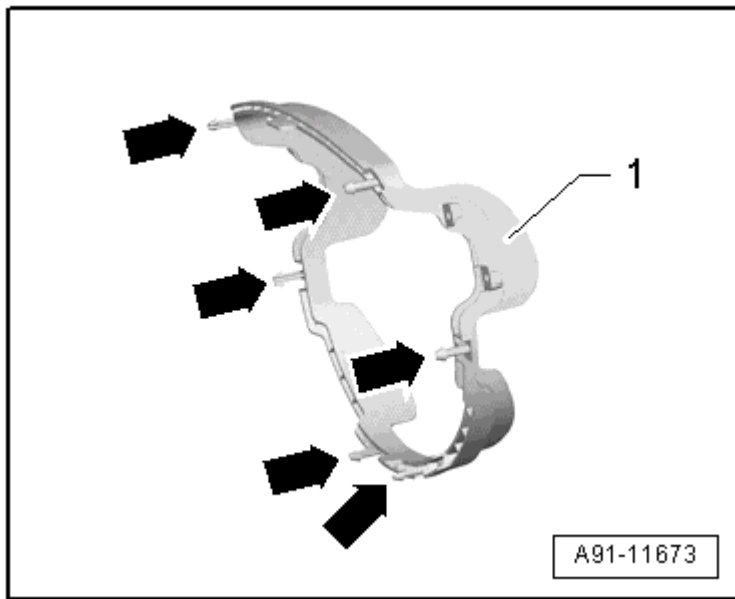
- Removal Wedge 3409

The multifunction buttons -2- are attached to the trim -1-. The trim -1- and the multifunction buttons -2- are attached to the steering wheel. The multifunction buttons -2- have an extra retainer -3-.



**Fig. 229: Multifunction Buttons Are Attached To Trim**  
Courtesy of AUDI OF AMERICA, LLC

While removing, first make sure the trim -1- can be loosened by hand (approximately 5 mm). Then, using the 3409, open the retainers -3- on the multifunction buttons -2- and remove the trim -1- together with the multifunction buttons -2-.

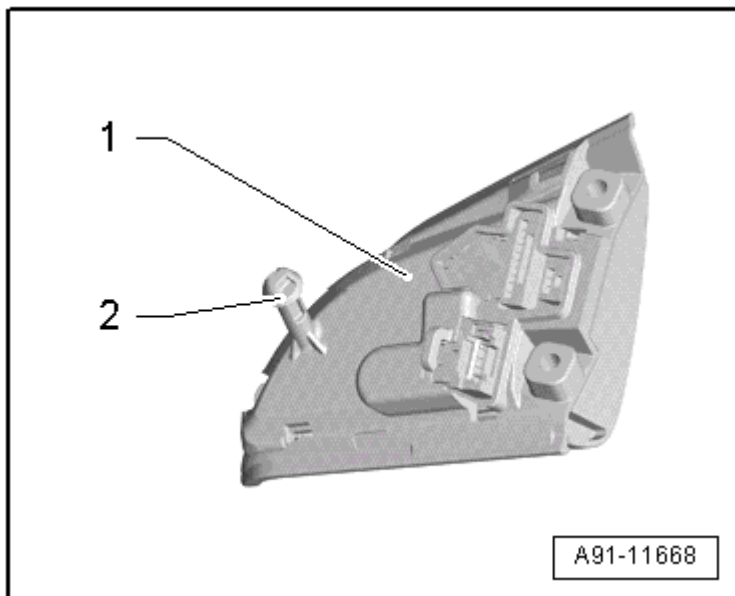


**Fig. 230: Trim retainers**

Courtesy of AUDI OF AMERICA, LLC

1. Trim

Arrows - tabs



**Fig. 231: Multifunction Button Retainers**

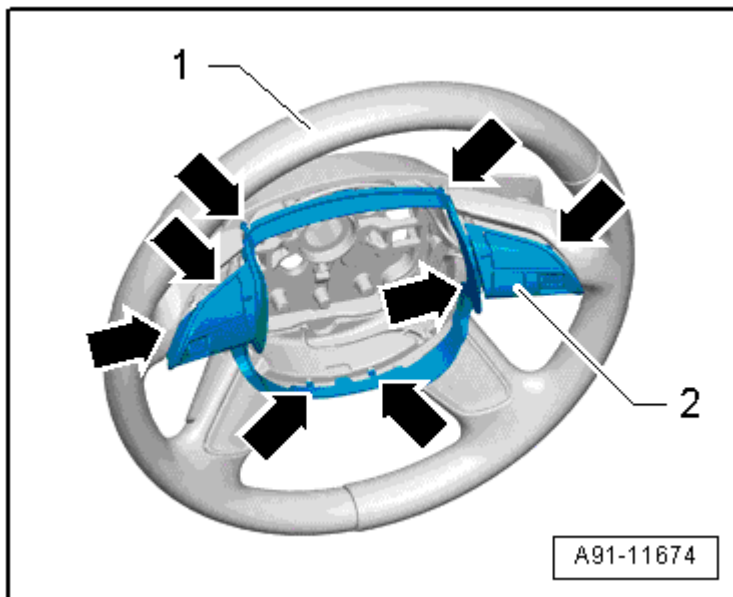
Courtesy of AUDI OF AMERICA, LLC

1. Multifunction button
2. Catch

- Turn off all electrical consumers.
- Turn off the ignition and remove the key.

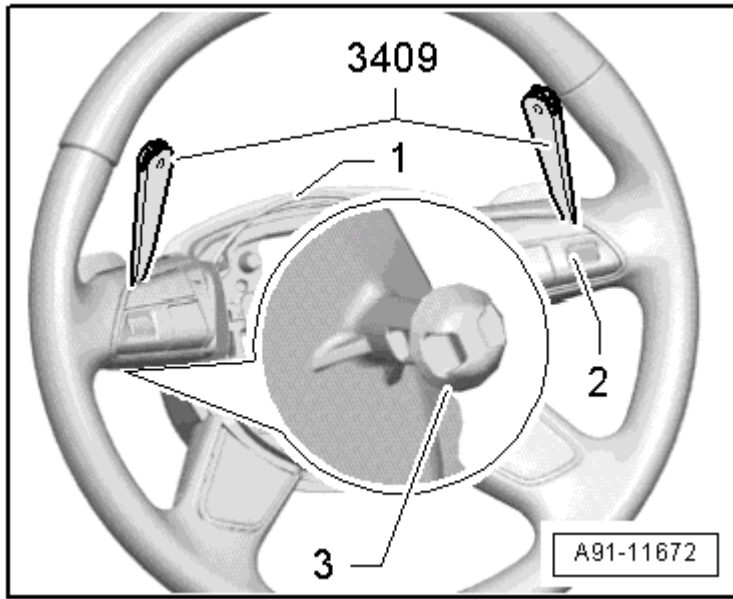
### Removing

- Remove driver's airbag. Refer to **Removal and Installation** .
- Remove the connecting wires from their guides inside the steering wheel.
- Loosen the trim -2- with the multifunction buttons -arrows- and remove it approximately 5 mm from the steering wheel -1-.



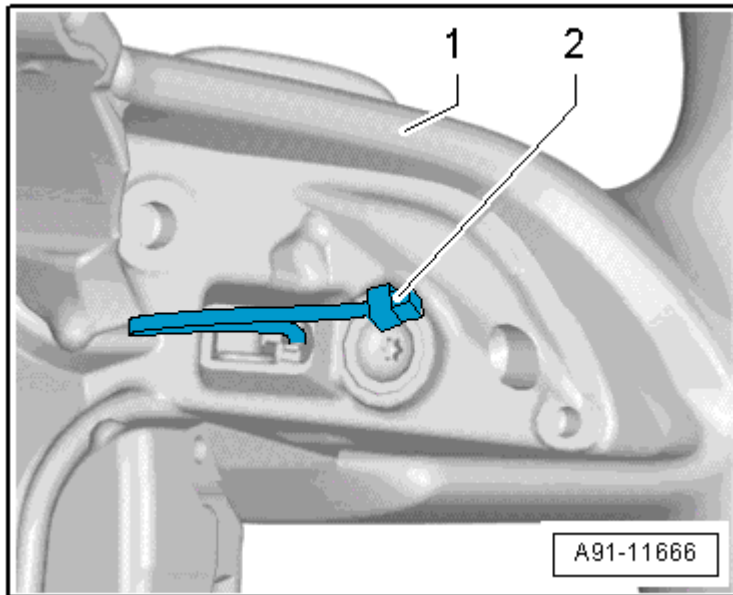
**Fig. 232: Loosening Trim With Multifunction Buttons**  
Courtesy of AUDI OF AMERICA, LLC

- Release the multifunction buttons -2- using the 3409 near the retainers -3-. Position the 3409 as illustrated.



**Fig. 233: Releasing Multifunction Buttons Using 3409 Near Retainers**  
 Courtesy of AUDI OF AMERICA, LLC

-- When doing this, be careful of the connectors to the tiptronic switches -2-.



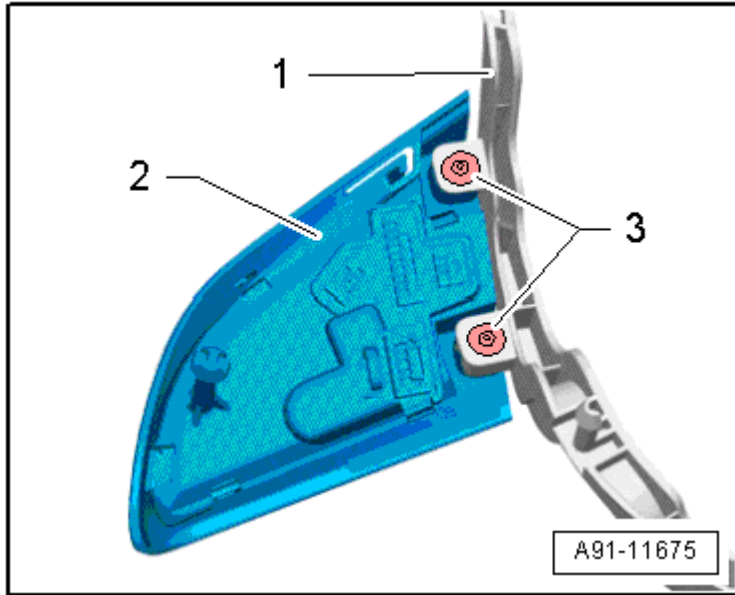
**Fig. 234: Identifying Connectors To Tiptronic Switches -2-**  
 Courtesy of AUDI OF AMERICA, LLC

-- Disconnect connector -2- on the multifunction buttons.

-- Remove the trim and the multifunction buttons from the steering wheel.

**The multifunction buttons are attached to the trim.**

- Disconnect the connector on the multifunction button.
- Remove the screws -3- and press the multifunction button -2- out of the trim -1-.

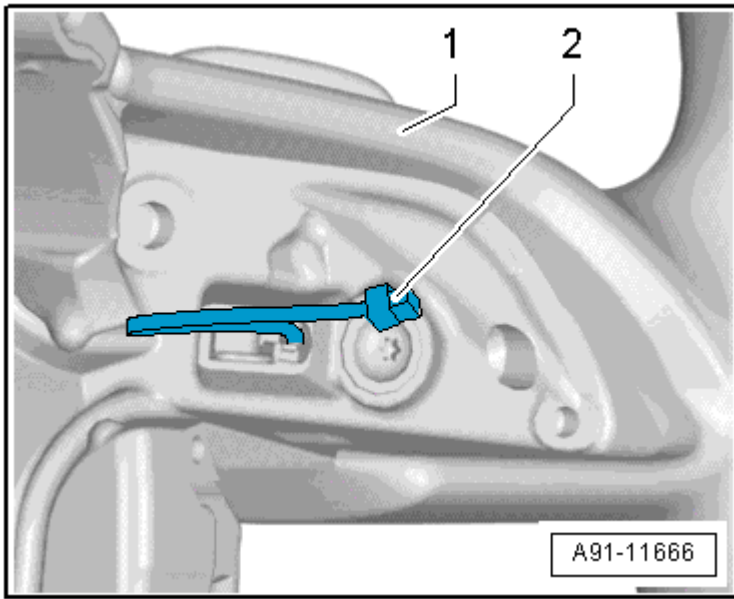


**Fig. 235: Removing Screws And Press Multifunction Button Out Of Trim**  
Courtesy of AUDI OF AMERICA, LLC

The additional wire on the right multifunction button remains on the button.

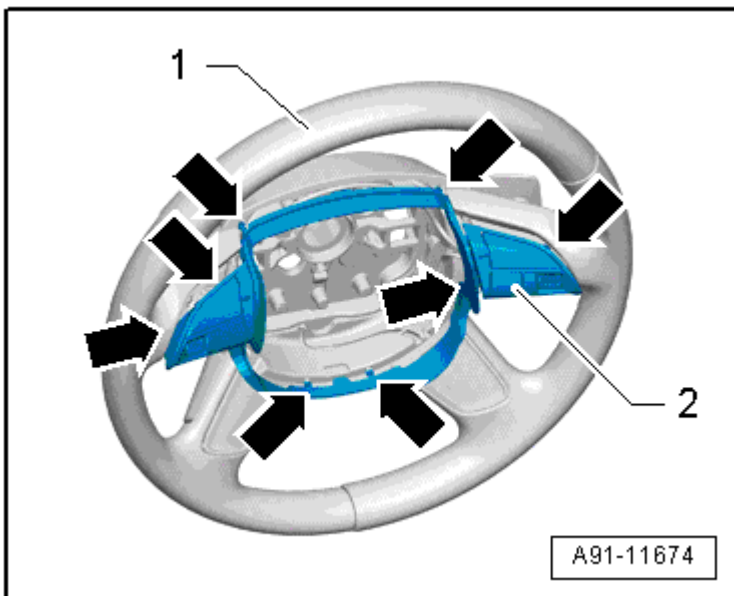
### Installing

- Install in reverse order of removal, noting the following:
- Mount the trim, with the multifunction buttons installed, on the steering wheel.
- Route the connection cable for the tiptronic switch -2- as illustrated.



**Fig. 236: Identifying Connectors To Tiptronic Switches -2-**  
Courtesy of AUDI OF AMERICA, LLC

- Route the rest of the connection cable, including the connector, into the guides inside the steering wheel.
- Press the trim -2- with the multifunction button onto the steering wheel -1- until it audibly engages.



**Fig. 237: Pressing Trim With Multifunction Button Onto Steering Wheel**  
Courtesy of AUDI OF AMERICA, LLC

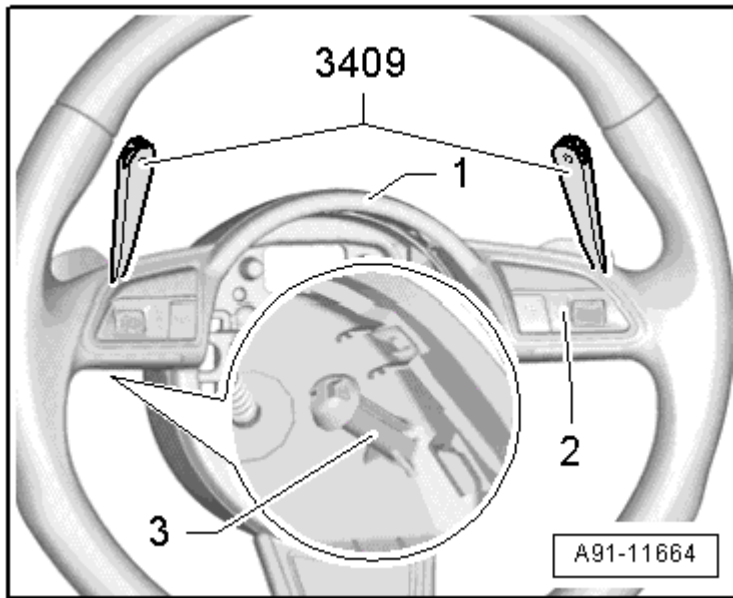
- Make sure the wires are routed correctly in the steering wheel.

MULTIFUNCTION BUTTONS, 3-SPOKE STEERING WHEEL, FROM MY 13

**Special tools and workshop equipment required**

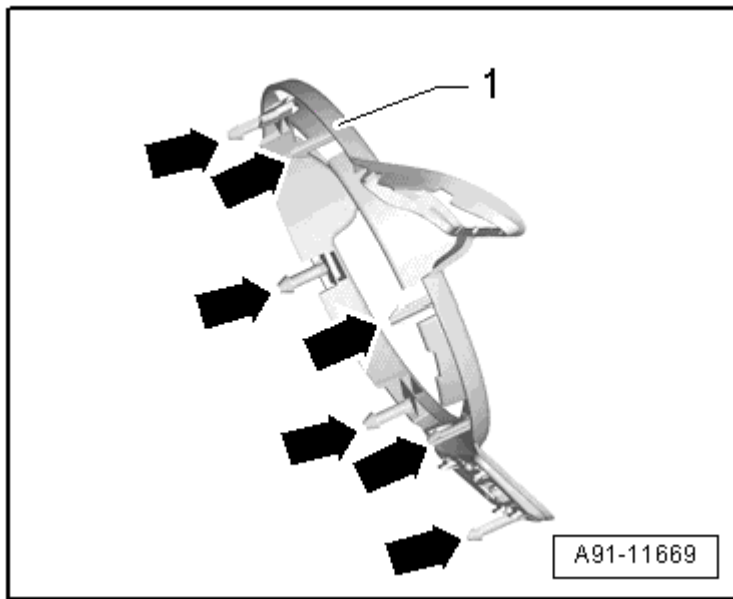
- Removal Wedge 3409

The multifunction buttons -2- are clipped to the decorative trim -1-. The trim -1- and the multifunction buttons -2- are attached to the steering wheel. The multifunction buttons -2- have an extra retainer -3-.



