

ACCESSORIES & EQUIPMENT**Instruments (Sedan)****90 INSTRUMENTS****GENERAL INFORMATION****CONTACT CORROSION**

Contact corrosion can occur if incorrect fasteners (bolts, nuts, washers, etc.) are used.

For this reason, only fasteners with a special surface coating are used.

In addition, rubber or plastic parts and adhesive consist of non-conductive materials.

If there are doubts as to whether parts are suitable or not, use new parts.

Note:

- We only recommend original replacement parts, they have been tested and are compatible with aluminum.
- We recommend using Audi accessories.
- Damage resulting from contact corrosion is not covered by warranty.

DATA BUS ON BOARD DIAGNOSTIC INTERFACE

- Data bus on board diagnostic interface -J533- interlinks the different Controller Area Network (CAN) bus systems in the vehicle.
- It transmits data from, for example, the Engine Control Module (ECM) (drivetrain CAN bus) to the instrument cluster (instrument cluster CAN bus).
- Fault finding is done using "Guided Fault Finding" in the vehicle diagnosis, testing and information system VAS 5051.
- Repairing CAN Bus lines. Refer to **General Information** .

DESCRIPTION AND OPERATION**CIGARETTE LIGHTER, 12V AND 115 VOLT SOCKETS OVERVIEW**

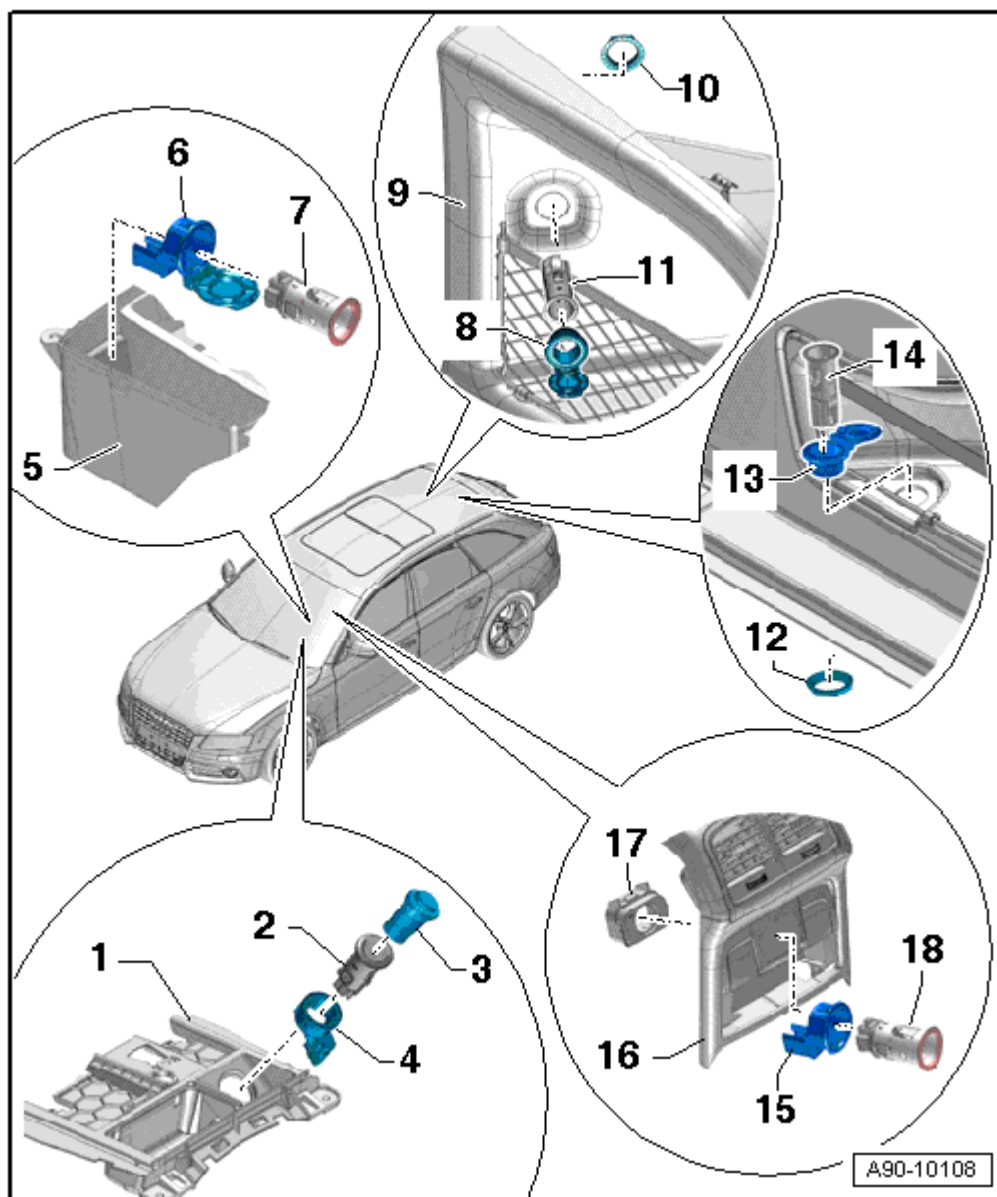


Fig. 1: Cigarette Lighter, 12V And 115 Volt Sockets Overview

Courtesy of AUDI OF AMERICA, LLC

1. Mount
 - For the cigarette lighter.
2. Cigarette Lighter Socket -U1-
 - Removing and installing, refer to **CIGARETTE LIGHTER SOCKET**.
3. Cigarette Lighter Element
4. Cigarette Lighter Illumination Bulb -L28-
 - Removing and installing, refer to **CIGARETTE LIGHTER ILLUMINATION**.
5. Center Console
6. Socket Illumination Bulb -L42-

- For the 12 V socket.
 - Removing and installing, refer to **SOCKET ILLUMINATION BULB, 12V SOCKET**.
7. 12V Socket -U5-
- Removing and installing, refer to **SOCKET ILLUMINATION BULB, 12V SOCKET**.
8. Mount with Cover
- For the 12 V socket 3 - Avant
9. Right Luggage Compartment Side Trim
10. Nut
- 2 Nm
11. 12 V Socket 3 -U19-
- For the Avant only
 - Removing and installing, refer to .
 - Replacing, refer to **12V SOCKET 3**.
12. Nut
- 2 Nm
13. Mount with Cover
- For the 12 V socket 3 - Sedan.
14. 12 V Socket 3 -U19-
- For the Sedan only.
 - Removing and installing, refer to **12V SOCKET 3**.
 - Replacing, refer to **12V SOCKET 3**.
15. Socket Illumination Bulb -L42-
- For the 12 V socket 2
 - Removing and installing, refer to **SOCKET ILLUMINATION BULB, 12 V SOCKET 2**.
16. Rear Center Console
17. Mount
- Depending on equipment with 12 V socket 2 or 115 volt outlet for the Converter with socket, 12 V-115 V -U27-.
18. 12V Socket 2 -U18-
- Removing and installing, refer to **12V SOCKET 2**.

Converter with Socket 12V - 115V, Tightening Specification

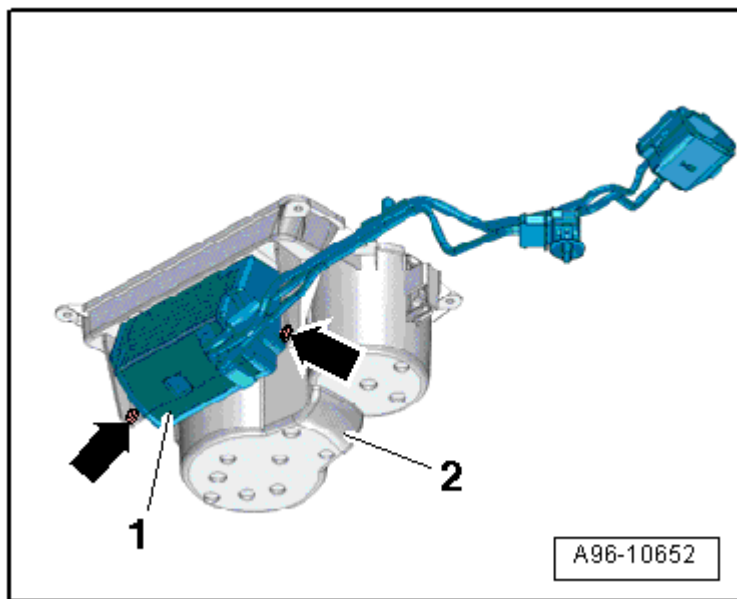


Fig. 2: Converter With Socket 12V - 115V, Tightening Specification
Courtesy of AUDI OF AMERICA, LLC

-- Tighten the bolts -arrows- to 1.4 Nm.

DATA BUS ON BOARD DIAGNOSTIC INTERFACE OVERVIEW

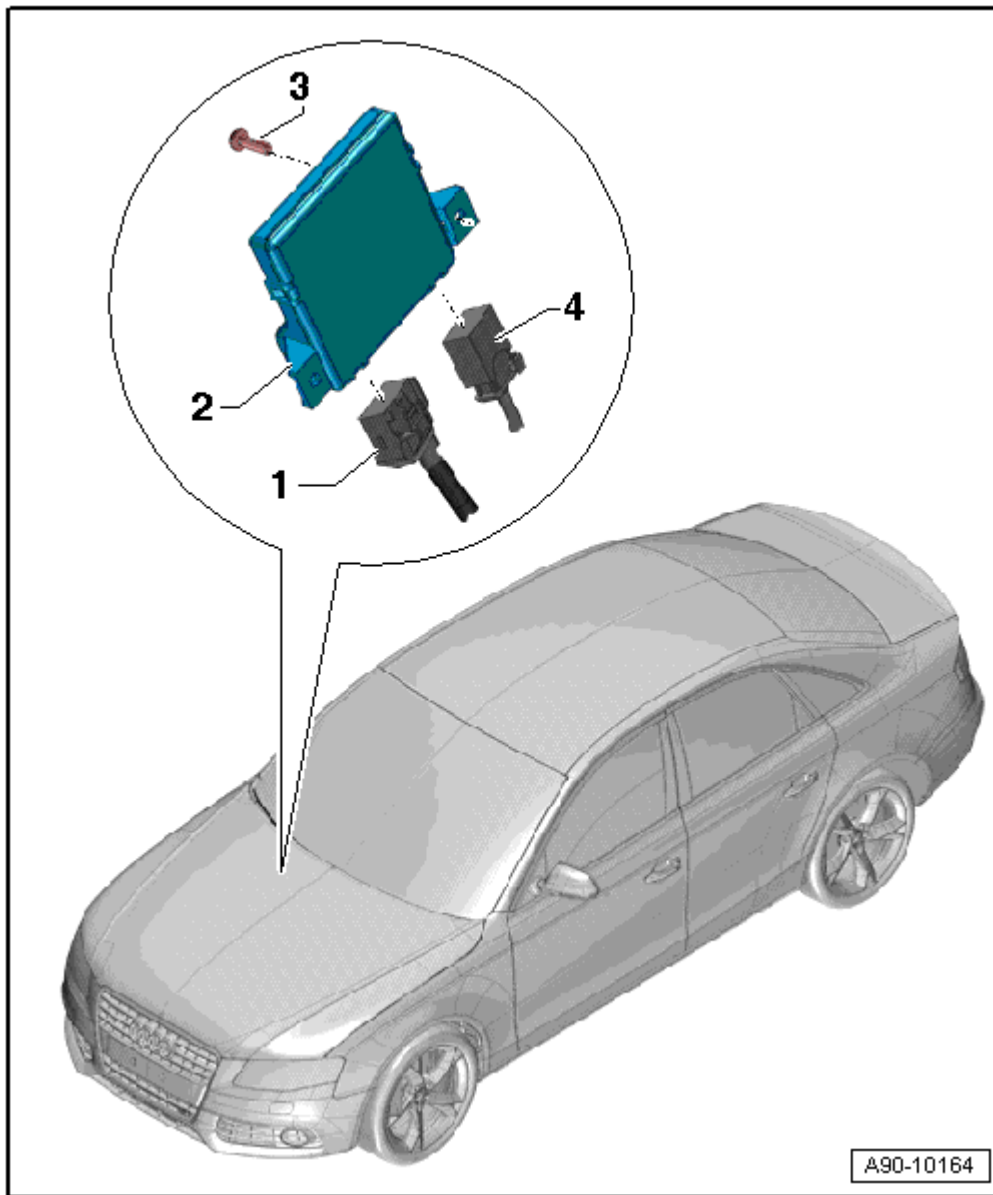


Fig. 3: Data Bus On Board Diagnostic Interface Overview

Courtesy of AUDI OF AMERICA, LLC

1. Electrical Connector
 - For the data bus on board diagnostic interface.
2. Data Bus On Board Diagnostic Interface -J533-
 - Removing and installing, refer to **DATA BUS ON BOARD DIAGNOSTIC INTERFACE -J533-**
3. Bolt
 - 3 Nm
4. Fiber Optic Cable Connector
 - Attach with the protective cap for cable connector VAS 6223/9.

