



Workshop Manual

Audi A3 2013 ➤ ,
Audi A3 Cabriolet 2015 ➤ ,
Audi A3 Limousine 2014 ➤ ,
Audi A3 Limousine China 2014 ➤ ,
Audi A3 Sportback 2013 ➤ ,
Audi A3 Sportback China 2014 ➤

Communication

Edition 04.2019

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List of Workshop Manual Repair Groups

Repair Group

91 - Radio, telephone, navigation



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Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.



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91 – Radio, telephone, navigation

1 Infotainment system

(ARL006383; Edition 04.2019)

⇒ [“1.1 Layout - infotainment system”, page 1](#)

⇒ [“1.2 Overview of fitting locations - infotainment system”, page 3](#)

⇒ [“1.3 Removing and installing infotainment system display”, page 4](#)

⇒ [“1.4 Removing and installing control unit 1 for information electronics J794”, page 6](#)

⇒ [“1.5 Removing and installing multimedia system operating unit E380”, page 8](#)

⇒ [“1.6 Pin assignment”, page 11](#)

1.1 Layout - infotainment system

7UG - MMI navigation system plus

- ◆ Control unit 1 for information electronics - J794- with integrated DVD player/SD memory card readers/navigation system in glove box
- ◆ Internal hard drive (HDD) to store navigation data and MP3 files
- ◆ Radio - R- integrated in control unit 1 for information electronics - J794- , I8G/I8L
- ◆ Multimedia system operating unit - E380- in centre console
- ◆ Display unit for front information display and operating unit control unit - J685- in dash panel (centre)
- ◆ Connection for external multimedia devices in centre console storage compartment, UE3/UE4
- ◆ Sound system basic plus, 8RM
- ◆ Bluetooth interface, 9ZX (standard equipment from model year 2017 onwards)

Optional equipment

- ◆ Digital radio - R147- integrated in control unit 1 for information electronics - J794- , QV3
- ◆ Satellite radio - R146- integrated in control unit 1 for information electronics - J794- , NAR and QV3 only
- ◆ TV tuner - R78- behind right luggage compartment trim (3-door and 5-door models, Saloon)/behind rear right side trim (Cabriolet), QV1
- ◆ Digital sound package control unit - J525- under left front seat, 9VS
- ◆ Audi sound system, 9VD
- ◆ Bang & Olufsen sound system, 9VS
- ◆ Connection for external multimedia devices in centre console storage compartment, UE7/UI2
- ◆ Bluetooth interface, 9ZX (optional equipment only up to model year 2016)



- ◆ Bluetooth car phone online, 9ZK (only up to model year 2016)
- ◆ Audi phone box, 9ZE
- ◆ Audi connect and Audi phone box, 9ZC (from model year 2017 onwards)
- ◆ Integrated WLAN on Bluetooth car phone, 9ZC, 9ZK
- ◆ Multi-function steering wheel

1 - Roof aerial - R216-

- ❑ Not on Cabriolet

2 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)

3 - Rear window aerials (3-door and 5-door models, Saloon)/windscreen and rear window aerials and aerials in side trim panels (Cabriolet)

4 - Control unit 1 for information electronics - J794- in glove box

5 - Multimedia system operating unit - E380- in centre console

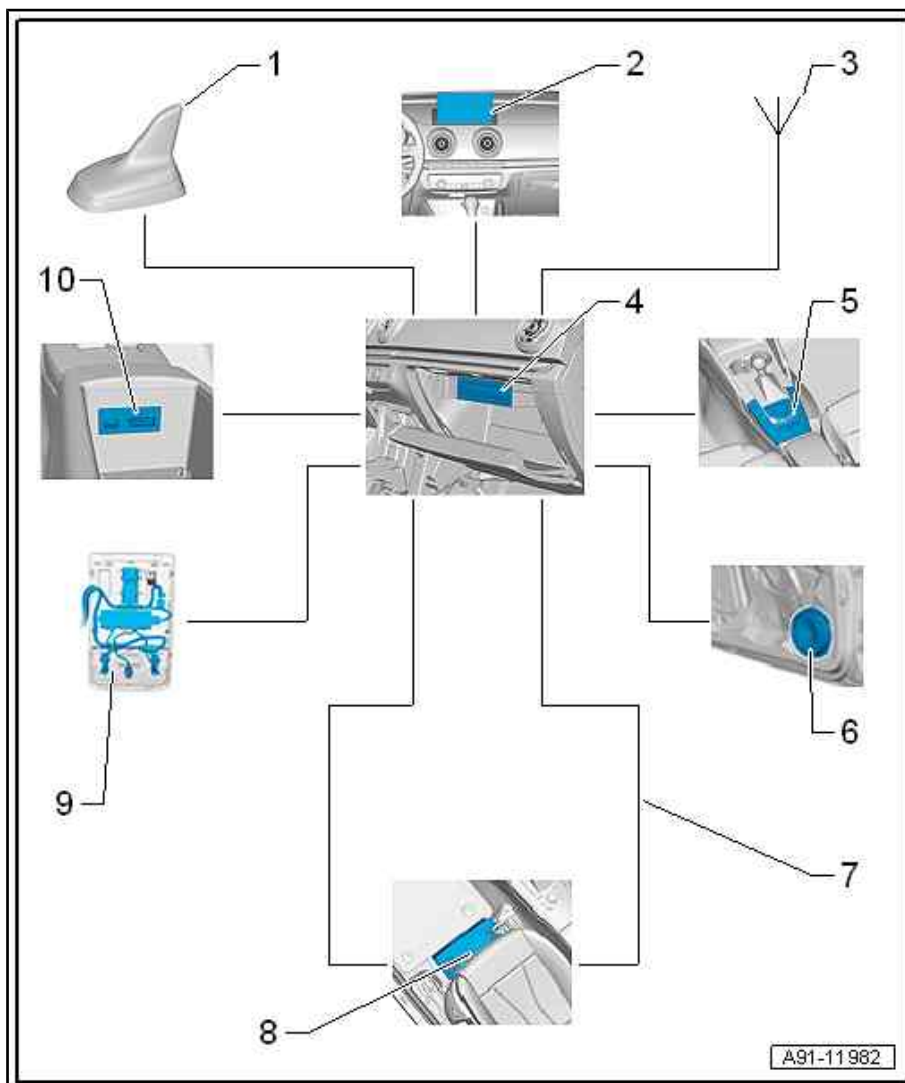
6 - Sound systems

7 - MOST bus

8 - Digital sound package control unit - J525- under left front seat

9 - Microphone unit in front roof module - R164- (telephone microphone - R38-) in front interior light - W1-

10 - Connection for external multimedia devices in centre console storage compartment



The data for the Bang & Olufsen sound system (9VS) and for the TV tuner - R78- (QV1) are transmitted via the MOST bus.

The connection to other systems in the vehicle takes place via the CAN bus (infotainment) and the data bus diagnostic interface - J533- .

Fault finding is performed via "Guided Fault Finding" ➔ Vehicle diagnostic tester.

Notes on MOST bus

In addition to the CAN bus, the fibre optic data bus "MOST bus" is used.

A "fibre optic cable" is used as the connecting cable. The fibre optic cables are fitted in corrugated tubes for protection.



Renew the complete fibre optic cable whenever possible.

The end faces of the connectors must not become dirty.

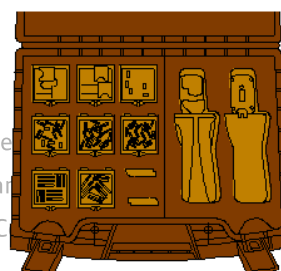
If connectors are unplugged: fit a protective cap for cable connector - VAS 6223/9- .

When installing the fibre optic cables, be sure to observe the minimum bending radius of 25 mm. Do not crush or kink the fibre optic cable.

Repairing fibre optic cables ➤ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors;
Repairing fibre optic cables

with respect to the correctness of information in this document. C

VAS 6223 A



W00-11495

1.2 Overview of fitting locations - infotainment system

7UG - MMI navigation system plus

1 - Control unit 1 for information electronics - J794-

- ☐ Pin assignment
➤ [page 11](#)
- ☐ Removing and installing
➤ [page 6](#)

2 - Multimedia system operating unit - E380-

- ☐ Pin assignment
➤ [page 21](#)
- ☐ Removing and installing
➤ [page 9](#)

3 - Connection for external multimedia devices

- ☐ See ➤ [page 215](#)

4 - Display unit for front information display and operating unit control unit - J685-

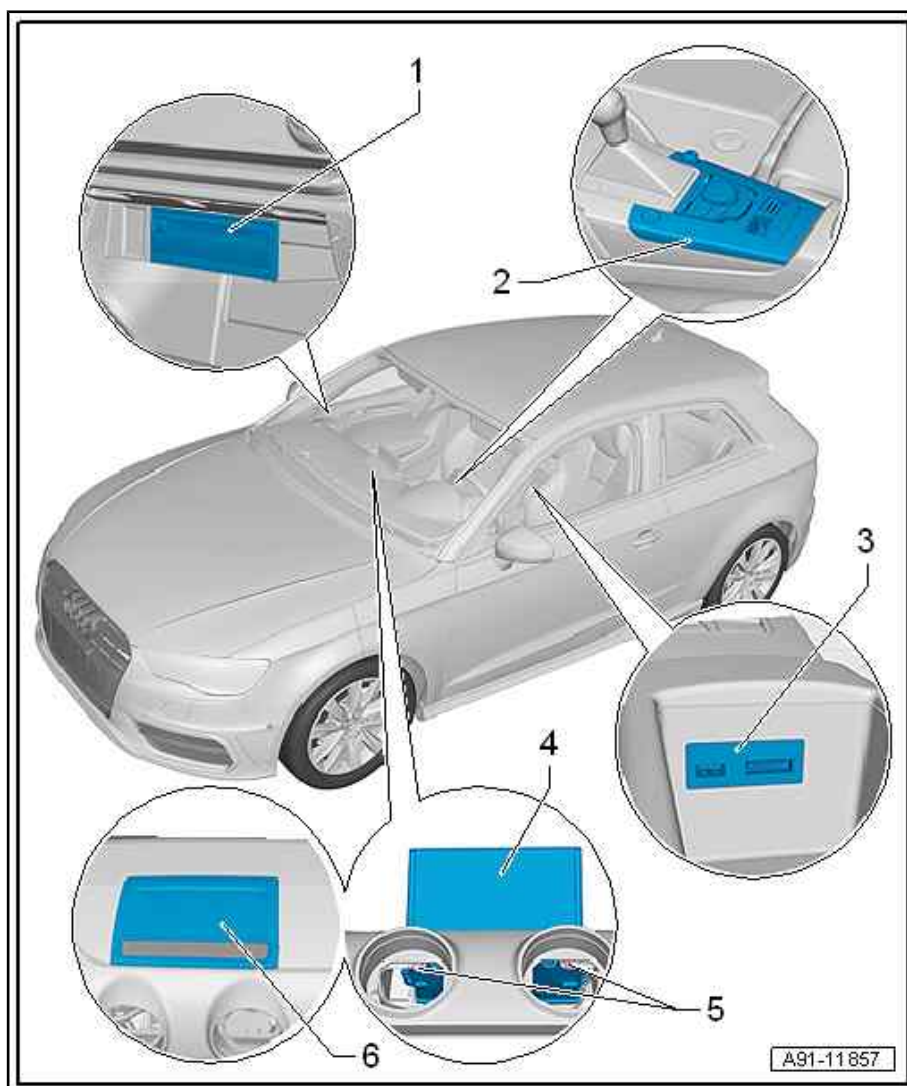
- ☐ Pin assignment
➤ [page 20](#)
- ☐ Removing and installing
➤ [page 4](#)

5 - Bolt

- ☐ 2x
- ☐ Captive
- ☐ 3 Nm

6 - Cover

- ☐ Renew after removal ➤ ETKA (electronic parts catalogue)



Not illustrated

- ◆ Bolts securing display to kinematic display carrier: 1 Nm



- ◆ Always renew
- ◆ Only use genuine bolts ⇒ ETKA (electronic parts catalogue)

1.3 Removing and installing infotainment system display

Special tools and workshop equipment required

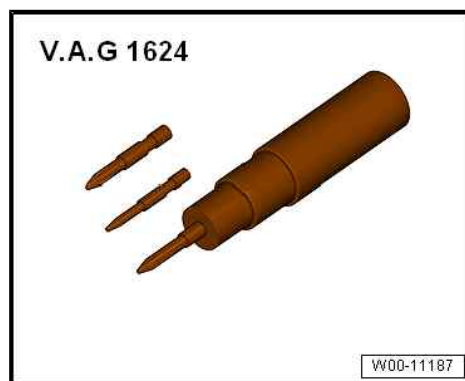
- ◆ Removal wedge - 3409-



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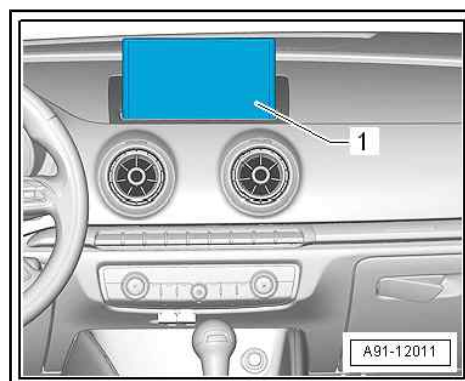
- ◆ Torque screwdriver - V.A.G 1624-



Display unit for front information display and operating unit control unit - J685- -1- is located in dash panel (centre).

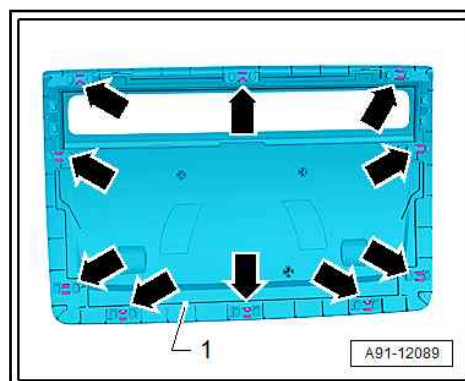
Removing

- Remove dash panel vents (centre) ⇒ General body repairs, interior; Rep. gr. 70 ; Dash panel; Exploded view - dash panel .
- Extend display and protect with plastic film.



Display cover -1- is attached to kinematic display carrier by spring catches -arrows- (10x).

- It is not necessary to remove display cover.



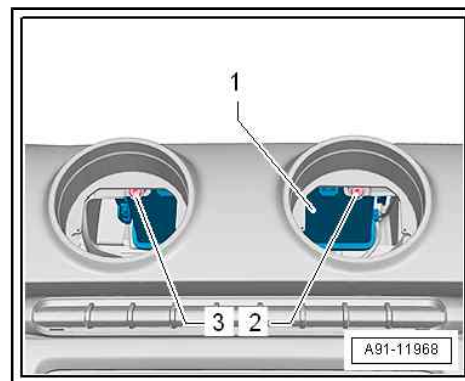


- Remove bolts -2- and -3- behind vents on kinematic display carrier -1-.



Note

Bolts -2- and -3- are captive.



- Reach through openings in vents and press kinematic display carrier out of dash panel -1- with both hands (apply pressure in area of clips).

Display must be moved into service position ⇒ Vehicle diagnostic tester. In the service position, the display is slightly extended so that the two bolts on the left and right side of the kinematic display carrier can be reached. The display can be separated from the kinematic display carrier by removing these bolts.

Procedure

- Connect ⇒ Vehicle diagnostic tester.
- Select **Diagnosis** mode and begin diagnosis.
- Select **Test plan** tab.
- Choose **Select own test** and select following options one after the other:

- ◆ Body
- ◆ Electrical system
- ◆ 01 - Self-diagnosis compatible systems
- ◆ 5F - Information electronics 1 - J794
- ◆ 5F - Information electronics 1, functions
- ◆ 5F - Move display rotation mechanism to service position

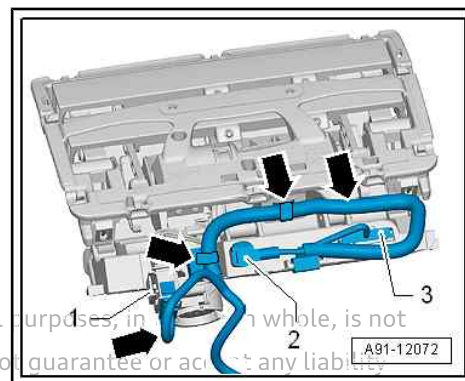
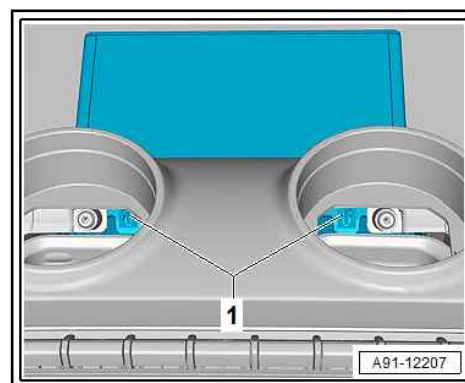
Leave ⇒ Vehicle diagnostic tester connected.

