



97 – Wiring

1 Relay Panels, Fuse Panels and E-Boxes

⇒ [“1.1 Component Location Overview - Relay Panels, Fuse Panels and E-Boxes”, page 312](#)

⇒ [“1.2 E-Box, Removing and Installing”, page 313](#)

⇒ [“1.3 E-Box Relay and Fuse Panels, Removing and Installing”, page 314](#)

⇒ [“1.4 Relay and Fuse Panel Behind Instrument Panel on Driver Side, Removing and Installing”, page 315](#)

⇒ [“1.5 Fuse Panel on Battery A, Removing and Installing, High-Voltage Vehicle”, page 317](#)

1.1 Component Location Overview - Relay Panels, Fuse Panels and E-Boxes

1 - Relay Panel on Vehicle Electrical System Control Module - J519-

- ❑ Removing and installing. Refer to
⇒ [“1.4.2 Relay Panel on Vehicle Electrical System Control Module J519, Removing and Installing”, page 316](#).

2 - Fuse Panel Behind the Instrument Panel on the Driver Side

- ❑ Removing and installing. Refer to
⇒ [“1.4.1 Fuse Panel behind Driver Side Instrument Panel, Removing and Installing”, page 315](#).

3 - Screw

- ❑ 2.5 Nm
- ❑ Quantity: 2

4 - Nut

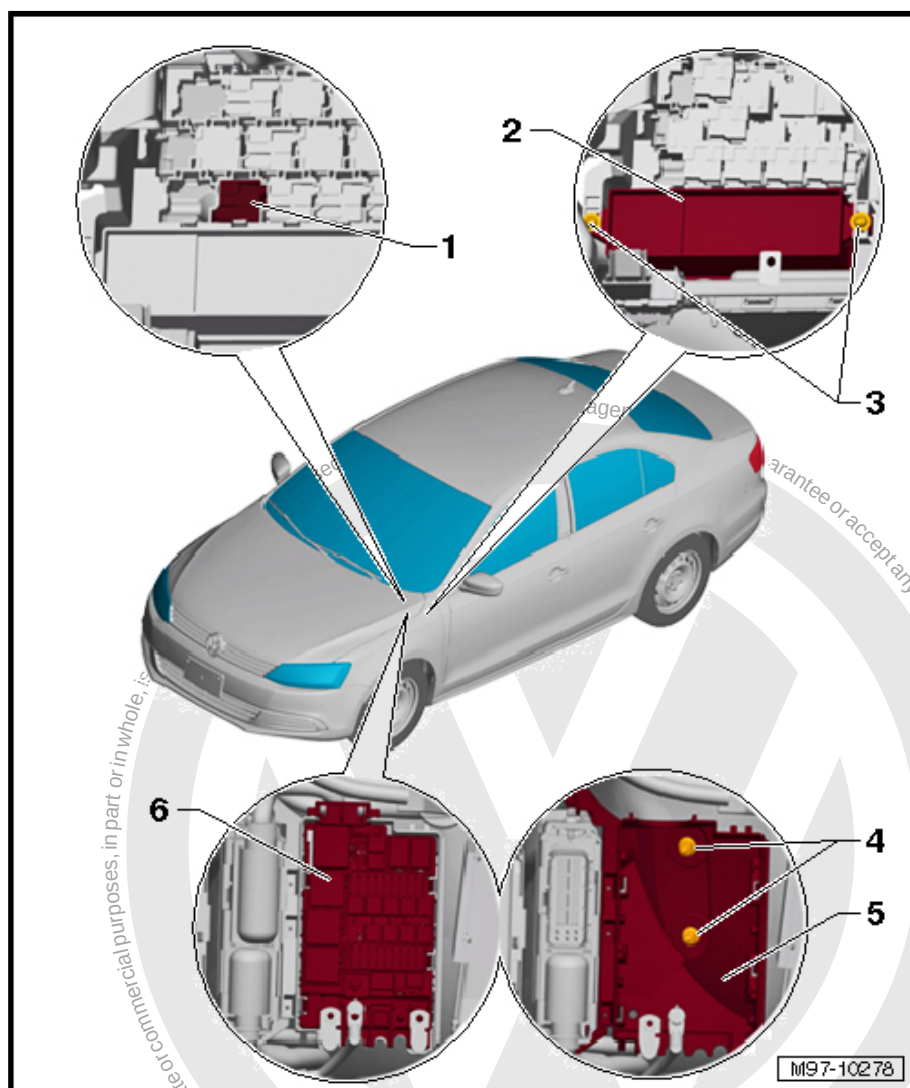
- ❑ 6 Nm
- ❑ Quantity: 2

5 - E-Box

- ❑ Removing and installing. Refer to
⇒ [“1.2 E-Box, Removing and Installing”, page 313](#).

6 - Relay and Fuse Panel in the E-box

- ❑ Removing and installing. Refer to ⇒ [“1.3 E-Box Relay and Fuse Panels, Removing and Installing”, page 314](#).





No Illustration

- ◆ Nuts (wire connections to the E-box): 9 Nm

1.2 E-Box, Removing and Installing

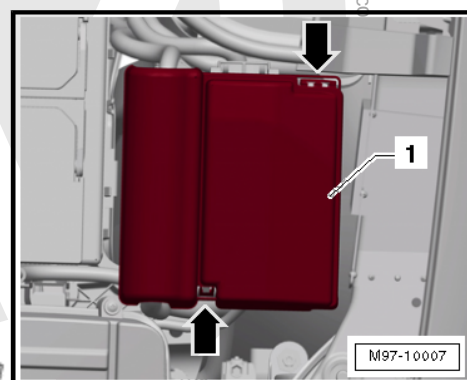


Caution

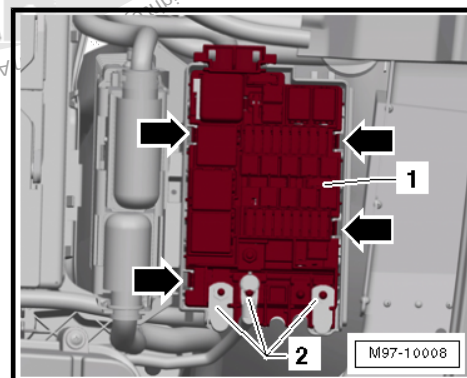
Always follow the instructions regarding disconnecting and connecting the Battery - A- . Refer to ⇒ "1.5 Battery, Disconnecting and Connecting", page 7 .

Removing

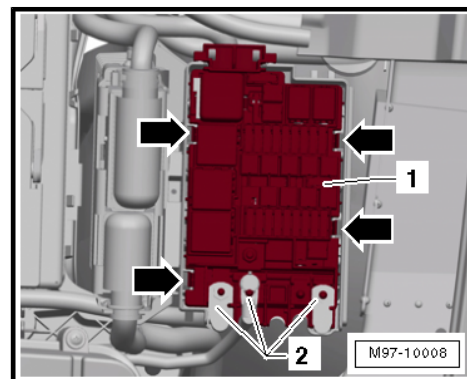
- Disconnect the Battery - A- . Refer to ⇒ "1.5 Battery, Disconnecting and Connecting", page 7 .
- Press the catches in the direction of -arrow- and remove the cover from the E-box -1-.



- Disconnect the wires -2-.
- Remove the wires from the connecting pins.