DATA BUS ON BOARD DIAGNOSTIC INTERFACE CONNECTOR -J533-

Optical MOST-Bus connection (fiber optic) -A-

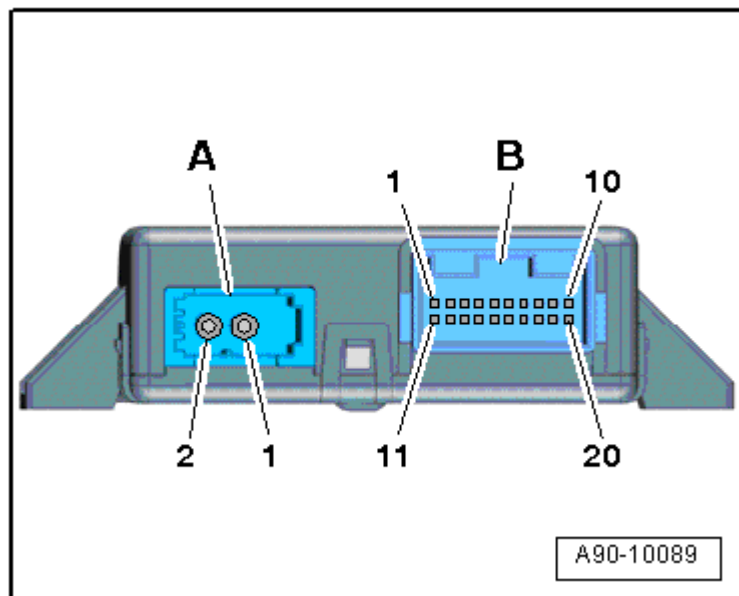


Fig. 4: Optical Most Bus Connection (Fiber Optic) -A-
Courtesy of AUDI OF AMERICA, LLC

1. Input
2. Output

20 Pin Connector -item B-

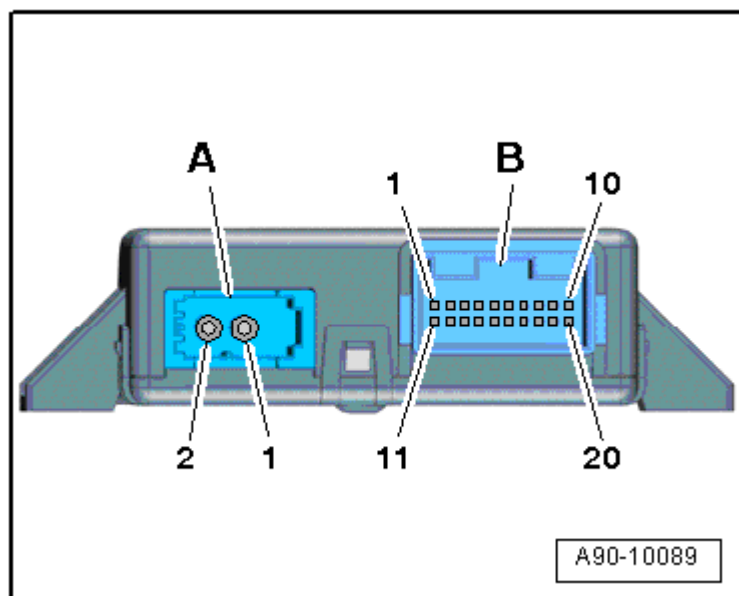


Fig. 5: Optical Most Bus Connection (Fiber Optic) -A-
Courtesy of AUDI OF AMERICA, LLC

1. Battery + (terminal 30)
2. LIN 1
3. Shielding (ACC rel.)
4. Shielding (ESL)
5. Controller Area Network (CAN) bus low (comfort)
6. CAN bus low (drivetrain)
7. CAN bus low (extended)
8. CAN bus Low (instrument cluster)
9. CAN bus Low (diagnosis)
10. Shielding (MOST diagnosis)
11. Ground - (terminal 31)
12. LIN 2
13. Instrument cluster wake-up
14. Terminal 15
15. CAN bus high (comfort)
16. CAN bus high (drivetrain)
17. CAN bus high (extended)
18. CAN bus high (instrument cluster)
19. CAN bus high (diagnosis)
20. Shielding

ENGINE COOLANT TEMPERATURE SENSOR -G62- CONNECTOR ASSIGNMENT

Procedure

-- Disconnect the 2 pin connector from the Engine Coolant Temperature (ECT) sensor. Refer to **[For transmission(s) 0AW] [For engine(s) CALA] Removal and Installation** or to **[For engine(s) CAEB] Removal and Installation** or to **[For engine(s) CCBA] Removal and Installation** - sensor is not removed.

Terminal Assignment of the 2 Pin Connector for the ECT sensor

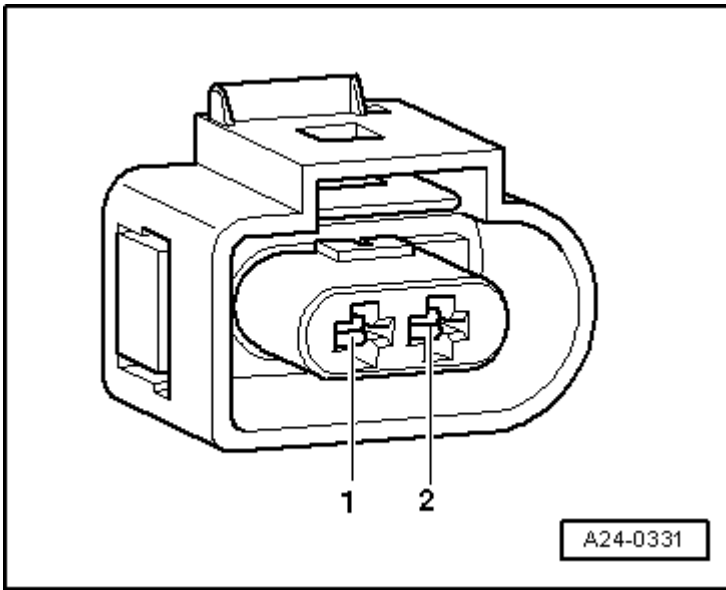


Fig. 6: 2-Pin Electrical Harness Connector & Terminals
Courtesy of AUDI OF AMERICA, LLC

1. Sensor ground (GND)
2. Wire connection from ECT sensor to Engine Control Module (ECM)

FUEL LEVEL SENSOR, CONNECTOR ASSIGNMENT

-- Disconnect the 5 pin electrical connector from the flange of the fuel tank. Refer to **Diagnosis and Testing** .

Terminal Assignment of the 5 Pin Connector for the fuel level sensor -G-

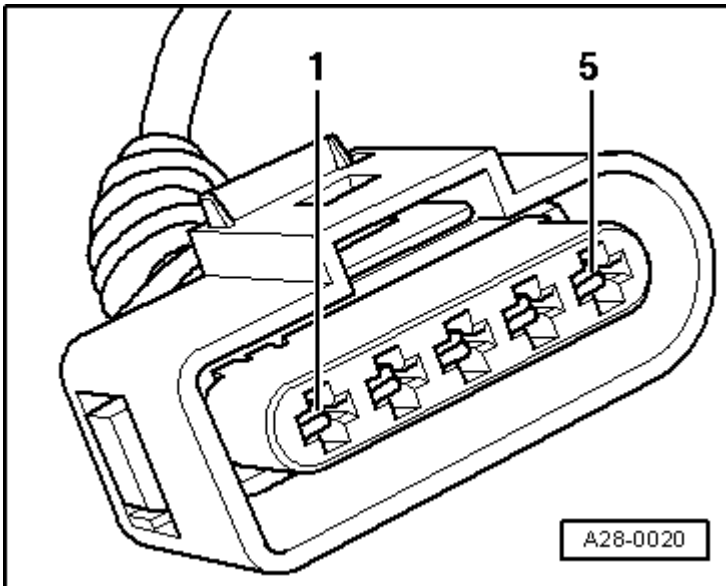


Fig. 7: Connecting Multimeter Between Terminal Of Harness Connector For Voltage Measurement
Courtesy of AUDI OF AMERICA, LLC

1. Transfer Fuel Pump (FP) -G6- switched positive
2. Wire connection from the fuel level sensor to the instrument cluster (sensor mass) - pin 5
3. Wire connection from the fuel level sensor to the instrument cluster (fuel gauge) - pin 7
4. Wire connection from the fuel level sensor to the instrument cluster (fuel gauge) - pin 6
5. Transfer FP ground

NOTE: On vehicles with Fuel Straight Injection (FSI) and Turbo Fuel Straight Injection (TFSI) engines, pins -2, 3 and 4- are looped through the FP control module - J538-.

FUEL LEVEL SENSOR 2, CONNECTOR ASSIGNMENT

-- Disconnect the 2 pin connector from the flange. Refer to **Diagnosis and Testing** .

Terminal Assignment of the 2 Pin Connector for the fuel level sensor 2 -G169-

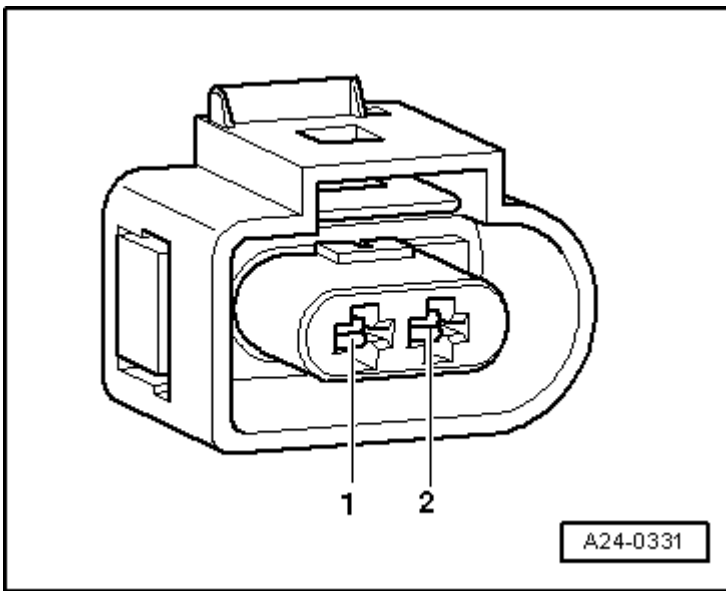


Fig. 8: 2-Pin Electrical Harness Connector & Terminals
Courtesy of AUDI OF AMERICA, LLC

1. Wire connection from the fuel level sensor 2 to the instrument cluster (sensor mass) - pin 10
2. Wire connection from the fuel level sensor 2 to the instrument cluster (fuel gauge) - pin 9

INSTRUMENT CLUSTER AND RADIO FREQUENCY CONTROLLED CLOCK RECEIVER OVERVIEW

Observe the notes on contact corrosion. Refer to **CONTACT CORROSION**.

NOTE: All warning lamps in instrument cluster are fitted with Light Emitting Diodes (LEDs). Instrument cluster must be replaced in the event of warning lamp failure.

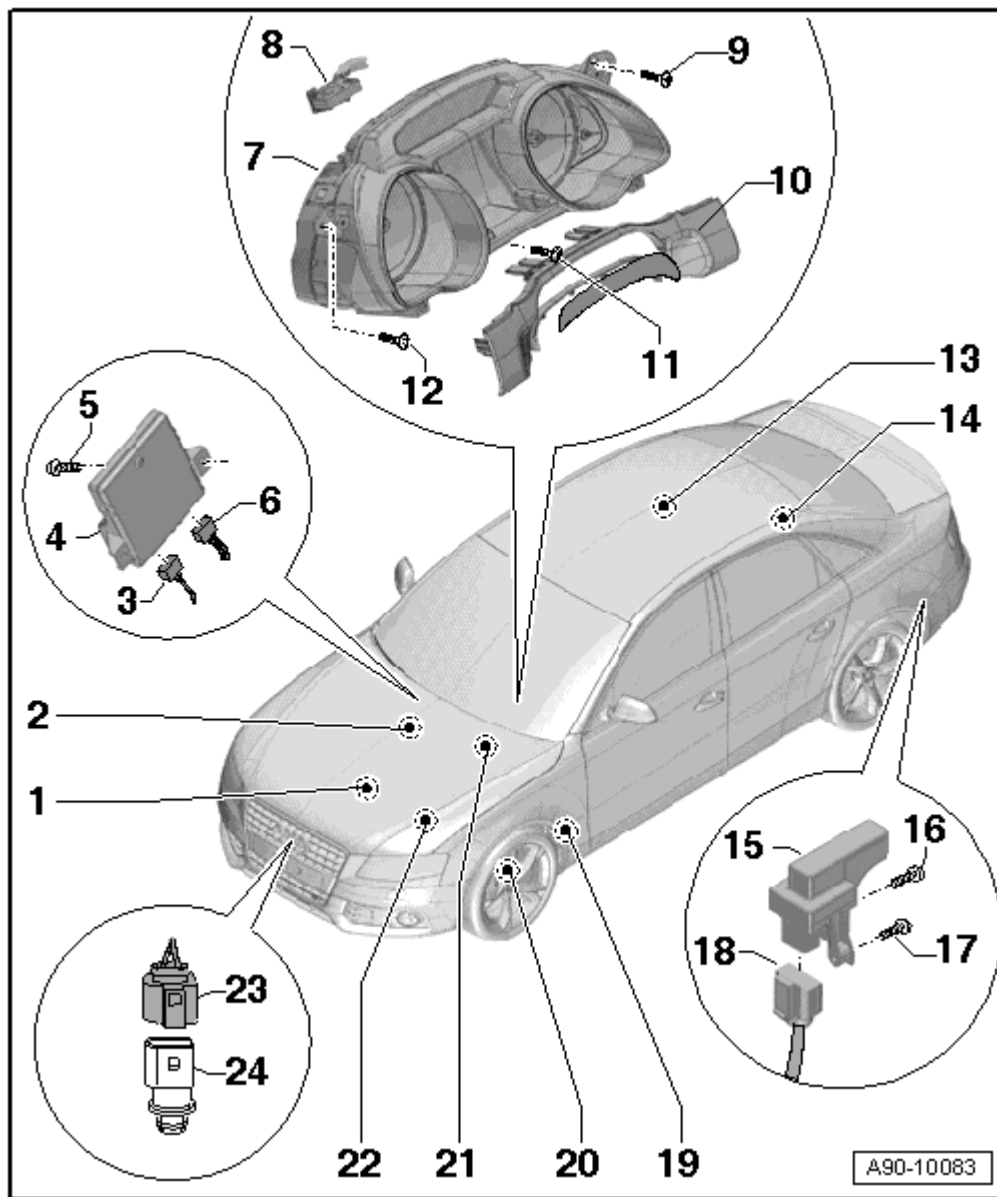


Fig. 9: Instrument Cluster And Radio Frequency Controlled Clock Receiver Overview
 Courtesy of AUDI OF AMERICA, LLC

1. Oil Level Thermal Sensor -G266-

- Removing and installing, refer to one of the following:

2.0L TFSI, refer to **[For engine(s) CAEB] Description and Operation** .