**Fig. 238: Multifunction Buttons Are Clipped To Decorative Trim**  
Courtesy of AUDI OF AMERICA, LLC

While removing, first make sure the trim -1- can be loosened by hand (approximately 5 mm). Then, using the 3409, open the retainers -3- on the multifunction buttons -2- and remove the trim -1- together with the multifunction buttons -2-.

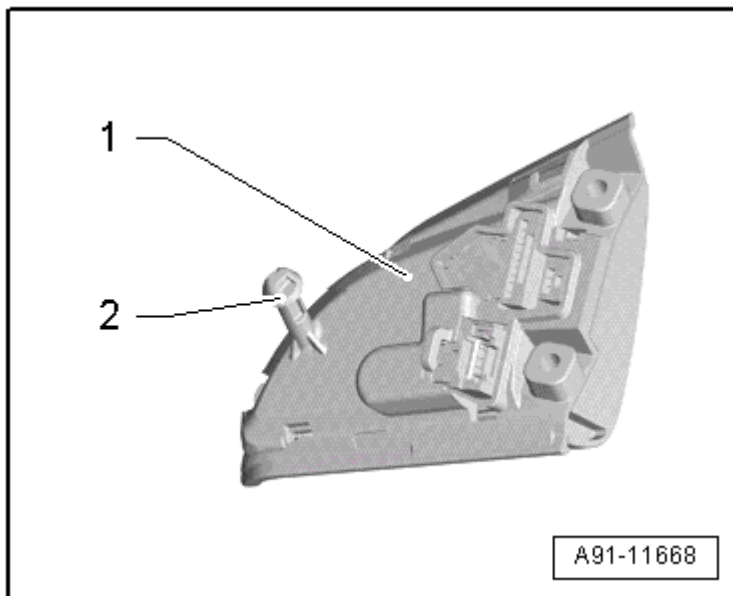


**Fig. 239: Trim retainers**

Courtesy of AUDI OF AMERICA, LLC

1. Trim

Arrows - tabs



**Fig. 240: Multifunction Button Retainers**

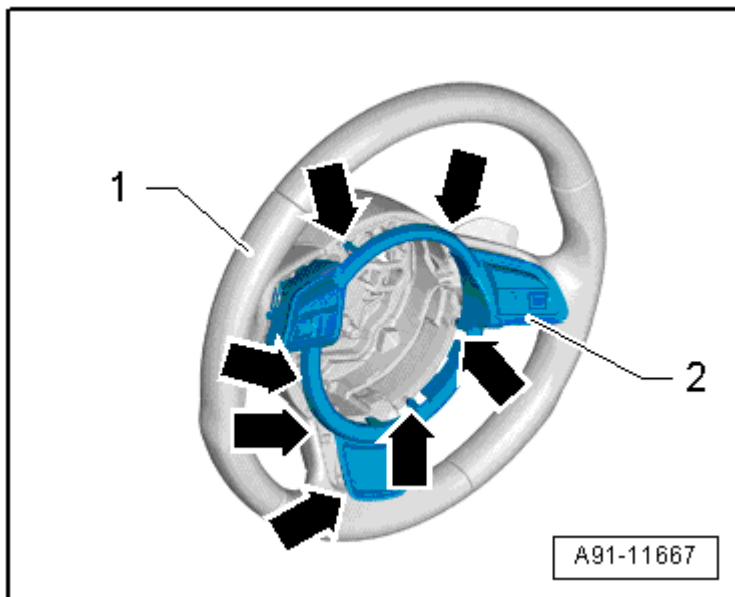
Courtesy of AUDI OF AMERICA, LLC

1. Multifunction button
2. Catch

- Turn off all electrical consumers.
- Turn off the ignition and remove the key.

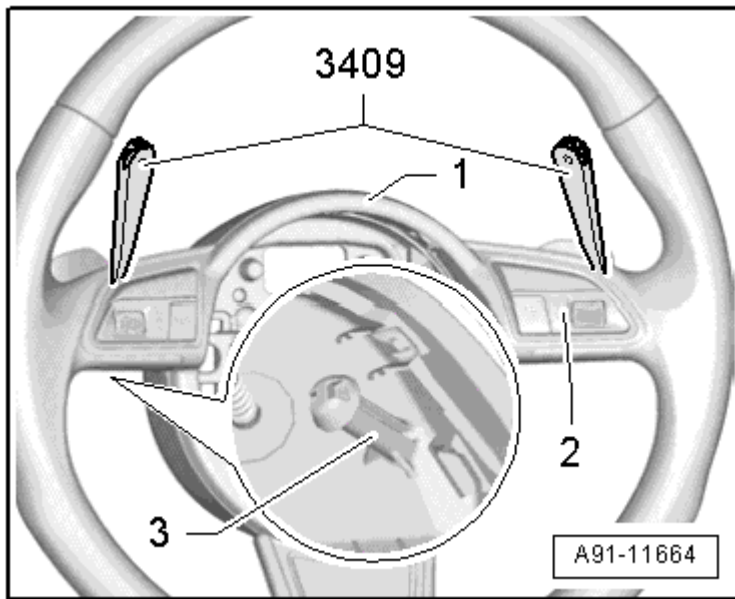
### Removing

- Remove driver's airbag. Refer to **Removal and Installation** .
- Remove the connecting wires from their guides inside the steering wheel.
- Loosen the trim -2- with the multifunction buttons -arrows- and remove it approximately 5 mm from the steering wheel -1-.



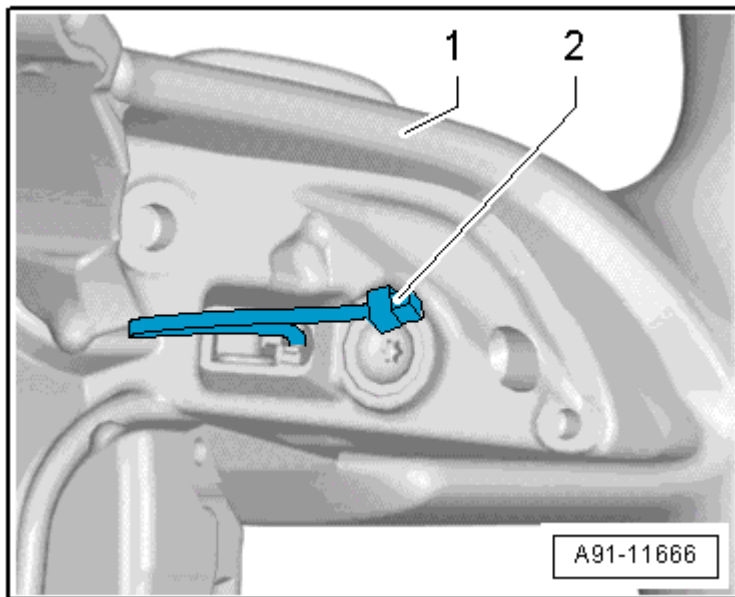
**Fig. 241: Loosening Trim With Multifunction Buttons**  
Courtesy of AUDI OF AMERICA, LLC

- Release the multifunction buttons -2- using the 3409 near the retainers -3-. Position the 3409 as illustrated.



**Fig. 242: Releasing Multifunction Buttons Using 3409 Near Retainers**  
Courtesy of AUDI OF AMERICA, LLC

-- When doing this, be careful of the connectors to the tiptronic switches -2-.



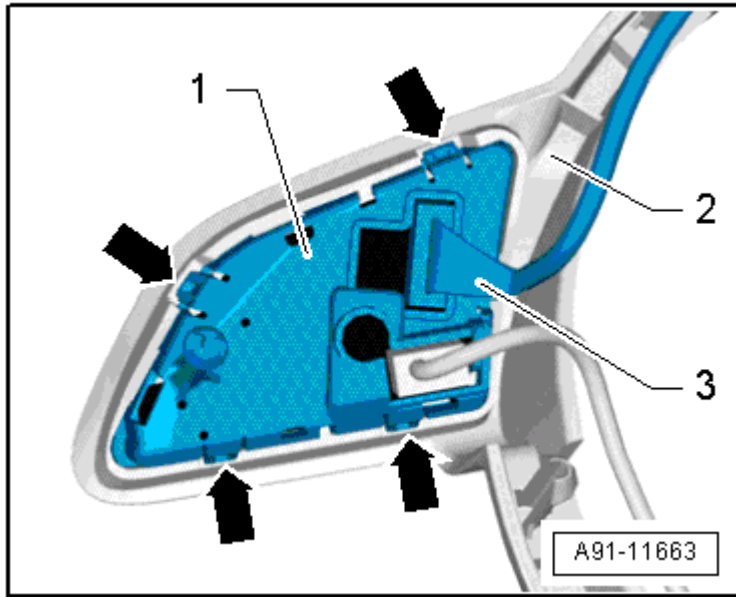
**Fig. 243: Identifying Connectors To Tiptronic Switches -2-**  
Courtesy of AUDI OF AMERICA, LLC

-- Disconnect connector -2- on the multifunction buttons.

-- Remove the trim and the multifunction buttons from the steering wheel.

The multifunction buttons are attached to the trim.

-- Disconnect the connector -3- on the multifunction button -1-.



**Fig. 244: Disconnecting Connector On Multifunction Button**  
Courtesy of AUDI OF AMERICA, LLC

-- Open the clips -arrows- and press the multifunction button -1- out of the decorative trim -2-.

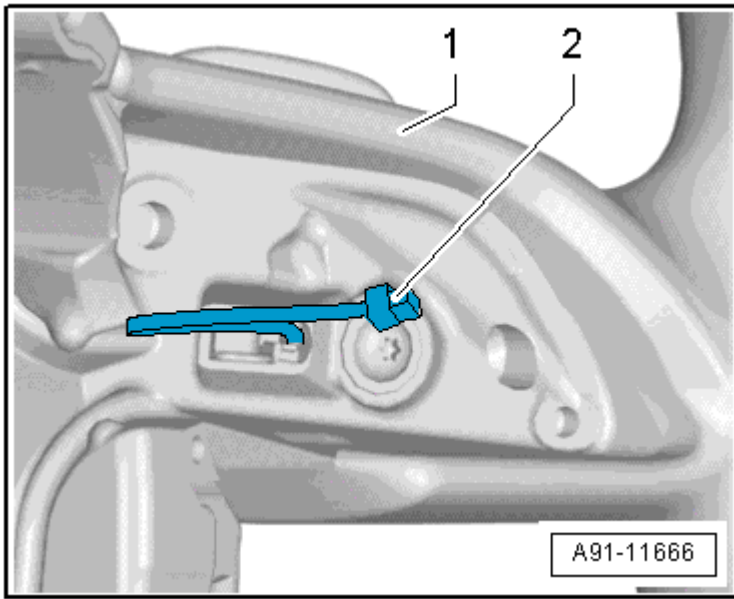
The additional wire on the right multifunction button remains on the button.

### Installing

-- Install in reverse order of removal, noting the following:

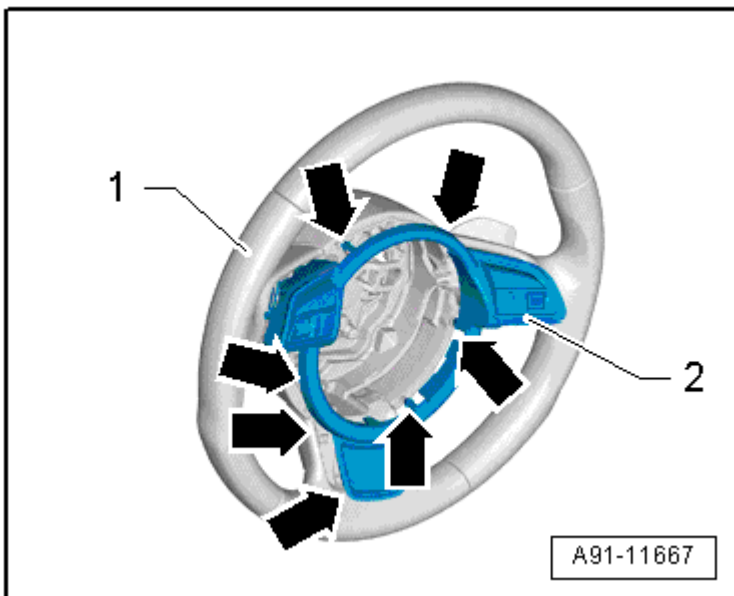
-- Mount the trim, with the multifunction buttons installed, on the steering wheel.

-- Route the connection cable for the tiptronic switch -2- as illustrated.



**Fig. 245: Identifying Connectors To Tiptronic Switches -2-**  
Courtesy of AUDI OF AMERICA, LLC

- Route the rest of the connection cable, including the connector, into the guides inside the steering wheel.
- Press the trim -2- with the multifunction button onto the steering wheel -1- until it audibly engages.



**Fig. 246: Pressing Trim With Multifunction Button Onto Steering Wheel**  
Courtesy of AUDI OF AMERICA, LLC

- Make sure the wires are routed correctly in the steering wheel.

TIPTRONIC SWITCH, THROUGH MY 12

-- Turn off all electrical consumers.

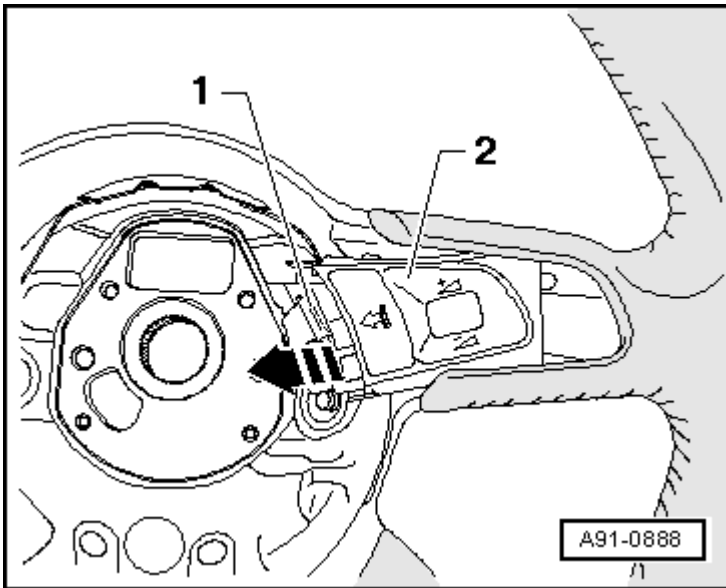
-- Remove the key.

### **Removing**

-- Remove driver's airbag. Refer to **Removal and Installation** .

-- Disconnect trim ring from steering wheel.

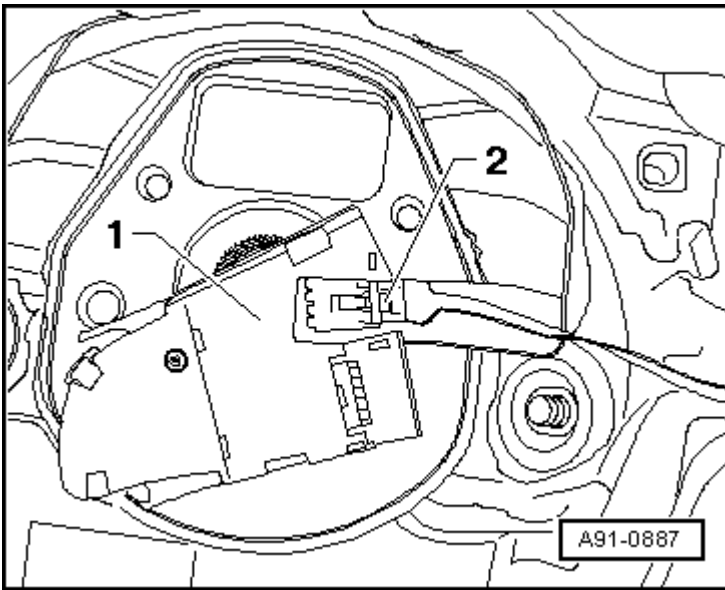
-- Slide multifunction button -2- out of steering wheel in direction of arrow.



**Fig. 247: Identifying Harness Connector And Slide Button**  
Courtesy of AUDI OF AMERICA, LLC

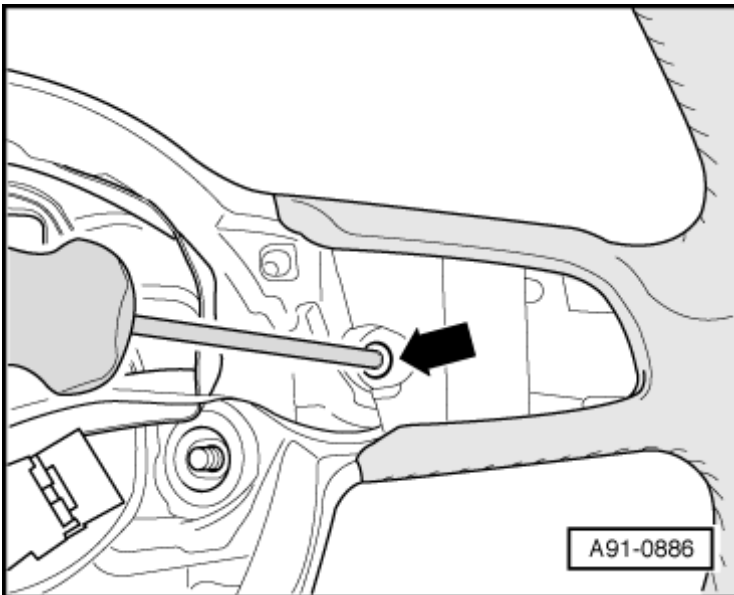
-- Rotate multifunction button.