- It is very important to note how the wiring on the kinematic display carrier is routed and secured. Take photos of wiring routing and attachment before unplugging connectors.

- 1 - 8-pin connector - T8e- , display drive
- 2 - 4-pin connector - T4ao- , display
- 3 - 8-pin connector - T8ai- , display

-Arrows-: locations where wiring is secured

- Release and unplug connectors on kinematic display carrier.



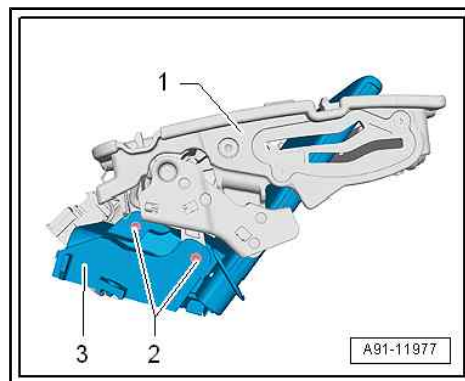
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- Remove bolts -2- on both sides at kinematic display carrier -1-.
- Remove display -3- from kinematic display carrier -1- downwards.

Installing

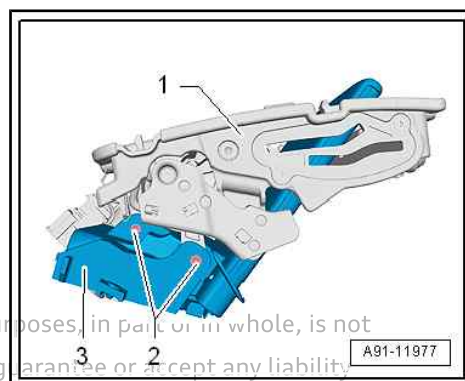
- Installation is carried out in reverse sequence; note the following:
- Protect new display with plastic film.



- Only use genuine bolts -2- → ETKA (electronic parts catalogue) .



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- It is very important to note how the wiring on the kinematic display carrier is routed and secured.

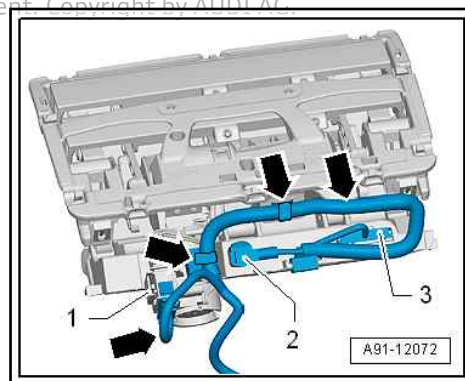
- 1 - 8-pin connector - T8e- , display drive
- 2 - 4-pin connector - T4ao- , display
- 3 - 8-pin connector - T8ai- , display

-Arrows-: locations where wiring is secured



Note

The display might have to be moved out of the service position and opened completely in order to be able to correctly route the wiring going to the display.



If kinematic display carrier is being renewed:

- Use new display cover → ETKA (electronic parts catalogue) .
- Move display out of service position using final control diagnosis → Vehicle diagnostic tester.

Tightening torques

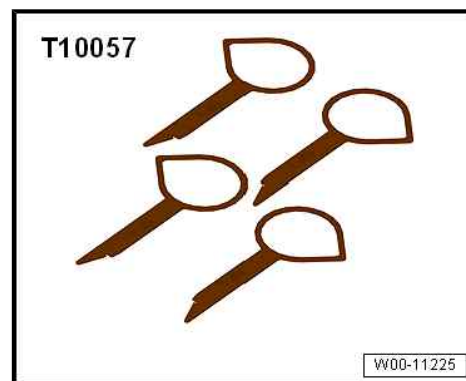
- ♦ ⇒ [“1.2 Overview of fitting locations - infotainment system”, page 3](#)

1.4 Removing and installing control unit 1 for information electronics - J794-

Special tools and workshop equipment required



◆ Radio release tool - T10057-



◆ Protective cap for cable connector - VAS 6223/9-



The control unit 1 for information electronics - J794- is located in the glove box.

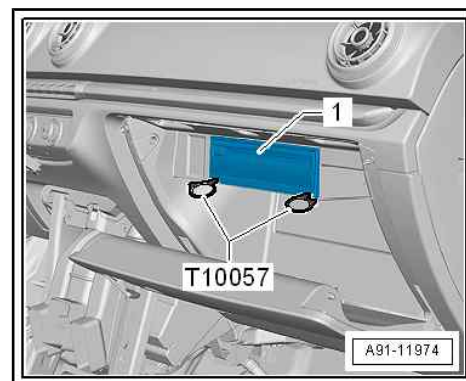


Note

If renewing the control unit, select the "Replace control unit" function for the appropriate control unit ⇒ Vehicle diagnostic tester.

Removing

- Open glove box.
- Take out CDs/DVDs and SD/SIM cards that are still in control unit 1 for information electronics - J794- .
- Switch off ignition and all electrical equipment, and remove ignition key.
- Insert two radio release tools - T10057- into slots in control unit 1 for information electronics - J794- -1- until they engage. Pointed ends of grips must face outwards.
- Take hold of grips on radio release tools - T10057- and pull control unit 1 for information electronics - J794- -1- out of glove box.
- Release and unplug connectors at control unit 1 for information electronics - J794- -1-.

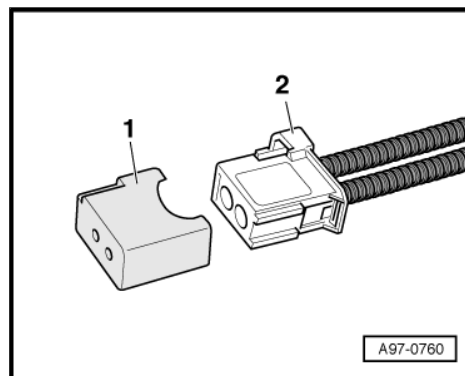




- Fit protective cap for cable connector - VAS 6223/9- -1- onto MOST bus connector -2-.
- Press release tabs on control unit 1 for information electronics - J794- and remove radio release tools - T10057- .

Installing

- Installation is carried out in reverse sequence; note the following:
- Plug all connectors in.
- Slide control unit 1 for information electronics - J794- into glove box until it engages.



1.5 Removing and installing multimedia system operating unit - E380-

⇒ ["1.5.1 Removing and installing multimedia system operating unit E380 in dash panel", page 8](#)

⇒ ["1.5.2 Removing and installing multimedia system operating unit E380 in centre console", page 9](#)

1.5.1 Removing and installing multimedia system operating unit - E380- in dash panel

Special tools and workshop equipment required

- ◆ Removal wedge - 3409-



- ◆ Torque screwdriver - V.A.G 1624-





The multimedia system operating unit - E380- (radio CAN, I8A) -1- is located in the dash panel.

Removing

Multimedia system operating unit - E380- can be removed from the mounting separately. Multimedia system operating unit - E380- can be unclipped from mounting with removal wedge - 3409- .

Removing multimedia system operating unit - E380-

- Switch off ignition and all electrical equipment, and remove ignition key.
- Press multimedia system operating unit - E380- -1- out of mounting on left and right with removal wedge - 3409- .
- Release and unplug connector on multimedia system operating unit - E380- -1-.

Removing mounting for multimedia system operating unit - E380-

- Remove dash panel vents (centre) ⇒ General body repairs, interior; Rep. gr. 70 ; Dash panel; Exploded view - dash panel .

- Remove bolts -2- and -3- behind vents.
- Pry mounting -1- out of dash panel in direction of -arrow-.

To do so, disengage retaining springs through vent openings with a small screwdriver.



Caution

The surfaces become scratched easily. Carefully mask all surfaces and components to provide protection.

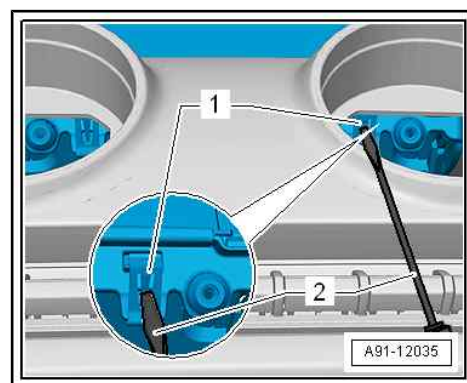
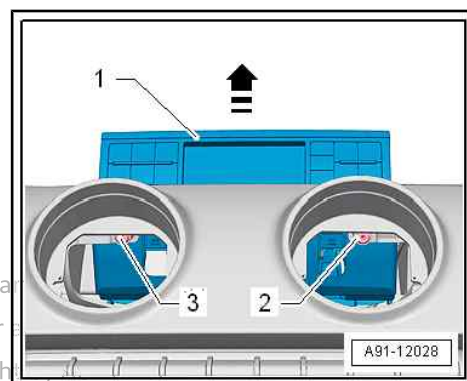
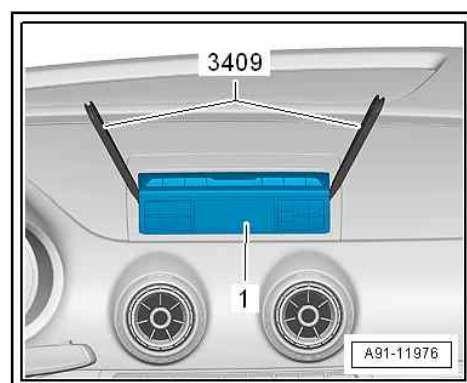
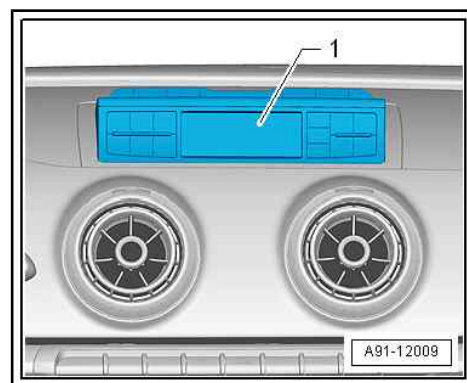
- Use a small screwdriver -2- to press on the retaining springs -1- and press out the mounting upwards.
- Release and unplug connector on multimedia system operating unit - E380- if still fitted.

Installing

- Install in reverse sequence of removal.

Tightening torques

Component	Tightening torque
Mounting for multimedia system operating unit - E380- to dash panel	3 Nm

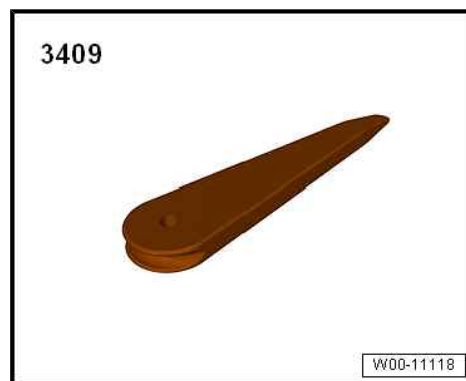


1.5.2 Removing and installing multimedia system operating unit - E380- in centre console

Special tools and workshop equipment required



◆ Removal wedge - 3409-



The multimedia system operating unit - E380- -1- (from radio CAN, I7X onwards) is located in the centre console.

Removing

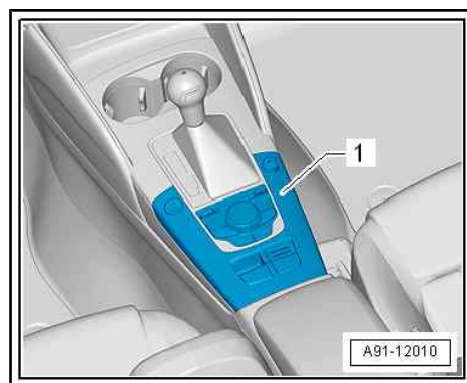
- Switch off ignition and all electrical equipment, and remove ignition key.

The multimedia system operating unit - E380- is attached to the centre console with four spring catches.



Caution

The surfaces become scratched easily. Carefully mask all surfaces and components to provide protection.



Vehicles with manual gearbox

- Fold gear lever boot up over gear knob ⇒ Manual gearbox; Rep. gr. 34 ; Selector mechanism; Removing and installing gear knob .

Vehicles with dual clutch gearbox

- Fold selector lever boot up over selector lever handle ⇒ Dual clutch gearbox; Rep. gr. 34 ; Selector mechanism; Removing and installing selector lever handle .
- Remove selector lever position display - Y26- ⇒ Electrical system; Rep. gr. 96 ; Lights; Removing and installing selector lever position display -Y26- .

All vehicles (continued)

- Remove trim panel for centre console ⇒ General body repairs, interior; Rep. gr. 68 ; Centre console; Removing and installing trim panel for centre console .



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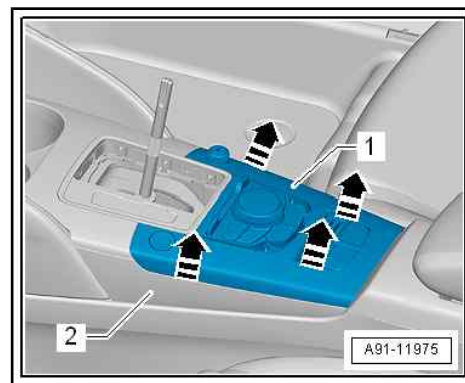
- Slide in removal wedge - 3409- between multimedia system operating unit - E380- -1- and centre console -2- on both sides until the four spring catches are released. Pull multimedia system operating unit - E380- -1- upwards -arrows- out of centre console -2-.



Caution

Note lengths of wires to connectors.

- Release and unplug connector on reverse side of multimedia system operating unit - E380- -1-.
- Remove switches fitted ⇒ Electrical system; Rep. gr. 96 ; Controls; Overview of fitting locations - controls in centre console .



Installing

- Install in reverse sequence of removal.

1.6 Pin assignment

⇒ [“1.6.1 Control unit 1 for information electronics J794 , up to model year 2016”, page 11](#)

⇒ [“1.6.2 Control unit 1 for information electronics J794 , from model year 2017 onwards”, page 16](#)

⇒ [“1.6.3 Display unit for front information display and operating unit control unit J685 ”, page 20](#)

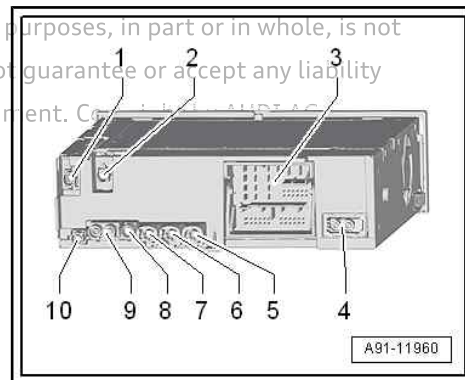
⇒ [“1.6.4 Multimedia system operating unit E380 in centre console”, page 21](#)

⇒ [“1.6.5 Multimedia system operating unit E380 in dash panel”, page 22](#)

1.6.1 Control unit 1 for information electronics - J794- , up to model year 2016

Control unit 1 for information electronics - J794- , all models except NAR vehicles

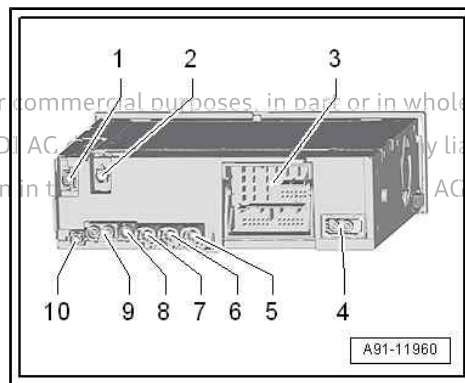
- 1 - GSM connection from telephone aerial - R65- or two GSM connections from LTE aerial 1 - R297- / LTE aerial 2 - R306-
- 2 - DAB connection from digital radio aerial - R183-
- 3 - Connection block with four multi-pin connectors
- 4 - MOST bus
- 5 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 6 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 7 - 4-pin connector - T4ar- to chip card reader control unit - J676- , Japan only
- 8 - Not used
- 9 - Aerial connection, AM/FM/FM2
- 10 - GPS connection from GPS aerial - R50-





Control unit 1 for information electronics - J794- , NAR vehicles only

- 1 - GSM connection from telephone aerial - R65- or two GSM connections from LTE aerial 1 - R297- / LTE aerial 2 - R306-
- 2 - SDARS connection from satellite tuner aerial - R172-
- 3 - Connection block with four multi-pin connectors
- 4 - MOST bus
- 5 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 6 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 7 - Not used
- 8 - Not used
- 9 - Aerial connection, AM/FM/FM2
- 10 - GPS connection from GPS aerial - R50-



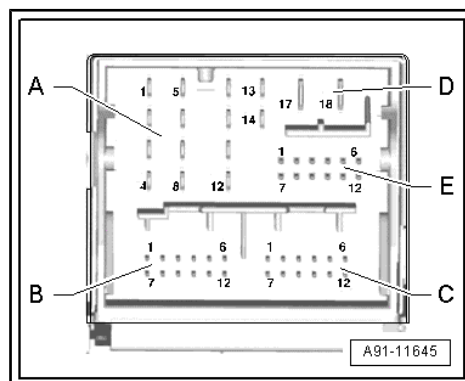
Note

Contacts which are not listed are not used.