3.0L TFSI and 3.2L FSI, refer to **[For transmission(s) 0AW] [For engine(s) CALA] Removal and Installation** or to **[For engine(s) CCBA] Removal and Installation** .

2. Oil Pressure Switch -F1-

- Removing and installing, refer to one of the following:

2.0L TFSI, refer to **[For engine(s) CAEB] Description and Operation** .

3.0L TFSI and 3.2L FSI, refer to **[For transmission(s) 0AW] [For engine(s) CALA] Removal and Installation** or to **[For engine(s) CCBA] Removal and Installation** .

3. Electrical Connector

- For the data bus on board diagnostic interface.

4. Data Bus On Board Diagnostic Interface -J533-

- Overview, refer to **DATA BUS ON BOARD DIAGNOSTIC INTERFACE OVERVIEW**.

5. Bolt

- Tightening specification, refer to **DATA BUS ON BOARD DIAGNOSTIC INTERFACE OVERVIEW**.

6. Fiber Optic Cable Connector

- Attach using the protective cap for cable connector VAS 6223/9.

7. Instrument Cluster

- With the instrument cluster control module -J285-.
- Removing and installing, refer to **INSTRUMENT CLUSTER WITH INSTRUMENT CLUSTER CONTROL MODULE -J285-**.
- Multi-pin connector pin assignment, refer to **INSTRUMENT CLUSTER MULTI-PIN CONNECTOR PIN ASSIGNMENT**.

8. Electrical Connector

- For the instrument cluster.

9. Bolt

- 2.5 Nm

10. Gap Cover

- Removing and installing, refer to **Removal and Installation** .

11. Bolt

- 2.5 Nm

12. Bolt

- 2.5 Nm

13. Fuel Level Sensor -G-

- Multi-pin connector assignment, refer to **FUEL LEVEL SENSOR, CONNECTOR ASSIGNMENT**.
- Removing and installing, refer to **Removal and Installation** .

14. Fuel Level Sensor 2 -G169-

- Multi-pin connector assignment, refer to **FUEL LEVEL SENSOR 2, CONNECTOR ASSIGNMENT**.
- Removing and installing, refer to **Removal and Installation** .

15. Radio Frequency Controlled Clock Receiver -J489-

- Removing and installing, refer to **RADIO FREQUENCY CONTROLLED CLOCK**

RECEIVER -J489-

16. Bolt
 - 2.5 Nm
17. Bolt
 - 2.5 Nm
18. Electrical Connector
 - For the radio frequency controlled clock receiver.
19. Windshield Washer Fluid Level Sensor -G33-
 - Removing and installing, refer to **WASHER FLUID LEVEL SENSOR -G33-** .
20. Brake Pad Wear Sensor
 - Left front
 - Removing and installing, refer to **Removal and Installation** .
21. Brake Fluid Level Warning Switch -F34-
 - Removing and installing, refer to **Description and Operation** .
22. Engine Coolant Level (ECL) Warning Switch -F66-
23. Electrical Connector
 - For the outside air temperature sensor.
24. Outside Air Temperature Sensor -G17-
 - Removing and installing:
 - Vehicles through MY 2012, refer to **OUTSIDE AIR TEMPERATURE SENSOR -G17-, THROUGH MY 2012**
 - Vehicles from MY 2013, refer to **OUTSIDE AIR TEMPERATURE SENSOR -G17-, FROM MY 2013**

INSTRUMENT CLUSTER MULTI-PIN CONNECTOR PIN ASSIGNMENT**Gray 32 Pin Connector**

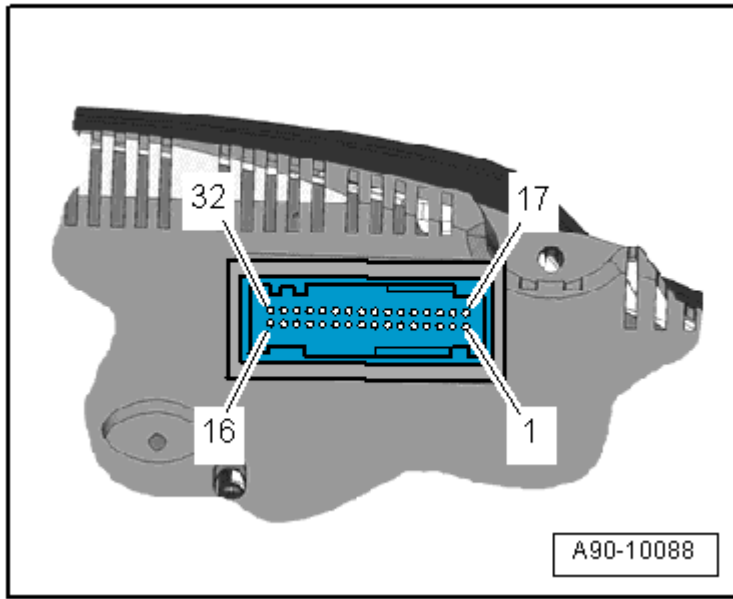


Fig. 10: Instrument Cluster Multi-Pin Connector Pin Assignment
 Courtesy of AUDI OF AMERICA, LLC

1. Not used
2. Controller Area Network (CAN)-bus shielding prompt wire
3. CAN-bus low prompt wire
4. CAN-bus high prompt wire
5. Fuel level sensor -G- sensor ground - pin 2
6. Fuel level sensor - pin 4
7. Fuel level sensor - pin 3
8. Button module
9. Fuel level sensor 2 -G169- - pin 2
10. Fuel level sensor 2 - pin 1
11. Not used
12. Not used
13. Not used
14. Not used
15. Not used
16. Not used
17. Not used
18. Not used
19. Not used
20. Check button
21. Not used
22. Not used

2012 Audi S4

ACCESSORIES & EQUIPMENT Instruments (Sedan)

- 23. Radio controlled clock 5 volt
- 24. Radio controlled clock signal
- 25. Oil level
- 26. Not used
- 27. Not used
- 28. Not used
- 29. Terminal 31
- 30. Terminal 31
- 31. Terminal 30
- 32. Terminal 30

SIGNAL HORNS OVERVIEW

Observe the notes on contact corrosion. Refer to **CONTACT CORROSION**.

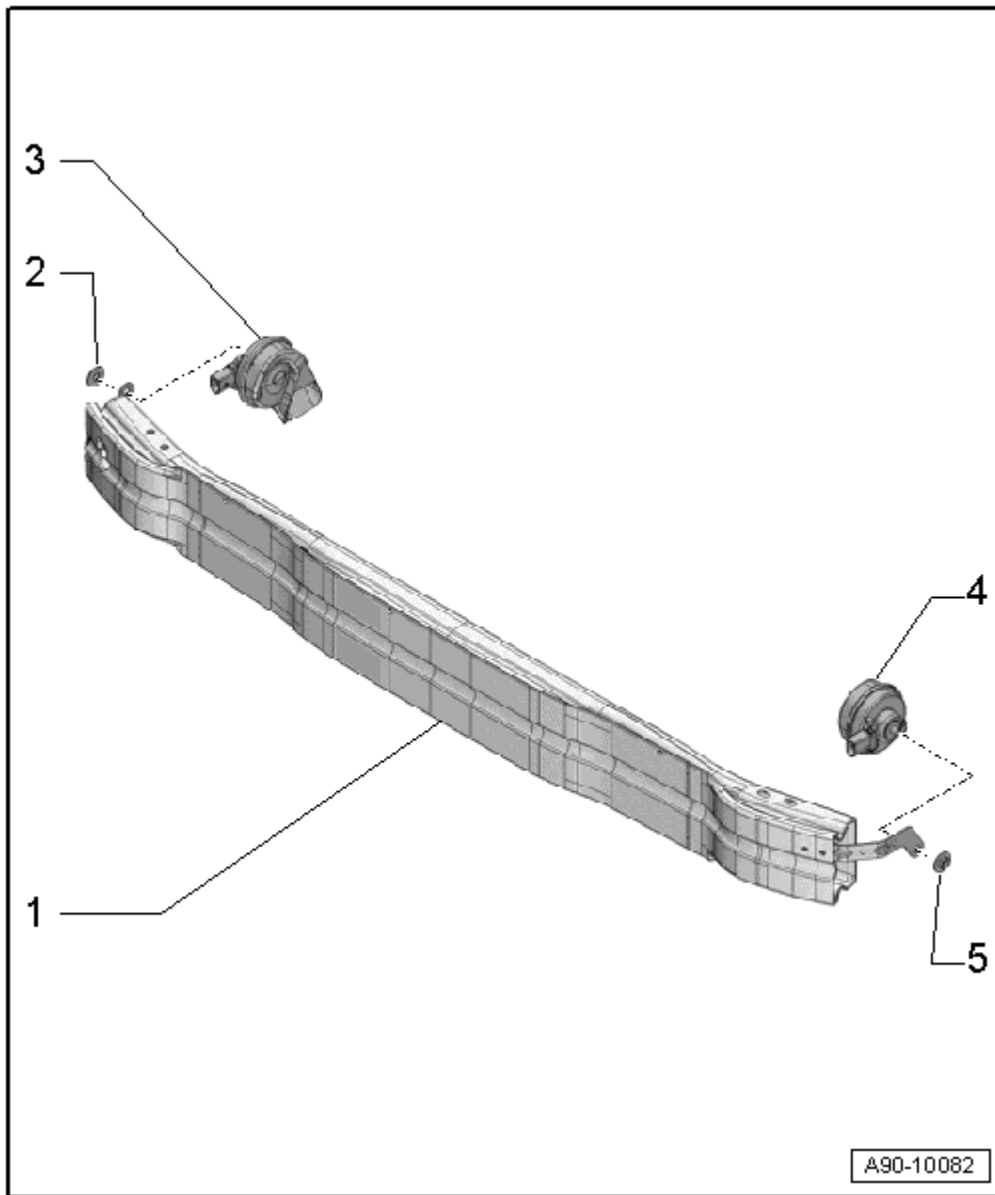


Fig. 11: Signal Horns Overview

Courtesy of AUDI OF AMERICA, LLC

1. Impact Member
 - With signal horn bracket.
2. Nut
 - 9 Nm
3. Low Tone Horn -H7-
 - Removing and installing, refer to **HIGH AND LOW TONE HORNS**.
4. High Tone Horn -H2-
 - Removing and installing, refer to **HIGH AND LOW TONE HORNS**.
5. Nut

- 9 Nm

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Component	Fastener Size	Nm
12 V Socket 3 to Trim Panel Nut	-	2
Converter with Socket 12V - 230V to Cup Holder Bolt	-	1.4
Data Bus On Board Diagnostic Interface Bolt	-	3
Horn to Impact Member Nut	-	9
Instrument Cluster to Instrument Panel Bolt	-	2.5
Radio Frequency Controlled Clock Receiver to Body Bolt	-	2.5

REMOVAL AND INSTALLATION

CIGARETTE LIGHTER, SOCKETS AND ILLUMINATION

CIGARETTE LIGHTER ILLUMINATION

Removing

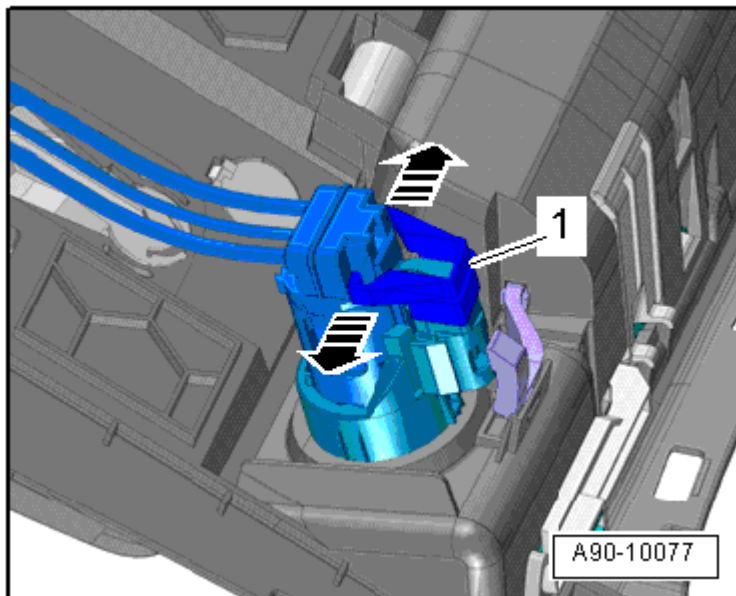


Fig. 12: Cigarette Lighter Illumination
 Courtesy of AUDI OF AMERICA, LLC

-- Remove the front ashtray. Refer to Removal and Installation .