-- Disconnect and remove the connector -2- from the multifunction button -1-.



**Fig. 248: Identifying Harness Connector And Tiptronic Switch At Multi-Function Button**  
 Courtesy of AUDI OF AMERICA, LLC

-- Remove screw -arrow- and remove Tiptronic switch downward.



**Fig. 249: Removing Bolt And Tiptronic Switch**  
 Courtesy of AUDI OF AMERICA, LLC

### Installing

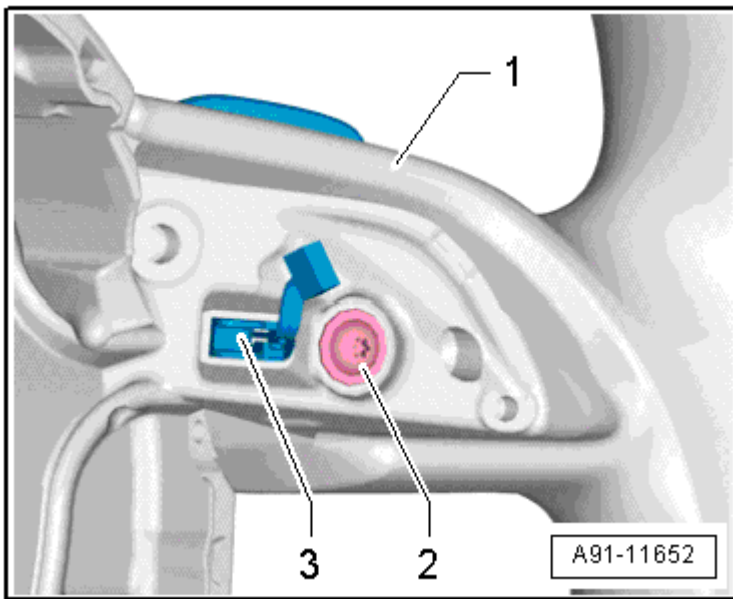
-- Install in reverse order of removal.

TIPTRONIC SWITCH, FROM MY 13

- Turn off all electrical consumers.
- Turn off the ignition and remove the key.

**Removing**

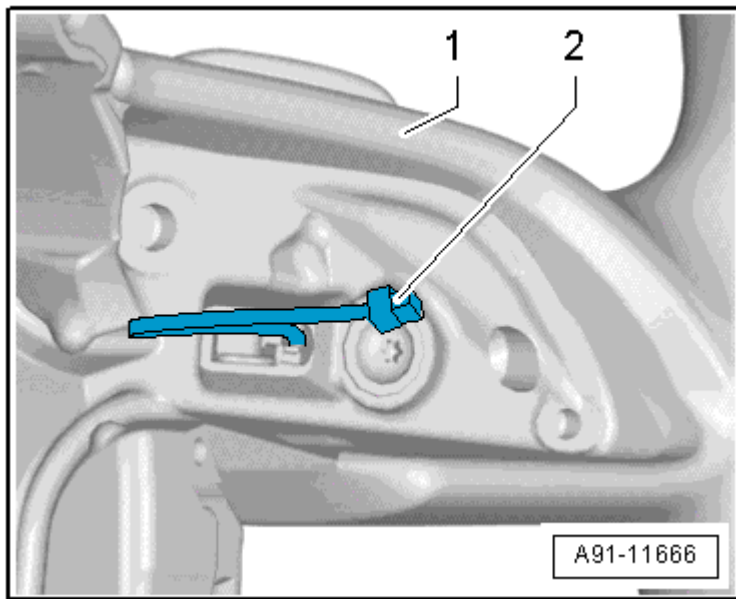
- Remove the decorative trim and the multifunction buttons. Refer to (4-spoke steering wheel) or (3-wheel steering wheel).
- Remove the screw -2- from the steering wheel -1- and remove the tiptronic switch -3- with its connecting wire.



**Fig. 250: Removing Screw From Steering Wheel**  
Courtesy of AUDI OF AMERICA, LLC

**Installing**

- Install in reverse order of removal.
- Pay attention to the position of the connecting wire -2- to the multifunction button.



**Fig. 251: Identifying Connectors To Tiptronic Switches -2-**  
Courtesy of AUDI OF AMERICA, LLC

#### NAVIGATION SYSTEM WITH CD DRIVE CONTROL MODULE -J401-, MMI BASIC PLUS

##### Special tools and workshop equipment required

- Radio Removal Tool T10057
- Protective Cap For Cable Connector VAS 6223/9

The Navigation System with CD Drive Control Module is located in the glove compartment.

-- Turn off all electrical consumers.

-- Remove the key.

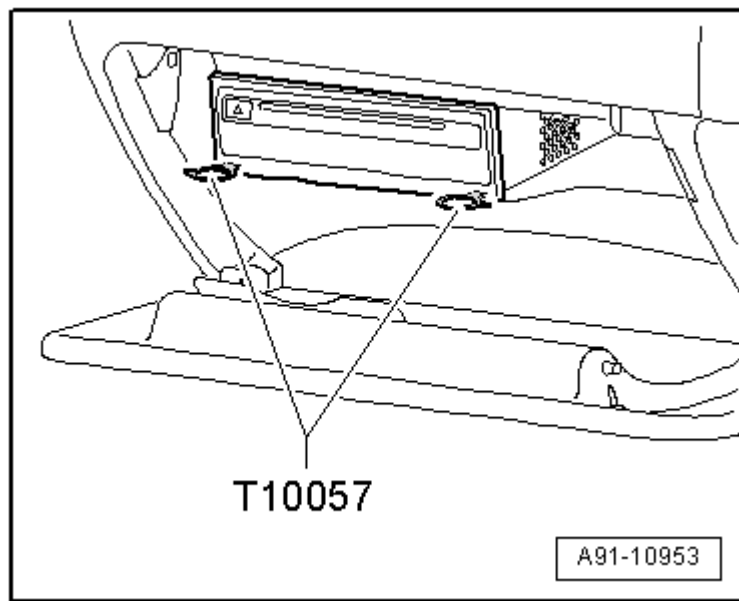
-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Vehicle Diagnostic Tester.

##### Removing

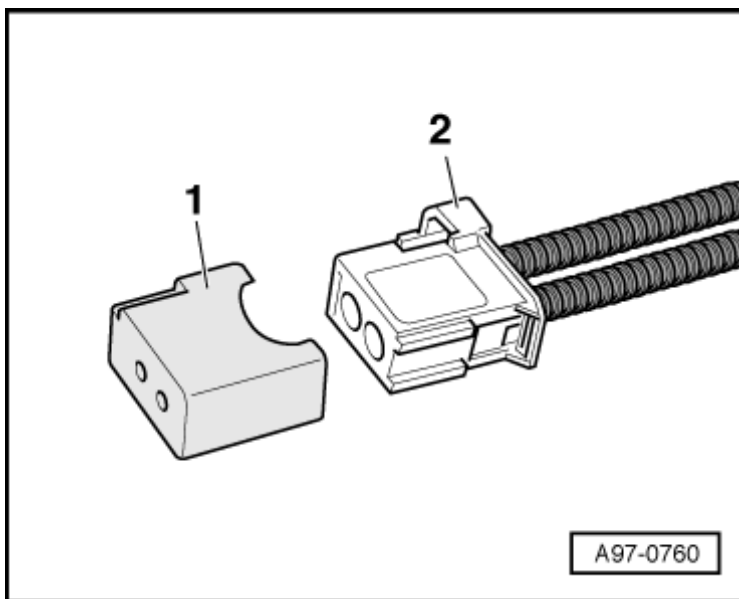
-- Open the glove compartment.

-- Insert two clips of T10057 into release slots of navigation system with CD drive control module until they engage. Points on the grip eyelets of tool face outward.



**Fig. 252: Inserting Two Clips Of T10057 Into Release Slots Of Navigation System With Cd Drive Control Module Until They Engage**  
Courtesy of AUDI OF AMERICA, LLC

- Pull navigation system with CD drive control module out of mounting frame.
- Disconnect all connectors from the navigation system with CD drive control module.
- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 253: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
Courtesy of AUDI OF AMERICA, LLC

-- Remove T10057 by pressing locking tabs on navigation system with CD drive control module.

**Installing**

-- Connect all harness connectors.

-- Slide the navigation system with CD drive control module in until it engages in mounting frame.

**NAVIGATION SYSTEM WITH CD DRIVE CONTROL MODULE -J401-, MMI THROUGH 10.31.2008****Special tools and workshop equipment required**

- Radio Removal Tool T10057
- Protective Cap For Cable Connector VAS 6223/9

The navigation system with CD drive control module is located behind the left luggage compartment side trim in the Infotainment rack.

-- Turn off all electrical consumers.

-- Remove the key.

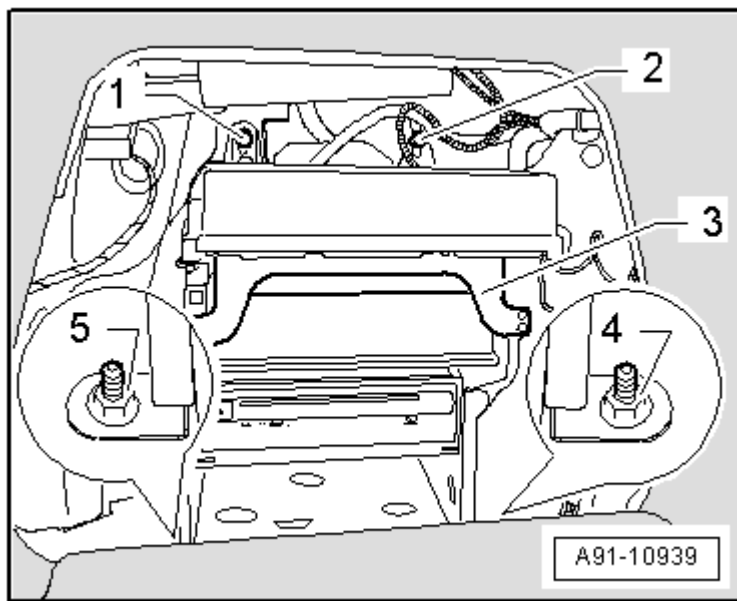
-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Vehicle Diagnostic Tester.

**Removing**

-- Open the left storage compartment in the luggage compartment

-- Loosen the nuts -1-, -2-, -4- and -5- on the infotainment rack -3-.

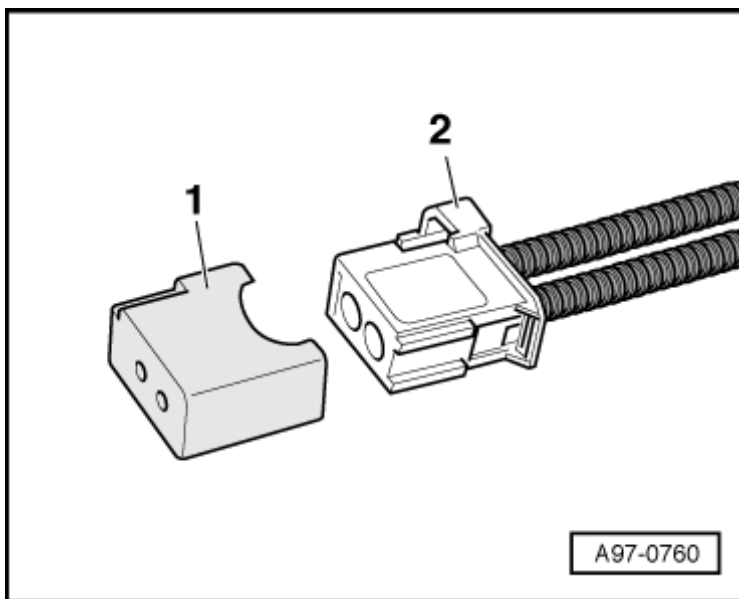
**Fig. 254: Loosening Nuts**

Courtesy of AUDI OF AMERICA, LLC

-- Tilt the rack -3- into the luggage compartment until the connectors on the navigation system with CD drive control module are accessible.

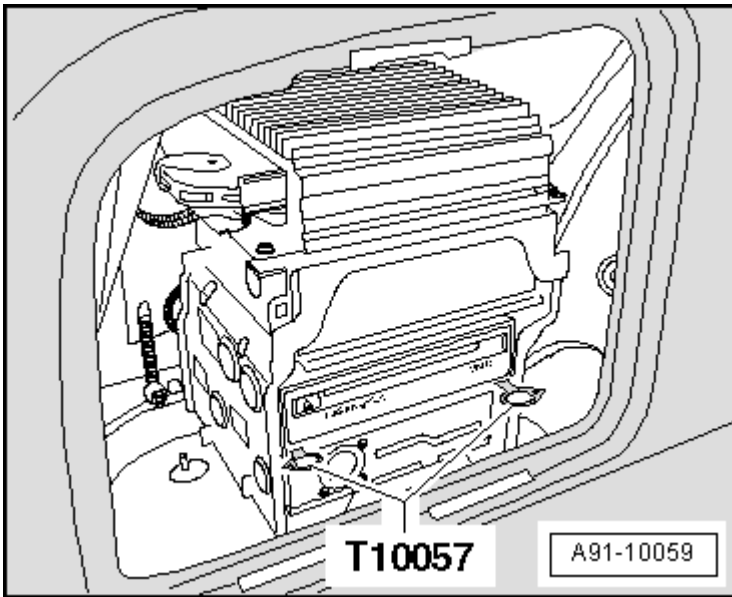
-- Disconnect the connector from the MOST bus.

-- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.

**Fig. 255: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**

Courtesy of AUDI OF AMERICA, LLC

- Disconnect the remaining connectors from the navigation system with CD drive control module.
- Insert two clips of T10057 into release slots of navigation system with CD drive control module until they engage. Points on the grip eyelets of tool face outward.



**Fig. 256: Inserting Radio Release Tool T10057 Clips Into Slots Of Navigation System With CD Drive Control Module J401 Until They Engage**  
Courtesy of AUDI OF AMERICA, LLC

- Remove the navigation system with CD drive control module from rack.
- Remove T10057 by pressing locking tabs on navigation system with CD drive control module.

### Installing

- Slide the navigation system with CD drive control module in until it engages in mounting frame.
- Connect all harness connectors.
- Install in reverse order of removal.

### RADIO

- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Vehicle Diagnostic Tester.

- Turn off all electrical consumers.
- Move the selector lever to the "S" position or all the way to the rear on a manual transmission.

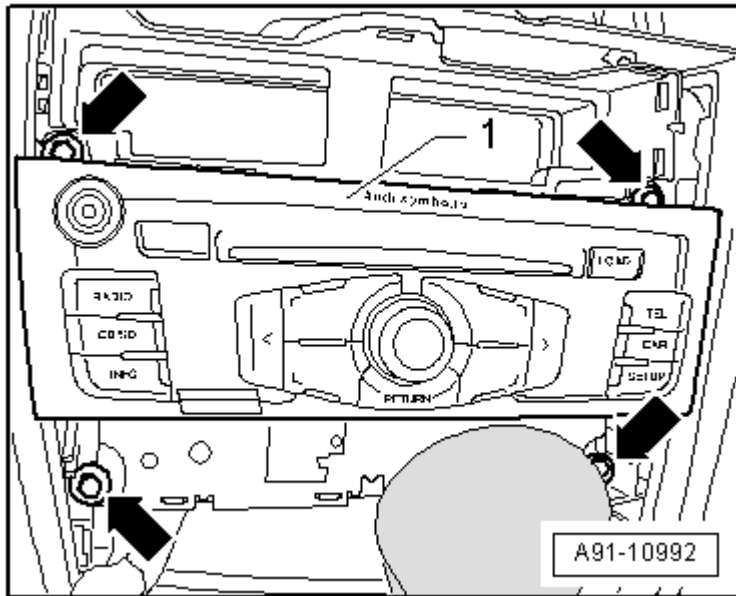
-- Remove the key.

### Removing

-- Remove the climate controls. Refer to **Removal and Installation** .

-- Remove the center instrument panel vent. Refer to **Removal and Installation** .

-- Remove the bolts on the radio -1- -arrows-.



**Fig. 257: Removing Bolts On Radio**

Courtesy of AUDI OF AMERICA, LLC

-- Remove the radio -1- from the instrument panel.

-- Release and disconnect the connector from the radio.

### Installing

-- Install in reverse order of removal.

**RADIO, MMI THROUGH 10.31.2008**

### Special tools and workshop equipment required

- Protective Cap For Cable Connector VAS 6223/9

The MMI radio is located behind the luggage compartment left side trim in the Infotainment rack.

-- Turn off all electrical consumers.

-- Remove the key.