3 - Connection block with four multi-pin connectors

A - 8-pin connector - T8ag-

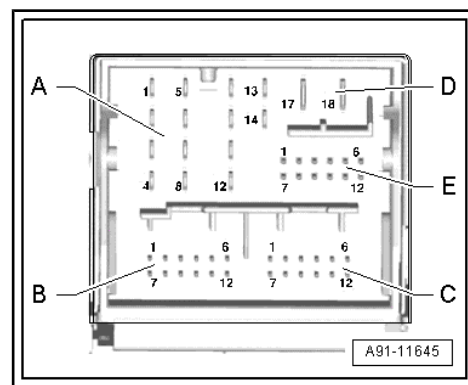
- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left





B - 12-pin connector - T12x-

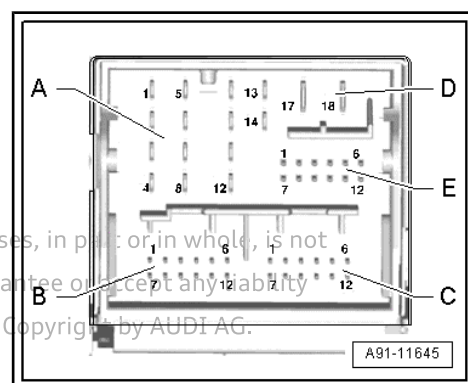
- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (+) (low frequency) from pre-fitted components for mobile phone installation
- 5 - NF mute (low frequency) from pre-fitted components for mobile phone installation
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (-) (low frequency) from pre-fitted components for mobile phone installation
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



C - 12-pin connector - T12y-

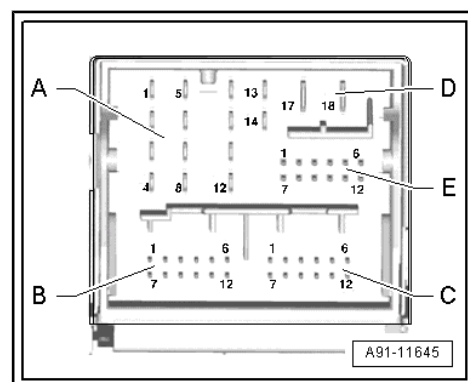
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - Not used
- 6 - Not used
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - Not used
- 10 - Not used
- 11 - Not used
- 12 - Not used



D - 8-pin connector - T8j-

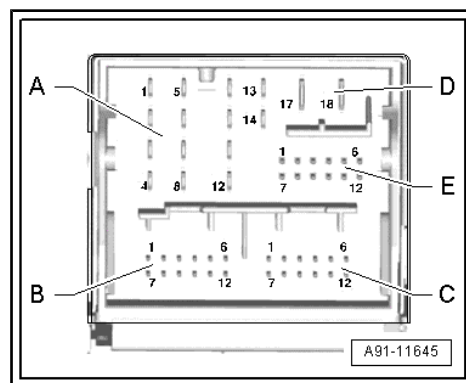
- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30





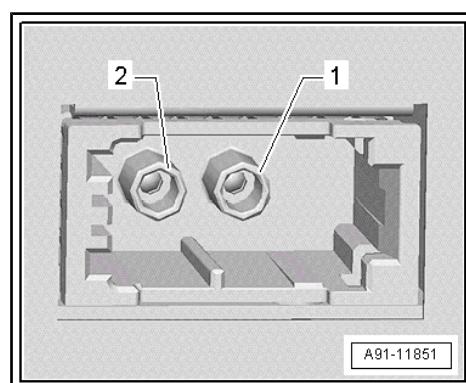
E - 12-pin connector - T12v-

- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset -J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment



4 - MOST bus

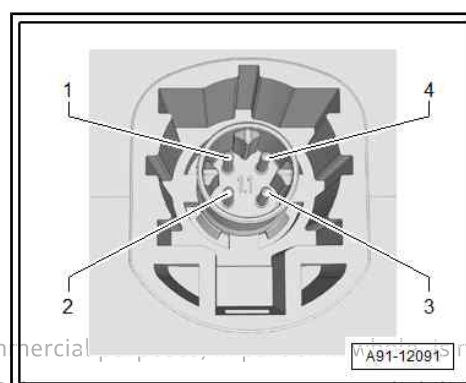
- 1 - Input
- 2 - Output



5 - 4-pin connector - T4al-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

- 1 - LVDS (-)
- 2 - Not used
- 3 - LVDS (+)
- 4 - Earth



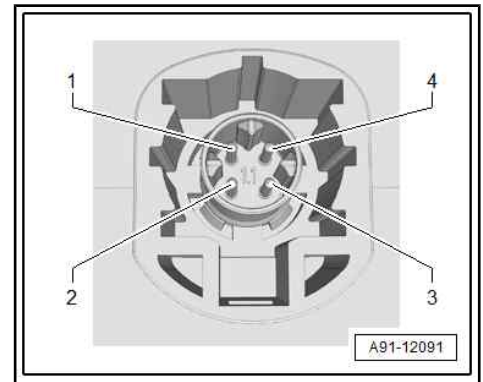
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6 - 4-pin connector - T4w-

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

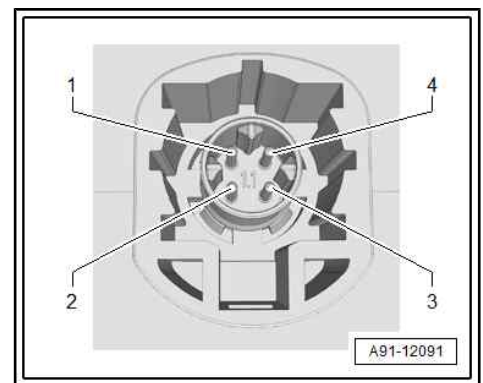
- 1 - D (+)
- 2 - iPod detected
- 3 - D (-)
- 4 - Earth



7 - 4-pin connector - T4ar- , Japan only

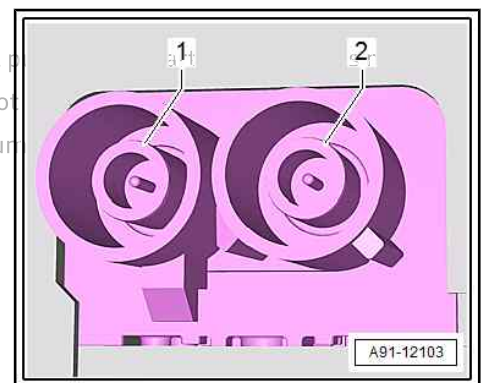
All pins are connected to the chip card reader control unit - J676- .

- 1 - Earth
- 2 - Data (-)
- 3 - Power supply, +5 V
- 4 - Data (+)



9 - Aerial connection, AM/FM1/FM2

- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-

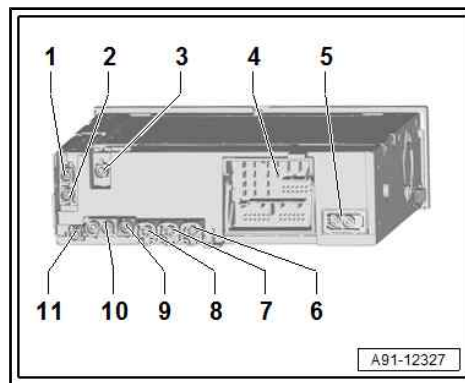




1.6.2 Control unit 1 for information electronics - J794- , from model year 2017 onwards

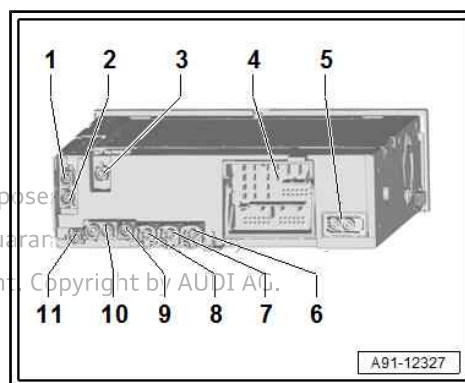
Control unit 1 for information electronics - J794- , all models except NAR vehicles

- 1 - LTE connection from LTE aerial 2 - R306-
- 2 - LTE connection from LTE aerial 1 - R297-
- 3 - DAB connection from digital radio aerial - R183-
- 4 - Connection block with four multi-pin connectors
- 5 - MOST bus
- 6 - 4-pin connector - T4ej- to display unit for front information display and operating unit control unit - J685-
- 7 - 4-pin connector - T4ef- to USB hub - R293-
- 8 - 4-pin connector - T4dx- to dash panel insert - KX2-
- 9 - Not used/not fitted
- 10 - Aerial connection, AM/FM/FM2
- 11 - GPS connection from GPS aerial - R50- , NZ0 only



Control unit 1 for information electronics - J794- , NAR vehicles only

- 1 - LTE connection from LTE aerial 2 - R306-
- 2 - LTE connection from LTE aerial 1 - R297-
- 3 - SDARS connection from satellite tuner aerial - R172-
- 4 - Connection block with four multi-pin connectors
- 5 - MOST bus
- 6 - 4-pin connector - T4ej- to display unit for front information display and operating unit control unit - J685-
- 7 - 4-pin connector - T4ef- to USB hub - R293-
- 8 - 4-pin connector - T4dx- to dash panel insert - KX2-
- 9 - Not used/not fitted
- 10 - Aerial connection, AM/FM/FM2
- 11 - GPS connection from GPS aerial - R50-



Note

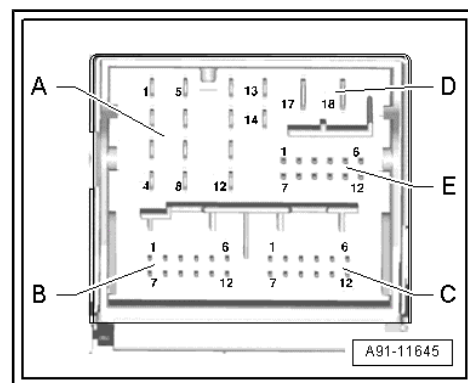
Contacts which are not listed are not used.

4 - Connection block with four multi-pin connectors



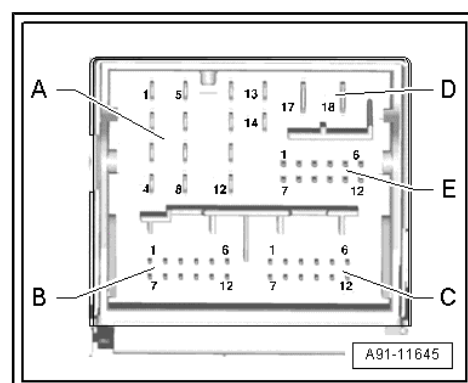
A - 8-pin connector - T8ag-

- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left



B - 12-pin connector - T12x-

- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (+) (low frequency) from emergency call module control unit and communication unit - J949-
- 5 - NF mute (low frequency) from emergency call module control unit and communication unit - J949-
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (-) (low frequency) from emergency call module control unit and communication unit - J949-
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



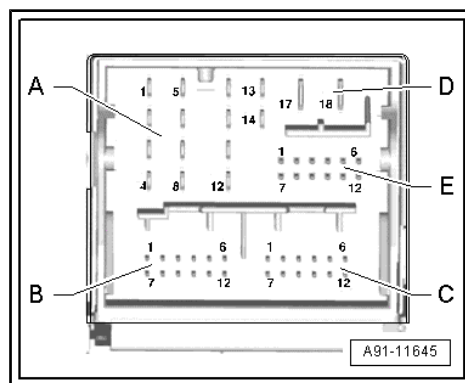
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C - 12-pin connector - T12y-

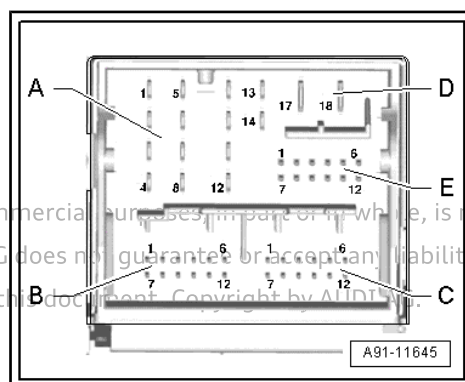
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - Not used
- 6 - Not used
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - Not used
- 10 - Not used
- 11 - Not used
- 12 - Not used



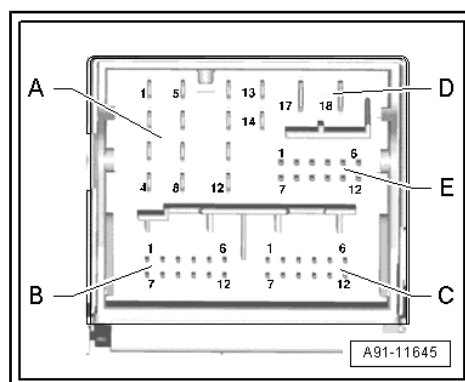
D - 8-pin connector - T8j-

- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30



E - 12-pin connector - T12v-

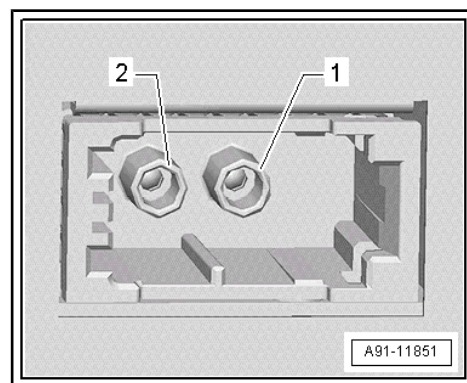
- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset -J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment





5 - MOST bus

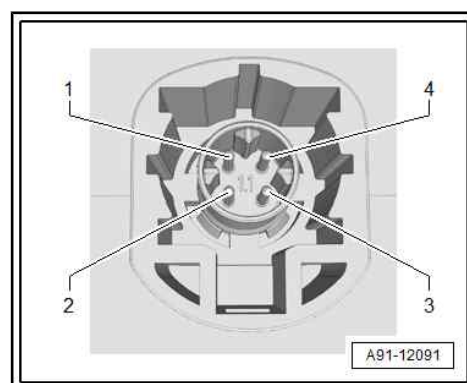
- 1 - Input
- 2 - Output



6 - 4-pin connector - T4ej-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

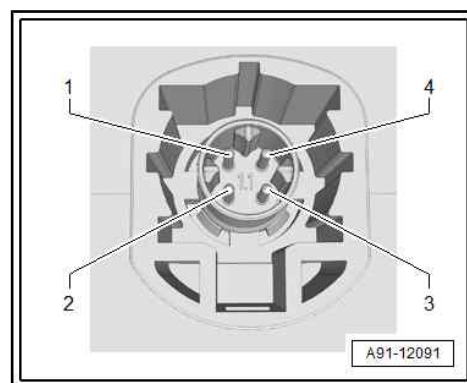
- 1 - LVDS (-)
- 2 - Earth
- 3 - LVDS (+)
- 4 - Earth



7 - 4-pin connector - T4ef-

All pins are connected to the USB hub - R293- .

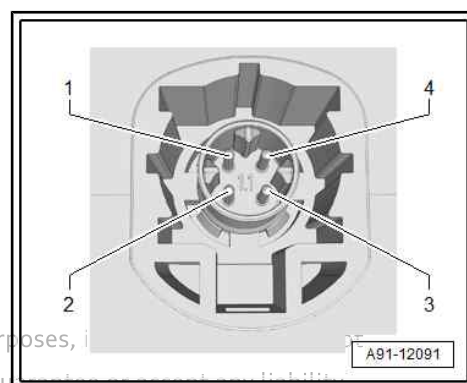
- 1 - USB1 data (+)
- 2 - USB2 data (-)
- 3 - USB1 data (-)
- 4 - USB2 data (+)



8 - 4-pin connector - T4dx-

All pins are connected to the dash panel insert - KX2- .