-- Pry out the cover -1- over the cigarette lighter illumination -L28- -arrows-.

-- Carefully pry the cigarette lighter illumination -item 3- in the -direction of the arrow- out of the cigarette lighter -item 2- using a narrow screwdriver -1-.

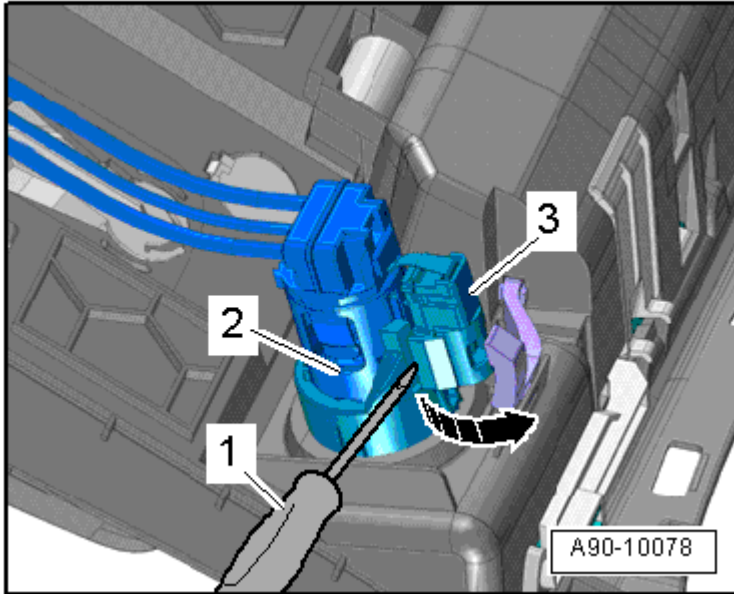


Fig. 13: Removing Cigarette Lighter Illumination
Courtesy of AUDI OF AMERICA, LLC

Installing

Install in reverse order of removal, observing the following:

-- Install the front ashtray. Refer to **Removal and Installation** .

CIGARETTE LIGHTER SOCKET

Special tools and workshop equipment required

- Release Tool for Cigarette Lighter T40148

Removing

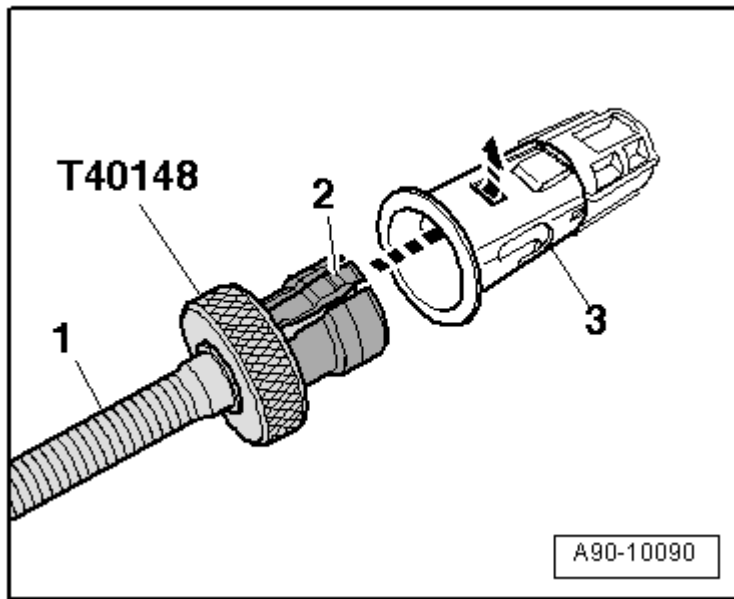


Fig. 14: 12 V Socket 5 -U26- -Item 3

Courtesy of AUDI OF AMERICA, LLC

- Remove the cigarette lighter illumination. Refer to CIGARETTE LIGHTER ILLUMINATION.
- The release tabs -2- on the T40148 must engage in the openings on the socket -item 3- -arrow- and the threaded pin -1- must slide down as far as the stop.
- Slide the T40148 into the socket -item 1- as far as the stop.

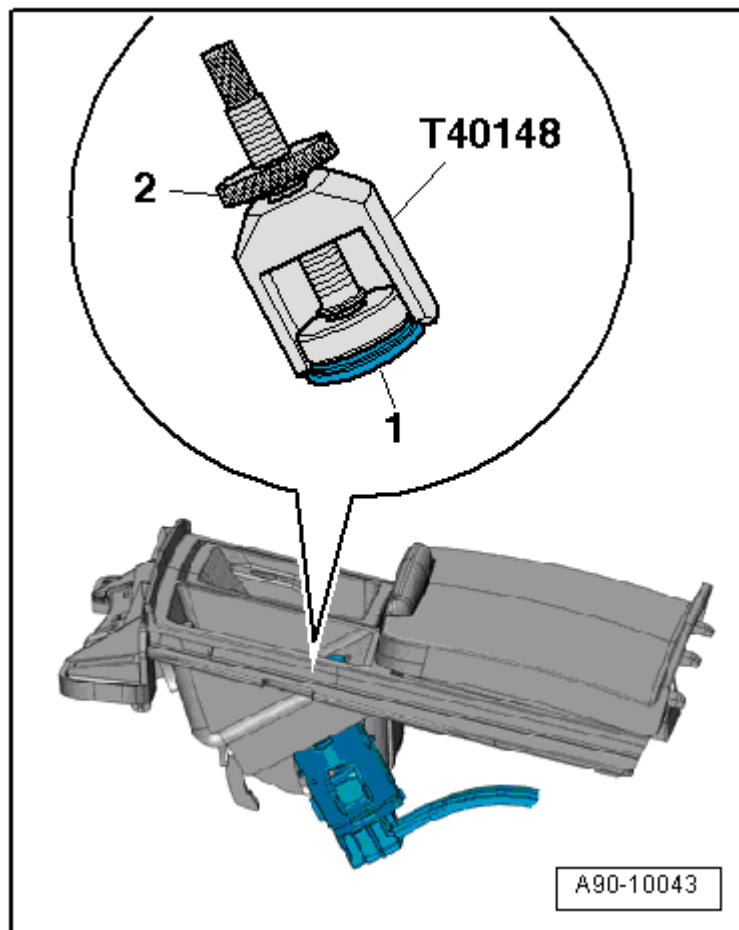


Fig. 15: Identifying T40148

Courtesy of AUDI OF AMERICA, LLC

-- Rotate the thumb wheel -2- on the T40148 clockwise as far as the stop.

- The piston -2- is pulled upward and the release tabs -1- on the T40148 spread -arrows-.

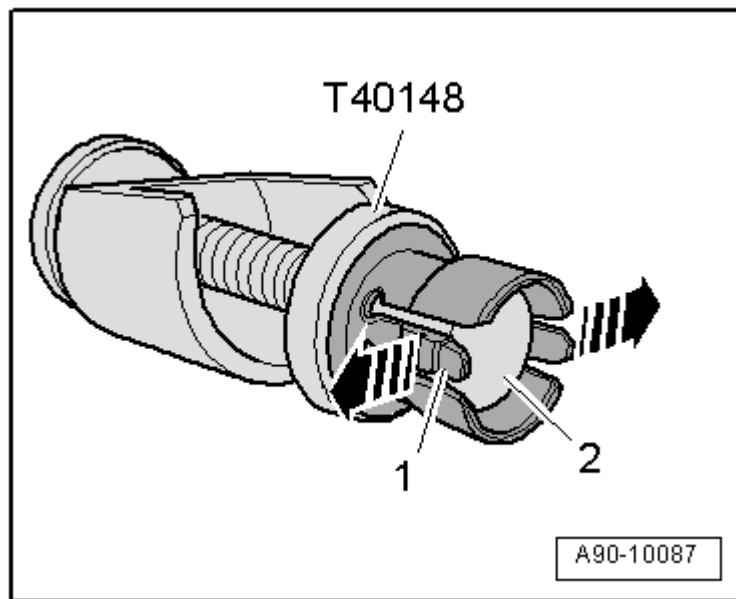


Fig. 16: Removing Release Tool T40148
Courtesy of AUDI OF AMERICA, LLC

- Remove the socket from the illumination using the T40148.
- Release the clips in the -direction of the arrows-.

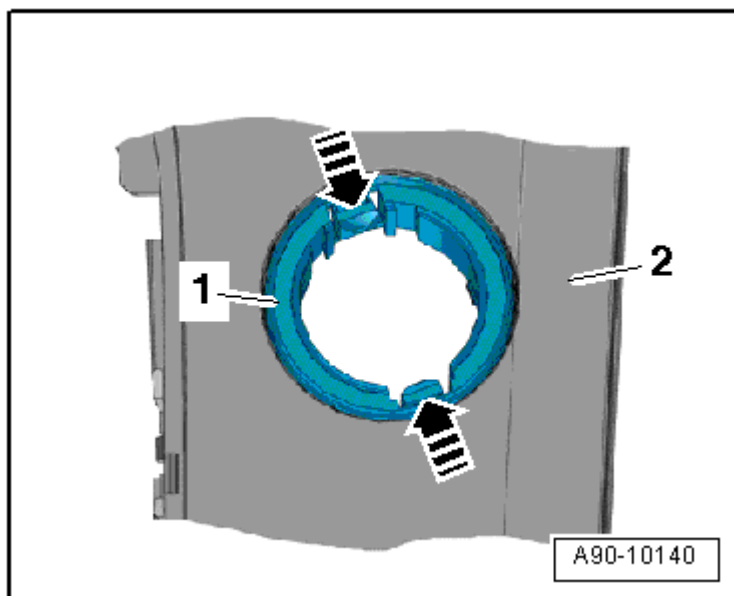


Fig. 17: Socket Illumination Bulb
Courtesy of AUDI OF AMERICA, LLC

- Remove the socket with the illumination ring -1- from the front ashtray -2-.

Installing

Install in reverse order of removal, observing the following:

CAUTION: Risk of injury.

- After removing the T40148, check to see if the lighter retaining tabs are bent.
- If the retaining tabs are bent, bend them back so the lighter does not slide out.

-- Remove the support -1- on the T40148.

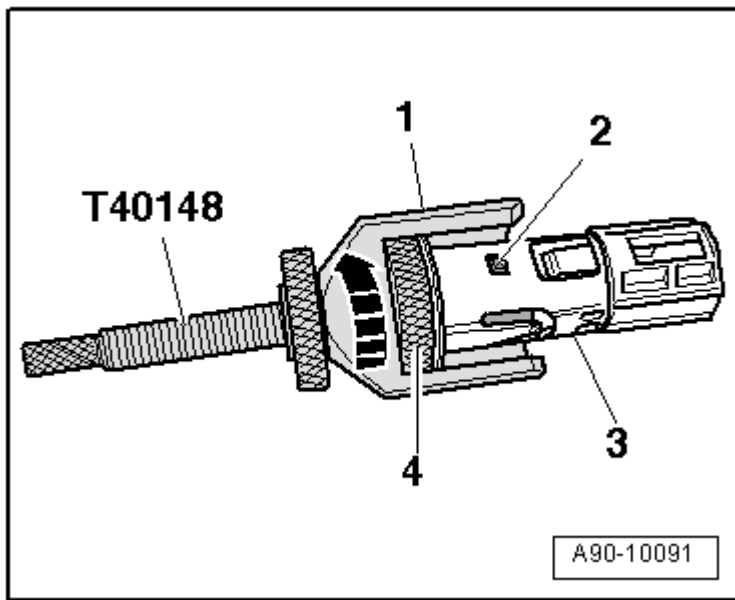


Fig. 18: Support, Thumbwheel, Release Tabs, Release Tool T40148 & Cigarette Lighter
Courtesy of AUDI OF AMERICA, LLC

-- Slide the piston down and hold it in place.

-- Rotate the thumb wheel -4- on the T40148 counterclockwise -arrow-. This loosens the release tabs -2- on the socket -item 3- so the T40148 can be removed.

-- Slide the cigarette lighter illumination into the mount until the retaining clips engage.

- The illumination ring can only be inserted in the mount in one position.

SOCKET ILLUMINATION BULB, 12V SOCKET

Special tools and workshop equipment required

- Release Tool for Cigarette Lighter T40148

Removing

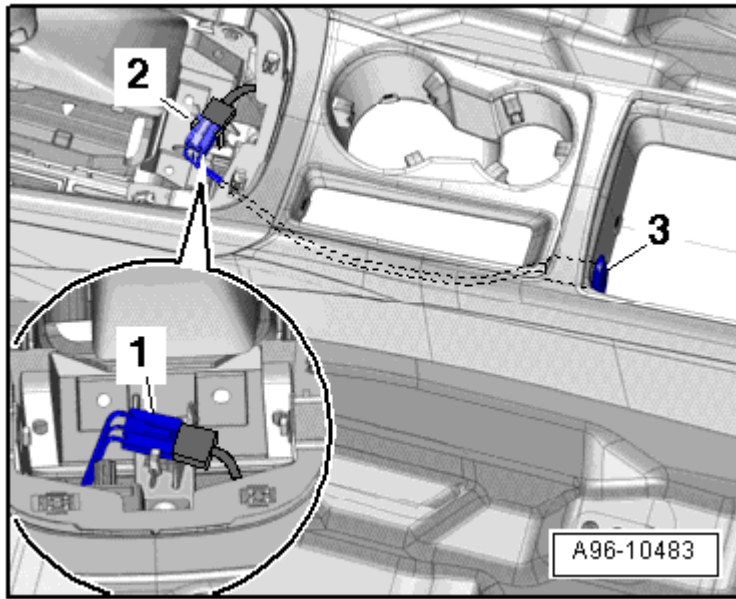


Fig. 19: Socket Illumination Bulb, 12V Socket
Courtesy of AUDI OF AMERICA, LLC

- Vehicles with Multi Media Interface (MMI) basic equipment: Remove the center console cover. Refer to **Removal and Installation** .
- Vehicles with MMI comfort equipment: Remove the multimedia control head -E380-. Refer to **Removal and Installation** .
- Unclip the electrical connector -2- from the mount.
- Disconnect the electrical connector -1- and secure a long cord on it.