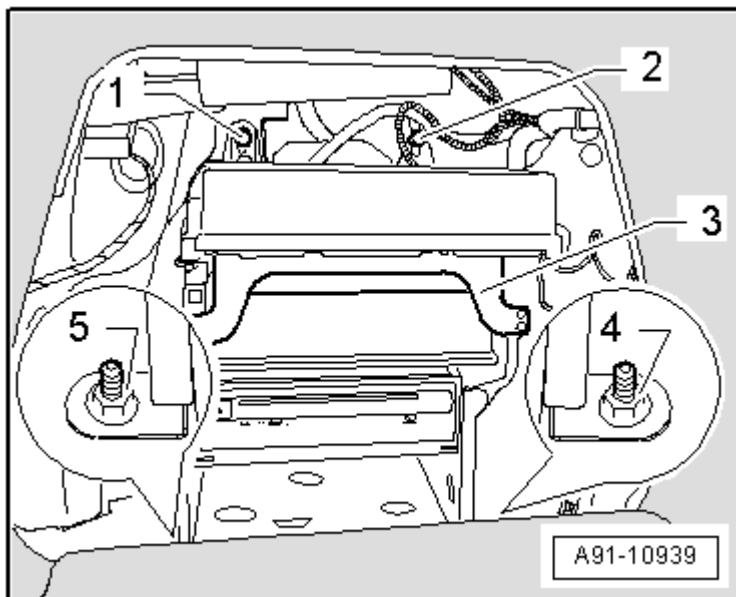
-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Vehicle Diagnostic Tester.

### Removing

-- Open the left storage compartment in the luggage compartment

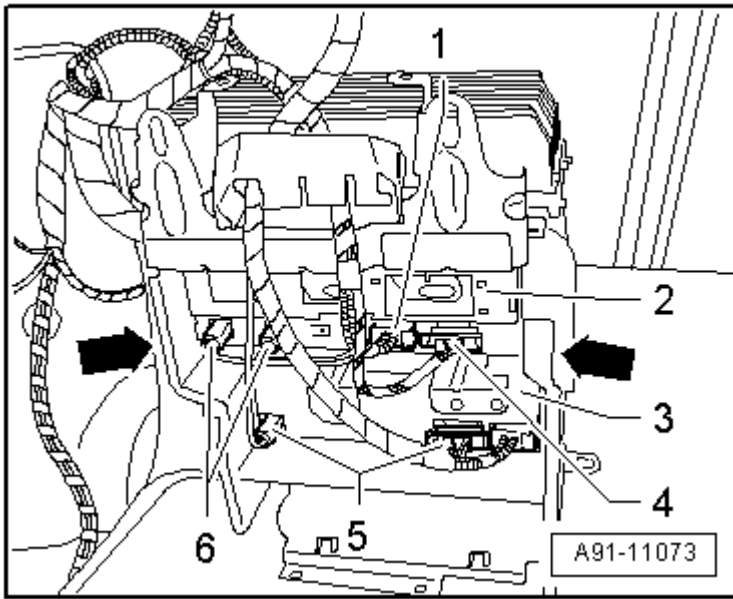
-- Loosen the nuts -1-, -2-, -4- and -5- on the infotainment rack -3-.



**Fig. 258: Loosening Nuts And On Infotainment Rack**  
Courtesy of AUDI OF AMERICA, LLC

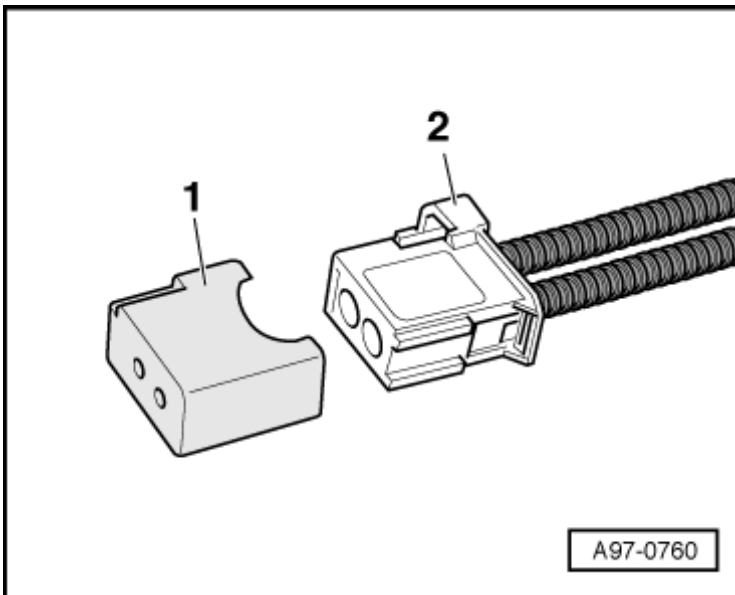
-- Swivel the rack into the luggage compartment.

-- Disconnect the connectors on the back side -1-, -4- and -6- from the radio -2- and -5- from the navigation system with CD drive control module -J401- -3-.



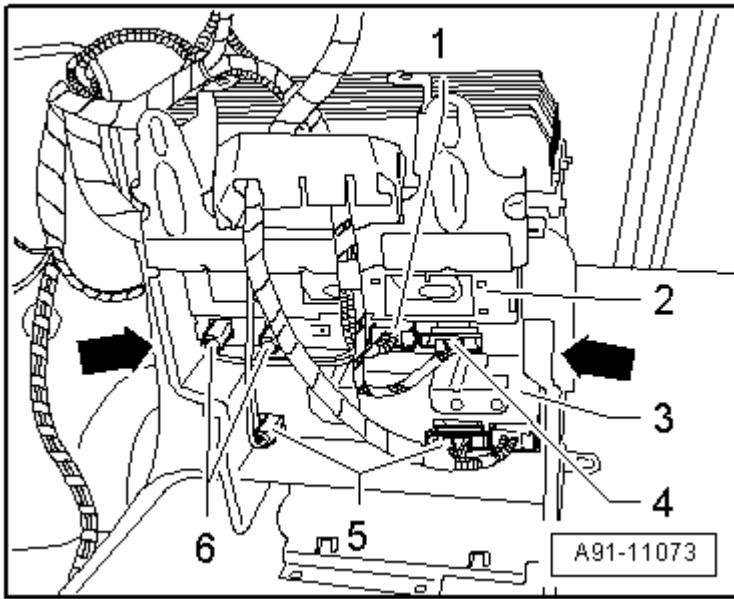
**Fig. 259: Disconnecting Connectors On Back Side**  
 Courtesy of AUDI OF AMERICA, LLC

-- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 260: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
 Courtesy of AUDI OF AMERICA, LLC

-- Remove the bolts on the left and right sides of the rack -arrows-.



**Fig. 261: Removing Bolts On Left And Right Sides Of Rack**  
 Courtesy of AUDI OF AMERICA, LLC

-- Remove the radio -2- from the rack toward the rear.

### Installing

-- Install in reverse order of removal.

**RADIO, MMI FROM 11.03.2008**

### Special tools and workshop equipment required

- Protective Cap For Cable Connector VAS 6223/9

The radio is located behind the left side trim panel inside the luggage compartment.

-- Turn off all electrical consumers.

-- Remove the key.

-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

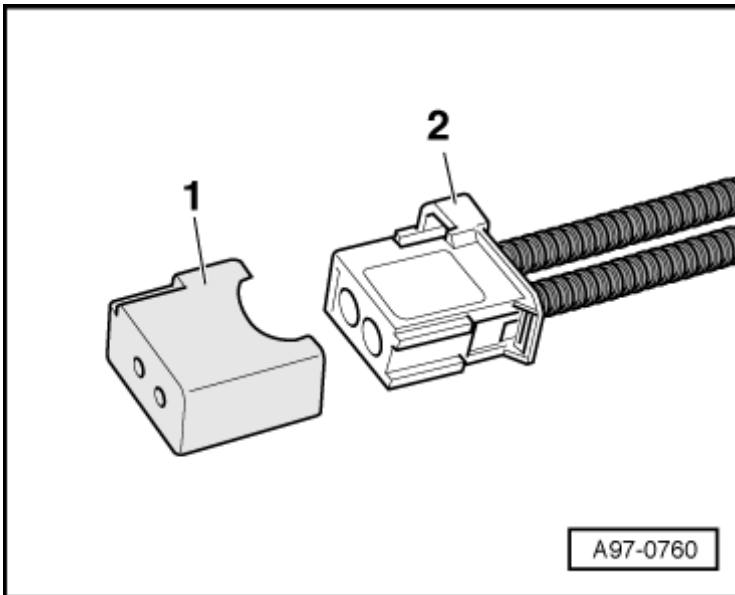
Use the Vehicle Diagnostic Tester.

### Removing

The infotainment rack must first be removed.

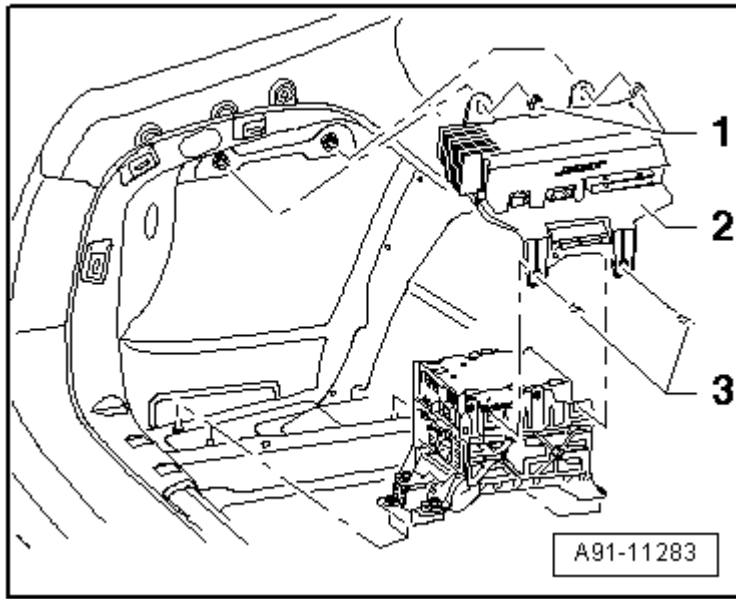
Remove the digital sound system control module -J525- and its mount, where applicable.

- Open the left storage compartment in the luggage compartment
- Disconnect the connectors from the digital sound system control module.
- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



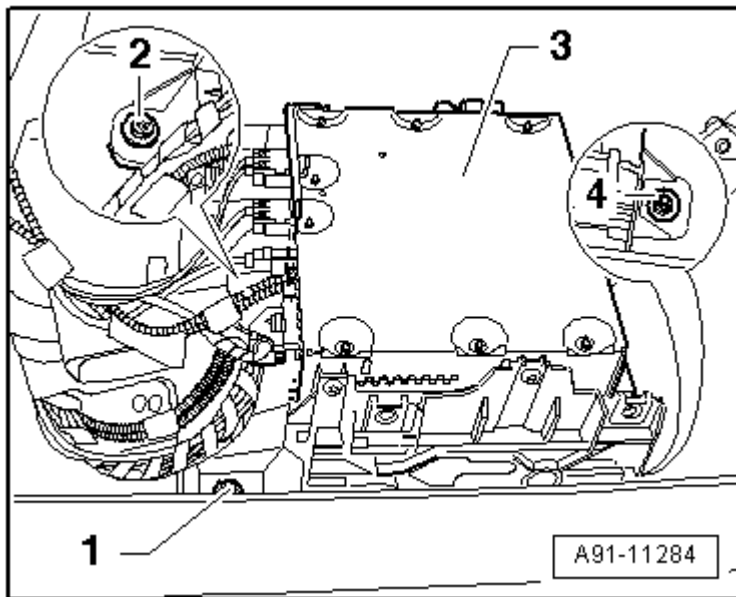
**Fig. 262: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
Courtesy of AUDI OF AMERICA, LLC

- Remove the nuts -1- and screws -3- on the bracket -2- and lift the bracket with the digital sound system control module into the luggage compartment.



**Fig. 263: Removing Nuts And Screws On Bracket**  
 Courtesy of AUDI OF AMERICA, LLC

-- Remove the die nut -1-, -2- and -4- on the infotainment rack -3-.

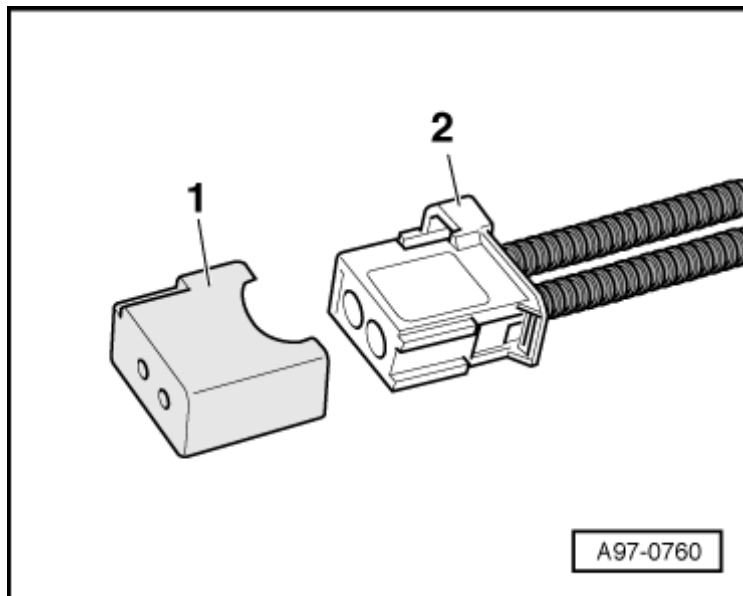


**Fig. 264: Removing Die Nut And On Infotainment Rack**  
 Courtesy of AUDI OF AMERICA, LLC

-- Move the infotainment rack -3- into the luggage compartment. Disconnect the connectors.

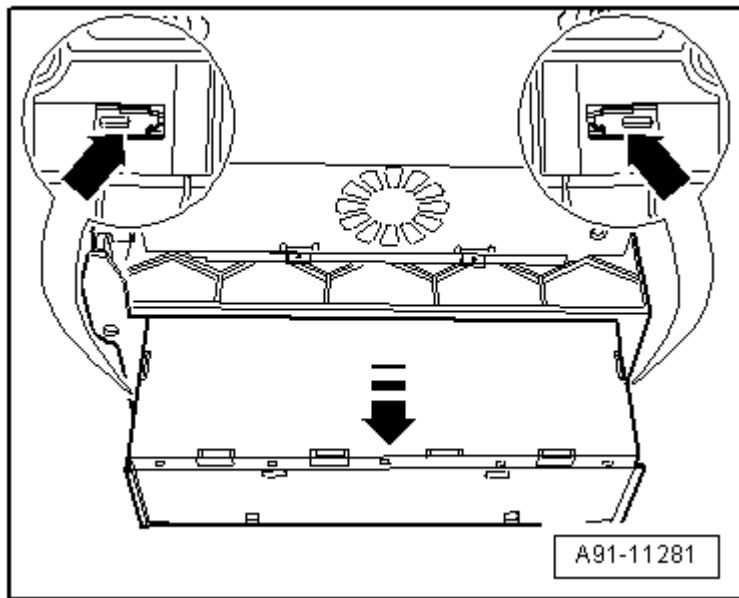
-- Release and disconnect the connector from the radio.

-- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 265: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
 Courtesy of AUDI OF AMERICA, LLC

-- Press the left and right tabs -arrows- on the radio and remove the radio -arrow- from the infotainment rack.



**Fig. 266: Pressing Left And Right Tabs On Radio**  
 Courtesy of AUDI OF AMERICA, LLC

### Installing

-- Install in reverse order of removal.

**REARVIEW CAMERA SYSTEM CONTROL MODULE -J772-**

The rearview camera system control module is located behind the luggage compartment right side trim.

-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Vehicle Diagnostic Tester.

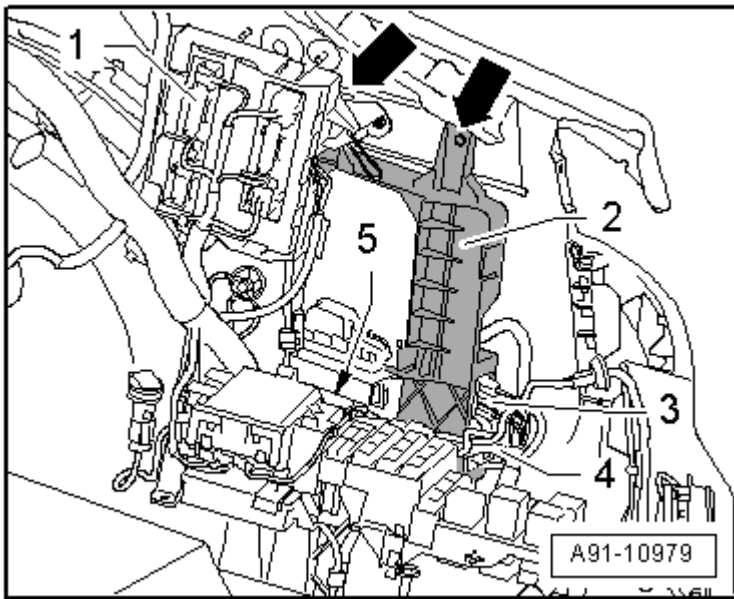
-- Turn off all electrical consumers.

-- Remove the key.

### Removing

-- Remove the right luggage compartment trim panel. Refer to **Removal and Installation** .

The rearview camera system control module -3- is wedged into the bracket -2-.