- Press the tabs -arrows- on the relay and fuse panel -1-.
- Remove the relay and fuse panel -1- from the E-box.
- Pull the Engine Control Module - J623- -4- with the bracket from the E-box -1-.
- Remove the nuts -2- for the E-box -1-.



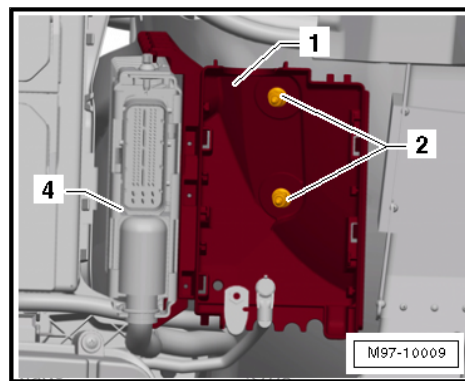


- Remove the E-box -1- from the vehicle.

Installing

Install in reverse order of removal. Note the following:

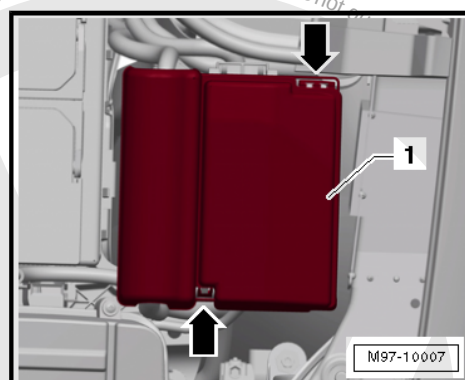
- Tighten the threaded connections to the tightening specification.
- Connect the Battery - A- . Refer to
⇒ [“1.5 Battery, Disconnecting and Connecting”, page 7](#) .



- Then check whether the cover -1- of the E-box is correctly engaged.

Tightening Specifications

- ♦ Refer to
⇒ [“1.1 Component Location Overview - Relay Panels, Fuse Panels and E-Boxes”, page 312](#)



1.3 E-Box Relay and Fuse Panels, Removing and Installing

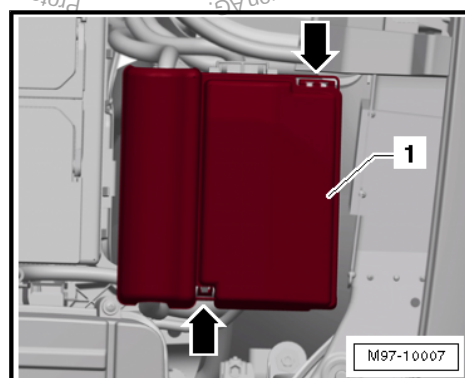


Caution

*Always follow the instructions regarding disconnecting and connecting the Battery - A- . Refer to
⇒ [“1.5 Battery, Disconnecting and Connecting”, page 7](#) .*

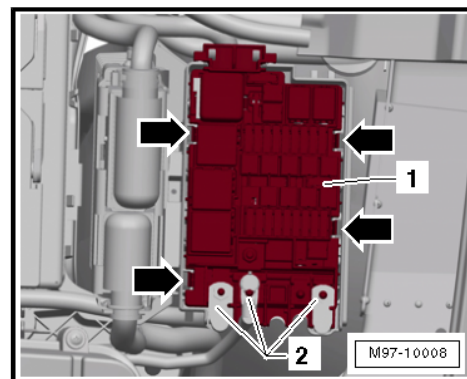
Removing

- Disconnect the Battery - A- . Refer to
⇒ [“1.5 Battery, Disconnecting and Connecting”, page 7](#) .
- Press the catches in the direction of -arrow- and remove the cover from the E-box -1-.
- Disconnect the wires -2-.





- Remove the wires from the connecting pins.
- Press the tabs -arrows- on the relay and fuse panel -1-.

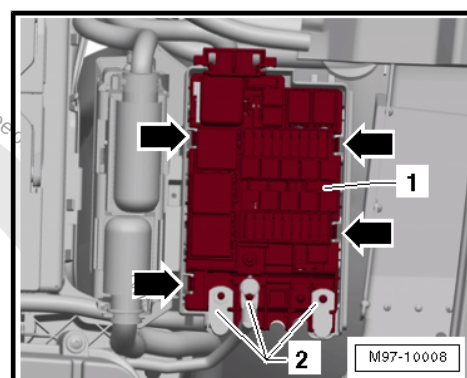


- Remove the relay and fuse panel -1- from the E-box.

Installing

Install in reverse order of removal. Note the following:

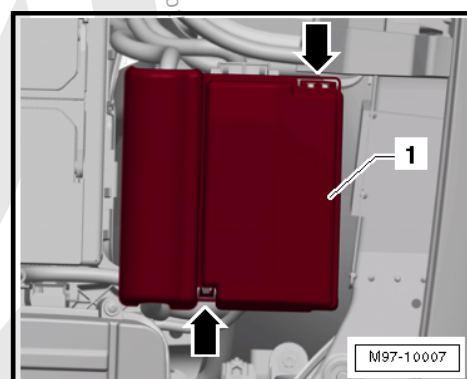
- Tighten the threaded connections to the tightening specification.
- Connect the Battery - A- . Refer to
⇒ [“1.5 Battery, Disconnecting and Connecting”, page 7](#) .



- Then check whether the cover -1- of the E-box is correctly engaged.

Tightening Specifications

- ◆ Refer to
⇒ [“1.1 Component Location Overview - Relay Panels, Fuse Panels and E-Boxes”, page 312](#)



1.4 Relay and Fuse Panel Behind Instrument Panel on Driver Side, Removing and Installing

⇒ [“1.4.1 Fuse Panel behind Driver Side Instrument Panel, Removing and Installing”, page 315](#)

⇒ [“1.4.2 Relay Panel on Vehicle Electrical System Control Module J519, Removing and Installing”, page 316](#)

1.4.1 Fuse Panel behind Driver Side Instrument Panel, Removing and Installing



Caution

*Always follow the instructions regarding disconnecting and connecting the Battery - A- . Refer to
⇒ [“1.5 Battery, Disconnecting and Connecting”, page 7](#) .*



Caution

- ◆ *When removing and installing components in visible area (switches, covers, trim, etc.), cover the areas that will come in contact with a prying tool (Trim Removal Wedge - 3409-, screwdriver) with commercially available adhesive tape.*

Removing

- Disconnect the Battery - A- . Refer to
⇒ [“1.5 Battery, Disconnecting and Connecting”, page 7](#) .
- Remove the instrument panel cover on the driver side. Refer to ⇒ Body Interior; Rep. Gr. 68 ; Storage Compartments and Covers; Driver Side Instrument Panel Cover, Removing and Installing .
- Remove the bolts -1- and guide the fuse panel -2- downward.

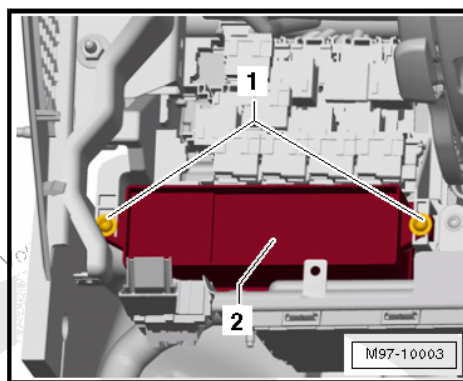
Installing

Install in reverse order of removal. Note the following:

- Tighten the threaded connections to the tightening specification.
- Connect the Battery - A- . Refer to
⇒ [“1.5 Battery, Disconnecting and Connecting”, page 7](#) .