NOTE: **The cord is attached to the connector so the electrical wire for the 12V socket - 3- can be pulled through when installing without removing the center console.**

- The release tabs -2- on the T40148 must engage in the openings in the 12V socket -U5- -item 3- -arrow- and the threaded pin -1- must slide down as far as the stop.

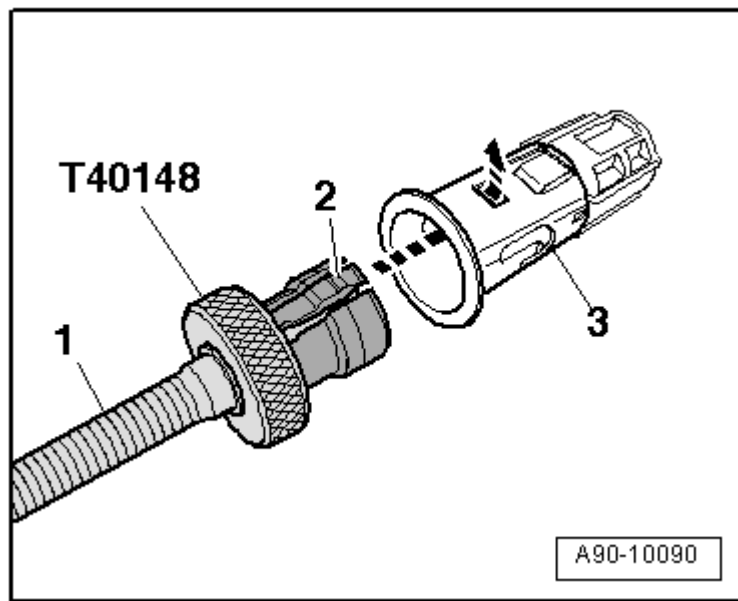


Fig. 20: 12 V Socket 5 -U26- -Item 3

Courtesy of AUDI OF AMERICA, LLC

-- Open the cover -1- on the 12 V socket and hold it in this position.

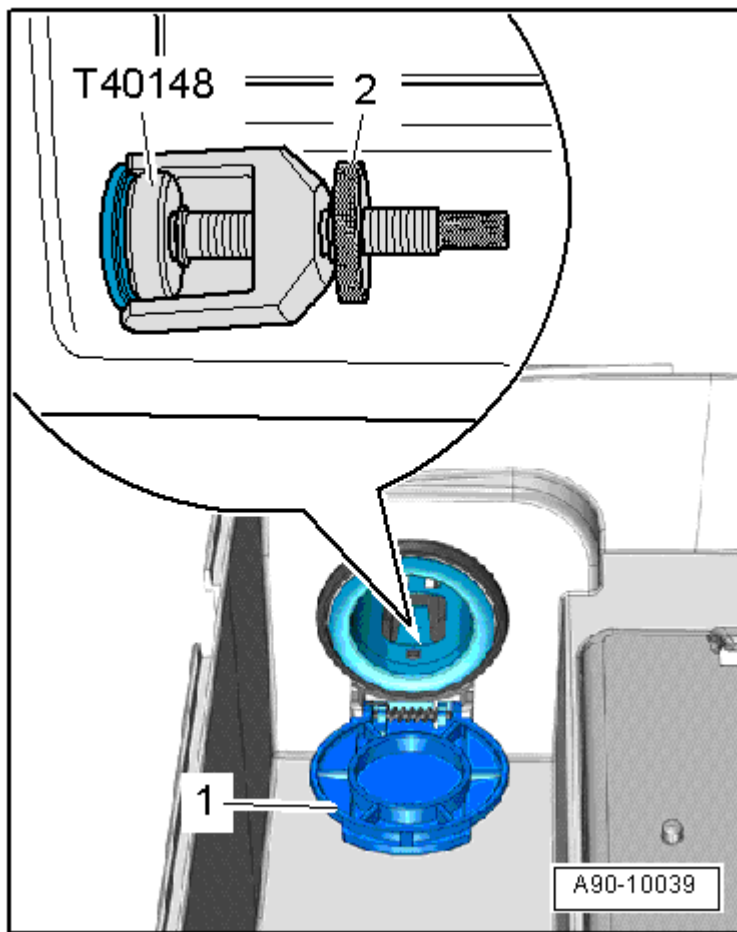


Fig. 21: Identifying T40148

Courtesy of AUDI OF AMERICA, LLC

- Slide the T40148 into the 12V socket as far as the stop.
- Rotate the thumb wheel -2- on the T40148 clockwise as far as the stop.
 - The piston -2- is pulled upward and the release tabs -1- on the T40148 spread -arrows-.

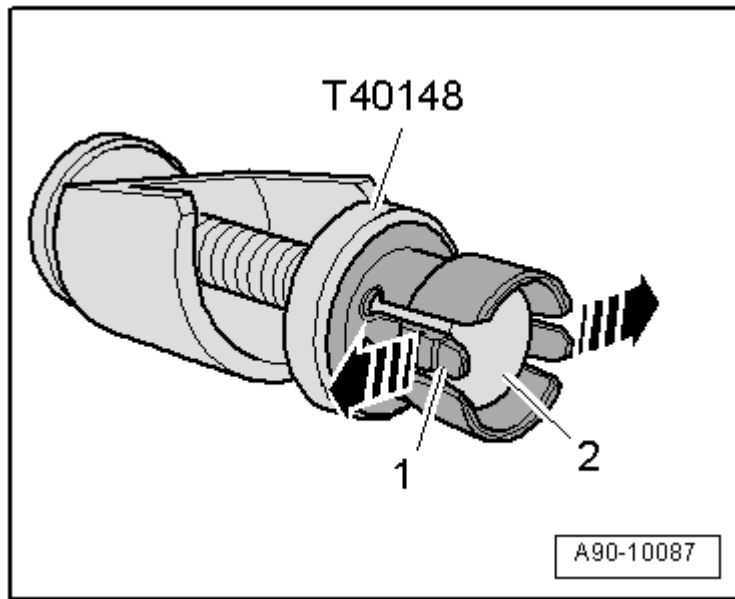


Fig. 22: Removing Release Tool T40148
Courtesy of AUDI OF AMERICA, LLC

- Remove the 12V socket from the illumination ring with the socket illumination bulb -L42- using the T40148.
- Disconnect the electrical connector.
- Release the clips in the -direction of the arrows-.

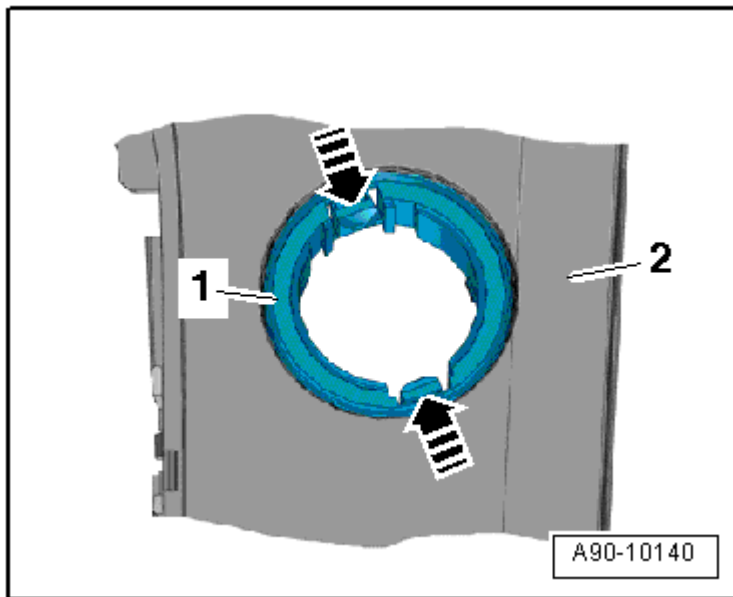


Fig. 23: Socket Illumination Bulb
Courtesy of AUDI OF AMERICA, LLC

- Remove the illumination ring -1- with the socket illumination bulb from the center console storage

compartment -2-.

Installing

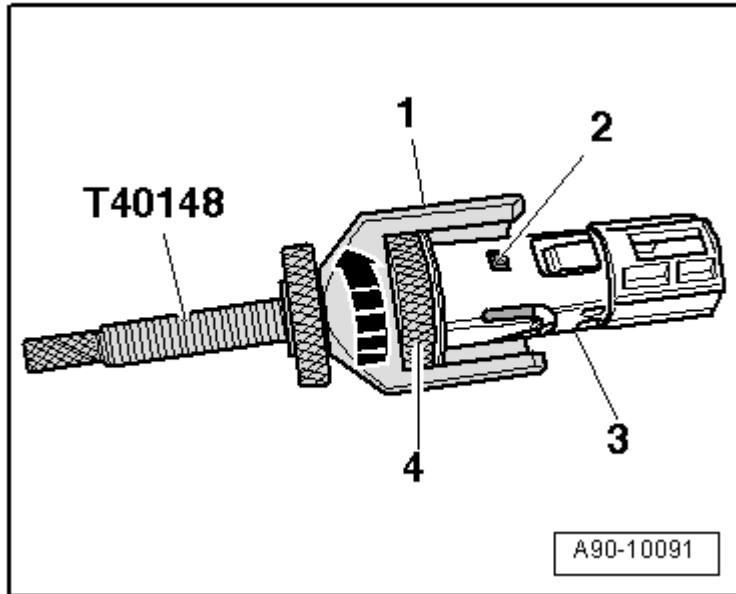


Fig. 24: Support, Thumbwheel, Release Tabs, Release Tool T40148 & Cigarette Lighter
Courtesy of AUDI OF AMERICA, LLC

Install in reverse order of removal, observing the following:

- Remove the support -1- on the T40148.
- Slide the piston down and hold it in place.
- Rotate the thumb wheel -4- on the T40148 counterclockwise -arrow-. The release tabs -2- on the 12V socket -3- will loosen and the T40148 can be removed.
- Vehicles with MMI basic equipment: Install the center console cover. Refer to **Removal and Installation** .
- Vehicles with MMI comfort equipment: Install the multimedia control head. Refer to **Removal and Installation** .

12V SOCKET 2

Special tools and workshop equipment required

- Release Tool for Cigarette Lighter T40148

Removing

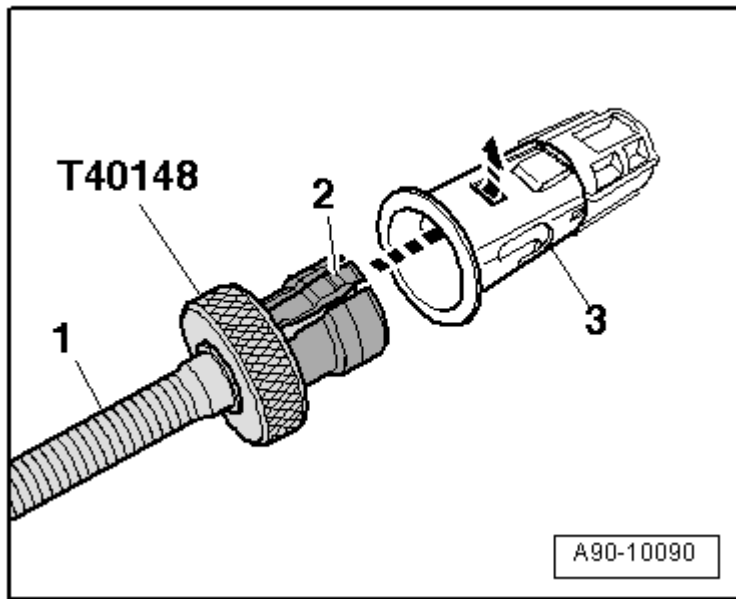


Fig. 25: 12 V Socket 5 -U26- -Item 3

Courtesy of AUDI OF AMERICA, LLC

-- The release tabs -2- on the T40148 must engage in the openings in the 12V socket -3- -arrow- and the threaded pin -1- must slide down as far as the stop.

-- Open the cover -2- on the 12 V socket and hold it in this position.