- 1 - LVDS (-)
- 2 - Earth
- 3 - LVDS (+)
- 4 - Earth



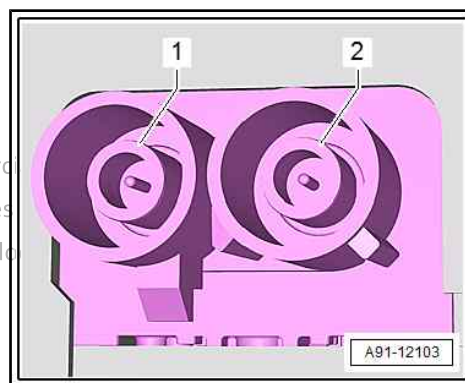
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10 - Aerial connection, AM/FM1/FM2

- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-

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1.6.3 Display unit for front information display and operating unit control unit - J685-

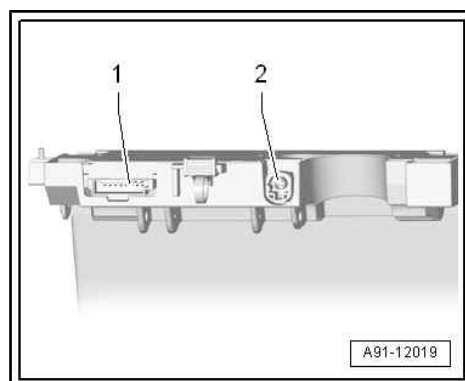
Display unit for front information display and operating unit control unit - J685-

- 1 - 8-pin connector - T8ai-
- 2 - 4-pin connector - T4ao- to control unit 1 for information electronics - J794-



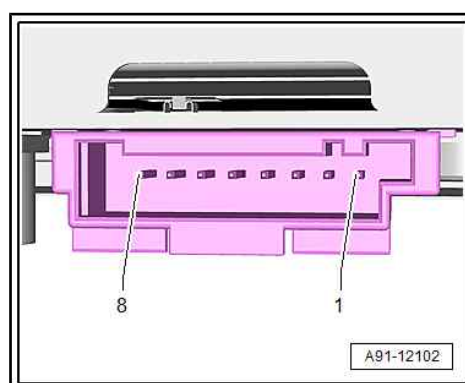
Note

Contacts which are not listed are not used.



1 - 8-pin connector - T8ai-

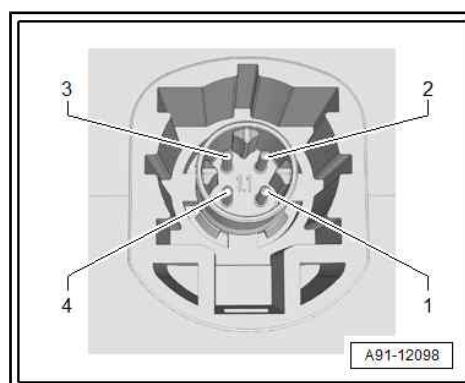
- 4 - Terminal 30
- 5 - Terminal 31
- 7 - CAN bus High to control unit 1 for information electronics - J794-
- 8 - CAN bus Low to control unit 1 for information electronics - J794-



2 - 4-pin connector - T4ao-

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

- 1 - Earth
- 2 - LVDS (+)
- 3 - Not used
- 4 - LVDS (-)





1.6.4 Multimedia system operating unit - E380- in centre console

Multimedia system operating unit - E380-

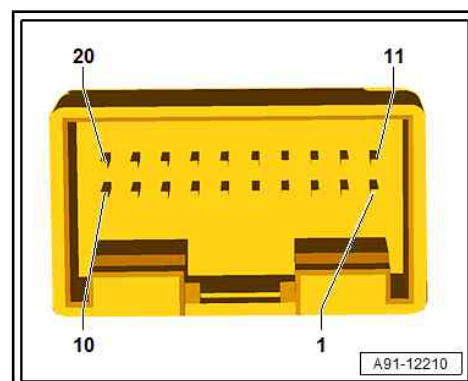


Note

Contacts which are not listed are not used.

20-pin connector - T20h-

- 1 - Not used
- 2 - Not used
- 3 - Display mounting, 8-pin connector - T8e-
- 4 - Close display limit switch - F331- , 8-pin connector - T8e-
- 5 - Open display limit switch - F330- , 8-pin connector - T8e-
- 6 - Not used
- 7 - Terminal 30
- 8 - Terminal 31
- 9 - Not used
- 10 - Display unit button - E506- in dash panel
- 11 - Not used
- 12 - Not used
- 13 - RES HU to control unit 1 for information electronics - J794-
- 14 - RES BT to control unit 1 for information electronics - J794-
- 15 - Not used
- 16 - Not used
- 17 - CAN bus Low to control unit 1 for information electronics - J794-
- 18 - CAN bus High to control unit 1 for information electronics - J794-
- 19 - Open and close display motor - V301- , 8-pin connector - T8e-
- 20 - Open and close display motor - V301- , 8-pin connector - T8e-



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1.6.5 Multimedia system operating unit - E380- in dash panel

Multimedia system operating unit - E380-

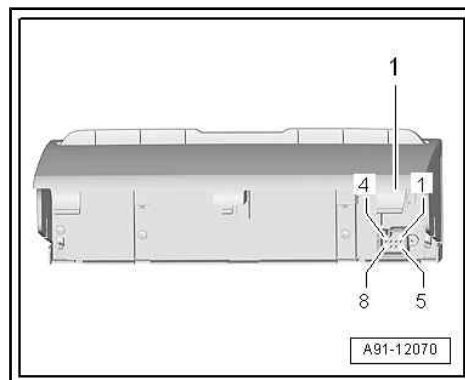


Note

Contacts which are not listed are not used.

1 - 8-pin connector - T8k-

- 1 - BT (+) to control unit 1 for information electronics - J794-
- 2 - BT (-) to control unit 1 for information electronics - J794-
- 3 - CAN bus Low to control unit 1 for information electronics - J794-
- 4 - CAN bus High to control unit 1 for information electronics - J794-
- 5 - Reset -E380- from control unit 1 for information electronics - J794-
- 6 - Not used
- 7 - Reset control unit 1 for information electronics - J794-
- 8 - Wake up KP to control unit 1 for information electronics - J794-





2 Sound system

⇒ [“2.1 Layout - sound system”, page 23](#)

⇒ [“2.2 Overview of fitting locations - sound system”, page 28](#)

⇒ [“2.3 Removing and installing digital sound package control unit/ amplifier”, page 34](#)

⇒ [“2.4 Removing and installing rear treble loudspeakers R14 / R16 ”, page 36](#)

⇒ [“2.5 Removing and installing front treble loudspeakers R20 / R22 ”, page 38](#)

⇒ [“2.6 Removing and installing front mid-range loudspeakers”, page 39](#)

⇒ [“2.7 Removing and installing rear bass loudspeakers R15 / R17 ”, page 40](#)

⇒ [“2.8 Removing and installing front bass loudspeakers R21 / R23 ”, page 42](#)

⇒ [“2.9 Removing and installing subwoofer R211 ”, page 43](#)

⇒ [“2.10 Removing and installing effect loudspeakers”, page 45](#)

⇒ [“2.11 Removing and installing centre loudspeaker”, page 49](#)

⇒ [“2.12 Pin assignment”, page 50](#)

2.1 Layout - sound system

⇒ [“2.1.1 Layout - sound system basic \(8RE\)”, page 23](#)

⇒ [“2.1.2 Layout - sound system basic plus \(8RM\)”, page 24](#)

⇒ [“2.1.3 Layout - Audi sound system \(9VD\)”, page 25](#)

⇒ [“2.1.4 Layout - Bang & Olufsen sound system \(9VS\)”, page 26](#)

2.1.1 Layout - sound system basic (8RE)

8RE - Sound system basic

- ◆ One loudspeaker in each front door (left and right)
- ◆ One loudspeaker in each A-pillar (left and right)

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1 - Control unit 1 for information electronics - J794- in glove box

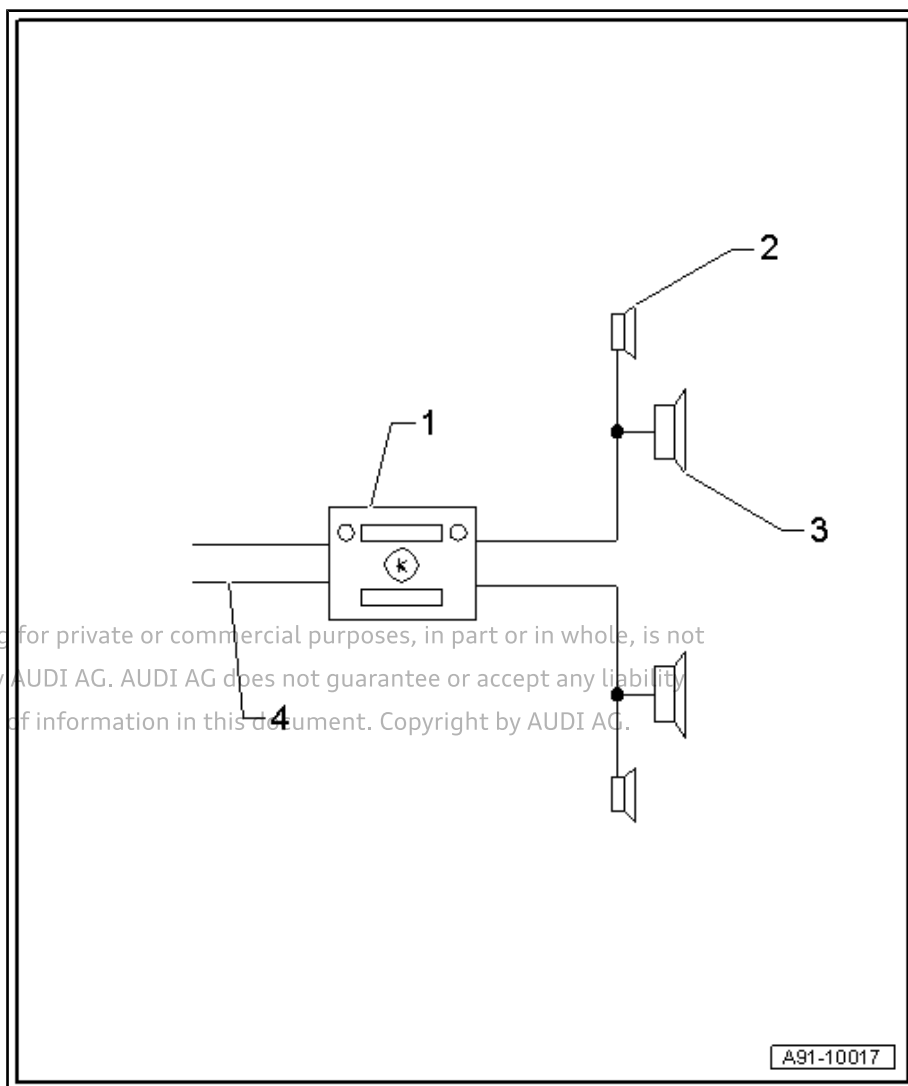
2 - Front left treble loudspeaker - R20- / front right treble loudspeaker - R22- in A-pillar trim

3 - Front left bass loudspeaker - R21- / front right bass loudspeaker - R23- in front doors (bottom)

4 - Infotainment CAN bus



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A91-10017

2.1.2 Layout - sound system basic plus (8RM)

8RM - Sound system basic plus

- ◆ One loudspeaker in each front door (left and right)
- ◆ One loudspeaker in each A-pillar (left and right)
- ◆ Two loudspeakers in each rear side trim (left and right doors)



1 - Control unit 1 for information electronics - J794- in glove box

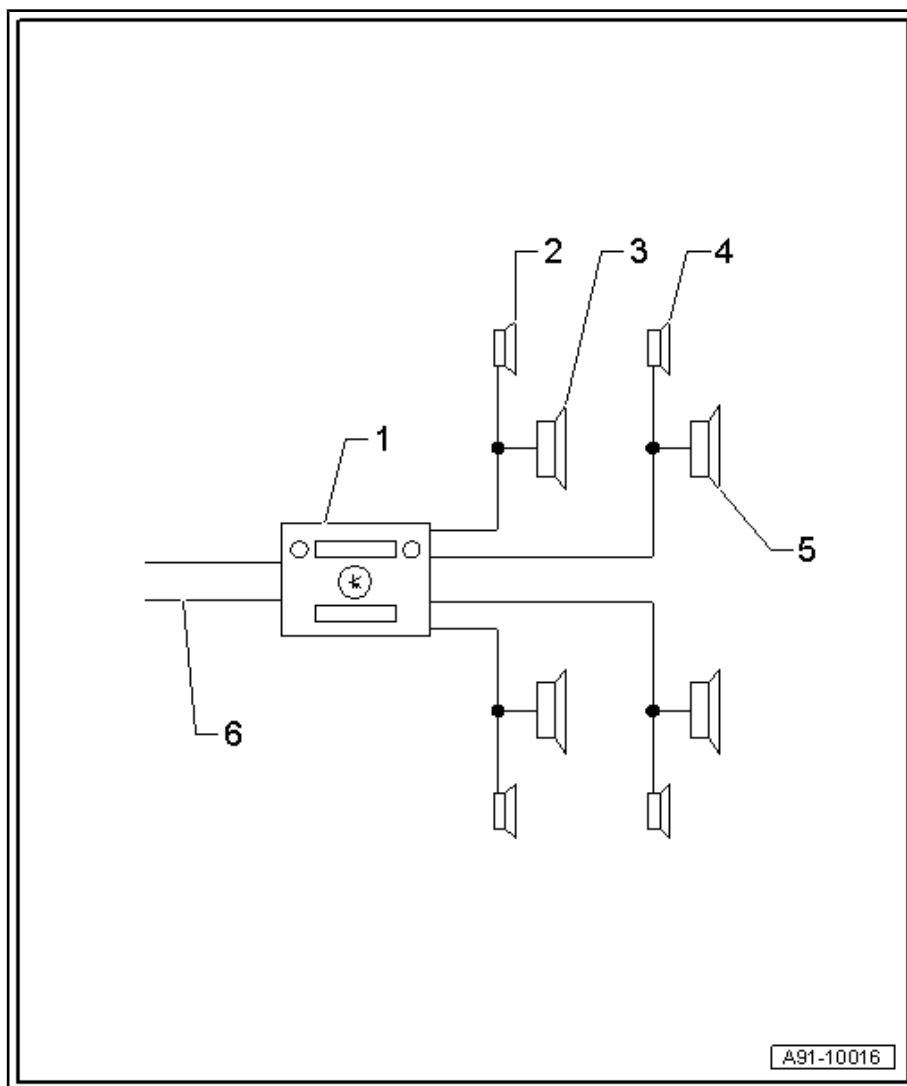
2 - Front left treble loudspeaker - R20- / front right treble loudspeaker - R22- in A-pillar trim

3 - Front left bass loudspeaker - R21- / front right bass loudspeaker - R23- in front doors (bottom)

4 - Rear left treble loudspeaker - R14- / rear right treble loudspeaker - R16- in rear side trim/rear door trim

5 - Rear left bass loudspeaker - R15- / rear right bass loudspeaker - R17- in rear side trim/rear doors

6 - Infotainment CAN bus



2.1.3 Layout - Audi sound system (9VD)

9VD - Audi sound system

- ◆ One loudspeaker in each front door (left and right)
- ◆ One loudspeaker in each A-pillar (left and right)
- ◆ One loudspeaker in centre of dash panel
- ◆ Two loudspeakers in each rear side trim (left and right doors)
- ◆ Subwoofer - R211- in spare wheel well/rear shelf (not installed in Cabriolet)

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1 - Control unit 1 for information electronics - J794- in glove box

2 - Front left treble loudspeaker - R20- / front right treble loudspeaker - R22- in A-pillar trim

3 - Front left bass loudspeaker - R21- / front right bass loudspeaker - R23- in front doors (bottom)

4 - Rear left treble loudspeaker - R14- / rear right treble loudspeaker - R16- in rear side trim/rear door trim

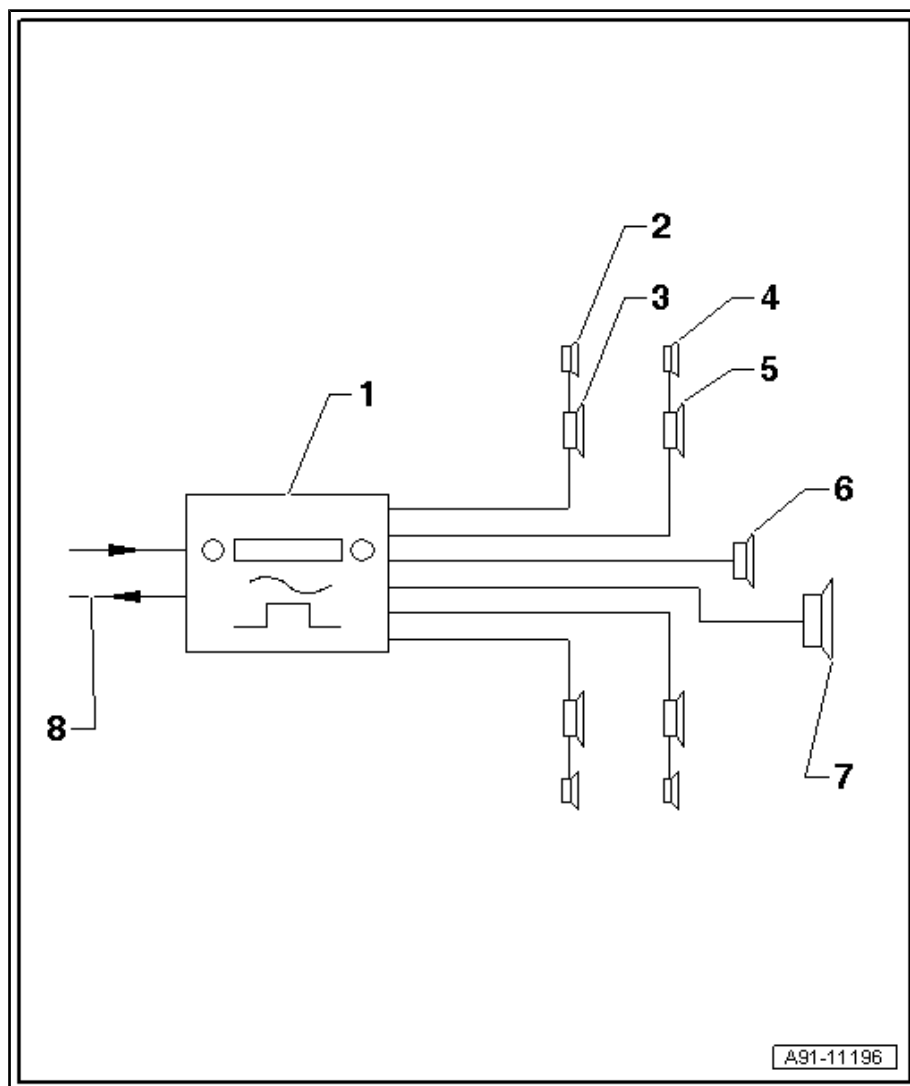
5 - Rear left bass loudspeaker - R15- / rear right bass loudspeaker - R17- in rear side trim/rear doors