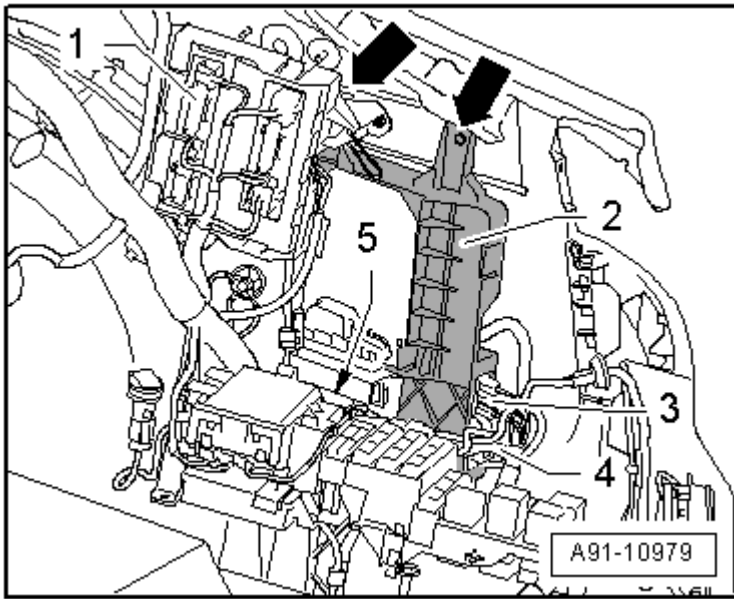


**Fig. 267: Rearview Camera System Control Module Is Wedged Into Bracket**  
Courtesy of AUDI OF AMERICA, LLC

Remove the Comfort System Central Control Module -J393- -1- first, and then the bracket -2-.

-- Remove the screws -arrows- and nuts -5-.

-- Remove the bracket -2- from the storage compartment in order to disconnect the connectors -3- and -4-.



**Fig. 268: Removing Bracket From Storage Compartment In Order To Disconnect Connectors**  
Courtesy of AUDI OF AMERICA, LLC

- Unclip the rearview camera system control module out of the bracket -2- and remove it upward.
- Unlock and disconnect the connector from the rearview camera system control module.

### Installing

- Install in reverse order of removal.
- Perform a calibration, refer to **REARVIEW CAMERA SYSTEM, CALIBRATING**.

### REARVIEW CAMERA -R189-

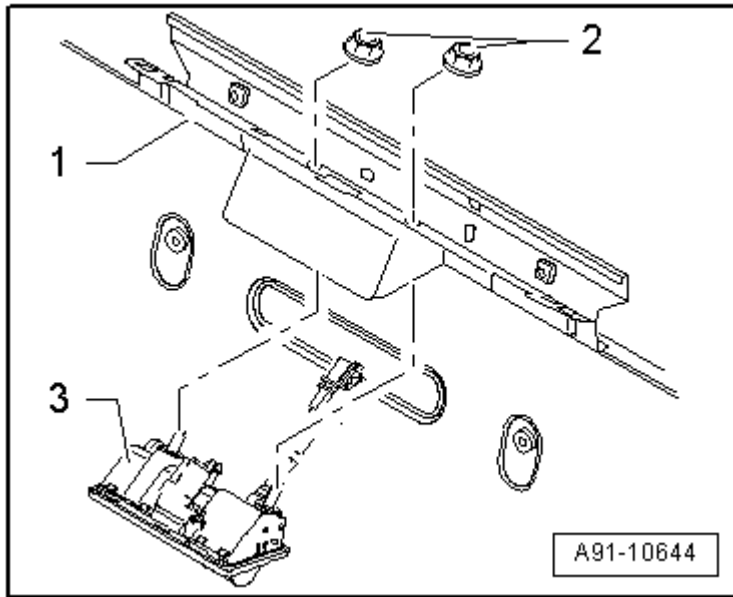
The rearview camera is installed in the handle button in the rear lid.

- Turn off all electrical consumers.
- Remove the key.

### Removing

The rearview camera has a trailing cable. The vehicle wiring harness couplings are located in the rear lid.

- Remove the rear lid trim panel. Refer to **Removal and Installation** .
- Remove the nuts -2-.

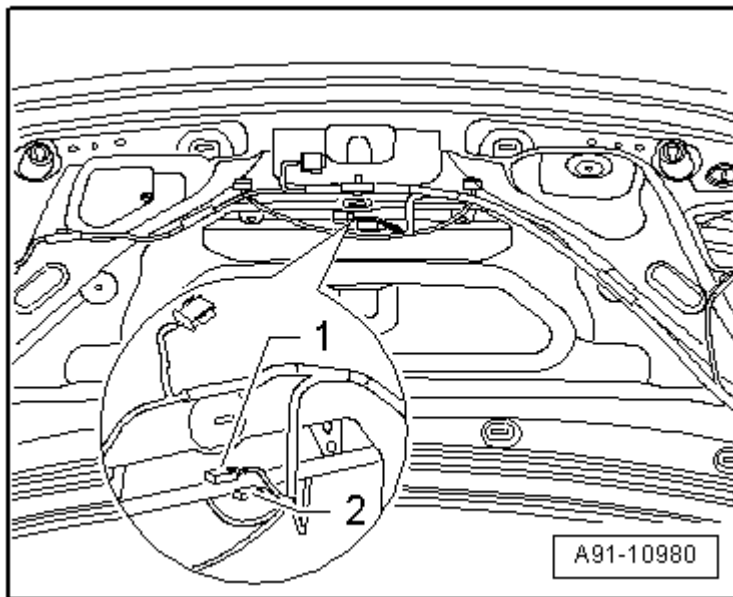
**Fig. 269: Removing Nuts**

Courtesy of AUDI OF AMERICA, LLC

The rearview camera is tightly connected with the handle button -3-.

-- Pull the handle button -3- with the rearview camera out of the rear lid.

-- Unlock and disconnect the connectors -1- and -2- inside the rear lid.

**Fig. 270: Unlock And Disconnect Connectors**

Courtesy of AUDI OF AMERICA, LLC

-- Remove the handle button from the rear lid.

**Installing**

- Install in reverse order of removal.
- Close the rear lid.
- Perform a calibration, refer to **REARVIEW CAMERA SYSTEM, CALIBRATING**.

**SATELLITE RADIO -R146-, MMI THROUGH 10.31.2008****Special tools and workshop equipment required**

- Protective Cap For Cable Connector VAS 6223/9

The MMI satellite radio is located behind the luggage compartment left side trim in the Infotainment rack.

- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

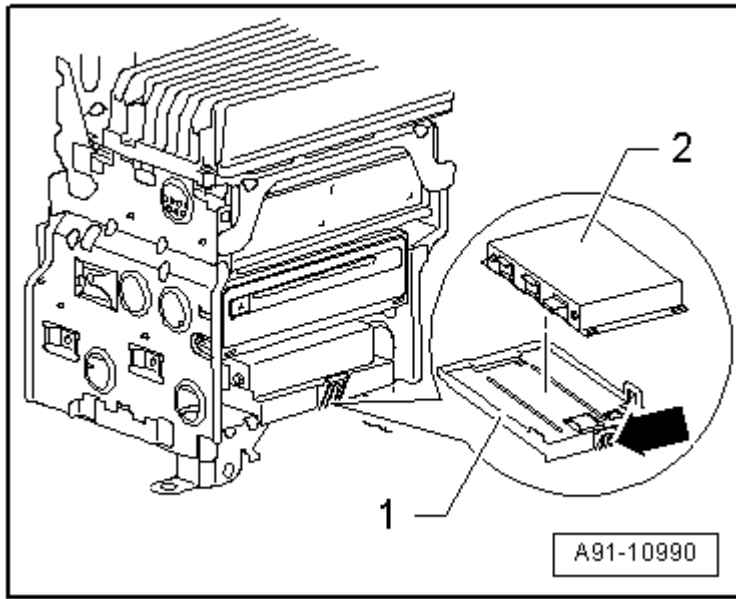
Use the Vehicle Diagnostic Tester.

- Turn off all electrical consumers.
- Remove the key.

**Removing**

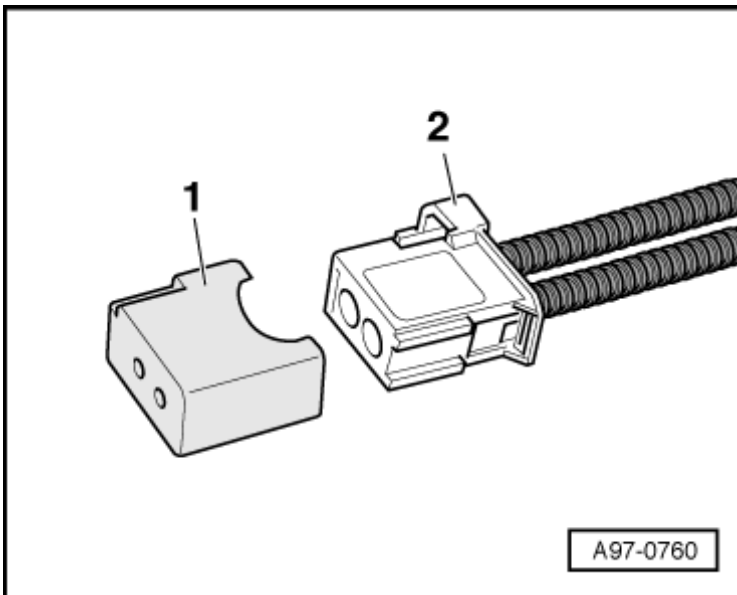
- Open the left storage compartment in the luggage compartment

The satellite radio -2- is only clipped in the bracket -1-.



**Fig. 271: Satellite Radio Is Only Clipped In Bracket**  
 Courtesy of AUDI OF AMERICA, LLC

- Push the retainer -arrow- to the rear and pull the satellite radio -2- out of the bracket -1-.
- Release and disconnect all of the connectors from the satellite radio -2-.
- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 272: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
 Courtesy of AUDI OF AMERICA, LLC

- Remove the satellite radio.

## Installing

-- Install in reverse order of removal.

## SPEAKERS AND SOUND SYSTEM COMPONENTS

### DIGITAL SOUND SYSTEM CONTROL MODULE -J525-, CAN

The digital sound system control module is located behind the luggage compartment left side trim.

-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Vehicle Diagnostic Tester.

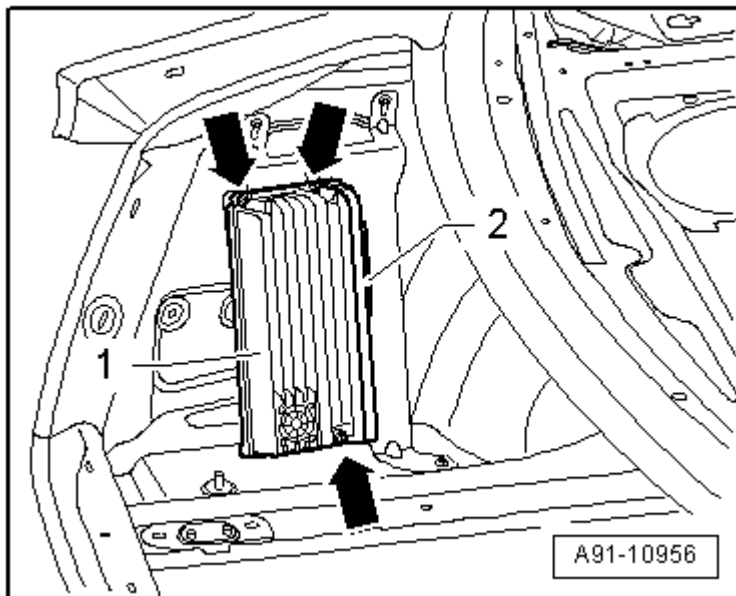
-- Turn off all electrical consumers.

-- Remove the key.

## Removing

-- Open the left storage compartment in the luggage compartment

-- Remove the screws -arrows- on the digital sound system control module -1- and tilt it to the side.



**Fig. 273: Removing Screws On Digital Sound System Control Module**  
Courtesy of AUDI OF AMERICA, LLC

-- Unlock and disconnect the connector -2- from the digital sound system control module -1-.

-- Remove the digital sound system control module -1-.

**Installing**

-- Install in reverse order of removal.

**DIGITAL SOUND SYSTEM CONTROL MODULE -J525-, MMI THROUGH 10.31.2008****Special tools and workshop equipment required**

- Protective Cap For Cable Connector VAS 6223/9

The digital sound system control module is located behind the luggage compartment left side trim on the top of the Infotainment rack.

-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Vehicle Diagnostic Tester.

-- Turn off all electrical consumers.

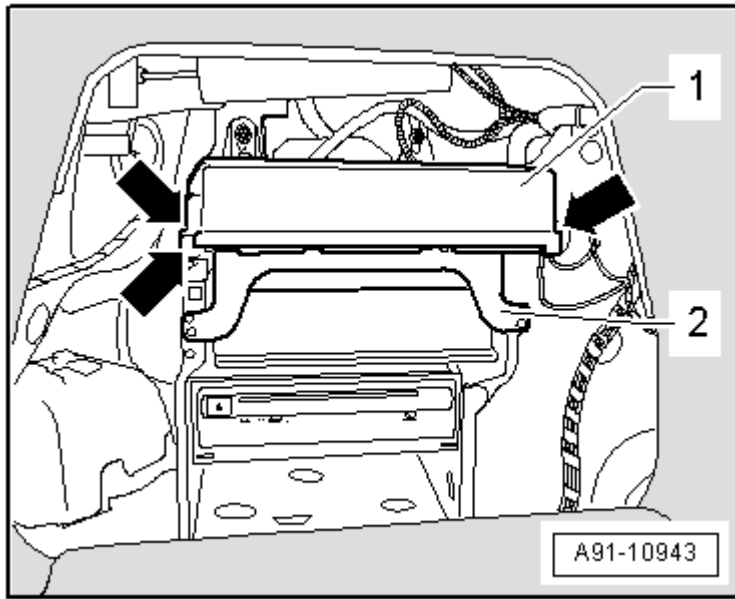
-- Remove the key.

**Removing**

-- Open the left storage compartment in the luggage compartment

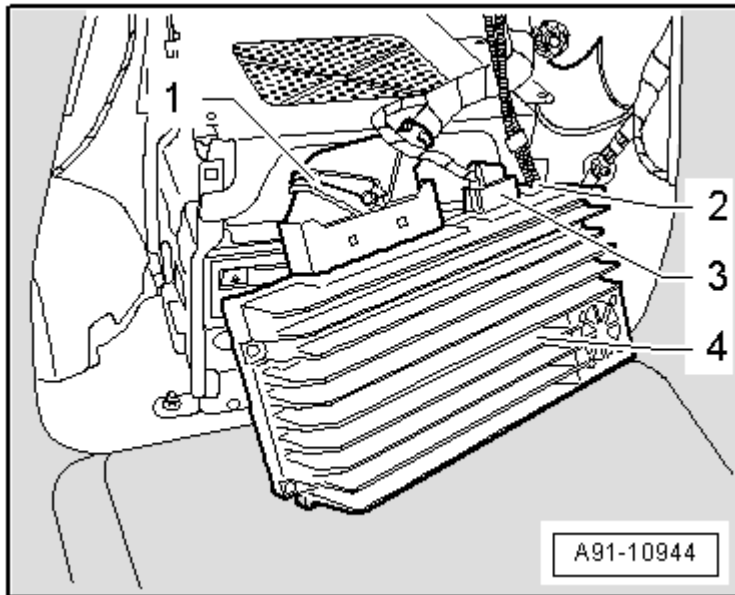
Do not remove the rack.

-- Remove the screws -2- -arrows- on the rack and tilt the digital sound system control module -1- into the luggage compartment.



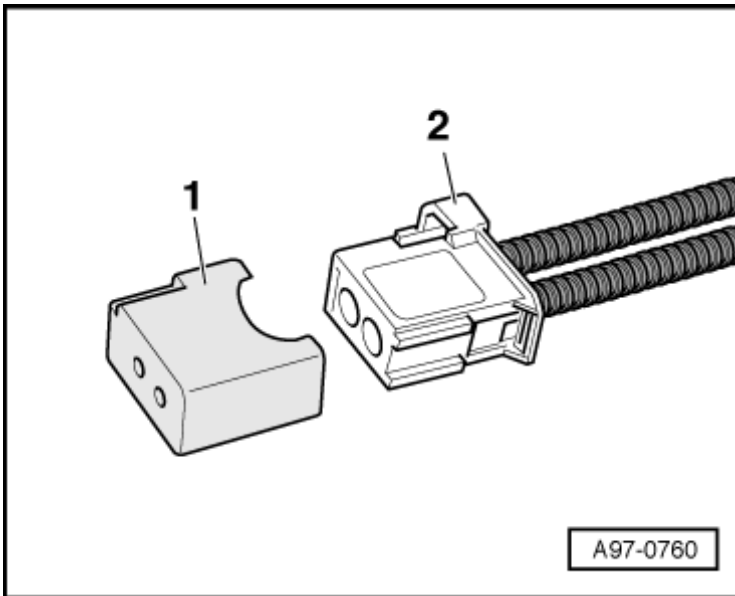
**Fig. 274: Removing Screws On Rack**  
Courtesy of AUDI OF AMERICA, LLC

-- Unlock and disconnect the MOST bus connector -2- from the digital sound system control module -4-.