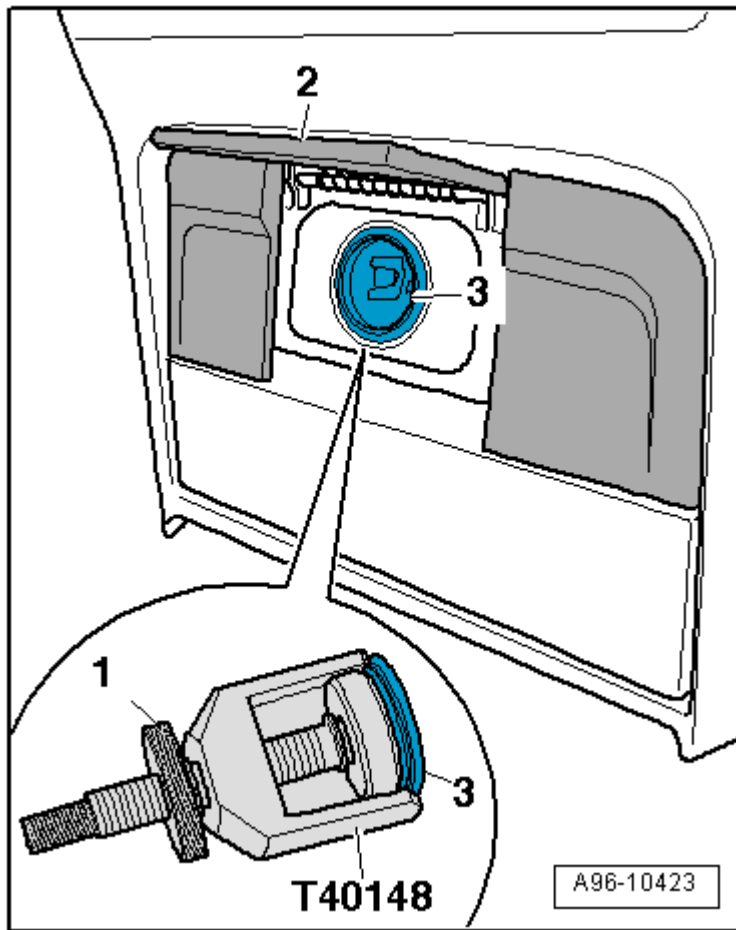


Fig. 26: Identifying T40148

Courtesy of AUDI OF AMERICA, LLC

- Slide the T40148 as far as the stop into the 12V socket -3-.
- Rotate the thumb wheel -1- on the T40148 clockwise as far as the stop.
 - The piston -2- is pulled upward and the release tabs -1- on the T40148 spread -arrows-.

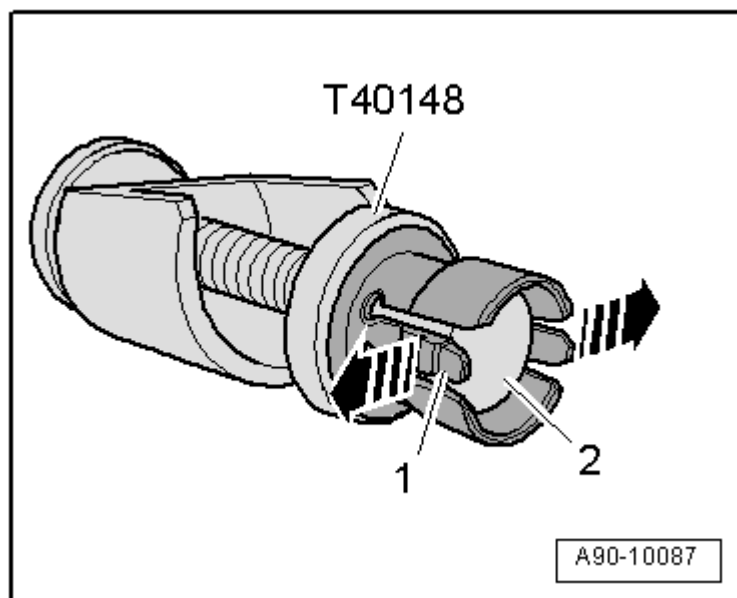


Fig. 27: Removing Release Tool T40148
 Courtesy of AUDI OF AMERICA, LLC

- Remove the 12V socket from the illumination ring with the socket illumination bulb -L42- using the T40148.
- Disconnect the electrical connector.

Installing

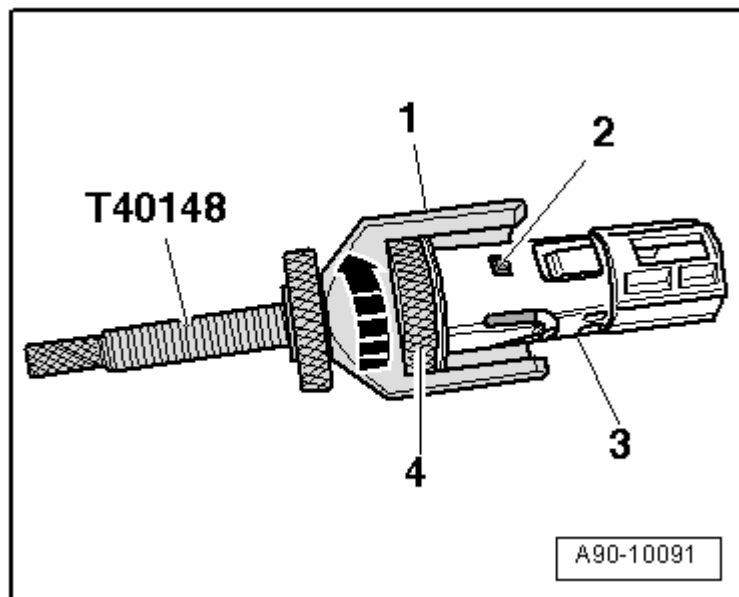


Fig. 28: Support, Thumbwheel, Release Tabs, Release Tool T40148 & Cigarette Lighter
 Courtesy of AUDI OF AMERICA, LLC

Install in reverse order of removal, observing the following:

- Remove the support -1- on the T40148.
- Slide the piston down and hold it in place.
- Rotate the thumb wheel -4- on the T40148 counterclockwise -arrow-. This loosens the release tabs -2- on the 12V socket -3- so the T40148 can be removed.

SOCKET ILLUMINATION BULB, 12 V SOCKET 2

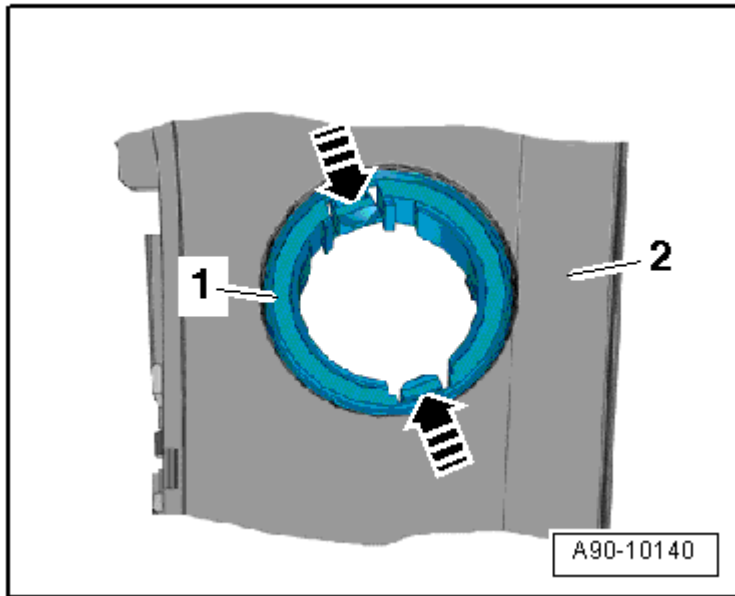


Fig. 29: Socket Illumination Bulb
Courtesy of AUDI OF AMERICA, LLC

- Remove the 12 V socket 2. Refer to **12V SOCKET 2**.
- Release the clips in -direction of arrow-.
- Remove the illumination ring -1- with the socket illumination bulb -L42- from the center console rear trim -2-.

Installing

Install in reverse order of removal, observing the following:

- The illumination ring can only be inserted in the mount in one position.
- Install the 12 V socket 2. Refer to **12V SOCKET 2**.

CONVERTER WITH SOCKET 12V - 115V

Removing

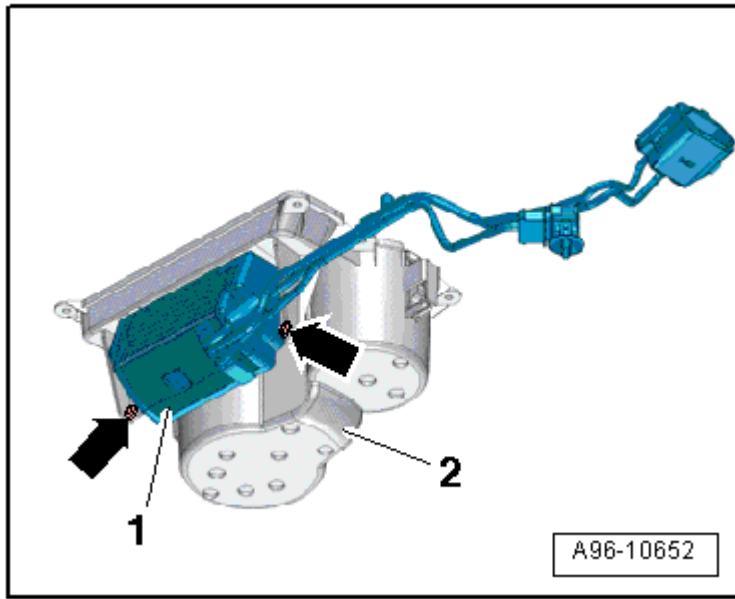


Fig. 30: Converter With Socket 12V - 115V
Courtesy of AUDI OF AMERICA, LLC

- Remove the center console. Refer to **Removal and Installation** .
- Remove the cupholder. Refer to **Removal and Installation** .
- Remove the bolts -arrows-.
- Remove the Converter with socket, 12 V-115 V -U27- -item 1- downward from the cupholder -2-.

Installing

- Tightening specification, refer to **Fig. 2**.

Install in reverse order of removal, observing the following:

- Install the cupholder. Refer to **Removal and Installation** .
- Install the center console. Refer to **Removal and Installation** .

12V SOCKET 3

Removing

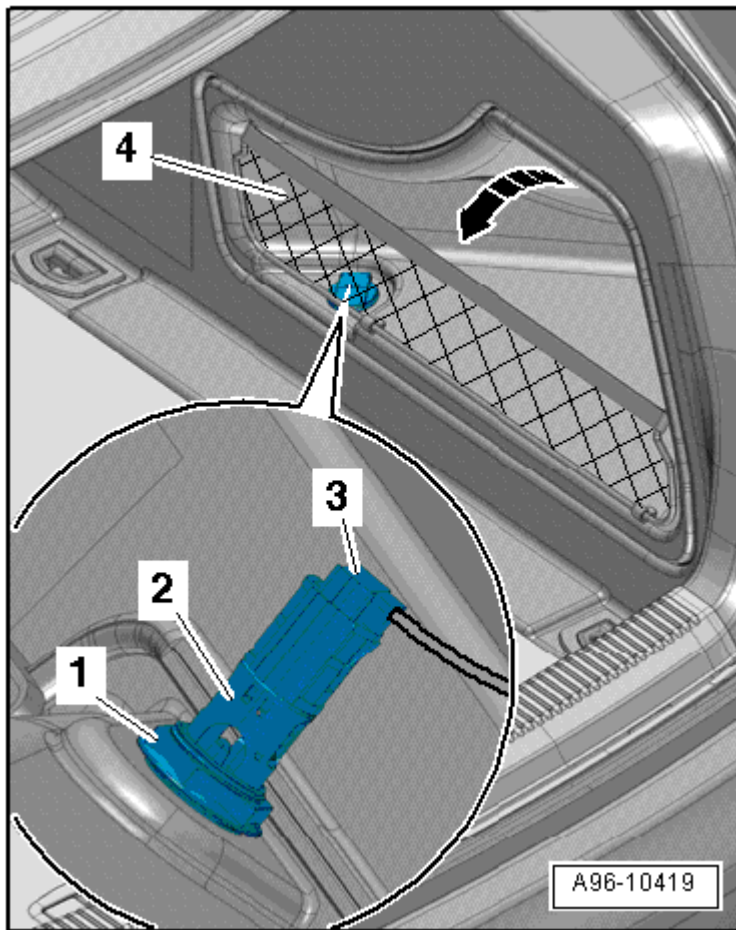


Fig. 31: 12V Socket 3

Courtesy of AUDI OF AMERICA, LLC

- Turn off the ignition and remove the ignition key.
- Open the cover -4- on the right luggage compartment side trim -arrow-.
- Disconnect the electrical connector -3-.
- Remove the nut -1-.
- Remove the 12 V socket 3 -U19- -item 2- from the right luggage compartment side trim cover.

Installing

- Tightening specification, refer to **CIGARETTE LIGHTER, 12V AND 115 VOLT SOCKETS OVERVIEW**.

Install in reverse order.