6 - Centre loudspeaker - R208- in dash panel (centre)

7 - Subwoofer - R211- in spare wheel well/rear shelf

☐ Not installed on Cabriolet

8 - Infotainment CAN bus



2.1.4 Layout - Bang & Olufsen sound system (9VS)

9VS - Bang & Olufsen sound system

- ◆ Two loudspeakers in each front door (left and right)
- ◆ One loudspeaker in each A-pillar (left and right)
- ◆ One loudspeaker in centre of dash panel
- ◆ Two loudspeakers in each rear side trim (left and right doors), 3-door and 5-door models, Saloon
- ◆ Three loudspeakers in each rear side trim (left and right), Cabriolet
- ◆ One loudspeaker in each C/D-pillar (left and right)/both sides of rear shelf, 3-door and 5-door models, Saloon
- ◆ Subwoofer - R211- in spare wheel well/rear shelf, 3-door and 5-door models, Saloon
- ◆ Digital sound package control unit - J525- under left front seat

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1 - Digital sound package control unit - J525- under left front seat

2 - Front left treble loudspeaker - R20- / front right treble loudspeaker - R22- in A-pillar trim

3 - Front left mid-range loudspeaker - R103- / front right mid-range loudspeaker - R104- in front doors (centre)

4 - Front left bass loudspeaker - R21- / front right bass loudspeaker - R23- in front doors (bottom)

5 - Rear left treble loudspeaker - R14- / rear right treble loudspeaker - R16- in rear side trim/rear door trim

6 - Rear left bass loudspeaker - R15- / rear right bass loudspeaker - R17- in rear side trim/rear doors

7 - Centre loudspeaker - R208- in dash panel (centre)

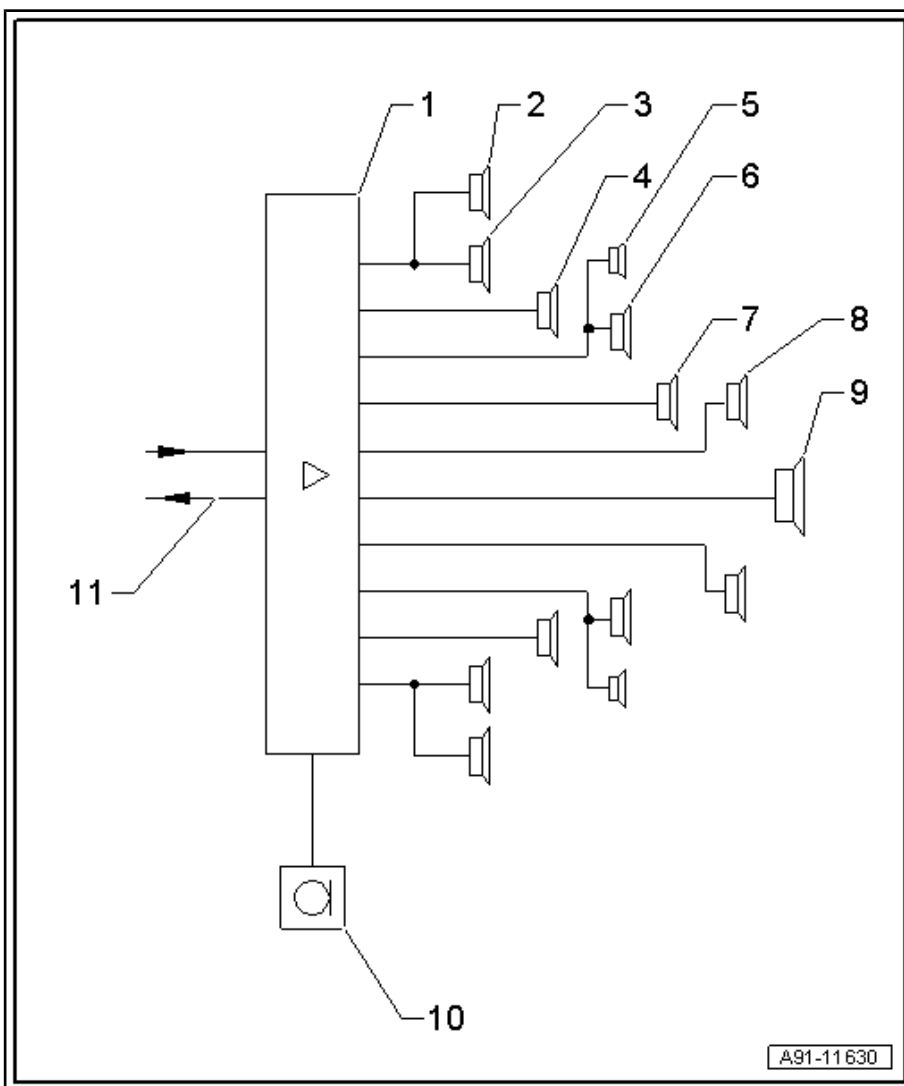
8 - Left effect loudspeaker - R209- / right effect loudspeaker - R210- in C/D-pillar trim panels/rear shelf/in side trim

9 - Subwoofer - R211- in spare wheel well/rear shelf

☐ Not installed on Cabriolet

10 - Microphone unit in front roof module - R164- (internal microphone - R74-) in front interior light - W1-

11 - MOST bus



Notes on MOST bus

In addition to the CAN bus, the fibre optic data bus "MOST bus" is used.

A "fibre optic cable" is used as the connecting cable. The fibre optic cables are fitted in corrugated tubes for protection.

Renew the complete fibre optic cable whenever possible.

The end faces of the connectors must not become dirty.

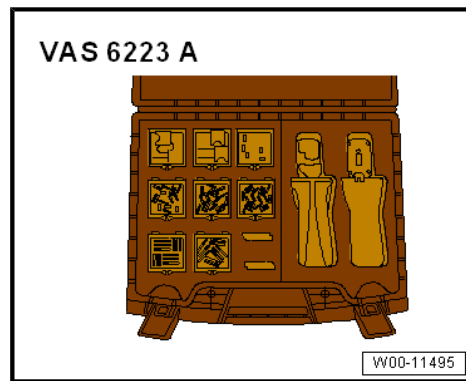
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If connectors are unplugged: fit a protective cap for cable connector - VAS 6223/9- .

When installing the fibre optic cables, be sure to observe the minimum bending radius of 25 mm. Do not crush or kink the fibre optic cable.

Repairing fibre optic cables ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing fibre optic cables



2.2 Overview of fitting locations - sound system

⇒ [“2.2.1 Overview of fitting locations - sound system, 3-door models”, page 28](#)

⇒ [“2.2.2 Overview of fitting locations - sound system, 5-door models”, page 30](#)

⇒ [“2.2.3 Overview of fitting locations - sound system, Saloon”, page 32](#)

⇒ [“2.2.4 Overview of fitting locations - sound system, Cabriolet”, page 33](#)

2.2.1 Overview of fitting locations - sound system, 3-door models



1 - Front left treble loudspeaker - R20- / front right treble loudspeaker - R22-

- ☐ Removing and installing
⇒ [page 38](#)

2 - Bolt

- ☐ 4x
- ☐ 3 Nm

3 - Front left bass loudspeaker - R21- / front right bass loudspeaker - R23-

- ☐ Removing and installing
⇒ [page 42](#)

4 - Front interior light - W1-

5 - 4-pin connector - T4-

6 - Internal microphone - R74-

- ☐ Exploded view
⇒ [page 134](#)
- ☐ Removing and installing
⇒ [page 136](#)

7 - Rear left treble loudspeaker - R14- / rear right treble loudspeaker - R16-

- ☐ Removing and installing
⇒ [page 36](#)

8 - Bolt

- ☐ 3x
- ☐ 3 Nm

9 - Rear left bass loudspeaker - R15- / rear right bass loudspeaker - R17-

- ☐ Removing and installing
⇒ [page 40](#)

10 - Bolt

- ☐ 2x
- ☐ 3 Nm

11 - Left effect loudspeaker - R209- / right effect loudspeaker - R210-

- ☐ Removing and installing ⇒ [page 45](#)

12 - Bolt

- ☐ All versions except those manufactured in China: 10 Nm
- ☐ Only versions manufactured in China: 5 Nm

13 - Subwoofer - R211-

- ☐ Removing and installing ⇒ [page 43](#)

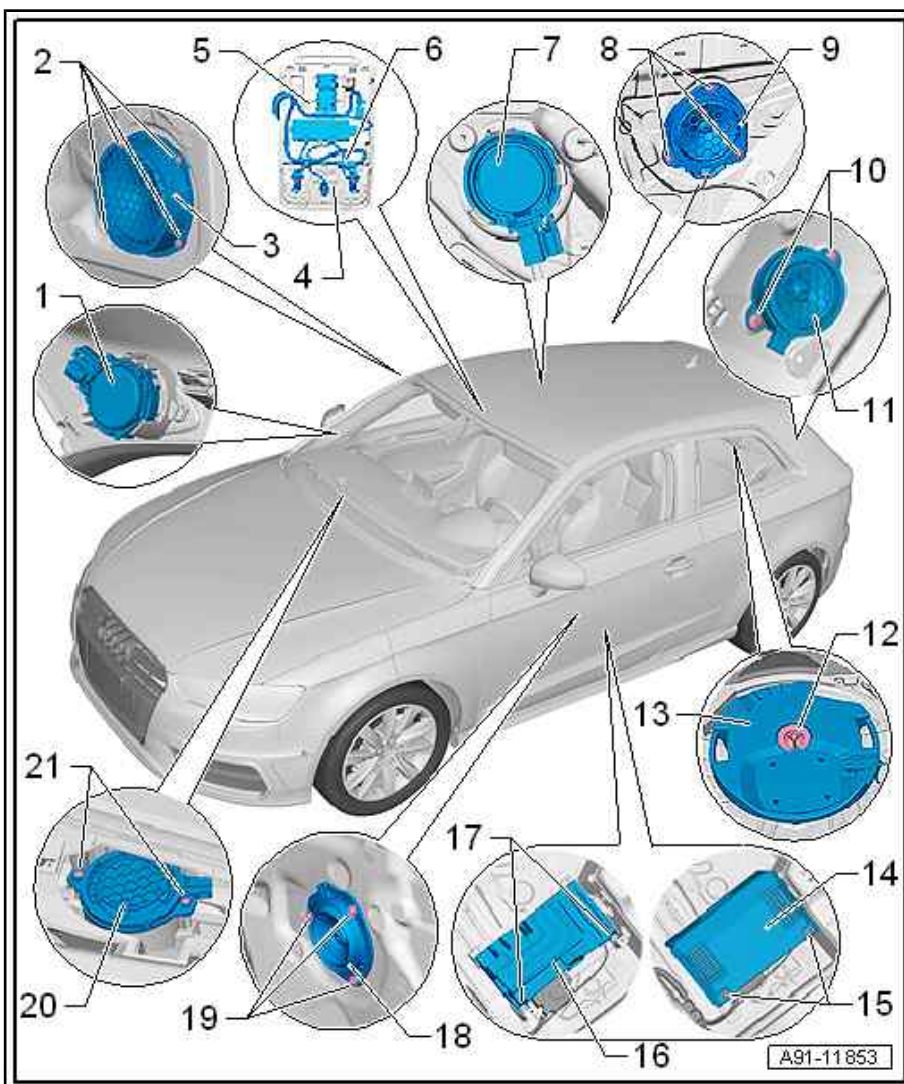
14 - Cover

15 - Spreader rivet

- ☐ 2x

16 - Digital sound package control unit - J525-

- ☐ Pin assignment ⇒ [page 50](#)
- ☐ Removing and installing ⇒ [page 34](#)



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17 - Bolt

- ☐ 2x
- ☐ 3 Nm

18 - Front left mid-range loudspeaker - R103- / front right mid-range loudspeaker - R104-

- ☐ Removing and installing ⇒ [page 39](#)

19 - Bolt

- ☐ 3x
- ☐ 3 Nm

20 - Centre loudspeaker - R208-

- ☐ Removing and installing ⇒ [page 49](#)

21 - Bolt

- ☐ 2x
- ☐ 2 Nm

2.2.2 Overview of fitting locations - sound system, 5-door models

1 - Front left treble loudspeaker - R20- / front right treble loudspeaker - R22-

- ☐ Removing and installing ⇒ [page 38](#)

2 - Front left bass loudspeaker - R21- / front right bass loudspeaker - R23-

- ☐ Removing and installing ⇒ [page 42](#)

3 - Bolt

- ☐ 3x
- ☐ 3 Nm

4 - Front interior light - W1-

5 - 4-pin connector - T4-

6 - Internal microphone - R74-

- ☐ Exploded view ⇒ [page 134](#)
- ☐ Removing and installing ⇒ [page 136](#)

7 - Rear left treble loudspeaker - R14- / rear right treble loudspeaker - R16-

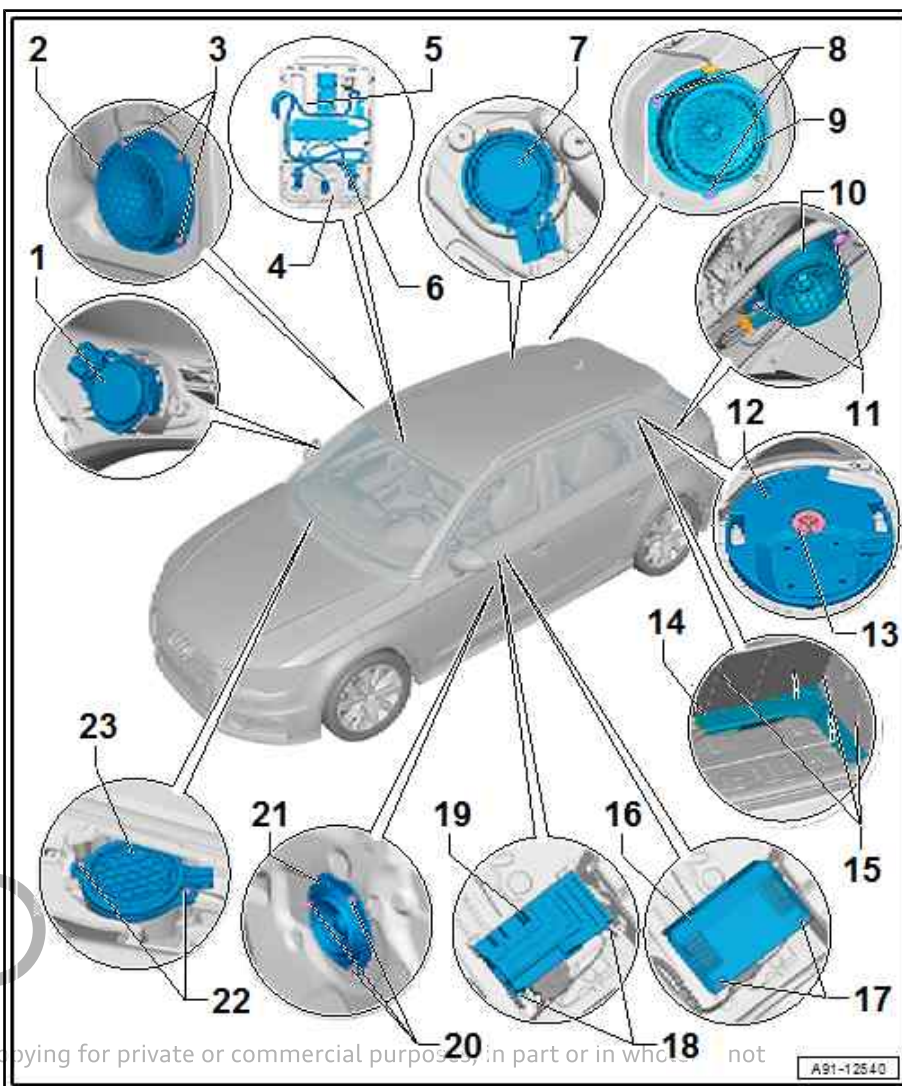
- ☐ Removing and installing ⇒ [page 37](#)