Tightening Specifications

- ◆ Refer to
⇒ [“1.1 Component Location Overview - Relay Panels, Fuse Panels and E-Boxes”, page 312](#)



1.4.2 Relay Panel on Vehicle Electrical System Control Module - J519-, Removing and Installing

The relay panel on the Vehicle Electrical System Control Module - J519- is attached to the instrument panel central tube and cannot be removed without removing the instrument panel.

The individual relay sockets can be removed without having to remove the relay panel.

Removing

- Turn off the ignition and all electrical equipment and remove the ignition key.
- Remove the instrument panel cover on the driver side. Refer to ⇒ Body Interior; Rep. Gr. 68 ; Storage Compartments and Covers; Driver Side Instrument Panel Cover, Removing and Installing .
- Remove the relay from the relay panel.

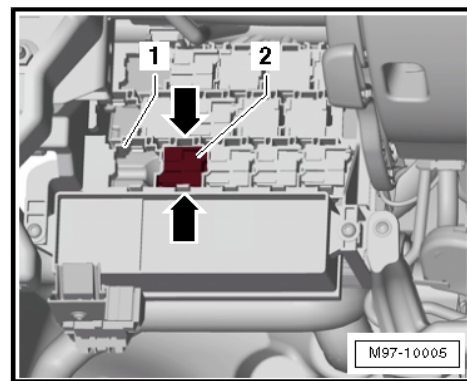
The number of relays is dependent on vehicle equipment.



- Clip the tabs -arrows- toward the outside and push the connector -2- through the relay panel -1-.

Installing

Install in reverse order of removal.



1.5 Fuse Panel on Battery - A- Removing and Installing, High-Voltage Vehicle

The Battery - A- inside the luggage compartment (high-voltage vehicle) has a fuse panel for the 12 V on the positive terminal.

Removing

- Disconnect the Battery - A- . Refer to ["1.5.3 Battery A in Luggage Compartment, Disconnecting, High-Voltage Vehicle", page 9](#) .
- Remove the nut -arrow- from the positive terminal.
- Remove the fuse panel -1- from the Battery - A- -2-.

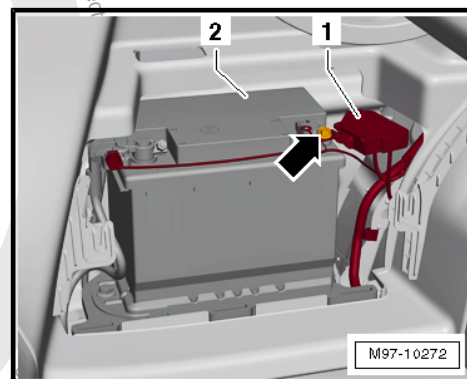
Installing

Install in reverse order of removal. Note the following:

- Tighten the threaded connections to the tightening specification.
- Connect the Battery - A- . Refer to ["1.5.4 Battery A in Luggage Compartment, Connecting, High-Voltage Vehicle", page 10](#) .

Tightening Specifications

- ◆ Refer to ["1.3.2 Overview - Battery A in Luggage Compartment, High-Voltage Vehicle", page 3](#)





2 Control Modules

⇒ ["2.1 Component Location Overview - Control Modules", page 318](#)

⇒ ["2.2 Vehicle Electrical System Control Module J519, Removing and Installing", page 319](#)

⇒ ["2.3 Data Bus on Board Diagnostic Interface J533, Removing and Installing", page 326](#)

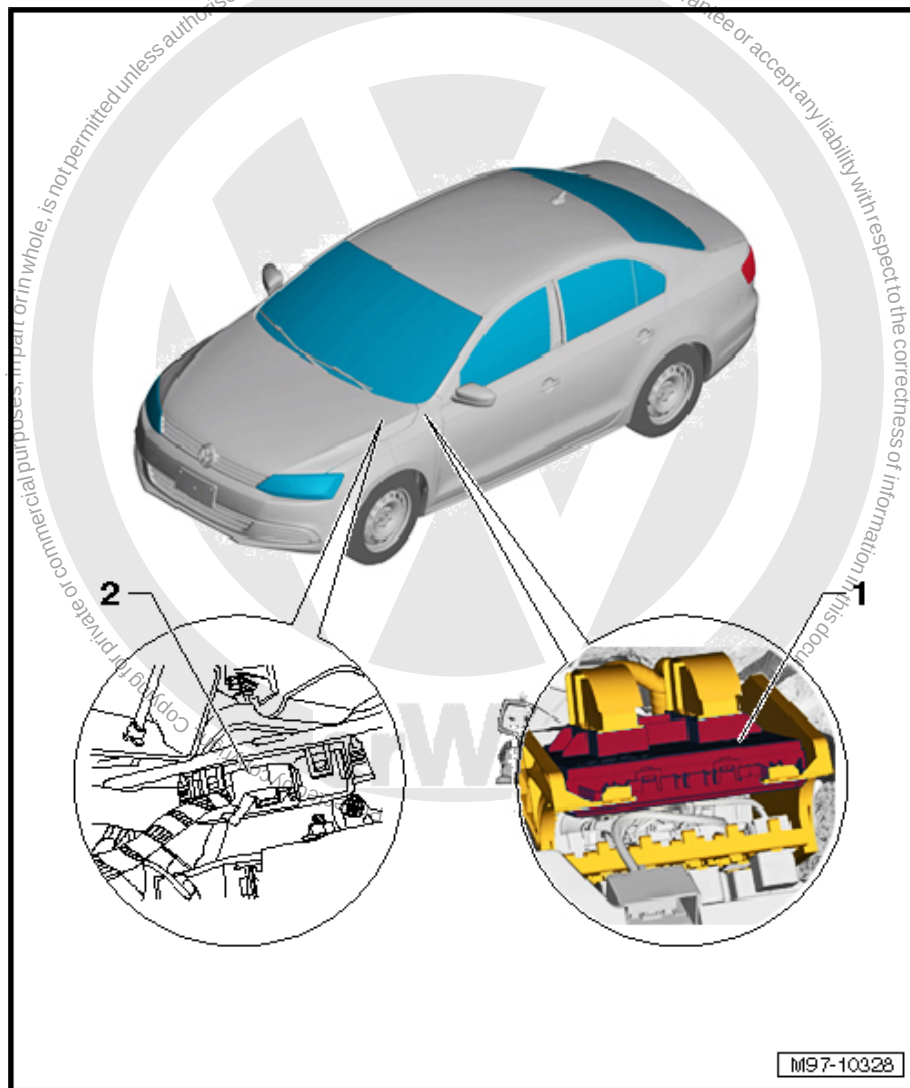
2.1 Component Location Overview - Control Modules

1 - Vehicle Electrical System Control Module - J519-

- ❑ Removing and installing. Refer to
⇒ ["2.2 Vehicle Electrical System Control Module J519, Removing and Installing", page 319](#).

2 - Data Bus on Board Diagnostic Interface - J533-

- ❑ Removing and installing. Refer to
⇒ ["2.3 Data Bus on Board Diagnostic Interface J533, Removing and Installing", page 326](#).