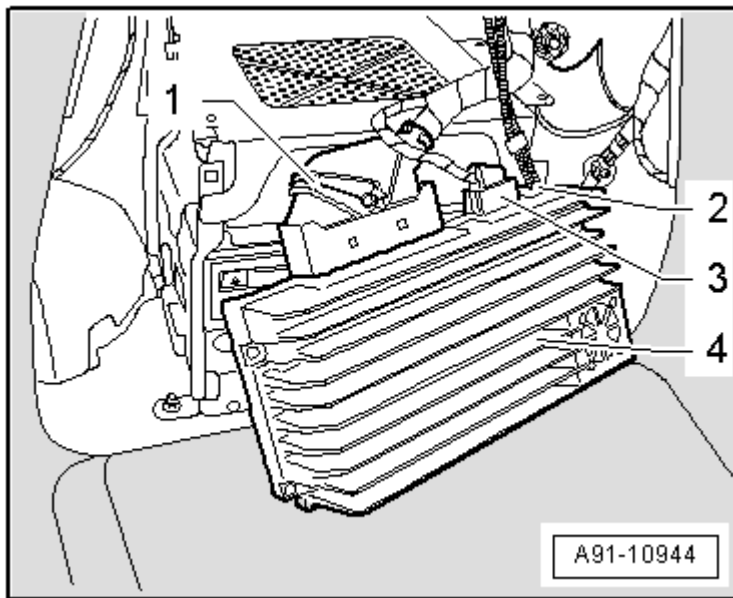
**Fig. 275: Unlocking And Disconnecting MOST Bug Connector**  
Courtesy of AUDI OF AMERICA, LLC

-- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 276: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
 Courtesy of AUDI OF AMERICA, LLC

-- Disconnect the connectors -1- and -3-.



**Fig. 277: Disconnecting Connectors**  
 Courtesy of AUDI OF AMERICA, LLC

-- Remove the digital sound system control module -4-.

### Installing

-- Install in reverse order of removal.

**DIGITAL SOUND SYSTEM CONTROL MODULE -J525-, MMI FROM 11.03.2008****Special tools and workshop equipment required**

- Protective Cap For Cable Connector VAS 6223/9

The digital sound system control module is located behind the luggage compartment left side trim on the top of the Infotainment rack.

-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Vehicle Diagnostic Tester.

-- Turn off all electrical consumers.

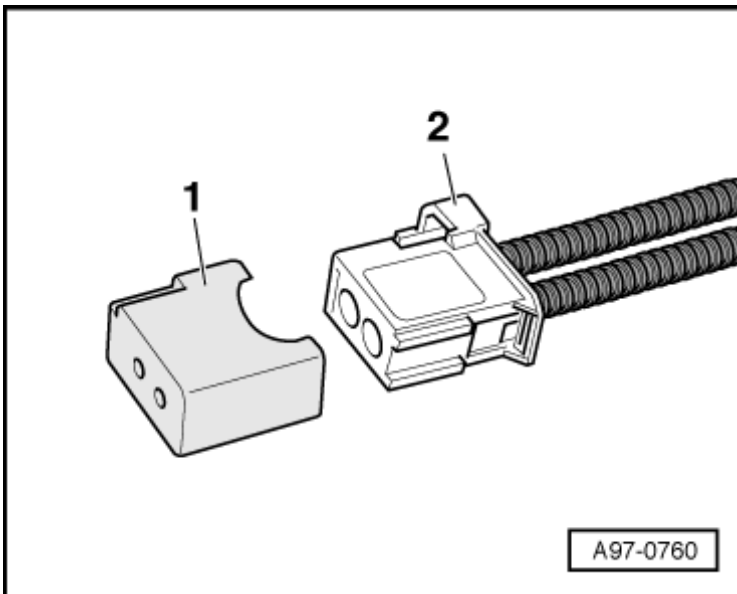
-- Remove the key.

**Removing**

-- Open the left storage compartment in the luggage compartment

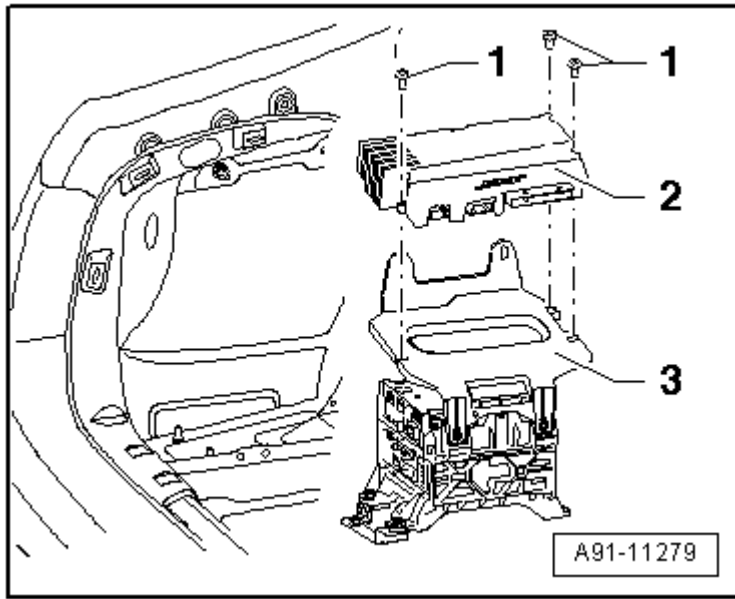
-- Disconnect all of the connectors from the digital sound system control module.

-- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 278: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
Courtesy of AUDI OF AMERICA, LLC

-- Remove the bolts -1- (5 Nm) at digital sound system control module -2- and remove digital sound system control module -2- from the bracket -3-.



**Fig. 279: Removing Bolts At Digital Sounds System Module**  
Courtesy of AUDI OF AMERICA, LLC

### Installing

-- Install in reverse order of removal.

### SUBWOOFER IN REAR SHELF -R157-

The subwoofer on rear shelf is located in the rear shelf.

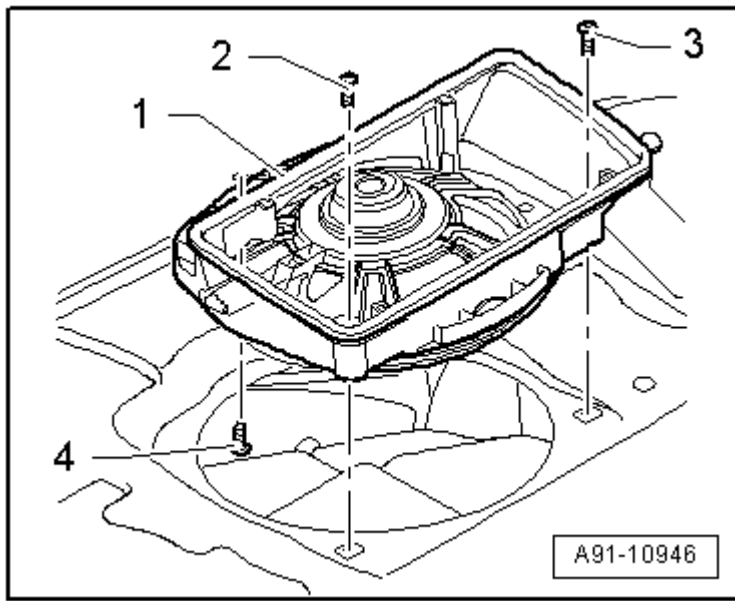
-- Turn off all electrical consumers.

-- Remove the key.

### Removing

-- Remove the rear shelf. Refer to **Removal and Installation** .

-- Remove the screws -2- and -3 - on the subwoofer on rear shelf -1-.



**Fig. 280: Removing Screws On Subwoofer On Rear Shelf**  
 Courtesy of AUDI OF AMERICA, LLC

- Remove the screws -4- from luggage compartment.
- Unlock and disconnect the connector from the subwoofer on rear shelf -1-.
- Remove the subwoofer on rear shelf -1- upward.

### Installing

- Install in reverse order of removal.

Tightening specifications, refer to **SOUND SYSTEM COMPONENT LOCATION OVERVIEW, THROUGH 10.31.2008** or **SOUND SYSTEM COMPONENT LOCATION OVERVIEW, FROM 11.03.2008**.

### REAR MIDRANGE SPEAKERS

The left rear midrange speaker -R105- /right rear midrange speaker -R106- is located in the rear shelf.

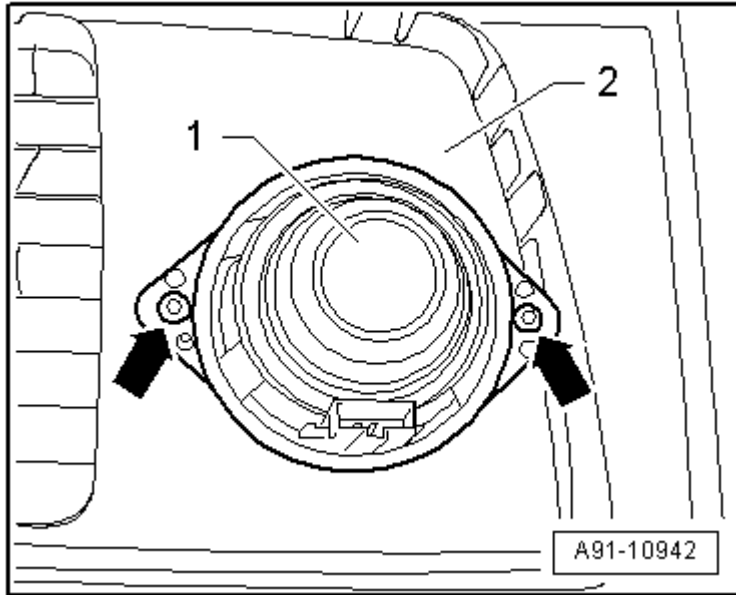
Removing and installing is identical.

- Turn off all electrical consumers.
- Remove the key.

### Removing

- Remove the speaker trim in the rear shelf. Refer to **Removal and Installation** .

- Disconnect the connector from the left rear midrange speaker.
- Remove the screws -arrows- on the left rear midrange speaker -1-.



**Fig. 281: Removing Screws On Left Rear Midrange Speaker**  
Courtesy of AUDI OF AMERICA, LLC

- Remove the left rear midrange speaker -1- from the speaker trim -2-.

### Installing

- Install in reverse order of removal.

Tightening specifications, refer to **SOUND SYSTEM COMPONENT LOCATION OVERVIEW, THROUGH 10.31.2008** or **SOUND SYSTEM COMPONENT LOCATION OVERVIEW, FROM 11.03.2008**.

### REAR MID-BASS SPEAKER

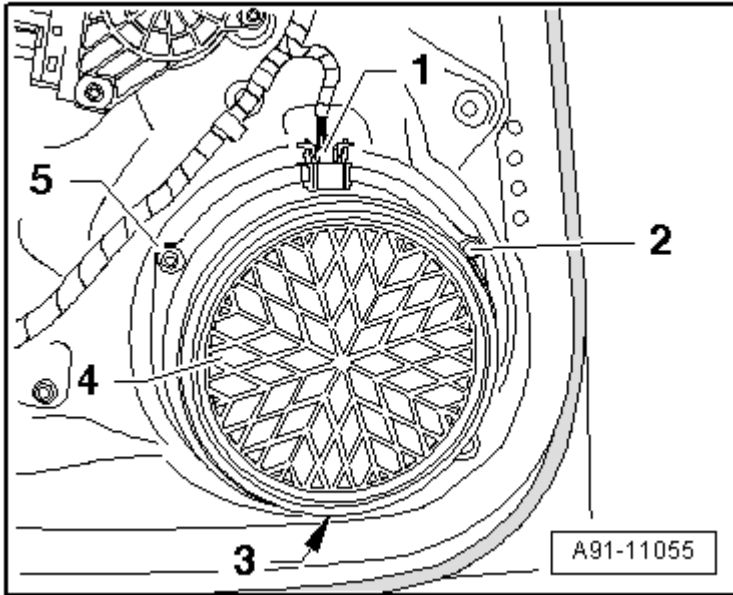
The left rear mid-bass speaker -R159- /right rear mid-bass speaker -R160- is located at the bottom of the rear door.

Removing and installing is identical.

- Turn off all electrical consumers.
- Remove the key.

### Removing

- Remove rear door trim. Refer to **Removal and Installation** .
- Unlock and disconnect the connector -1- from the left rear mid-bass speaker -4-.

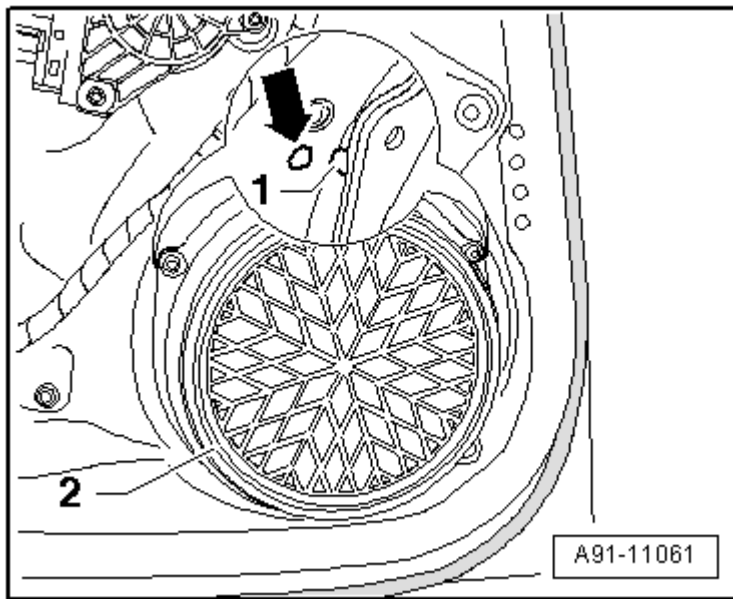


**Fig. 282: Unlock And Disconnect Connector**  
Courtesy of AUDI OF AMERICA, LLC

- Remove the screws -2-, -3- and -5- and remove the left rear mid-bass speaker -4-.

### Installing

- Install in reverse order of removal.
- Make sure the pins -1- on the left rear mid-bass speaker -2- engage correctly in the left and right holes - arrow- below the threaded holes.



**Fig. 283: Make Sure Pins On Left Rear Mid-Bass Speaker Engage Correctly In Left And Right Holes**  
Courtesy of AUDI OF AMERICA, LLC

#### REAR TREBLE SPEAKER

The left rear treble speaker -R14- /right rear treble speaker -R16- is installed in the rear door trim.

Removing and installing is identical.

-- Turn off all electrical consumers.

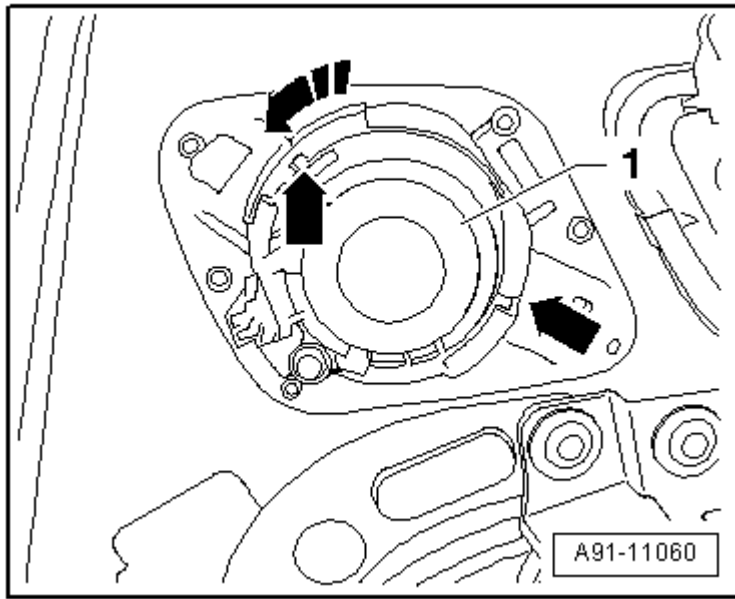
-- Remove the key.

#### Removing

-- Remove rear door trim. Refer to **Removal and Installation** .

-- Unlock and disconnect the connector from the left rear treble speaker.

-- Unlock the tabs -arrows- on the left rear treble speaker -1- and turn it in -direction of arrow- until it is possible to remove the left rear treble speaker -1- from the door trim panel.



**Fig. 284: Unlock Tabs On Left Rear Treble Speaker**  
Courtesy of AUDI OF AMERICA, LLC

### Installing

-- Install in reverse order of removal.

### FRONT MID/LOW RANGE AND FRONT BASS SPEAKERS

The left front mid-bass speaker -R101- /right front mid-bass speaker -R102- /left front bass speaker -R21- /right front base speaker -R23- are located in the bottom of the front doors.

Removing and installing is identical.