8 - Bolt

- ☐ 3x
- ☐ 3 Nm

9 - Rear left bass loudspeaker - R15- / rear right bass loudspeaker - R17-

- ☐ Removing and installing ⇒ [page 40](#)





10 - Left effect loudspeaker - R209- / right effect loudspeaker - R210-

- ☐ Removing and installing ⇒ [page 46](#)

11 - Bolt

- ☐ 2x
- ☐ 3 Nm

12 - Subwoofer - R211-

- ☐ Not on Audi g-tron or Audi e-tron
- ☐ Removing and installing ⇒ [page 43](#)

13 - Bolt

- ☐ Not on Audi g-tron or Audi e-tron
- ☐ All versions except those manufactured in China: 10 Nm
- ☐ Only versions manufactured in China: 5 Nm

14 - Subwoofer - R211-

- ☐ Only on Audi g-tron or Audi e-tron
- ☐ Removing and installing ⇒ [page 43](#)

15 - Nut

- ☐ 3x
- ☐ Only on Audi g-tron or Audi e-tron
- ☐ 4 Nm

16 - Cover

17 - Spreader rivet

- ☐ 2x

18 - Bolt

- ☐ 2x
- ☐ 3 Nm

19 - Digital sound package control unit - J525-

- ☐ Pin assignment ⇒ [page 50](#)
- ☐ Removing and installing ⇒ [page 34](#)

20 - Bolt

- ☐ 3x
- ☐ 3 Nm

21 - Front left mid-range loudspeaker - R103- / front right mid-range loudspeaker - R104-

- ☐ Removing and installing ⇒ [page 39](#)

22 - Bolt

- ☐ 2x
- ☐ 2 Nm

23 - Centre loudspeaker - R208-

- ☐ Removing and installing ⇒ [page 49](#)

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2.2.3 Overview of fitting locations - sound system, Saloon

1 - Front left treble loudspeaker - R20- / front right treble loudspeaker - R22-

- ❑ Removing and installing
⇒ [page 38](#)

2 - Bolt

- ❑ 3x
- ❑ 3 Nm

3 - Front left bass loudspeaker - R21- / front right bass loudspeaker - R23-

- ❑ Removing and installing
⇒ [page 42](#)

4 - Front interior light - W1-

5 - 4-pin connector - T4-

6 - Internal microphone - R74-

- ❑ Exploded view
⇒ [page 134](#)
- ❑ Removing and installing
⇒ [page 136](#)

7 - Rear left treble loudspeaker - R14- / rear right treble loudspeaker - R16-

- ❑ Removing and installing
⇒ [page 37](#)

8 - Bolt

- ❑ 3x
- ❑ 3 Nm

9 - Rear left bass loudspeaker - R15- / rear right bass loudspeaker - R17-

- ❑ Removing and installing
⇒ [page 40](#)

10 - Left effect loudspeaker - R209- / right effect loudspeaker - R210-

- ❑ Removing and installing ⇒ [page 46](#)

11 - Bolt

- ❑ 3x
- ❑ 2 Nm

12 - Subwoofer - R211-

- ❑ Removing and installing ⇒ [page 43](#)

13 - Bolt

- ❑ 3x
- ❑ 3 Nm

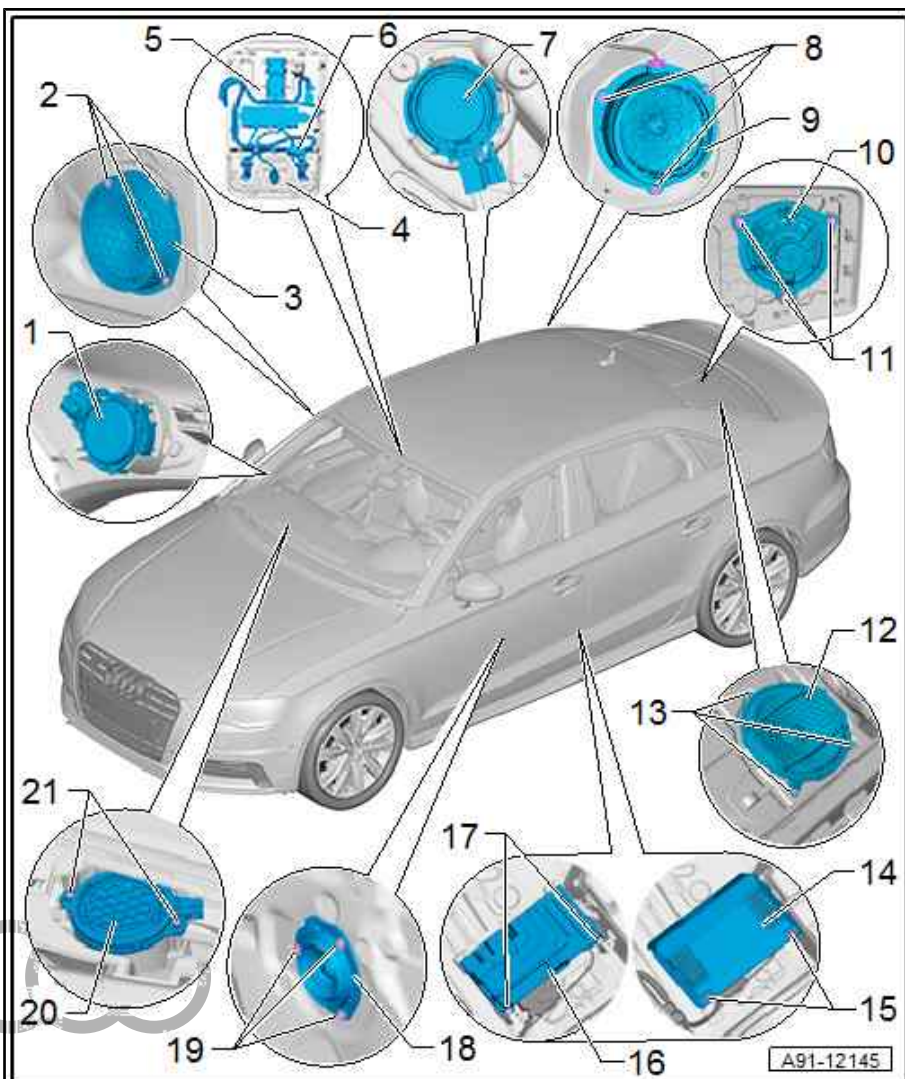
14 - Cover

15 - Spreader rivet

- ❑ 2x

16 - Digital sound package control unit - J525-

- ❑ Pin assignment ⇒ [page 50](#)



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- ☐ Removing and installing ➤ [page 34](#)

17 - Bolt

- ☐ 2x
- ☐ 3 Nm

18 - Front left mid-range loudspeaker - R103- / front right mid-range loudspeaker - R104-

- ☐ Removing and installing ➤ [page 39](#)

19 - Bolt

- ☐ 3x
- ☐ 3 Nm

20 - Centre loudspeaker - R208-

- ☐ Removing and installing ➤ [page 49](#)

21 - Bolt

- ☐ 2x
- ☐ 2 Nm

2.2.4 Overview of fitting locations - sound system, Cabriolet

1 - Front left treble loudspeaker - R20- / front right treble loudspeaker - R22-

- ☐ Removing and installing ➤ [page 38](#)

2 - Front left bass loudspeaker - R21- / front right bass loudspeaker - R23-

- ☐ Removing and installing ➤ [page 42](#)

3 - Bolt

- ☐ 3x
- ☐ 3 Nm

4 - Front interior light - W1-

5 - 4-pin connector - T4-

6 - Internal microphone - R74-

- ☐ Exploded view ➤ [page 134](#)
- ☐ Removing and installing ➤ [page 136](#)

7 - Rear left treble loudspeaker - R14- / rear right treble loudspeaker - R16-

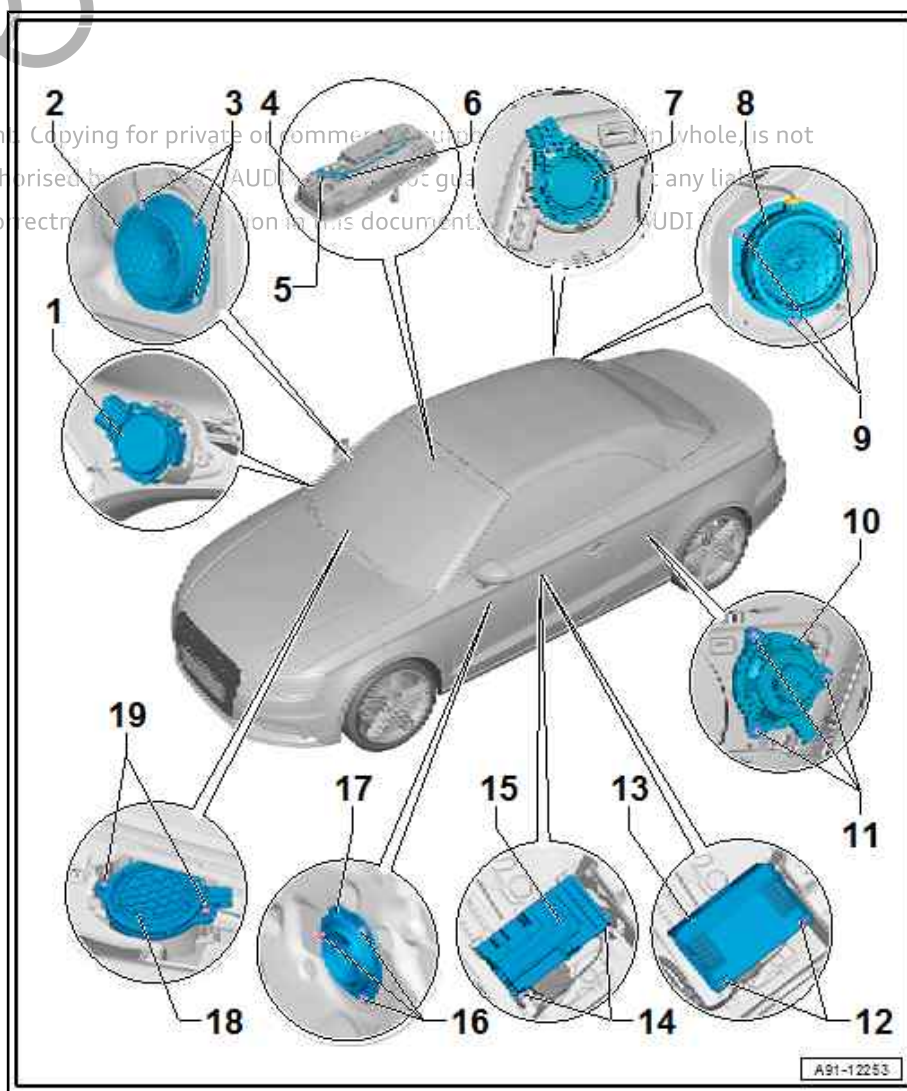
- ☐ Removing and installing ➤ [page 37](#)

8 - Rear left bass loudspeaker - R15- / rear right bass loudspeaker - R17-

- ☐ Removing and installing ➤ [page 40](#)

9 - Bolt

- ☐ 3x
- ☐ 2 Nm





10 - Left effect loudspeaker - R209- / right effect loudspeaker - R210-

- ☐ Removing and installing ⇒ [page 46](#)

11 - Bolt

- ☐ 3x
- ☐ 2 Nm

12 - Spreader rivet

- ☐ 2x

13 - Cover

14 - Bolt

- ☐ 2x
- ☐ 3 Nm

15 - Digital sound package control unit - J525-

- ☐ Pin assignment ⇒ [page 50](#)
- ☐ Removing and installing ⇒ [page 34](#)

16 - Bolt

- ☐ 3x
- ☐ 3 Nm

17 - Front left mid-range loudspeaker - R103- / front right mid-range loudspeaker - R104-

- ☐ Removing and installing ⇒ [page 39](#)

18 - Centre loudspeaker - R208-

- ☐ Removing and installing ⇒ [page 49](#)

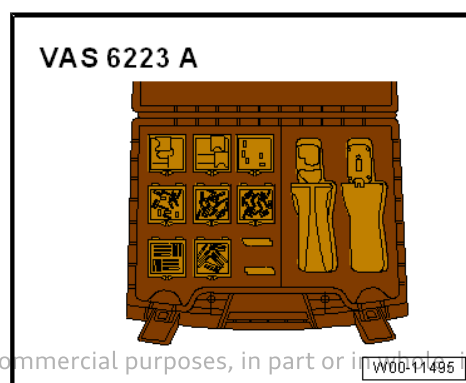
19 - Bolt

- ☐ 2x
- ☐ 2 Nm

2.3 Removing and installing digital sound package control unit/amplifier

Special tools and workshop equipment required

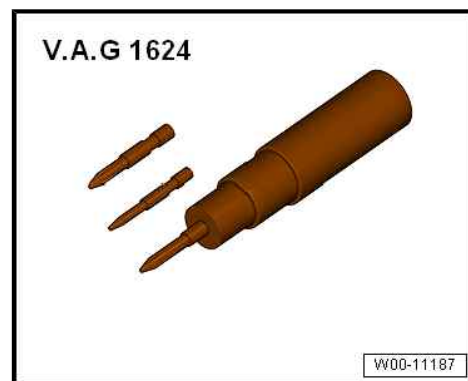
- ◆ Protective cap for cable connector - VAS 6223/9-



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- ◆ Torque screwdriver - V.A.G 1624-



Digital sound package control unit - J525- -1- is located beneath front seat (left-side).



Note

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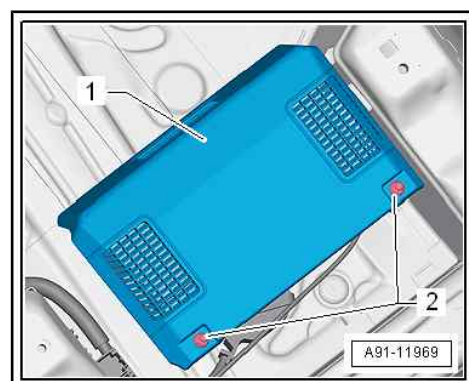
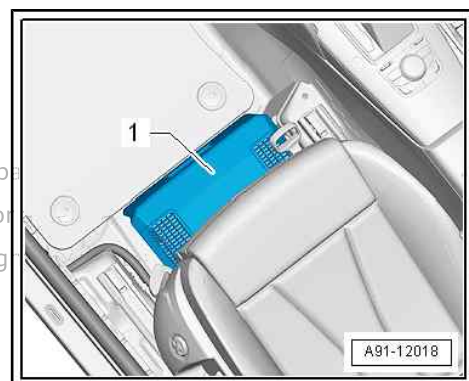
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Removing

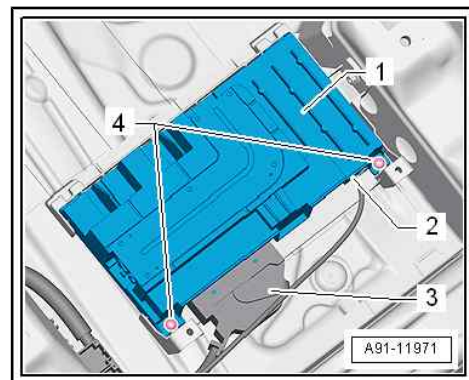
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove floor mat from vehicle.

The cover must first be removed.

- Pull out spreader rivet -2- and remove cover -1-.

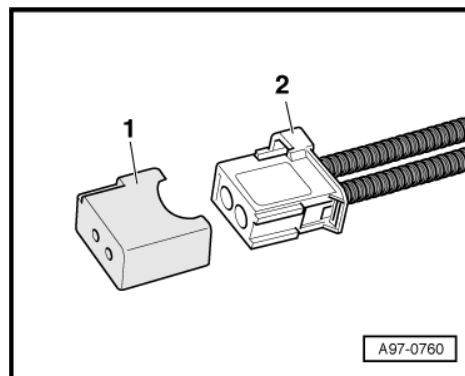


- Release and unplug connector -2- on digital sound package control unit - J525- -1-.





- Fit protective cap for cable connector - VAS 6223/9- -1- onto MOST bus connector -2-.