2.2 Vehicle Electrical System Control Module - J519- , Removing and Installing

⇒ [“2.2.1 Vehicle Electrical System Control Module J519 Description”, page 319](#)

⇒ [“2.2.2 Vehicle Electrical System Control Module J519 , Removing and Installing, High Version”, page 321](#)

⇒ [“2.2.3 Vehicle Electrical System Control Module J519 , Removing and Installing, Low Version”, page 322](#)

⇒ [“2.2.4 Vehicle Electrical System Control Module J519 , Replacing”, page 323](#)

⇒ [“2.2.5 Vehicle Electrical System Control Module J519 , Output Diagnostic Test Mode”, page 323](#)

⇒ [“2.2.6 Vehicle Electrical System Control Module J519 , Coding”, page 324](#)

⇒ [“2.2.7 Vehicle Electrical System Control Module J519 , Deactivating Factory Mode”, page 325](#)

⇒ [“2.2.8 Remote Control Key, Adapting”, page 325](#)

⇒ [“2.2.9 Remote Control Key, Checking”, page 325](#)

⇒ [“2.2.10 Rain/Light Recognition Sensor G397 , Coding”, page 325](#)

2.2.1 Vehicle Electrical System Control Module - J519- Description

General Information

The Vehicle Electrical System Control Module - J519- is clipped to the bottom of the relay panel and can be removed.

In the Low version, the Data Bus On Board Diagnostic Interface - J533- is integrated in the Vehicle Electrical System Control Module - J519- .

The Vehicle Electrical System Control Module - J519- Has the following Functions in the Vehicle:

Low Version

- ◆ Audible confirmation when locking and unlocking
- ◆ Expressway blinking, activating/deactivating
- ◆ Adapting automatic unlocking when key is removed
- ◆ Adapts automatic locking at 15 km/h
- ◆ Adapting the automatic locking mechanism of the rear lid at 5 km/h
- ◆ Activates and deactivates parking lamp on both sides
- ◆ Adapts the blink cycles for convenience turn signals
- ◆ Vehicle Electrical System Control Module - J519- , Coding
- ◆ Adapts single door opening
- ◆ Deactivates factory mode
- ◆ Confirms convenience closing with turn signals
- ◆ Market version for the intelligent alarm horn, adapting
- ◆ Reads the measured value for the Vehicle Electrical System Control Module - J519- Convenience



- ◆ Reads the measured value for the Vehicle Electrical System Control Module - J519- central electric
- ◆ Interior light control
- ◆ Activates/deactivates emergency braking blinking
- ◆ Activates/deactivates emergency blinking
- ◆ Optical confirmation when locking and unlocking
- ◆ Activates/deactivates parking lamps
- ◆ Coding the Rain/Light Recognition Sensor - G397-
- ◆ Adapts the switch-on time for the exterior mirror heating
- ◆ Adapts the switch-on time for the rear window defogger
- ◆ Adapts the remote control key
- ◆ Remote Control Key, Checking
- ◆ Activates/deactivates the windshield wiper service position
- ◆ Adapts horn at terminal 15
- ◆ Activates/deactivates position lamp at terminal 15
- ◆ Vehicle Electrical System Control Module - J519- output diagnostic test mode
- ◆ Activates/deactivates intermediate wiping

High Version

- ◆ Electric load management/exterior lighting control
- ◆ Turn signal control
- ◆ Windshield wiper and washer system
- ◆ Coding the Rain/Light Recognition Sensor - G397-
- ◆ Rear window defogger
- ◆ Interior light control
- ◆ Terminal control
- ◆ Dimming, instrument illumination
- ◆ Footwell lamps
- ◆ Fuel pump supply
- ◆ Pre-energizing of the generator
- ◆ Horn
- ◆ Warning lamp
- ◆ Release control
- ◆ Control central locking
- ◆ Activates front and rear door control modules
- ◆ Activates the rear lid remote unlock
- ◆ Activates the fuel filler door unlock
- ◆ Activates the anti-theft alarm system
- ◆ Immobilizer activation
- ◆ Activates the start authorization
- ◆ Adapts acoustic acknowledgement when unlocking
- ◆ Adapts acoustic acknowledgement when locking



- ◆ Adapts the blinking cycle during one-touch lane change signaling
- ◆ Adapting automatic unlocking when key is removed
- ◆ Adapts automatic locking at 15 km/h
- ◆ Adapts convenience locking confirmation
- ◆ Adapts coming home time
- ◆ Adapts leaving home time
- ◆ Adapts anti-theft alarm delay when opening driver door
- ◆ Adapts single door opening
- ◆ Deactivates factory mode
- ◆ Adapts footwell illumination intensity
- ◆ Adapts Convenience operation via remote control
- ◆ Market version for the intelligent alarm horn, adapting
- ◆ Adapts the visual acknowledgment when locking
- ◆ Adapts the remote control key
- ◆ Remote Control Key, Checking
- ◆ Vehicle Electrical System Control Module - J519- output diagnostic test mode
- ◆ Deactivates the Wiper Motor Control Module - J400- APP function
- ◆ Vehicle Electrical System Control Module - J519- , Coding

It depends on the vehicle equipment whether the adaptations listed above can be performed.

If the Vehicle Electrical System Control Module - J519- is to be replaced, the "Replace the vehicle electrical system control module" procedure must always be performed to read out the codes stored in the Vehicle Electrical System Control Module - J519- .

Malfunction Recognition and Malfunction Indicator

The Vehicle Electrical System Control Module - J519- is equipped with OBD.

For troubleshooting: Refer to Vehicle Diagnostic Tester in the "Guided Fault Finding" function.

2.2.2 Vehicle Electrical System Control Module - J519- , Removing and Installing, High Version

If the Vehicle Electrical System Control Module - J519- is to be replaced, the "Replace the vehicle electrical system control module" procedure must always be performed to read out the data stored in the Vehicle Electrical System Control Module - J519- . Refer to

⇒ ["2.2.4 Vehicle Electrical System Control Module J519 , Replacing", page 323](#) .

It is permissible for the number of connectors to deviate from the illustration, depending on the vehicle variants.

Removing

- Turn off the ignition and all electrical equipment and remove the ignition key.
- Remove the instrument panel cover on the driver side. Refer to ⇒ Body Interior; Rep. Gr. 68; Storage Compartments and



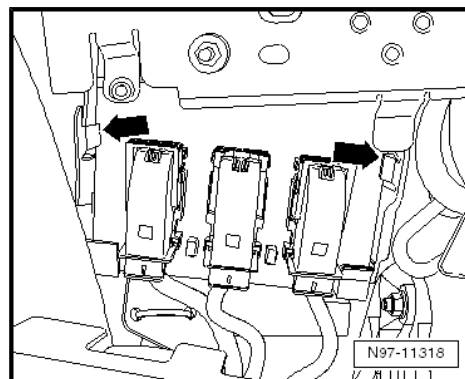
Covers; Driver Side Instrument Panel Cover, Removing and Installing .

- Press the catches -arrows- and swivel the Vehicle Electrical System Control Module - J519- downward.
- Pull the Vehicle Electrical System Control Module - J519- downward and opposite the drive direction and remove it from the bracket.
- Release and disconnect the connectors.

Installing

Install in reverse order of removal. Note the following:

- Insert the Vehicle Electrical System Control Module - J519- first with the back of the module into the bracket and push it up until it audibly latches.