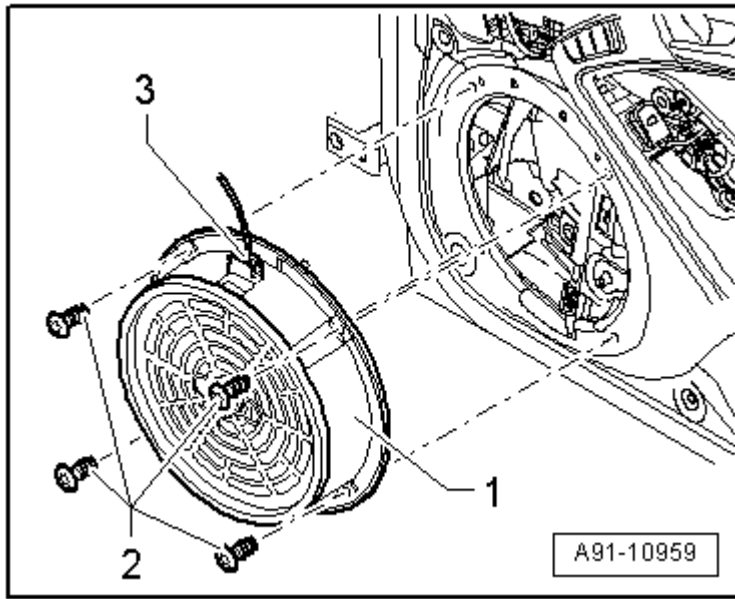
-- Turn off all electrical consumers.

-- Remove the key.

### Removing

-- Remove front door trim panel. Refer to **Removal and Installation** .

-- Disconnect the connector -3- from the left front bass speaker -1-.



**Fig. 285: Disconnecting Connector From Left Front Bass Speaker**  
Courtesy of AUDI OF AMERICA, LLC

- Remove the screws -2- on the left front bass speaker -1-.
- Remove the left front bass speaker -1-

### Installing

- Install in reverse order of removal.

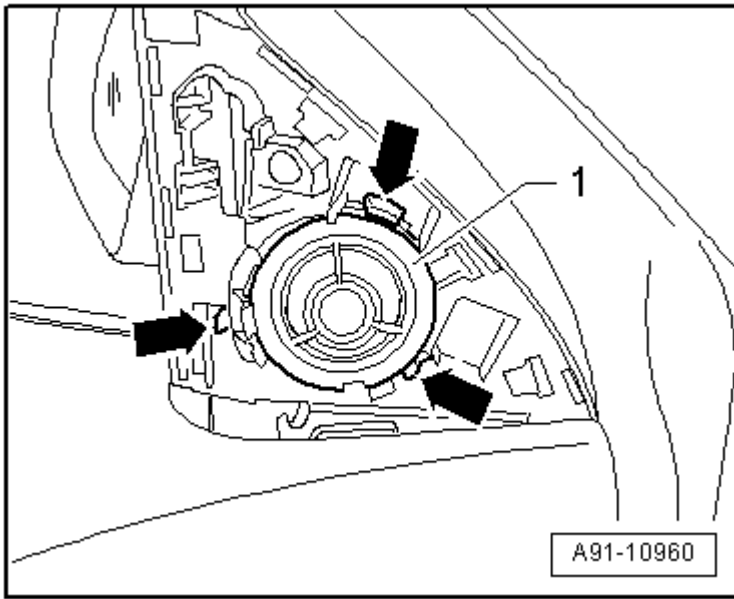
### FRONT TREBLE SPEAKER, BAND & OLUFSEN

The left front treble speaker -R20- /right front treble speaker -R22- is located in the triangular mirror trim.  
Removing and installing is identical.

- Turn off all electrical consumers.
- Remove the key.

### Removing

- Remove the treble speaker trim. Refer to **Removal and Installation** .
- Press the retainer -arrows- on the left front treble speaker -1- outward and remove the left front treble speaker -1-.



**Fig. 286: Pressing Retainer On Left Front Treble Speaker**  
Courtesy of AUDI OF AMERICA, LLC

-- Disconnect the connector from the left front treble speaker -1-.

### **Installing**

-- Install in reverse order of removal.

### **FRONT MIDRANGE AND TREBLE SPEAKERS**

The left front midrange speaker -R103- /right front midrange speaker -R104- /left front treble speaker -R20- /right front treble speaker -R22- are located in the front instrument panel.

Removing and installing is identical.

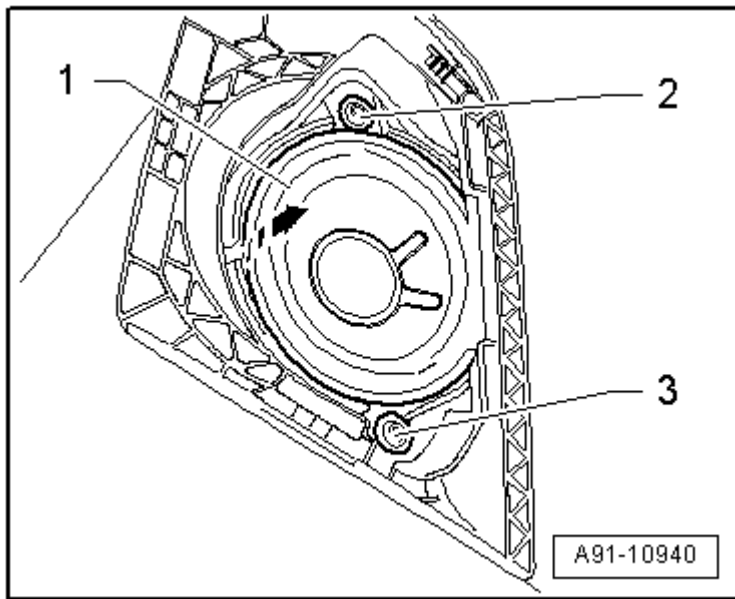
-- Turn off all electrical consumers.

-- Remove the key.

### **Removing**

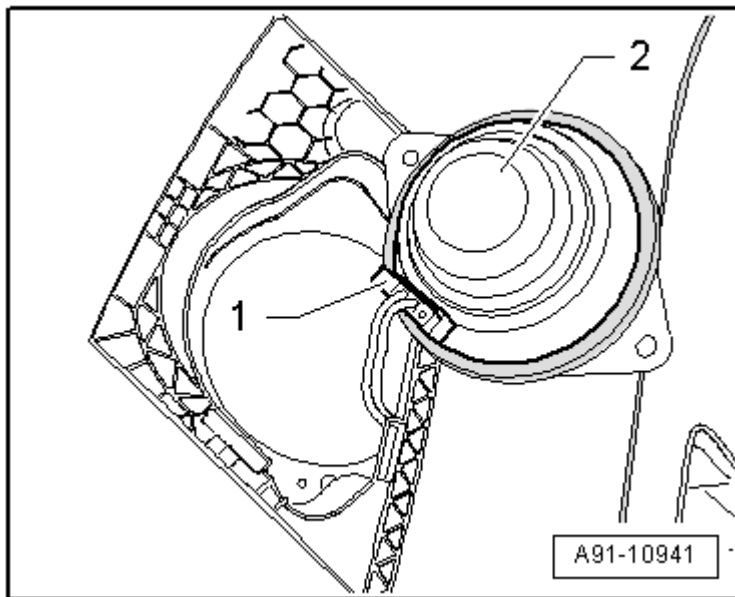
-- Remove the speaker trim in the instrument panel. Refer to **Removal and Installation** .

-- Remove the screws -2- and -3- on the left front midrange speaker -1- and lift the left front midrange speaker -1- in -direction of the arrow- out of the instrument panel.



**Fig. 287: Removing Screws And On Left Front Midrange Speaker**  
Courtesy of AUDI OF AMERICA, LLC

-- Disconnect the connector -1- from the left front midrange speaker -2-.



**Fig. 288: Disconnecting Connector From Left Front**  
Courtesy of AUDI OF AMERICA, LLC

-- Remove the left front midrange speaker -2- from the instrument panel.

### Installing

-- Install in reverse order of removal.

**CENTER MID/HIGH RANGE LOUDSPEAKER -R158-**

The center mid/high range speaker is located in the front center of the instrument panel.

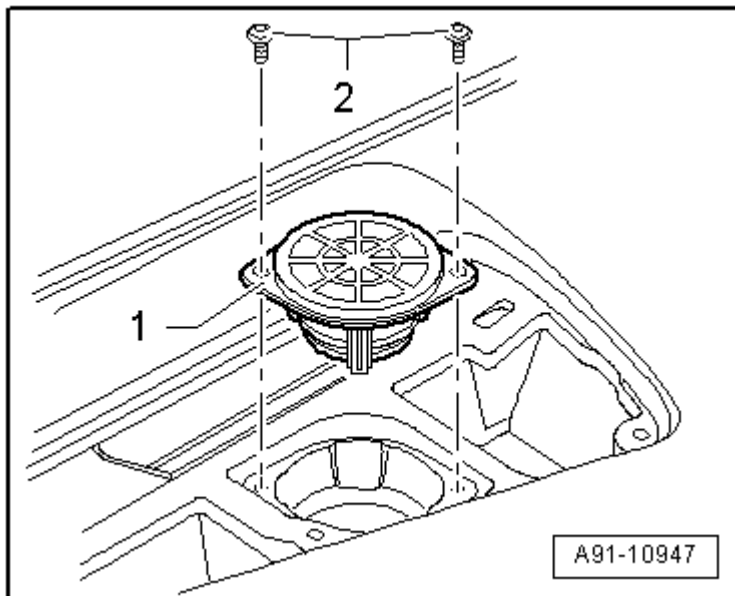
-- Turn off all electrical consumers.

-- Remove the key.

**Removing**

-- Remove the speaker trim in the center of the instrument panel. Refer to **Removal and Installation** .

-- Remove the screws -2- on the center mid/high range speaker -1-.



**Fig. 289: Removing Screws On Center Mid/High Range Speaker**  
Courtesy of AUDI OF AMERICA, LLC

-- Disconnect the connector from the center mid/high range speaker -1-.

-- Remove the center mid/high range speaker -1- out of the instrument panel.

**Installing**

-- Install in reverse order of removal.

**SPEECH INPUT CONTROL MODULE -J507- THROUGH 10.31.2008**

The speech input control module is located in the radio (MMI) behind the luggage compartment left side trim.

-- Turn off all electrical consumers.

-- Remove the key.

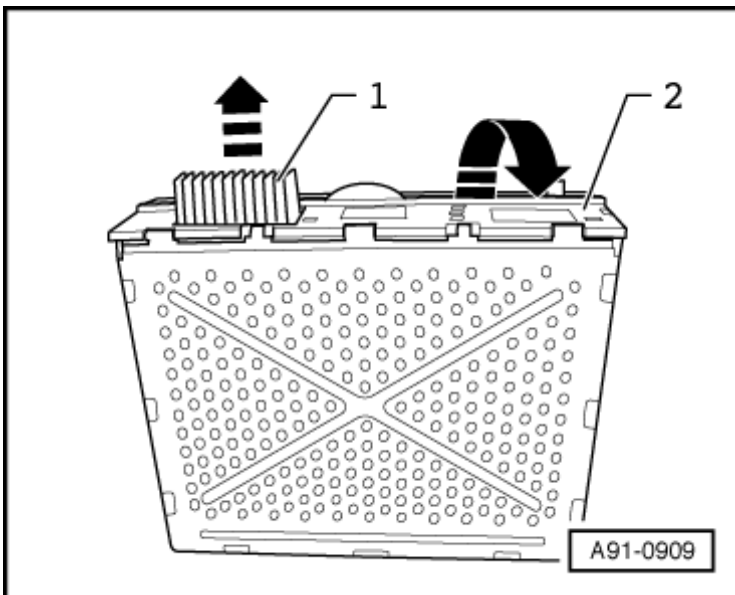
-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Removal and Installation.

### Removing

-- Remove the radio (MMI). Refer to **RADIO, MMI THROUGH 10.31.2008**.

-- Open cover -2- of radio and fold it down -arrow-.



**Fig. 290: Identifying Radio R Cover And Speech Input Control Module J507**  
Courtesy of AUDI OF AMERICA, LLC

-- Carefully pull the speech input control module -1- out of the radio in the -direction of the arrow-.

### Installing

-- Install in reverse order of removal.

-- Make sure that harness connector between speech input control module and the radio engages correctly in the radio.

### Perform the following function test:

-- Switch on the radio.

-- Briefly depress **PTT** button on multifunction steering wheel.

A "Ping" tone sounds, the speech input system is active.

-- Say "Help".

Since the radio is active, the speech dialog system responds with "Commands for the radio are...".

Depending on the equipment, other functions can be selected:

-- If a telephone is installed, say "telephone".

The speech dialog system switches to the telephone mode.

-- Press and hold the **PPT** button for approximately one second.

The speech dialog system responds with "Cancel" and is deactivated.

#### **SPEECH INPUT CONTROL MODULE FROM 11.03.2008**

The voice control system is part of the information electronics control module 1 -J794- (MMI) inside the instrument panel. It cannot be replaced alone.

If it is faulty, then the information electronics control module 1 -J794- must be replaced.

-- Turn off all electrical consumers.

-- Remove the key.

-- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Removal and Installation.

#### **Removing**

-- Remove the information electronics control module 1 -J794-. Refer to **INFORMATION ELECTRONICS CONTROL MODULE 1 -J794-**.

#### **Installing**

-- Install the information electronics control module 1 -J794-. Refer to **INFORMATION ELECTRONICS CONTROL MODULE 1 -J794-**.

Perform the following function test:

-- Switch on the radio.

-- Briefly depress **PTT** button on multifunction steering wheel.

A "Ping" tone sounds, the speech input system is active.

-- Say "Help".

Since the radio is active, the speech dialog system responds with "Commands for the radio are...".

Depending on the equipment, other functions can be selected:

-- If a telephone is installed, say "telephone".

The speech dialog system switches to the telephone mode.

-- Press and hold the **PPT** button for approximately 1 second.

The speech dialog system responds with "Cancel" and is deactivated.

### **TELEPHONE SYSTEM COMPONENTS**

#### **TELEPHONE BASEPLATE -R126-**

-- Turn off all electrical consumers.

-- Remove the key.

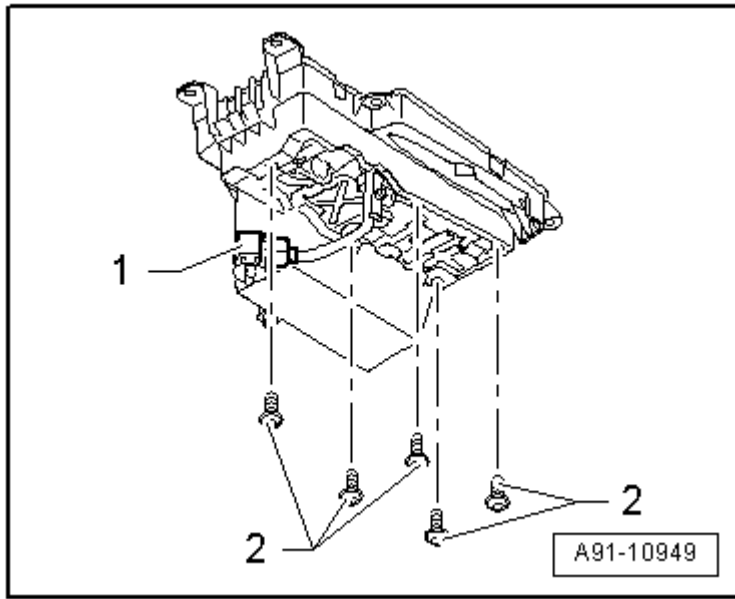
#### **Removing**

-- Remove the telephone handset -R37-.

-- Remove SIM card mount.

-- Remove the storage compartment from the center console. Refer to **Removal and Installation**

-- Disconnect the connector -1-.



**Fig. 291: Disconnecting Connector**

Courtesy of AUDI OF AMERICA, LLC

- Remove the bolts -2- on the back side.
- Push the Telephone baseplate upward out of storage compartment.

### Installing

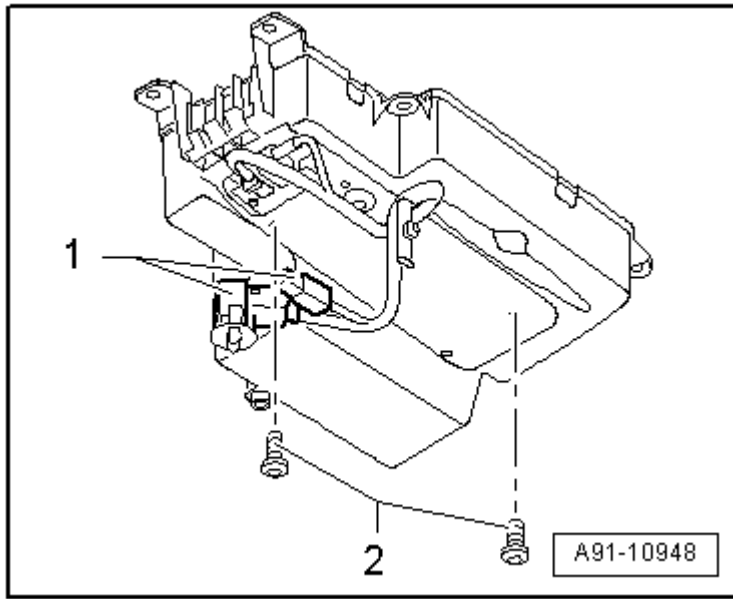
- Install in reverse order of removal.

### TELEPHONE BASEPLATE -R126- FOR CELL PHONE

- Turn off all electrical consumers.
- Remove the key.

### Removing

- Remove the storage compartment from the center console. Refer to **Removal and Installation** .
- Disconnect the connector -1-.



**Fig. 292: Disconnecting Connector**

Courtesy of AUDI OF AMERICA, LLC

- Remove the bolts -2- on the back side.
- Push the Telephone baseplate upward out of storage compartment.

### Installing

- Install in reverse order of removal.