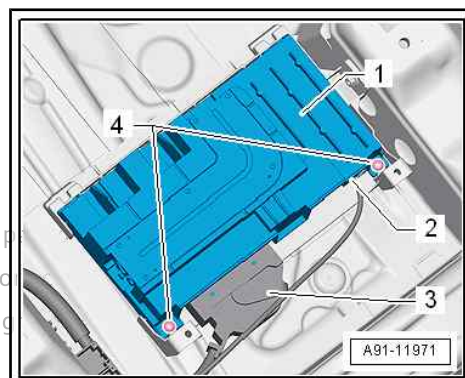
- Release and unplug connector -3- on digital sound package control unit - J525- -1-.
- Unscrew bolts -4- and swivel digital sound package control unit - J525- -1- out of bracket.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ ["2.2.1 Overview of fitting locations - sound system, 3-door models", page 28](#)
- ◆ ⇒ ["2.2.2 Overview of fitting locations - sound system, 5-door models", page 30](#)
- ◆ ⇒ ["2.2.3 Overview of fitting locations - sound system, Saloon", page 32](#)
- ◆ ⇒ ["2.2.4 Overview of fitting locations - sound system, Cabriolet", page 33](#)



2.4 Removing and installing rear treble loudspeakers -R14- / -R16-

⇒ ["2.4.1 Removing and installing rear treble loudspeakers R14 / R16 - 3-door models", page 36](#)

⇒ ["2.4.2 Removing and installing rear treble loudspeakers R14 / R16 - 5-door models, Saloon", page 37](#)

⇒ ["2.4.3 Removing and installing rear treble loudspeakers R14 / R16 - Cabriolet", page 38](#)

2.4.1 Removing and installing rear treble loudspeakers -R14- / -R16- - 3-door models

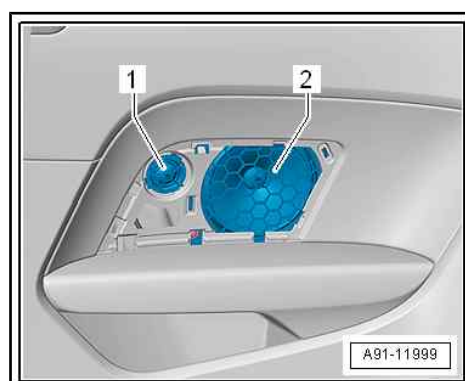
Rear left treble loudspeaker - R14- and rear right treble loudspeaker - R16- -1- are located in rear side trim.

The removal and installation procedure is similar for all components.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove side trim ⇒ General body repairs, interior; Rep. gr. 70; Passenger compartment trim panels; Exploded view - side trim .

Rear left treble loudspeaker - R14- is clipped into side trim.

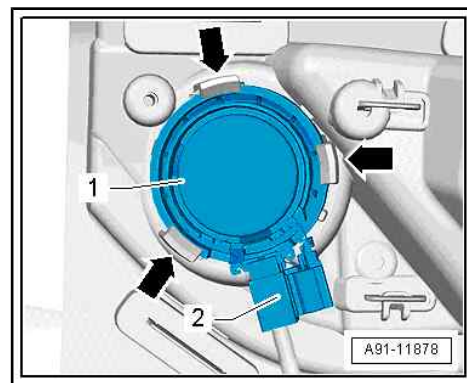




- Release and unplug electrical connector -2- at rear left treble loudspeaker - R14- -1-.
- Press lugs -arrows- until rear left treble loudspeaker - R14- -1- can be detached from side trim.

Installing

- Install in reverse sequence of removal.



2.4.2 Removing and installing rear treble loudspeakers -R14- / -R16- - 5-door models, Saloon

Rear left treble loudspeaker - R14- and rear right treble loudspeaker - R16- -1- are located in rear door trim.

The removal and installation procedure is similar for all components.

Removing

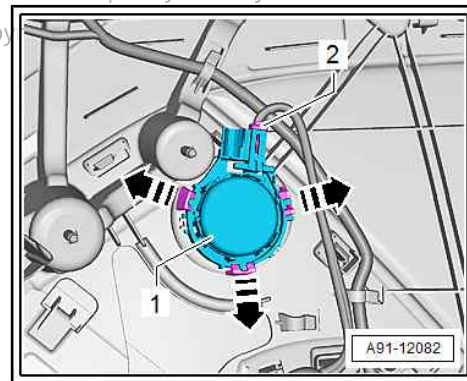
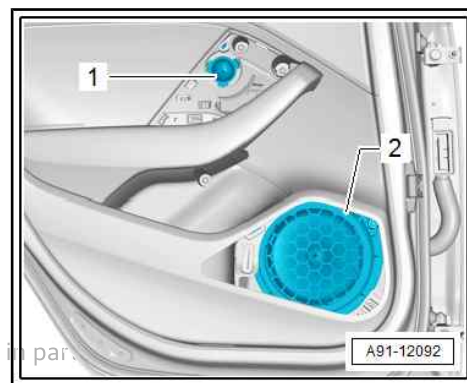
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear door trim ⇒ General body repairs, interior; Rep. gr. 70 ; Door trim (rear); Exploded view - door trim (rear) .

Rear left treble loudspeaker - R14- is clipped into door trim.

- Release and unplug electrical connector -2- at rear left treble loudspeaker - R14- -1-.
- Press lugs -arrows- until rear left treble loudspeaker - R14- -1- can be detached from door trim.

Installing

- Install in reverse sequence of removal.





2.4.3 Removing and installing rear treble loudspeakers -R14- / -R16- - Cabriolet

Rear left treble loudspeaker - R14- and rear right treble loudspeaker - R16- are located in inserts for side trim.

The removal and installation procedure is similar for all components.

Removing

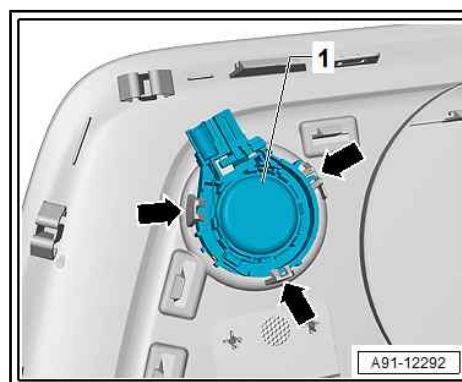
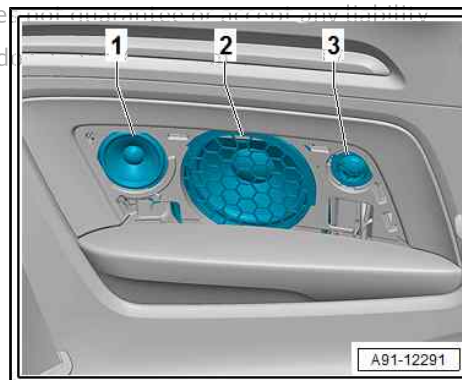
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove insert for side trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - side trim .

Rear left treble loudspeaker - R14- is clipped into trim panel for side trim.

- Press lugs -arrows- until rear left treble loudspeaker - R14- -1- can be detached from trim panel for side trim.

Installing

- Install in reverse sequence of removal.



2.5 Removing and installing front treble loudspeakers -R20- / -R22-

Front left treble loudspeaker - R20- / front right treble loudspeaker - R22- -1- are located in A-pillar trim.

The removal and installation procedure is similar for all components.

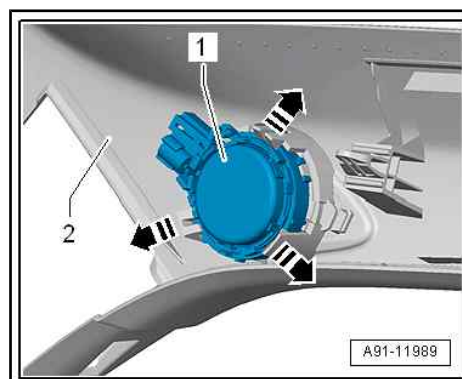
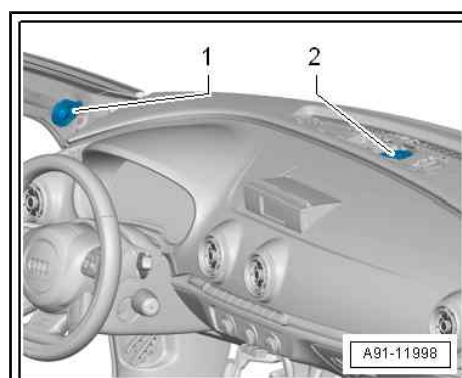
Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove A-pillar trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - A-pillar trim .

- Release and unplug connector at front left treble loudspeaker - R20- -1-.
- Press lugs in direction of -arrows- until front left treble loudspeaker - R20- -1- can be detached from A-pillar trim -2-.

Installing

- Install in reverse sequence of removal.





2.6 Removing and installing front mid-range loudspeakers

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-



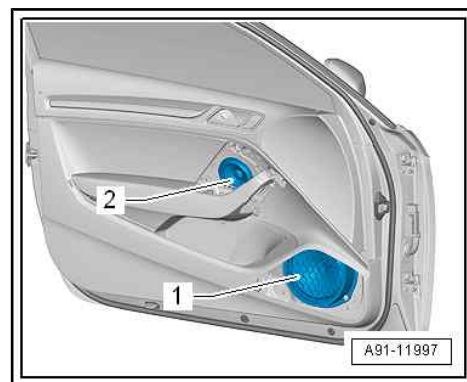
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The front left mid-range loudspeaker - R103- -2- and the front right mid-range loudspeaker - R104- -2- are located in the front doors (centre).

The removal and installation procedure is similar for all components.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove door trim (front) ⇒ General body repairs, interior; Rep. gr. 70 ; Door trim (front); Exploded view - door trim (front) .
- Release and unplug connector at front left mid-range loudspeaker - R103- -2-.
- Remove bolts -3- at front left mid-range loudspeaker - R103- -2-.
- Detach front left mid-range loudspeaker - R103- -2- from door -1-.

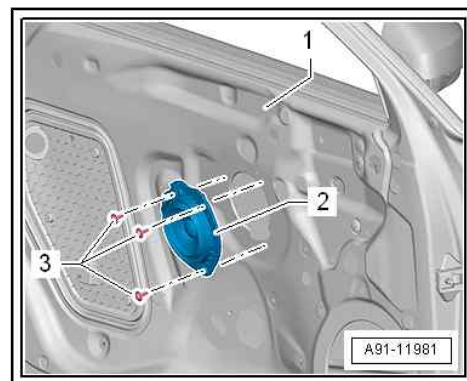


Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“2.2.1 Overview of fitting locations - sound system, 3-door models”, page 28](#)
- ◆ ⇒ [“2.2.2 Overview of fitting locations - sound system, 5-door models”, page 30](#)
- ◆ ⇒ [“2.2.3 Overview of fitting locations - sound system, Saloon”, page 32](#)
- ◆ ⇒ [“2.2.4 Overview of fitting locations - sound system, Cabriolet”, page 33](#)





2.7 Removing and installing rear bass loudspeakers -R15- / -R17-

⇒ [“2.7.1 Removing and installing rear bass loudspeakers R15 / R17 - 3-door models”, page 40](#)

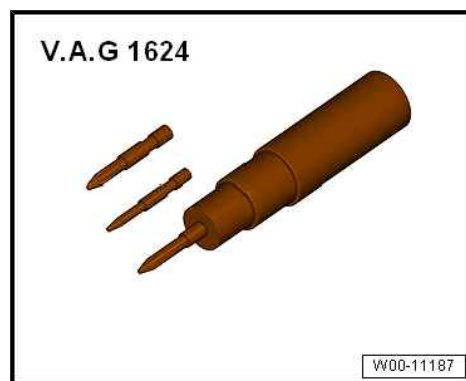
⇒ [“2.7.2 Removing and installing rear bass loudspeakers R15 / R17 - 5-door models, Saloon”, page 40](#)

⇒ [“2.7.3 Removing and installing rear bass loudspeakers R15 / R17 - Cabriolet”, page 41](#)

2.7.1 Removing and installing rear bass loudspeakers -R15- / -R17- - 3-door models

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-

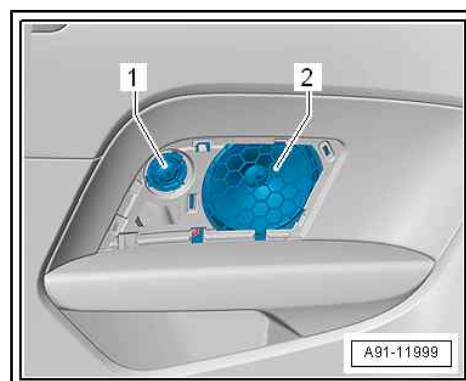


Rear left bass loudspeaker - R15- / rear right bass loudspeaker - R17- -2- are located behind rear side trim.

The removal and installation procedure is similar for all components.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove side trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - side trim .



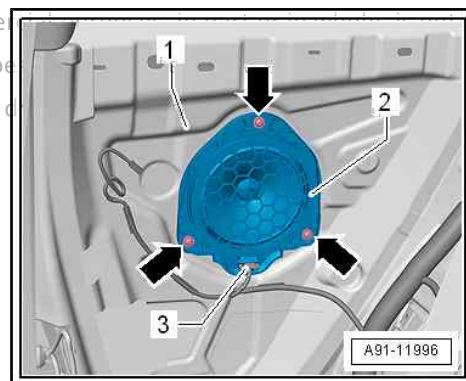
- Release and unplug electrical connector -3- at rear left bass loudspeaker - R15- -2-.
- Unscrew bolts -arrows- and detach rear left bass loudspeaker - R15- -2- from body -1-.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“2.2.1 Overview of fitting locations - sound system, 3-door models”, page 28](#)

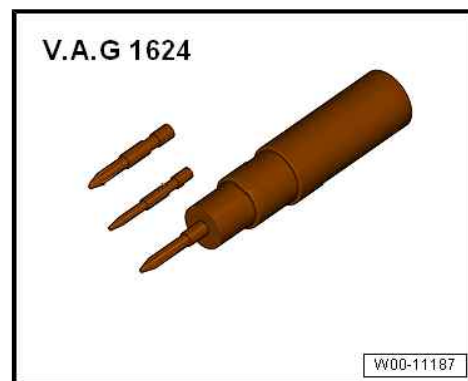


2.7.2 Removing and installing rear bass loudspeakers -R15- / -R17- - 5-door models, Saloon

Special tools and workshop equipment required



- ◆ Torque screwdriver - V.A.G 1624-

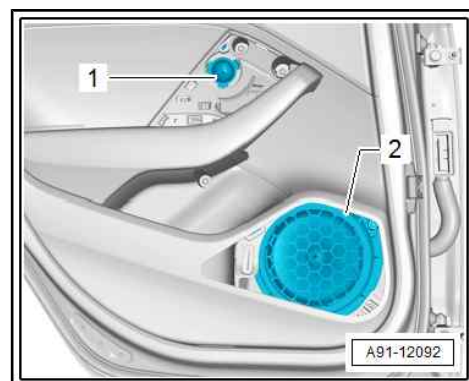


The rear left bass loudspeaker - R15- and the rear right bass loudspeaker - R17- -2- are located in the rear doors (bottom).

The removal and installation procedure is similar for all components.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear door trim ⇒ General body repairs, interior; Rep. gr. 70 ; Door trim (rear); Exploded view - door trim (rear) .



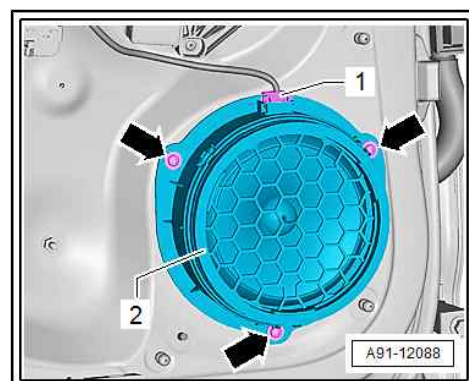
- Release and unplug electrical connector -1- at rear left bass loudspeaker - R15- -2-.
- Unscrew bolts -arrows- and detach rear left bass loudspeaker - R15- -2- from door.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“2.2.2 Overview of fitting locations - sound system, 5-door models”, page 30](#)
- ◆ ⇒ [“2.2.3 Overview of fitting locations - sound system, Saloon”, page 32](#)



2.7.3 Removing and installing rear bass loudspeakers -R15- / -R17- - Cabriolet

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-



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Rear left bass loudspeaker - R15- / rear right bass loudspeaker - R17- -2- are located behind inserts for side trim.

The removal and installation procedure is similar for all components.