2.2.3 Vehicle Electrical System Control Module - J519- , Removing and Installing, Low Version

If the Vehicle Electrical System Control Module - J519- is to be replaced, the "Replace the vehicle electrical system control module" procedure must always be performed to read out the data stored in the Vehicle Electrical System Control Module - J519- . Refer to

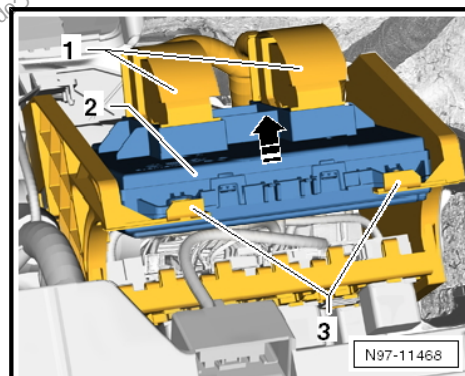
⇒ ["2.2.4 Vehicle Electrical System Control Module J519 , Replacing" page 323](#) .

Removing

- Turn off the ignition and all electrical equipment and remove the ignition key.
- Remove the instrument panel cover on the driver side. Refer to ⇒ Body Interior; Rep. Gr. 68 ; Storage Compartments and Covers; Driver Side Instrument Panel Cover, Removing and Installing
- Loosen the locking mechanisms -3- and push the Vehicle Electrical System Control Module - J519- -2- downward in the direction of -arrow-.
- Release and disconnect the connectors -1-.

Installing

Install in reverse order of removal.





2.2.4 Vehicle Electrical System Control Module - J519- , Replacing

The work procedure "replace the vehicle electrical system control module" contains the following scope of work:

- ◆ If a new Vehicle Electrical System Control Module - J519- is installed, it must be coded online.
- ◆ The factory mode in the Vehicle Electrical System Control Module - J519- is deactivated.
- ◆ All of the remote keys are programmed again.

The Procedure to "Replace the Vehicle Electrical System Control Module" Can Only Be Performed. Refer to Vehicle Diagnostic Tester in the "Guided Fault Finding" Function.

Procedure

- Connect the Vehicle Diagnostic Tester .
- Select the Guided Fault Finding mode.
- Use the GO TO button to select the "function/component selection" and the following menu options one after the other:
 - ◆ Body
 - ◆ Electrical Equipment
 - ◆ 01 - OBD-capable systems
 - ◆ 09 - vehicle electrical system control module
 - ◆ Vehicle electrical system control module functions
 - ◆ Replace the vehicle electrical system control module

2.2.5 Vehicle Electrical System Control Module - J519- , Output Diagnostic Test Mode

It depends on the vehicle equipment whether the components listed below can be checked.

Check the following components and functions via the output diagnostic test mode of the Vehicle Electrical System Control Module - J519- :

- ◆ Left Position Lamp Bulb - M1- / Right Position Lamp Bulb - M3- / Left Tail Lamp Bulb - M4- / Right Tail Lamp Bulb - M2-
- ◆ Left Low Beam Headlamp Bulb - M29- / Right Low Beam Headlamp Bulb - M31-
- ◆ Left Daytime Running Lamp Bulb - L174- / Right Daytime Running Lamp Bulb - L175-
- ◆ Left High Beam Headlamp Bulb - M30- / Right High Beam Headlamp Bulb - M32-
- ◆ Left Front Fog Lamp Bulb - L22- / Right Front Fog Lamp Bulb - L23-
- ◆ Right Back-Up Lamp Bulb - M17- / Left Back-Up Lamp Bulb - M16-
- ◆ Left Brake Lamp Bulb - M9- / Right Brake Lamp Bulb - M10- / High-Mounted Brake Lamp Bulb - M25-
- ◆ Left Front Turn Signal Bulb - M5- / Left Rear Turn Signal Bulb - M6-



- ◆ Right Front Turn Signal Bulb - M7- / Right Rear Turn Signal Bulb - M8-
- ◆ License Plate Lamp - X-
- ◆ Interior light dimmed
- ◆ Instrument illumination of all buttons and switches and of instrument cluster
- ◆ Terminal 30 Power Supply Relay - J317-
- ◆ Heated rear window
- ◆ Heated exterior rearview mirror
- ◆ Enabling - Sliding/Tilting Sunroof
- ◆ Enabling of seat heater
- ◆ Fuel Pump Relay - J17-
- ◆ Windshield wiper
- ◆ Wiper module reversing point
- ◆ Windshield Washer Pump - V5-
- ◆ Dual Tone Horn Relay - J4- / Signal Horn and Dual Tone Horn - H1-
- ◆ Luggage compartment lock

Procedure

- Connect the Vehicle Diagnostic Tester .
- Select the Guided Fault Finding mode.
- Use the GO TO button to select the "function/component selection" and the following menu options one after the other:
 - ◆ Body
 - ◆ Electrical Equipment
 - ◆ 01 - OBD-capable systems
 - ◆ 09 - vehicle electrical system control module
 - ◆ Vehicle electrical system control module functions
 - ◆ Vehicle electrical system control module output diagnostic test

2.2.6 Vehicle Electrical System Control Module - J519- , Coding

Procedure

- Connect the Vehicle Diagnostic Tester .
- Select the Guided Fault Finding mode.
- Use the GO TO button to select the "function/component selection" and the following menu options one after the other:
 - ◆ Body
 - ◆ Electrical Equipment
 - ◆ 01 - OBD-capable systems
 - ◆ 09 - vehicle electrical system control module
 - ◆ Vehicle electrical system control module functions
 - ◆ Coding the vehicle electrical system control module online



2.2.7 Vehicle Electrical System Control Module - J519- , Deactivating Factory Mode

Procedure

- Connect the Vehicle Diagnostic Tester .
- Select the **Guided Fault Finding** mode.
- Use the **GO TO** button to select the “function/component selection” and the following menu options one after the other:
 - ◆ Body
 - ◆ Electrical Equipment
 - ◆ 01 - OBD-capable systems
 - ◆ 09 - vehicle electrical system control module
 - ◆ Vehicle electrical system control module functions
 - ◆ Deactivates factory mode

2.2.8 Remote Control Key, Adapting

Procedure

- Connect the Vehicle Diagnostic Tester
- Select the **Guided Fault Finding** mode.
- Use the **GO TO** button to select the “function/component selection” and the following menu options one after the other:
 - ◆ Body
 - ◆ Electrical Equipment
 - ◆ 01 - OBD-capable systems
 - ◆ 09 - vehicle electrical system control module
 - ◆ Vehicle electrical system control module functions
 - ◆ Adapts the remote control key

2.2.9 Remote Control Key, Checking

Procedure

- Connect the Vehicle Diagnostic Tester .
- Select the **Guided Fault Finding** mode.
- Use the **GO TO** button to select the “function/component selection” and the following menu options one after the other:
 - ◆ Body
 - ◆ Electrical Equipment
 - ◆ 01 - OBD-capable systems
 - ◆ 09 - vehicle electrical system control module
 - ◆ Vehicle electrical system control module functions
 - ◆ Remote Control Key, Checking

2.2.10 Rain/Light Recognition Sensor - G397- , Coding

Procedure

- Connect the Vehicle Diagnostic Tester .