12V SOCKET 3

Special tools and workshop equipment required

- Release Tool for Cigarette Lighter T40148

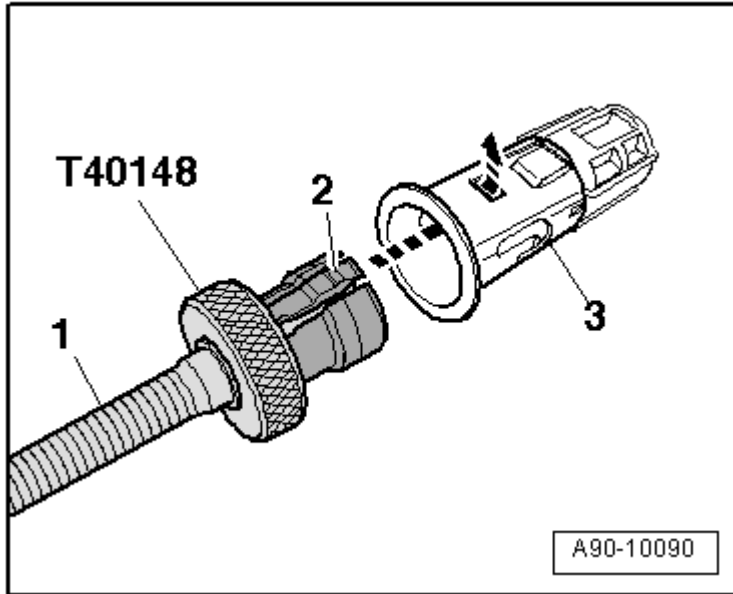
Removing

Fig. 32: 12 V Socket 5 -U26- -Item 3

Courtesy of AUDI OF AMERICA, LLC

- Open the cover for the right luggage compartment side trim.
- Disconnect the electrical connector.
- The release tabs -2- on the T40148 must engage in the openings in the 12V socket 3 -U19- -item 3- -arrow- and the threaded pin -1- must slide down as far as the stop.
- Open the mount cover -2- and hold it in that position.

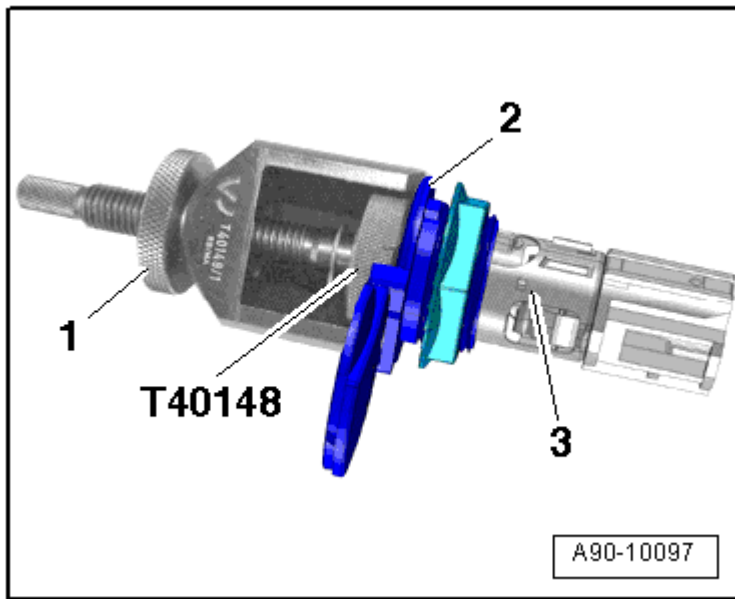


Fig. 33: Piston -2-, Release Tabs -1
Courtesy of AUDI OF AMERICA, LLC

- Slide the T40148 into the 12V socket 3 -item 3- as far as the stop.
- Rotate the thumb wheel -1- on the T40148 clockwise as far as the stop.
 - The piston -2- is pulled upward and the release tabs -1- on the T40148 spread -arrows-.

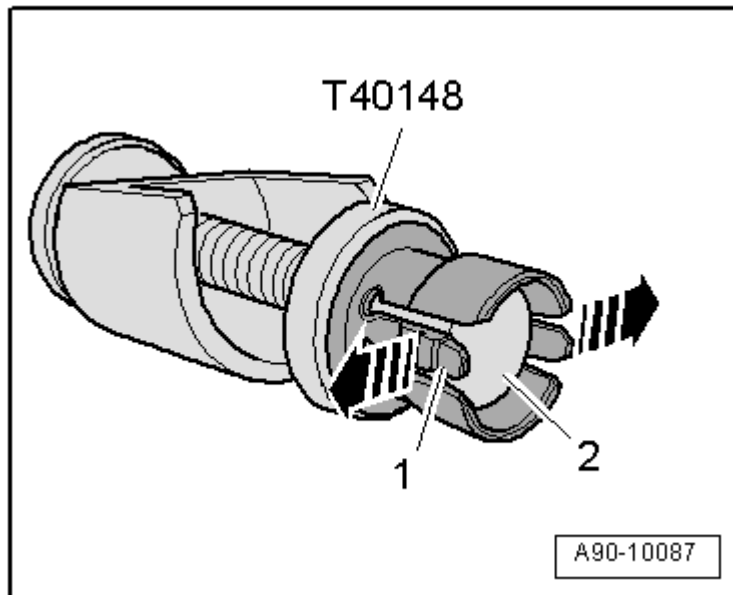


Fig. 34: Removing Release Tool T40148
Courtesy of AUDI OF AMERICA, LLC

- Remove the 12 V socket 3 from the mount.

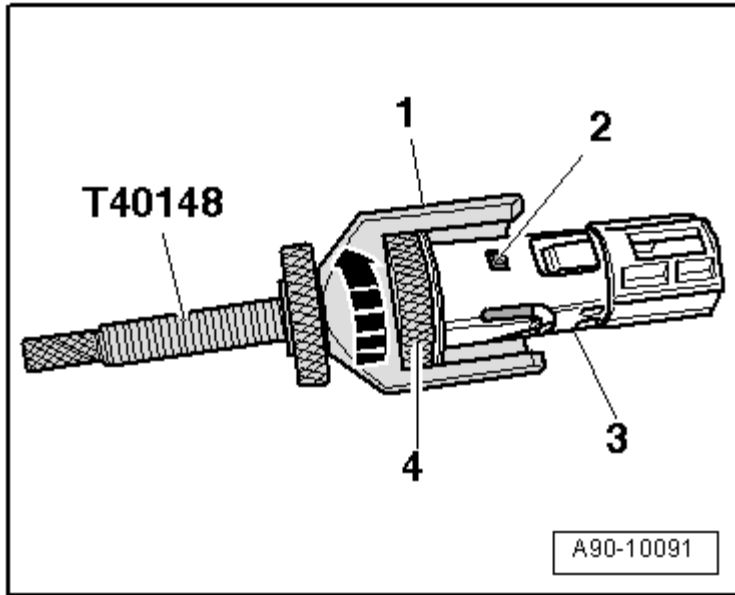
Installing

Fig. 35: Support, Thumbwheel, Release Tabs, Release Tool T40148 & Cigarette Lighter
Courtesy of AUDI OF AMERICA, LLC

Install in reverse order of removal, observing the following:

- Remove the support -1- on the T40148.
- Slide the piston down and hold it in place.
- Rotate the thumb wheel -4- on the T40148 counterclockwise -arrow-. This loosens the release tabs -2- on the 12V socket 3 -item 3- so the T40148 can be removed.

DATA BUS ON BOARD DIAGNOSTIC INTERFACE -J533-

Special tools and workshop equipment required

- Protective Cap For Cable Connector VAS 6223/9 from Fiber Optic Plier Repair Set VAS 6223

-- If the control module was replaced, select the "Replace" function for the respective control module in "Guided Fault Finding" or "Guided Functions". Refer to the vehicle diagnostic tester.

Removing

- Turn off the ignition and remove the ignition key.
- Remove the glove compartment. Refer to **Removal and Installation** .
- Remove the bolt -2-.

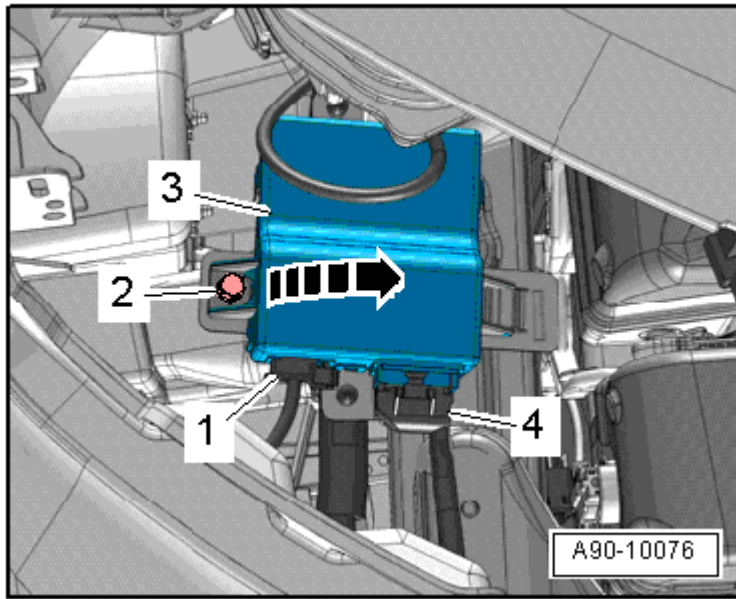


Fig. 36: Data Bus On Board Diagnostic Interface -J533-
Courtesy of AUDI OF AMERICA, LLC

- Pivot the data bus on board diagnostic interface -item 3- out of the bracket -arrow-.
- Disconnect the electrical connector -4-.
- Disconnect the fiber optic cable connector -1-.
- Seal the open wiring harness fiber optic connector -2- using the VAS 6223/9 -item 1-.

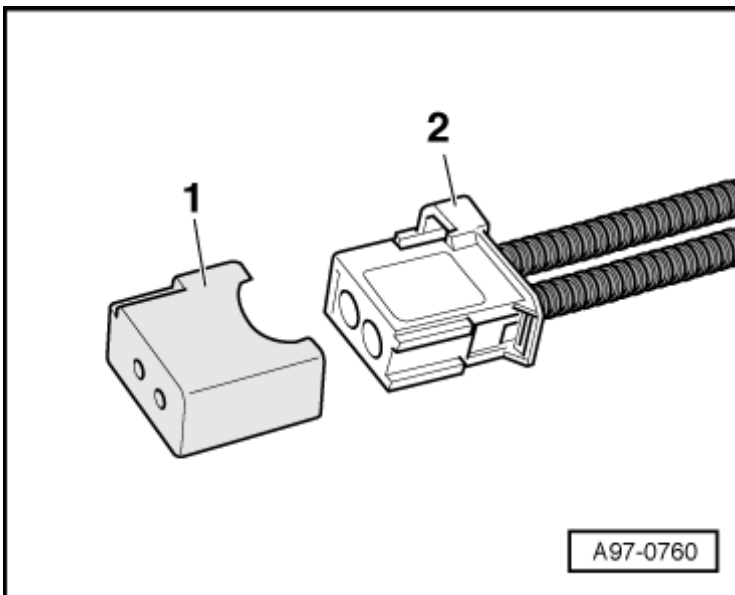


Fig. 37: Fiber-Optic Cable Harness Connector And Protective Cap For Cable Connector VAS 6223/9
Courtesy of AUDI OF AMERICA, LLC

NOTE: The VAS 6223/9 prevents contamination of, or mechanical damage to, the end face of the fiber optic cable which would impair signal transmission.

Installing

- Tightening specifications, refer to **DATA BUS ON BOARD DIAGNOSTIC INTERFACE OVERVIEW**.

Install in reverse order of removal, observing the following:

-- Install the glove compartment. Refer to **Removal and Installation** .

-- Follow the instructions on the vehicle diagnostic tester display with a new data bus on board diagnostic interface.

HIGH AND LOW TONE HORNS

Removing

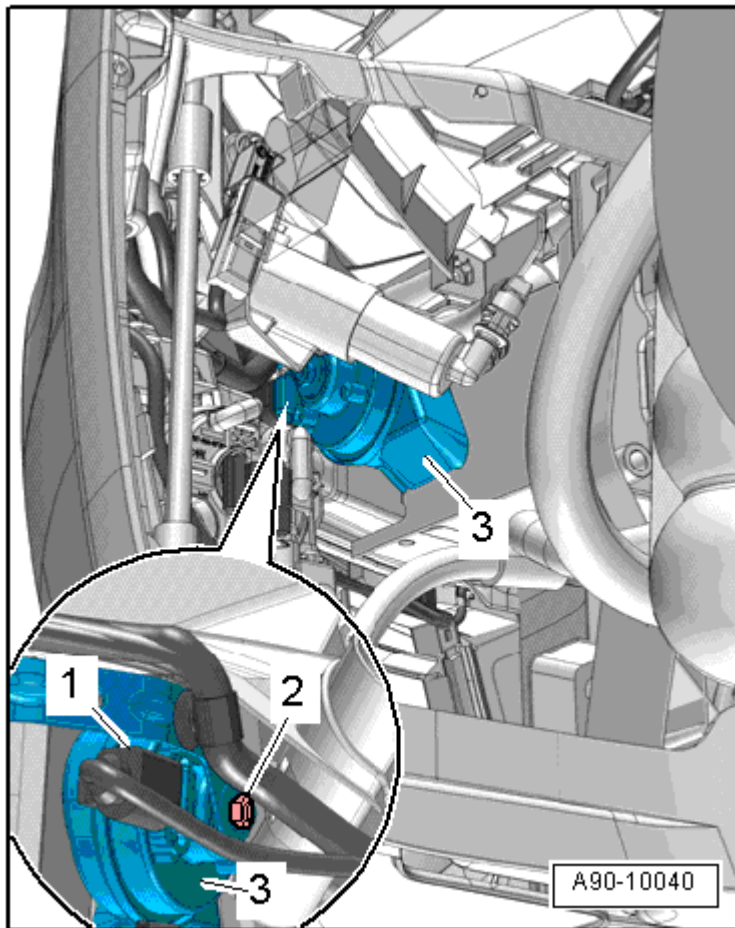


Fig. 38: High And Low Tone Horns
Courtesy of AUDI OF AMERICA, LLC

- Turn off the ignition and remove the ignition key.
- Remove the air intake grille. Refer to **Removal and Installation** .
- Remove the nut -2-.
- Remove the signal horn -3- from the bracket.
- Disconnect the electrical connector -1-.