### TELEPHONE TRANSCIVER -R36-

### Special tools and workshop equipment required

- Protective Cap For Cable Connector VAS 6223/9

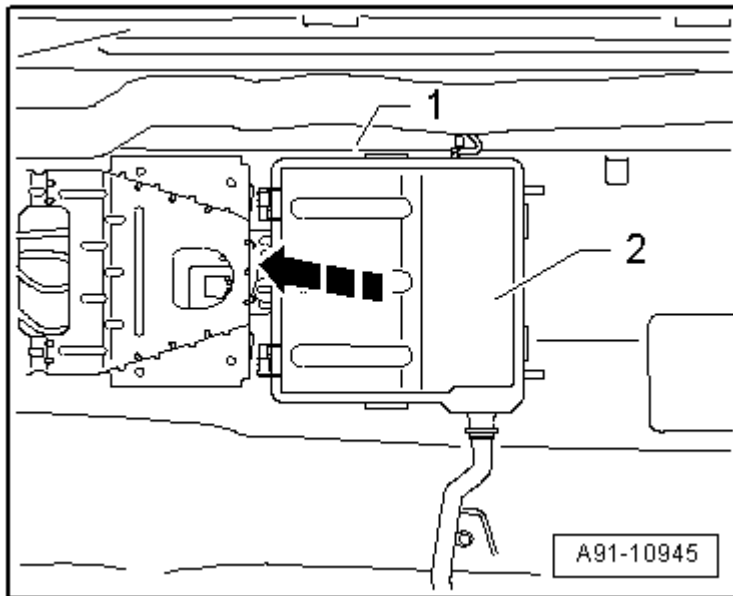
The telephone transceiver is located under the right front seat.

- Turn off all electrical consumers.
- Remove the key.
- If control module is replaced, select "Replacement" function for appropriate control module in "Guided Fault Finding".

Use the Vehicle Diagnostic Tester.

### Removing

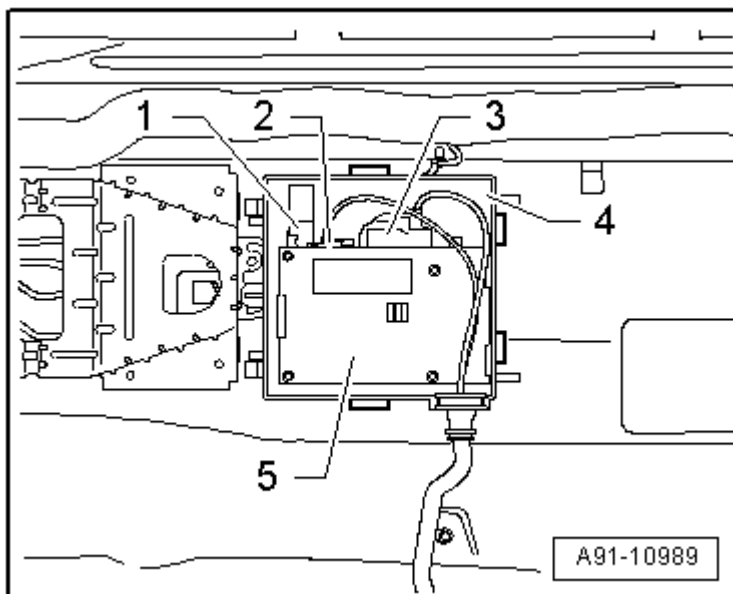
- Remove the right front seat. Refer to **Removal and Installation** .
- Fold back the floor covering. Refer to **Removal and Installation** .
- Disengage cover of E-box -2- and open the E-box -1-.



**Fig. 293: Disengage Cover Of E-Box**  
Courtesy of AUDI OF AMERICA, LLC

The telephone transceiver is only wedged into the electronics box.

- Pry the telephone transceiver -5- out of the E-box -4-.

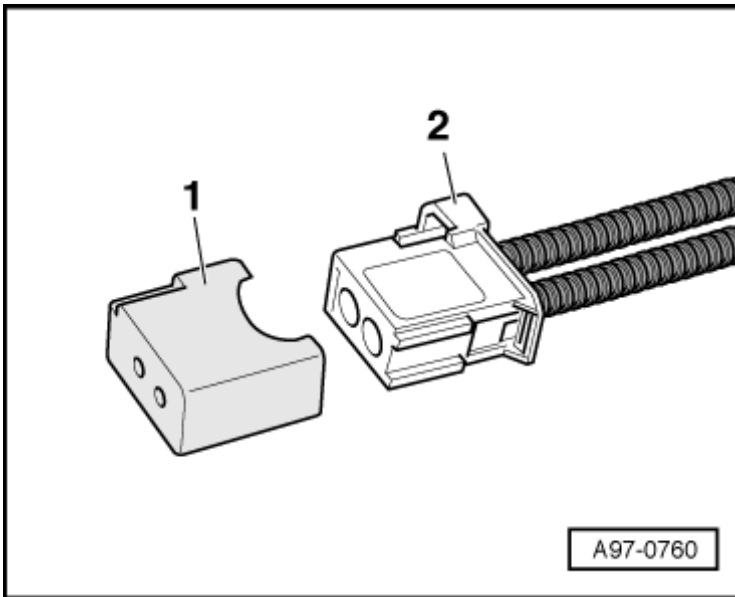


**Fig. 294: Prying Telephone Transceiver**  
Courtesy of AUDI OF AMERICA, LLC

**Only with MOST-BUS**

-- Disconnect the connector -2-.

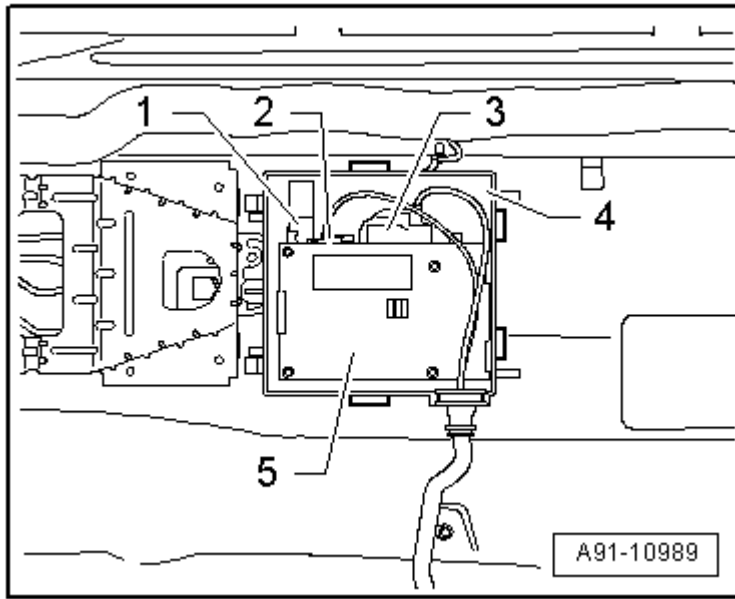
-- Connect the VAS 6223/9 -1- to the connector for the MOST-Bus -2-.



**Fig. 295: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9**  
Courtesy of AUDI OF AMERICA, LLC

**All**

-- Disconnect the connector -3-.



**Fig. 296: Disconnecting Connector**

Courtesy of AUDI OF AMERICA, LLC

-- Disconnect Bluetooth antenna -R152- -1-.

### Installing

-- Install in reverse order of removal.

-- Adapt Bluetooth connection between the telephone transceiver and telephone handset -R36- /cell phone -R54- .

### CELLULAR TELEPHONE AMPLIFIER -R86-

The cellular telephone amplifier is located behind the luggage compartment right side trim.

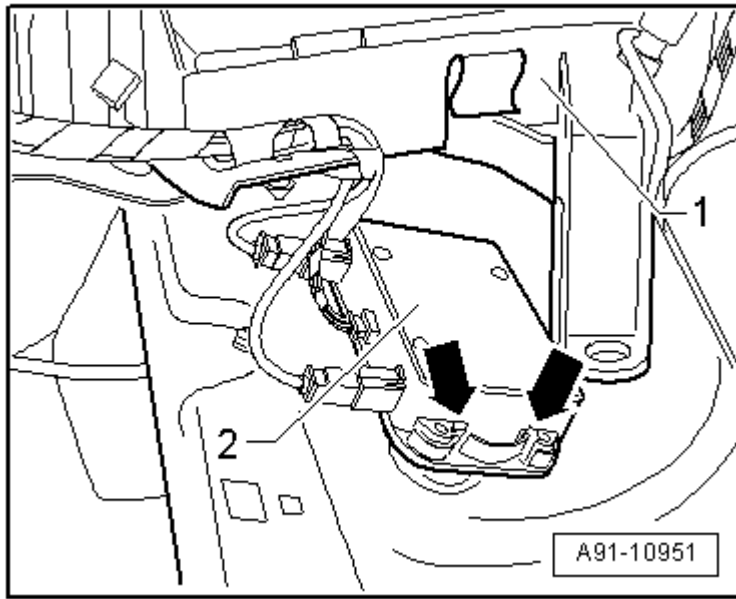
-- Turn off all electrical consumers.

-- Remove the key.

### Removing

-- Remove the right luggage compartment trim panel. Refer to **Removal and Installation** .

-- Remove the control unit mount -1-.



**Fig. 297: Removing Control Unit Mount**  
Courtesy of AUDI OF AMERICA, LLC

The cellular telephone amplifier is clipped into a bracket.

- Disconnect all of the connectors from the cellular telephone amplifier -2-.
- Press the retaining tabs -arrows- inward and remove the cellular telephone amplifier -2-.

### Installing

- Install in reverse order of removal.

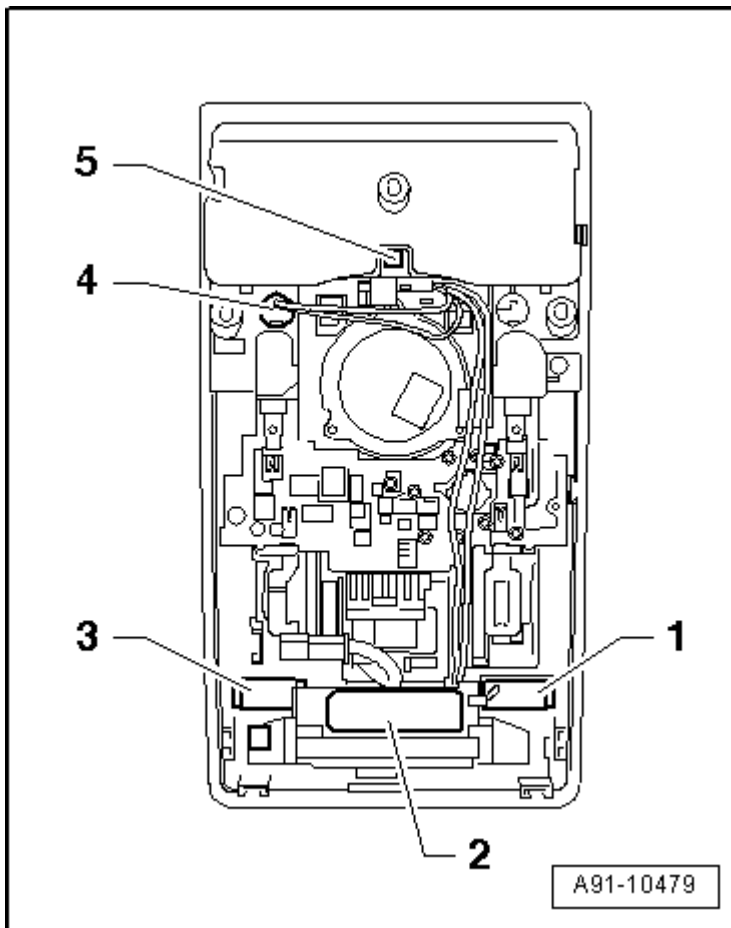
### MICROPHONE UNIT IN FRONT ROOF MODULE -R164-

The Microphone Unit in front roof module is located in the Front Interior Lamp -W1- and can be replaced only as a complete unit.

- Turn off all electrical consumers.
- Remove the key.

### Removing

- Remove the front interior lamp. Refer to **[For engine(s) CAEB, CALA, CCBA] Removal and Installation** .
- Unclip the connector -5- from retainer in the front interior lamp and disconnect the connector.



**Fig. 298: Microphone Unit (In Front Roof Module) R164 From MY07**  
Courtesy of AUDI OF AMERICA, LLC

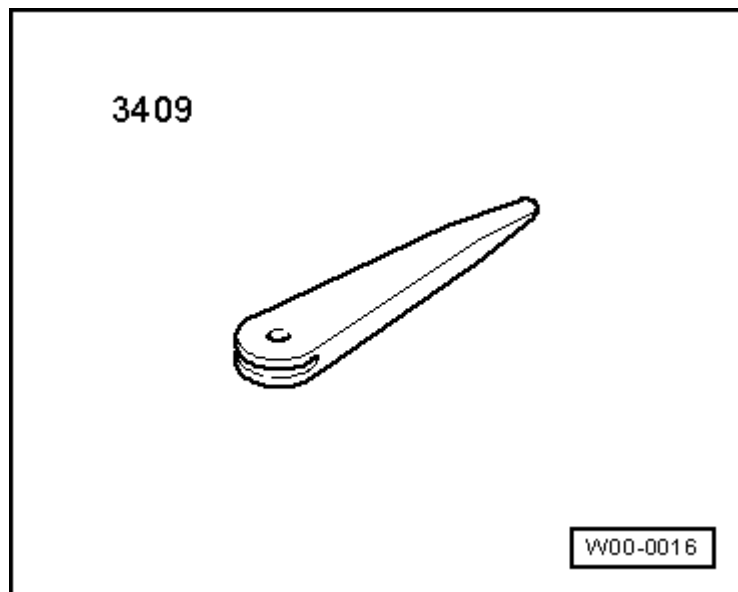
-- Pry out each microphone -1-, -3- and -4-.

### Installing

-- Install in reverse order of removal.

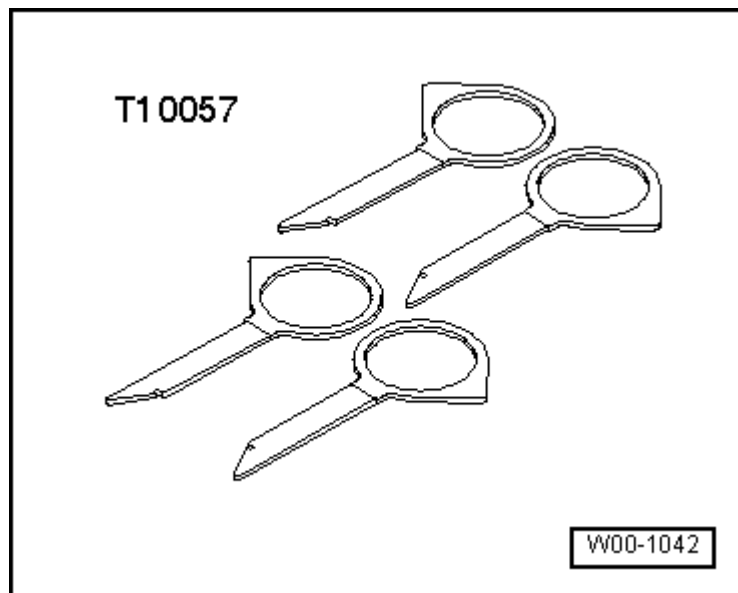
### SPECIAL TOOLS

- Removal Wedge 3409



**Fig. 299: 3409 Wedge**  
Courtesy of AUDI OF AMERICA, LLC

- Radio Removal Tool T10057



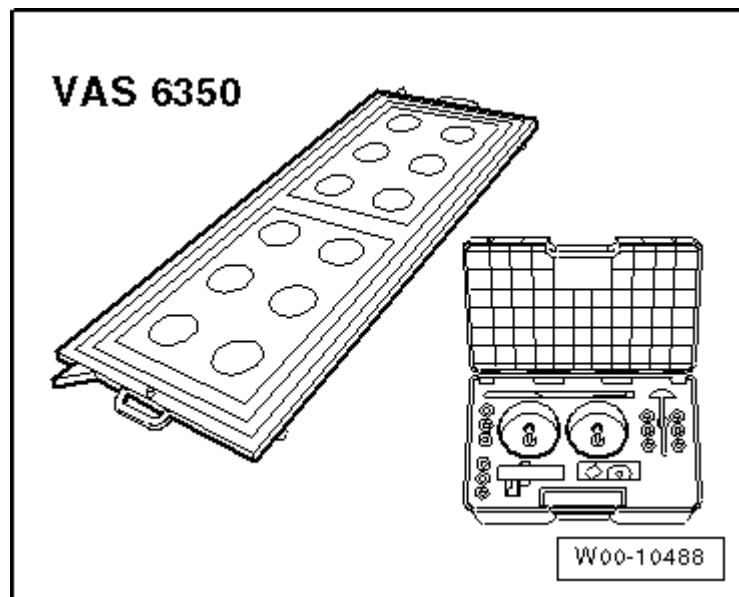
**Fig. 300: Identifying Special Tools - Radio Removal Tool T10057**  
Courtesy of AUDI OF AMERICA, LLC

- Protective Cap For Cable Connector VAS 6223/9.



**Fig. 301: Fiber Optic Plier Repair Set VAS 6223**  
 Courtesy of AUDI OF AMERICA, LLC

- Calibration Tool VAS 6350



**Fig. 302: Calibration Tool VAS 6350**  
 Courtesy of AUDI OF AMERICA, LLC