- Select the **Guided Fault Finding** mode.
- Use the **GO TO** button to select the "function/component selection" and the following menu options one after the other:
 - ◆ Body
 - ◆ Electrical Equipment
 - ◆ 01 - OBD-capable systems
 - ◆ 09 - vehicle electrical system control module
 - ◆ Vehicle electrical system control module functions
 - ◆ Rain/light recognition sensor, coding

2.3 Data Bus on Board Diagnostic Interface - J533- , Removing and Installing

⇒ ["2.3.1 Data Bus On Board Diagnostic Interface J533 Description", page 326](#)

⇒ ["2.3.2 Data Bus On Board Diagnostic Interface J533 , Replacing", page 327](#)

⇒ ["2.3.3 Data Bus On Board Diagnostic Interface J533 , Removing and Installing, High Version", page 327](#)

⇒ ["2.3.5 Data Bus On Board Diagnostic Interface J533 , Coding", page 328](#)

⇒ ["2.3.6 Data Bus on Board Diagnostic Interface J533 , Checking Bus Activity", page 329](#)

⇒ ["2.3.7 Data Bus on Board Diagnostic Interface J533 , Adapting Bus Participants", page 329](#)

2.3.1 Data Bus On Board Diagnostic Interface - J533- Description

There is a Low and High version of the Data Bus On Board Diagnostic Interface - J533- .

High Version General Description

The Data Bus On Board Diagnostic Interface - J533- is designed as a separate control module. It has the following tasks in the vehicle:

- ◆ Exchanges the data between the powertrain CAN bus, Convenience CAN bus and Infotainment CAN bus.

Vehicle Electrical System Control Module - J519- , removing and installing. Refer to

⇒ ["2.2 Vehicle Electrical System Control Module J519 , Removing and Installing", page 319](#) .

If the Data Bus On Board Diagnostic Interface - J533- is to be replaced, the work procedure to read out the codes stored in the device must always be performed.

Low Version General Description

The Data Bus On Board Diagnostic Interface - J533- is integrated in the Vehicle Electrical System Control Module - J519- .

Vehicle Electrical System Control Module - J519- , removing and installing. Refer to

⇒ ["2.2 Vehicle Electrical System Control Module J519 , Removing and Installing", page 319](#) .



Malfunction Recognition and Malfunction Indicator

The Data Bus On Board Diagnostic Interface - J533- is equipped with OBD.

For troubleshooting. Refer to Vehicle Diagnostic Tester in the "Guided Fault Finding" function.

2.3.2 Data Bus On Board Diagnostic Interface - J533- , Replacing

The procedure "replace the Data bus OBED interface" contains the following work to be completed:

- ◆ If a new Data Bus On Board Diagnostic Interface - J533- is installed, it must be coded online.

The Procedure to "Replace the Data Bus on Board Diagnostic Interface" Can Only Be Performed. Refer to Vehicle Diagnostic Tester in the "Guided Fault Finding" Function.

Procedure

- Connect the Vehicle Diagnostic Tester .
- Select the **Guided Fault Finding** mode.
- Use the **GO TO** button to select the "function/component selection" and the following menu options one after the other:
 - ◆ Body
 - ◆ Electrical Equipment
 - ◆ 01 - OBD-capable systems
 - ◆ 19 - Data bus on board diagnostic interface J533
 - ◆ Functions of the Data Bus On Board Diagnostic Interface
 - ◆ Replace control module

2.3.3 Data Bus On Board Diagnostic Interface - J533- , Removing and Installing, High Version

The Data Bus On Board Diagnostic Interface - J533- is located in the driver footwell at the right next to the steering column.

Always perform the "Replace data bus on board diagnostic interface" procedure before removing the Data Bus On Board Diagnostic Interface - J533- in order to read out the data stored in the device. Refer to

⇒ ["2.3.2 Data Bus On Board Diagnostic Interface J533 , Replacing", page 327](#) .

Removing

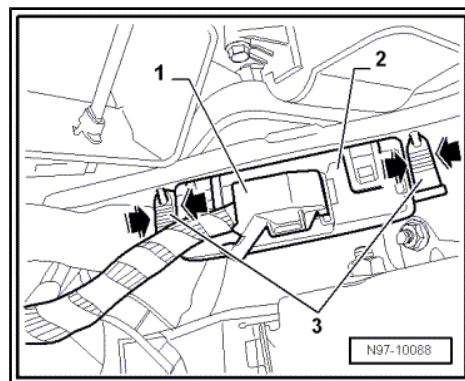
- Turn off the ignition and all electrical equipment and remove the ignition key.
- Remove the instrument panel cover on the driver side. Refer to ⇒ Body Interior; Rep. Gr. 68 ; Storage Compartments and Covers; Driver Side Instrument Panel Cover, Removing and Installing .
- Release the connector -1- and remove them from the Data Bus On Board Diagnostic Interface - J533- -2-.
- Press the tabs -3- together -arrows- and pull them out of the holes.



- Remove the Data Bus On Board Diagnostic Interface - J533-2-.

Installing

Install in reverse order of removal.



2.3.4 Data Bus On Board Diagnostic Interface - J533- , Removing and Installing, RHD, High Version

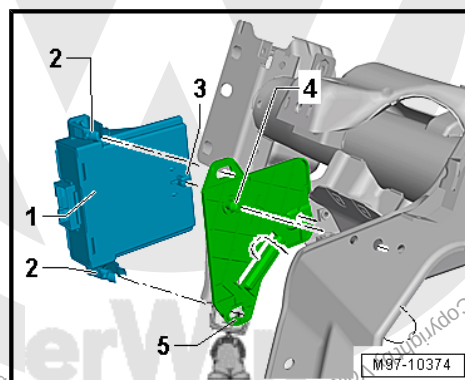
The Data Bus On Board Diagnostic Interface - J533- is located in the driver side footwell to the left on the bracket for the A/C unit.

Always perform the "Replace data bus on board diagnostic interface" procedure before removing the Data Bus On Board Diagnostic Interface - J533- in order to read out the data stored in the device. Refer to

⇒ ["2.3.2 Data Bus On Board Diagnostic Interface J533 , Replacing", page 327](#) .

Removing

- Turn off the ignition and all electrical equipment and remove the ignition key.
- Removing and installing the instrument panel cover on the driver side. Refer to ⇒ Body Interior; Rep. Gr. 68 ; Storage Compartments and Covers; Driver Side Instrument Panel Cover, Removing and Installing .
- Remove the footwell vent on the driver side. Refer to ⇒ Heating, Ventilation and Air Conditioning; Rep. Gr. 80 ; Heating, Servicing; Vents, Removing, Jetta from MY 2011 .
- Release and disconnect the connector on the Data Bus On Board Diagnostic Interface - J533- .
- Press the mounting pins -2- on the Data Bus On Board Diagnostic Interface - J533- -1- together and remove it from the holes on the bracket -5-.
- Guide the retaining tab -3- on the Data Bus On Board Diagnostic Interface - J533- -1- out of the hole on the bracket -5- and remove the Data Bus On Board Diagnostic Interface - J533- .
- To remove the bracket -5- for the Data Bus On Board Diagnostic Interface - J533- and release the retainer -4-.
- Remove the bracket -5- from the A/C unit bracket.



Installing

Install in reverse order of removal.

2.3.5 Data Bus On Board Diagnostic Interface - J533- , Coding

Procedure

- Connect the Vehicle Diagnostic Tester .