Installing

- Tightening specifications, refer to **SIGNAL HORNS OVERVIEW**.

Install in reverse order of removal, observing the following:

- Install the air intake grille. Refer to **Removal and Installation** .

INSTRUMENT CLUSTER WITH INSTRUMENT CLUSTER CONTROL MODULE -J285-

NOTE: **Do not disassemble the instrument cluster.**

It is not necessary to remove the steering wheel in order to remove the instrument cluster.

-- If the instrument cluster with the instrument cluster control module was replaced, select the "Replace" function for the corresponding control module in "Guided Fault Finding" or "Guided Functions" in the vehicle diagnostic tester.

Removing

- Adjust the steering wheel downward and to the rear as far as possible, use the entire adjustment range of the steering column adjustment for this.
- Turn off the ignition and remove the ignition key.
- Remove gap cover. Refer to **Removal and Installation** .
- Place the gap cover on the upper steering column trim.
- Vehicles through MY 12: remove the left instrument panel vent and the MMI screen cover. Refer to **Removal and Installation** .

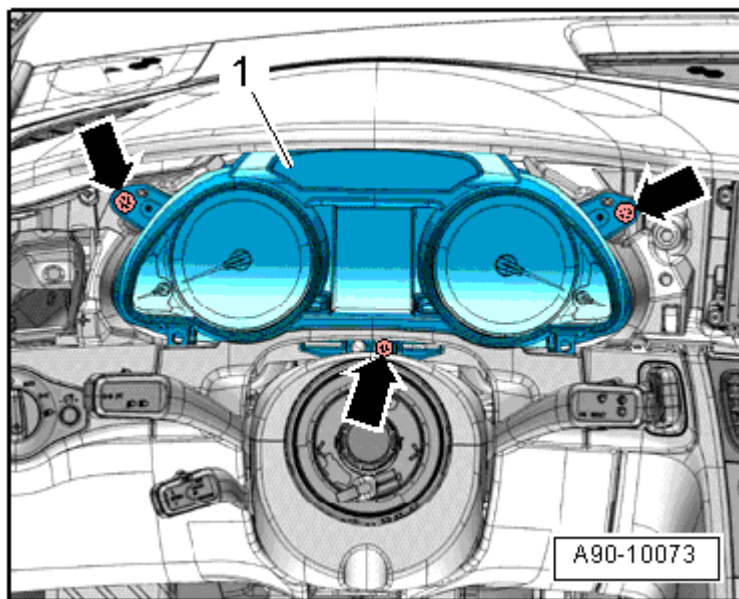


Fig. 39: Locating Instrument Cluster Bolts
Courtesy of AUDI OF AMERICA, LLC

- Vehicles from MY 13: remove the MMI screen cover. Refer to **Removal and Installation** .
- Remove the bolts -arrows-.
- Pull the instrument cluster -1- out until it lies on the steering wheel.
- Disconnect the electrical connector.
- To disconnect the electrical connector, press the release -1-, push the bracket in the -direction of the arrow- and remove the connector.

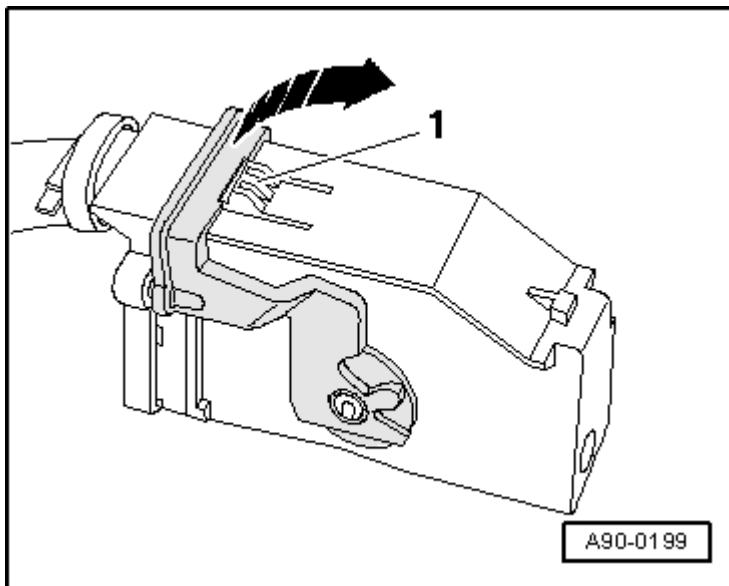


Fig. 40: Identifying Catch And Retainer

Courtesy of AUDI OF AMERICA, LLC

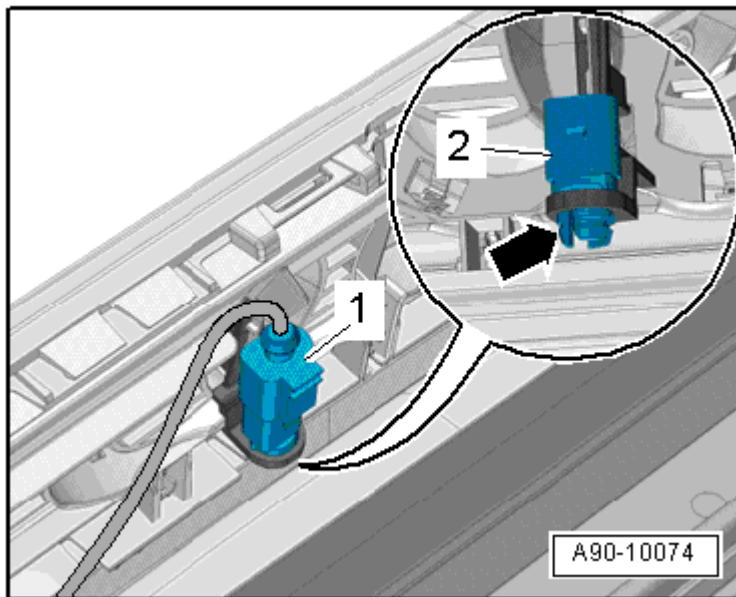
-- Remove the instrument cluster to the driver's side between the steering wheel and instrument cluster.

Installing

- Tightening specification, refer to **INSTRUMENT CLUSTER AND RADIO FREQUENCY CONTROLLED CLOCK RECEIVER OVERVIEW**.

Install in reverse order of removal, observing the following:

-- Follow the instructions on the vehicle diagnostic tester display with a new instrument cluster.

OUTSIDE AIR TEMPERATURE SENSOR -G17-, THROUGH MY 2012**Removing****Fig. 41: Outside Air Temperature Sensor -G17-, Through My 2012**

Courtesy of AUDI OF AMERICA, LLC

-- Remove the lock carrier cover. Refer to **Removal and Installation** .

-- Disconnect the electrical connector -1-.

-- Carefully press the retaining clips together -arrow- and remove the outside air temperature sensor -item 2- upward from the bracket.

Installing

Install in reverse order of removal, observing the following:

-- Attach the lock carrier cover to the radiator grille. Refer to **Removal and Installation** .

OUTSIDE AIR TEMPERATURE SENSOR -G17-, FROM MY 2013

Removing

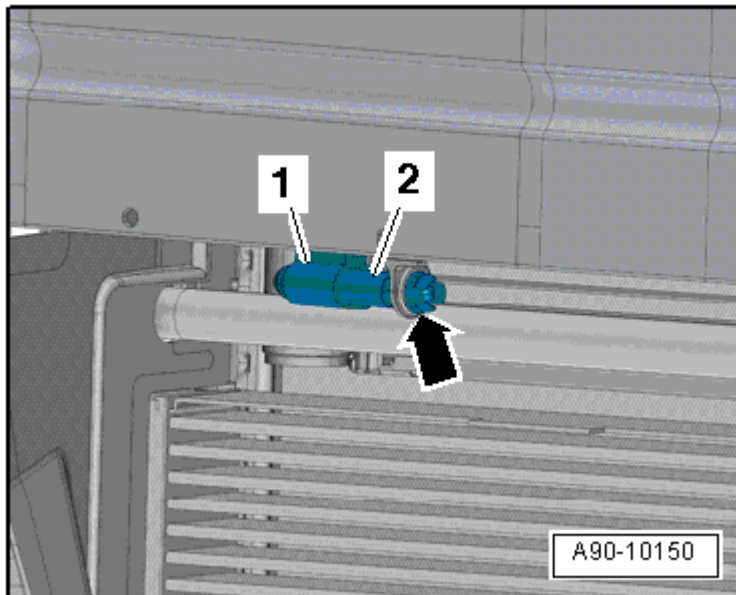


Fig. 42: Outside Air Temperature Sensor -G17-, From My 2013

Courtesy of AUDI OF AMERICA, LLC

-- Remove the lock carrier cover. Refer to **Removal and Installation** .

-- Press the retaining clips together carefully -arrow- and remove the outside air temperature sensor from the bracket -2-.

-- Disconnect the connector -1-.

NOTE: The front bumper cover is removed in the illustration.

Installing

Install in reverse order of removal. Note the following:

-- Install the lock carrier cover. Refer to **Removal and Installation** .

RADIO FREQUENCY CONTROLLED CLOCK RECEIVER -J489-

Removing

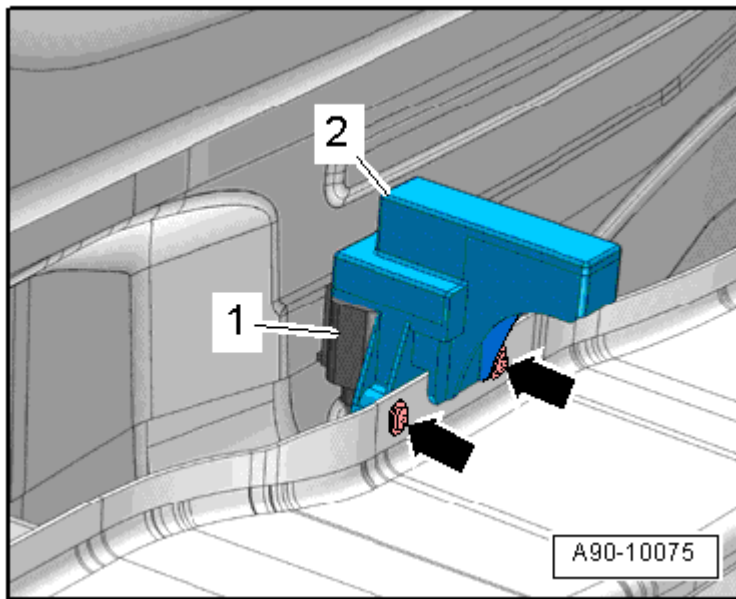


Fig. 43: Radio Frequency Controlled Clock Receiver -J489-
Courtesy of AUDI OF AMERICA, LLC

- Remove the rear bumper cover. Refer to **Removal and Installation** .
- Remove the bolts -arrows- and the radio frequency controlled clock receiver -item 2-.
- Disconnect the electrical connector -1- from the radio frequency controlled clock receiver.

Installing

- Tightening specification, refer to **INSTRUMENT CLUSTER AND RADIO FREQUENCY CONTROLLED CLOCK RECEIVER OVERVIEW**.

Install in reverse order of removal, observing the following:

- Install the cover on the rear bumper. Refer to **Removal and Installation** .

If the bumper cover was removed, the lane change assistance control module -J769/J770- must be calibrated again. Refer to **LANE CHANGE ASSISTANCE, PREPARING FOR CALIBRATION** .

SPECIAL TOOLS

Special tools and workshop equipment required

- Release Tool for Cigarette Lighter T40148

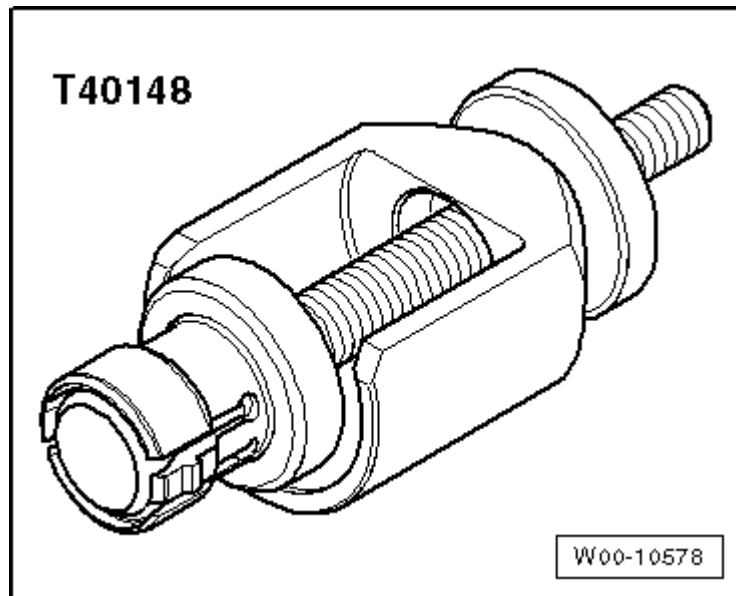


Fig. 44: Identifying Puller T40148
Courtesy of AUDI OF AMERICA, LLC

- Protective Cap For Cable Connector VAS 6223/9 from Fiber Optic Plier Repair Set VAS 6223



Fig. 45: Fiber Optic Plier Repair Set VAS 6223
Courtesy of AUDI OF AMERICA, LLC