- Select the **Guided Fault Finding** mode.
- Use the **GO TO** button to select the “function/component selection” and the following menu options one after the other:
 - ◆ Body
 - ◆ Electrical Equipment
 - ◆ 01 - OBD-capable systems
 - ◆ 19 - Data bus on board diagnostic interface J533
 - ◆ Functions of the Data Bus On Board Diagnostic Interface
 - ◆ Control module, coding

2.3.6 Data Bus on Board Diagnostic Interface - J533- , Checking Bus Activity

Procedure

- Connect the Vehicle Diagnostic Tester .
- Select the **Guided Fault Finding** mode.
- Use the **GO TO** button to select the “function/component selection” and the following menu options one after the other:
 - ◆ Body
 - ◆ Electrical Equipment
 - ◆ 01 - OBD-capable systems
 - ◆ 19 - Data bus on board diagnostic interface J533
 - ◆ Functions of the Data Bus On Board Diagnostic Interface
 - ◆ Bus Activity, Checking

2.3.7 Data Bus on Board Diagnostic Interface - J533- , Adapting Bus Participants

This test checks the status of the connection from the Data Bus On Board Diagnostic Interface - J533- to another bus participant.

Procedure

- Connect the Vehicle Diagnostic Tester .
- Select the **Guided Fault Finding** mode.
- Use the **GO TO** button to select the “function/component selection” and the following menu options one after the other:
 - ◆ Body
 - ◆ Electrical Equipment
 - ◆ 01 - OBD-capable systems
 - ◆ 19 - Data bus on board diagnostic interface J533
 - ◆ Functions of the Data Bus On Board Diagnostic Interface
 - ◆ Adapt the intended installation list control module

2.4 Garage Door Opener Control Module - J530- , Removing and Installing

The Garage Door Opener Control Module - J530- is found in the Garage Door Opener Control Head - E284- in the sun visor.

- Garage Door Opener Control Module - J530- , removing and installing. Refer to



⇒ ["2.31 Garage Door Opener Control Head E284 , Removing and Installing", page 298](#) .





3 Connectors

⇒ ["3.1 Left Door Cut-Off Connector, Disconnecting", page 331](#)

⇒ ["3.2 Right Door Cut-Off Connector, Disconnecting", page 332](#)

⇒ ["3.3 Wiring Harnesses and Connectors, Repairing", page 333](#)

3.1 Left Door Cut-Off Connector, Disconnecting

⇒ ["3.1.1 Door Cut-Off Connector, Disconnecting, A-Pillar", page 331](#)

⇒ ["3.1.2 Door Cut-Off Connector, Disconnecting, B-Pillar", page 331](#)

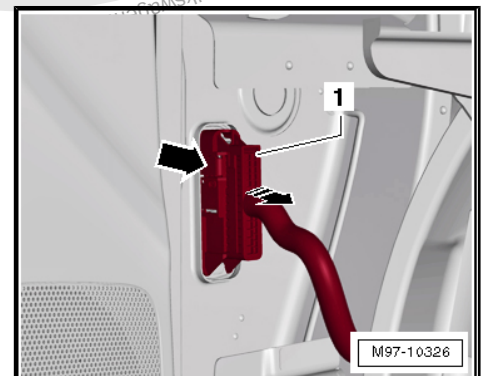
3.1.1 Door Cut-Off Connector, Disconnecting, A-Pillar

Removing

- Turn off the ignition and all electrical equipment and remove the ignition key.
- Remove the A-pillar lower trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Vehicle Interior Trim Panels .
- Unlock the connector -arrow- and remove the door cut-off connector -1- toward the inside in direction of -arrow-.

Installing

Install in reverse order of removal.



3.1.2 Door Cut-Off Connector, Disconnecting, B-Pillar

Removing

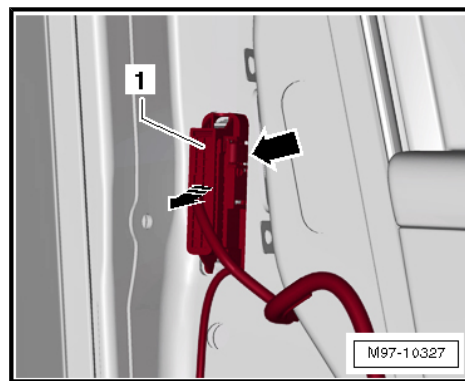
- Turn off the ignition and all electrical equipment and remove the ignition key.
- Remove the B-pillar trim. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Vehicle Interior Trim Panels; B-Pillar Lower Trim Panel, Removing and Installing .



- Unlock the connector -arrow- and remove the door cut-off connector -1- toward the inside in direction of -arrow-.

Installing

Install in reverse order of removal.



3.2 Right Door Cut-Off Connector, Disconnecting

⇒ [“3.2.1 Door Cut-Off Connector, Disconnecting, A-Pillar”, page 332](#)

⇒ [“3.2.2 Door Cut-Off Connector, Disconnecting, B-Pillar”, page 332](#)

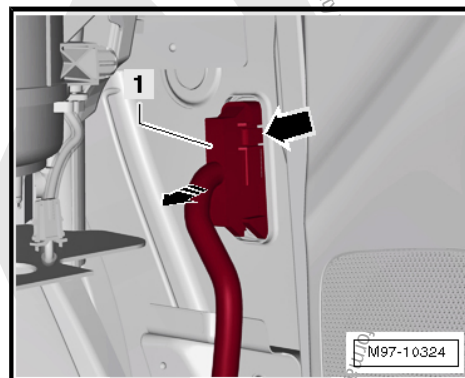
3.2.1 Door Cut-Off Connector, Disconnecting, A-Pillar

Removing

- Turn off the ignition and all electrical equipment and remove the ignition key.
- Remove the A-pillar lower trim panel. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Vehicle Interior Trim Panels .
- Unlock the connector -arrow- and remove the door cut-off connector -1- toward the inside in direction of -arrow-.

Installing

Install in reverse order of removal.



3.2.2 Door Cut-Off Connector, Disconnecting, B-Pillar

Removing

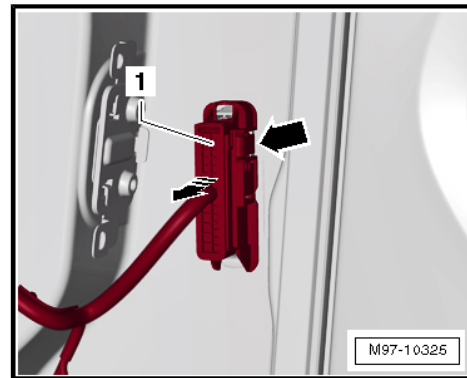
- Turn off the ignition and all electrical equipment and remove the ignition key.
- Remove the B-pillar trim. Refer to ⇒ Body Interior; Rep. Gr. 70 ; Vehicle Interior Trim Panels; B-Pillar Lower Trim Panel, Removing and Installing .



- Unlock the connector -arrow- and remove the door cut-off connector -1- toward the inside in direction of -arrow-.

Installing

Install in reverse order of removal.



3.3 Wiring Harnesses and Connectors, Repairing

Refer to ⇒ Electrical Equipment General Information; Rep. Gr. 97 .



4 Vehicle Diagnostic Tester

Refer to ➔ Electrical Equipment General Information; Rep. Gr. 97 ; Vehicle Diagnostic Tester .





5 Revision History

DRUCK NUMBER: K0059071521

Fac- tory Edi- tion	Edit Edi- tion	Job Type	Fee dba ck	Notes	Quality Checke d By
01.2 016	02/1 6/20 16	Fac- tory Up- date		Update only includes changes to Overview - Horn	Joe Y
05.2 014	01/2 0/20 16	Lo- cal Fac- tory Feed back	N/A - Pro vi- ded by fac- tory	Overview - Horn ~ Changed items 1 and 2 per factory feedback	Tom P
05.2 014	10/1 2/20 15	Lo- cal Fac- tory Feed back	112 644 5	Daytime running lamp change	Tom P
05.2 014	06/1 8/20 15	Re- for- mat / Lo- cal Feed back	110 198 3	Reformat to current stand- ards, link checking. Hide references to alarm horn in plenum chamber.	Eric P.
05.2 014	01/1 4/20 15	Lo- cal Fac- tory Feed back	107 027 2	Factory update provided via email	Tom P.
05.2 014	09/1 6/20 14	Fac- tory Up- date			Tom P.
	03/1 0/20 14	Lo- cal Up- date	N/A	Factory approved V5 pump procedure update per change in SRT from Rainer.	Tom P.

Cautions & Warnings

Please read these WARNINGS and CAUTIONS before proceeding with maintenance and repair work. You must answer that you have read and you understand these WARNINGS and CAUTIONS before you will be allowed to view this information.

- If you lack the skills, tools and equipment, or a suitable workshop for any procedure described in this manual, we suggest you leave such repairs to an authorized Volkswagen retailer or other qualified shop. We especially urge you to consult an authorized Volkswagen retailer before beginning repairs on any vehicle that may still be covered wholly or in part by any of the extensive warranties issued by Volkswagen.
- Disconnect the battery negative terminal (ground strap) whenever you work on the fuel system or the electrical system. Do not smoke or work near heaters or other fire hazards. Keep an approved fire extinguisher handy.
- Volkswagen is constantly improving its vehicles and sometimes these changes, both in parts and specifications, are made applicable to earlier models. Therefore, part numbers listed in this manual are for reference only. Always check with your authorized Volkswagen retailer parts department for the latest information.
- Any time the battery has been disconnected on an automatic transmission vehicle, it will be necessary to reestablish Transmission Control Module (TCM) basic settings using the VAG 1551 Scan Tool (ST).
- Never work under a lifted vehicle unless it is solidly supported on stands designed for the purpose. Do not support a vehicle on cinder blocks, hollow tiles or other props that may crumble under continuous load. Never work under a vehicle that is supported solely by a jack. Never work under the vehicle while the engine is running.
- For vehicles equipped with an anti-theft radio, be sure of the correct radio activation code before disconnecting the battery or removing the radio. If the wrong code is entered when the power is restored, the radio may lock up and become inoperable, even if the correct code is used in a later attempt.
- If you are going to work under a vehicle on the ground, make sure that the ground is level. Block the wheels to keep the vehicle from rolling. Disconnect the battery negative terminal (ground strap) to prevent others from starting the vehicle while you are under it.
- Do not attempt to work on your vehicle if you do not feel well. You increase the danger of injury to yourself and others if you are tired, upset or have taken medicine or any other substances that may impair you or keep you from being fully alert.
- Never run the engine unless the work area is well ventilated. Carbon monoxide (CO) kills.
- Always observe good workshop practices. Wear goggles when you operate machine tools or work with acid. Wear goggles, gloves and other protective clothing whenever the job requires working with harmful substances.
- Tie long hair behind your head. Do not wear a necktie, a scarf, loose clothing, or a necklace when you work near machine tools or running engines. If your hair, clothing, or jewelry were to get caught in the machinery, severe injury could result.
- Do not re-use any fasteners that are worn or deformed in normal use. Some fasteners are designed to be used only once and are unreliable and may fail if used a second time. This includes, but is not limited to, nuts, bolts, washers, circlips and cotter pins. Always follow the recommendations in this manual - replace these fasteners with new parts where indicated, and any other time it is deemed necessary by inspection.

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Cautions & Warnings

- Illuminate the work area adequately but safely. Use a portable safety light for working inside or under the vehicle. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.
- Friction materials such as brake pads and clutch discs may contain asbestos fibers. Do not create dust by grinding, sanding, or by cleaning with compressed air. Avoid breathing asbestos fibers and asbestos dust. Breathing asbestos can cause serious diseases such as asbestosis or cancer, and may result in death.
- Finger rings should be removed so that they cannot cause electrical shorts, get caught in running machinery, or be crushed by heavy parts.
- Before starting a job, make certain that you have all the necessary tools and parts on hand. Read all the instructions thoroughly; do not attempt shortcuts. Use tools that are appropriate to the work and use only replacement parts meeting Volkswagen specifications. Makeshift tools, parts and procedures will not make good repairs.
- Catch draining fuel, oil or brake fluid in suitable containers. Do not use empty food or beverage containers that might mislead someone into drinking from them. Store flammable fluids away from fire hazards. Wipe up spills at once, but do not store the oily rags, which can ignite and burn spontaneously.
- Use pneumatic and electric tools only to loosen threaded parts and fasteners. Never use these tools to tighten fasteners, especially on light alloy parts. Always use a torque wrench to tighten fasteners to the tightening torque listed.
- Keep sparks, lighted matches, and open flame away from the top of the battery. If escaping hydrogen gas is ignited, it will ignite gas trapped in the cells and cause the battery to explode.
- Be mindful of the environment and ecology. Before you drain the crankcase, find out the proper way to dispose of the oil. Do not pour oil onto the ground, down a drain, or into a stream, pond, or lake. Consult local ordinances that govern the disposal of wastes.
- The air-conditioning (A/C) system is filled with a chemical refrigerant that is hazardous. The A/C system should be serviced only by trained automotive service technicians using approved refrigerant recovery/recycling equipment, trained in related safety precautions, and familiar with regulations governing the discharging and disposal of automotive chemical refrigerants.
- Before doing any electrical welding on vehicles equipped with anti-lock brakes (ABS), disconnect the battery negative terminal (ground strap) and the ABS control module connector.
- Do not expose any part of the A/C system to high temperatures such as open flame. Excessive heat will increase system pressure and may cause the system to burst.
- When boost-charging the battery, first remove the fuses for the Engine Control Module (ECM), the Transmission Control Module (TCM), the ABS control module, and the trip computer. In cases where one or more of these components is not separately fused, disconnect the control module connector(s).
- Some of the vehicles covered by this manual are equipped with a supplemental restraint system (SRS), that automatically deploys an airbag in the event of a frontal impact. The airbag is operated by an explosive device. Handled improperly or without adequate safeguards, it can be accidentally activated and cause serious personal injury. To guard against personal injury or airbag system failure, only trained Volkswagen Service technicians should test, disassemble or service the airbag system.

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Cautions & Warnings

- Do not quick-charge the battery (for boost starting) for longer than one minute, and do not exceed 16.5 volts at the battery with the boosting cables attached. Wait at least one minute before boosting the battery a second time.
- Never use a test light to conduct electrical tests of the airbag system. The system must only be tested by trained Volkswagen Service technicians using the VAG 1551 Scan Tool (ST) or an approved equivalent. The airbag unit must never be electrically tested while it is not installed in the vehicle.
- Some aerosol tire inflators are highly flammable. Be extremely cautious when repairing a tire that may have been inflated using an aerosol tire inflator. Keep sparks, open flame or other sources of ignition away from the tire repair area. Inflate and deflate the tire at least four times before breaking the bead from the rim. Completely remove the tire from the rim before attempting any repair.
- When driving or riding in an airbag-equipped vehicle, never hold test equipment in your hands or lap while the vehicle is in motion. Objects between you and the airbag can increase the risk of injury in an accident.

I have read and I understand these Cautions and Warnings.

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OK