Removing

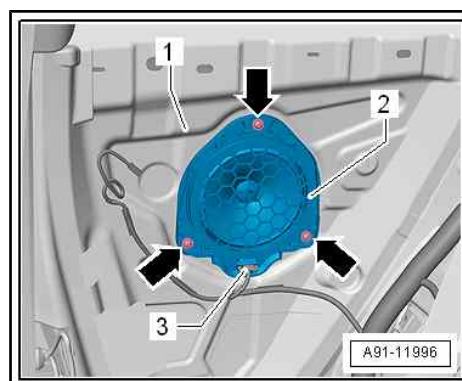
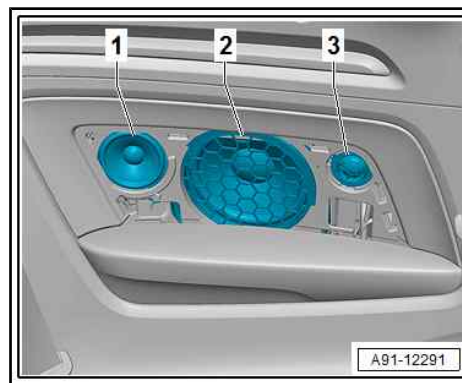
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove insert for side trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - side trim .
- Release and unplug electrical connector -3- at rear left bass loudspeaker - R15- -2-.
- Unscrew bolts -arrows- and detach rear left bass loudspeaker - R15- -2- from body -1-.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ♦ ⇒ [“2.2.4 Overview of fitting locations - sound system, Cabriolet”, page 33](#)



2.8 Removing and installing front bass loudspeakers -R21- / -R23-

Special tools and workshop equipment required

- ♦ Torque screwdriver - V.A.G 1624-



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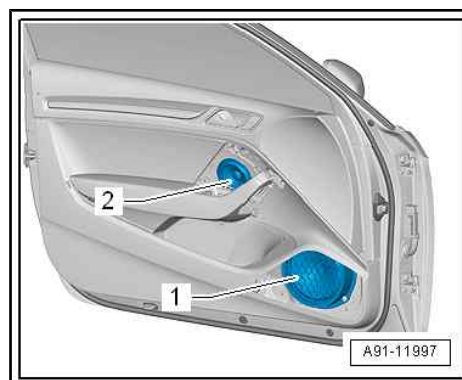


The front left bass loudspeaker - R21- and the front right bass loudspeaker - R23- -1- are located in the front doors (bottom).

The removal and installation procedure is similar for all components.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove door trim (front) ⇒ General body repairs, interior; Rep. gr. 70 ; Door trim (front); Exploded view - door trim (front) .





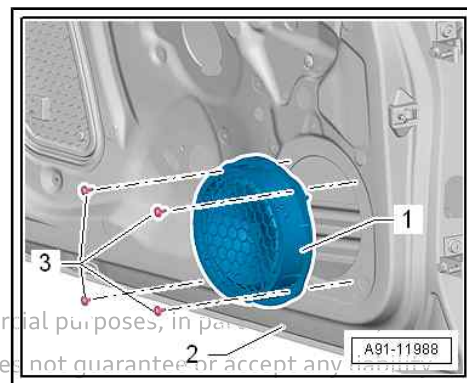
- Release and unplug connector at front left bass loudspeaker - R21- -1-.
- Remove bolts -3- at front left bass loudspeaker - R21- -1-.
- Detach front left bass loudspeaker - R21- -1- from door -2-.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“2.2.1 Overview of fitting locations - sound system, 3-door models”, page 28](#)
- ◆ ⇒ [“2.2.2 Overview of fitting locations - sound system, 5-door models”, page 30](#)
- ◆ ⇒ [“2.2.3 Overview of fitting locations - sound system, Saloon”, page 32](#)
- ◆ ⇒ [“2.2.4 Overview of fitting locations - sound system, Cabriolet”, page 33](#)



2.9 Removing and installing subwoofer - R211-

⇒ [“2.9.1 Removing and installing subwoofer R211 - 3-door models, 5-door models \(except Audi g-tron, Audi e-tron\)”, page 43](#)

⇒ [“2.9.2 Removing and installing subwoofer R211 - Audi g-tron, Audi e-tron”, page 43](#)

⇒ [“2.9.3 Removing and installing subwoofer R211 - Saloon”, page 44](#)

2.9.1 Removing and installing subwoofer - R211- - 3-door models, 5-door models (except Audi g-tron, Audi e-tron)

The subwoofer - R211- is located in the spare wheel well.

Removing

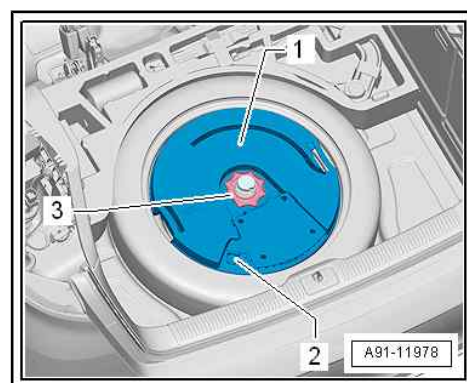
- Switch off ignition and all electrical equipment, and remove ignition key.
- Take out luggage compartment floor.
- Release and unplug connector -2- at subwoofer - R211- -1-.
- Remove bolt -3- on subwoofer - R211- -1-.
- Lift subwoofer - R211- -1- upwards out of spare wheel well.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“2.2.1 Overview of fitting locations - sound system, 3-door models”, page 28](#)
- ◆ ⇒ [“2.2.2 Overview of fitting locations - sound system, 5-door models”, page 30](#)



2.9.2 Removing and installing subwoofer - R211- - Audi g-tron, Audi e-tron

Special tools and workshop equipment required



◆ Torque wrench - V.A.G 1783-

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The subwoofer - R211- is located in the luggage compartment.

Removing

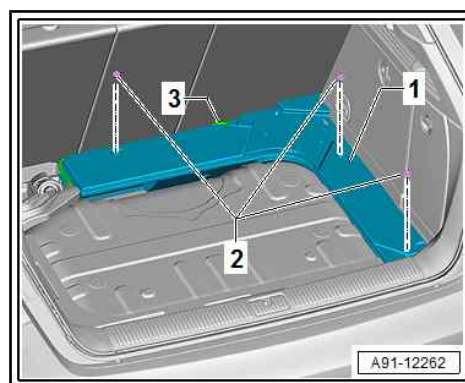
- Switch off ignition and all electrical equipment, and remove ignition key.
- Take out luggage compartment floor.
- Release and unplug connector -3- at subwoofer - R211- -1-.
- Remove nuts -2- on subwoofer - R211- -1-.
- Swivel subwoofer - R211- -1- upwards out of luggage compartment.

Installing

- Install in reverse sequence of removal.

Tightening torques

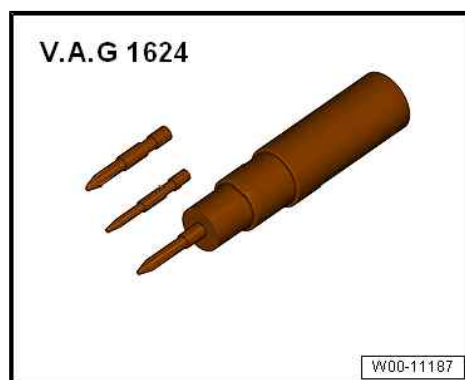
- ◆ ⇒ [“2.2.2 Overview of fitting locations - sound system, 5-door models”, page 30](#)



2.9.3 Removing and installing subwoofer - R211- - Saloon

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-



The subwoofer - R211- is located in the rear shelf.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear shelf ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim; Removing and installing rear shelf .



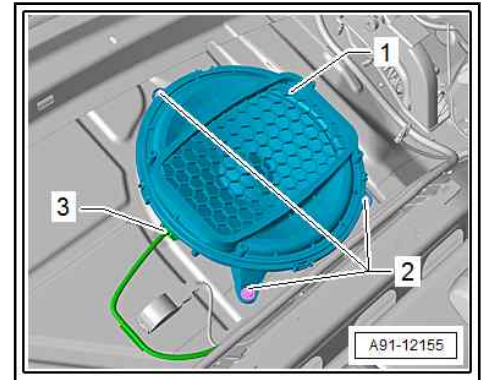
- Release and unplug connector -3- at subwoofer - R211- -1-.
- Remove bolts -2- on subwoofer - R211- -1-.
- Lift out subwoofer - R211- -1-.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“2.2.3 Overview of fitting locations - sound system, Saloon”, page 32](#)



2.10 Removing and installing effect loudspeakers

⇒ [“2.10.1 Removing and installing effect loudspeakers R209 / R210 - 3-door models”, page 45](#)

⇒ [“2.10.2 Removing and installing effect loudspeakers R209 / R210 - 5-door models”, page 46](#)

⇒ [“2.10.3 Removing and installing effect loudspeakers R209 / R210 - Saloon”, page 47](#)

⇒ [“2.10.4 Removing and installing effect loudspeakers R209 / R210 - Cabriolet”, page 48](#)

2.10.1 Removing and installing effect loudspeakers -R209- / -R210- - 3-door models

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-



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The left effect loudspeaker - R209- and right effect loudspeaker - R210- are located behind the C-pillar trim panels.

The removal and installation procedure is similar for all components.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove C-pillar trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - C-pillar trim .
- Release and unplug connector at left effect loudspeaker - R209- .



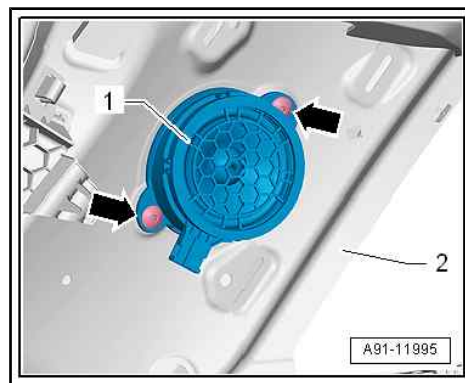
- Unscrew bolts -arrows- at left effect loudspeaker - R209- -1-.
- Detach left effect loudspeaker - R209- -1- from C-pillar -2-.

Installing

- Install in reverse sequence of removal.

Tightening torques

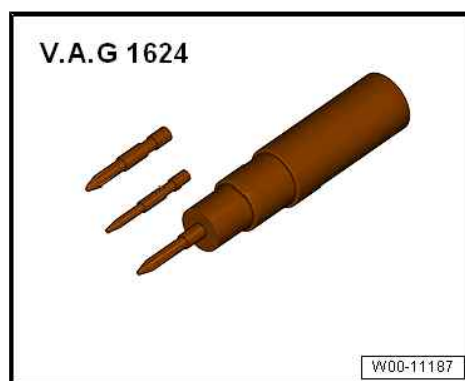
- ♦ ⇒ [“2.2.1 Overview of fitting locations - sound system, 3-door models”, page 28](#)



2.10.2 Removing and installing effect loudspeakers -R209- / -R210- - 5-door models

Special tools and workshop equipment required

- ♦ Torque screwdriver - V.A.G 1624-



The left effect loudspeaker - R209- / right effect loudspeaker - R210- are located behind the D-pillar trim panels.

The removal and installation procedure is similar for all components.

Removing

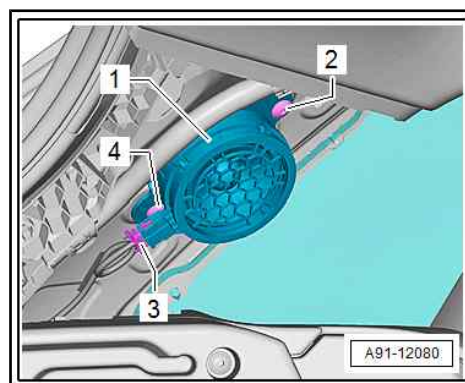
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove D-pillar trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - D-pillar trim .
- Release and unplug connector -3- at left effect loudspeaker - R209- -1-.
- Unscrew bolts -2 and 4- at left effect loudspeaker - R209- -1-.
- Detach left effect loudspeaker - R209- -1- from D-pillar.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ♦ ⇒ [“2.2.2 Overview of fitting locations - sound system, 5-door models”, page 30](#)



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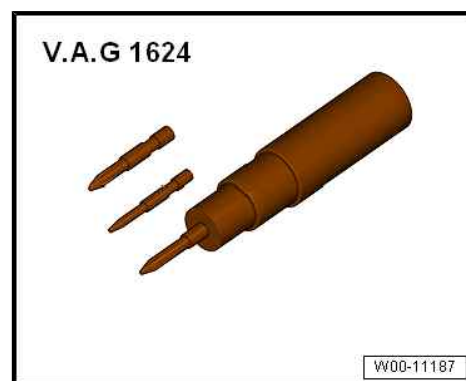
2.10.3 Removing and installing effect loudspeakers -R209- / -R210- - Saloon

Special tools and workshop equipment required

- ◆ Removal wedge - 3409-



- ◆ Torque screwdriver - V.A.G 1624-



Left effect loudspeaker - R209- and right effect loudspeaker - R210- are located in rear shelf.

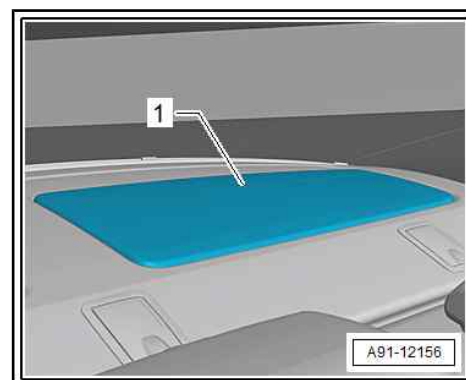
The removal and installation procedure is similar for all components.

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Removing

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- Switch off ignition and all electrical equipment, and remove ignition key.
- Using removal wedge - 3409- , unclip loudspeaker trim -1- from rear shelf.
- Lift loudspeaker trim -1- until connector on left effect loudspeaker - R209- becomes accessible.
- Release and unplug connector at left effect loudspeaker - R209- .
- Detach loudspeaker trim -1- with left effect loudspeaker - R209- .





- Unscrew bolts -2- at left effect loudspeaker - R209- -1-.
- Detach left effect loudspeaker - R209- -1- from loudspeaker trim.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ♦ ⇒ [“2.2.3 Overview of fitting locations - sound system, Saloon”, page 32](#)

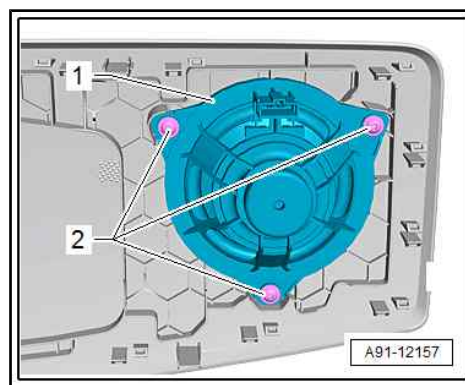


2.10.4 Removing and installing effect loudspeakers -R209- / -R210- - Cabriolet

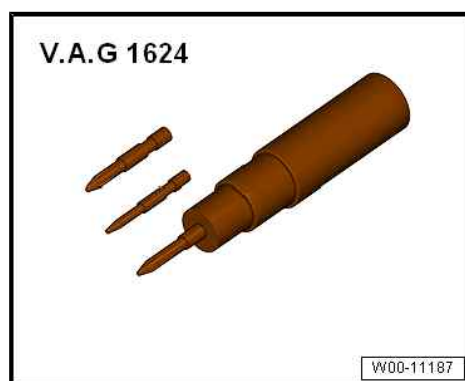
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Special tools and workshop equipment required

- ♦ Removal wedge - 3409-
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- ♦ Torque screwdriver - V.A.G 1624-

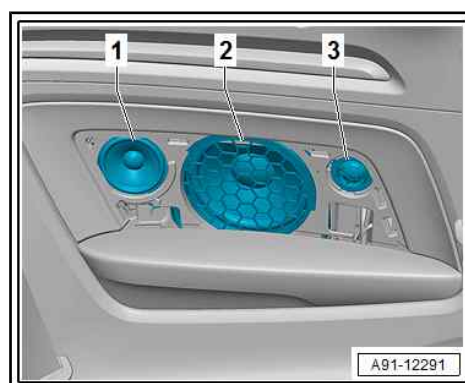


Left effect loudspeaker - R209- / right effect loudspeaker - R210- -1- are located in inserts for side trim.

The removal and installation procedure is similar for all components.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove insert for side trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - side trim .





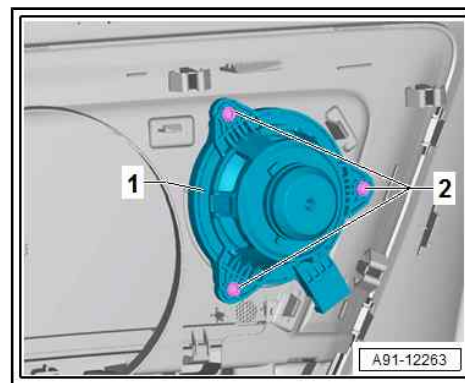
- Unscrew bolts -2- at left effect loudspeaker - R209- -1-.
- Detach left effect loudspeaker - R209- -1- from trim panel for side trim.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“2.2.4 Overview of fitting locations - sound system, Cabriolet”, page 33](#)



2.11 Removing and installing centre loudspeaker

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-

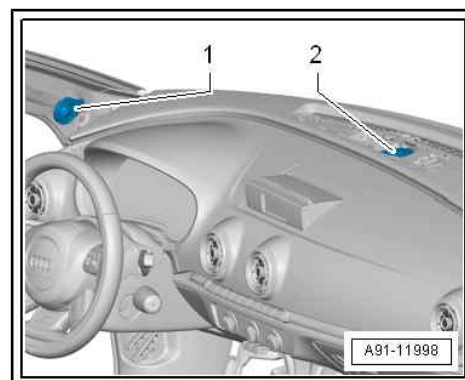
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The centre loudspeaker - R208- -2- is located in the dash panel (front centre).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove front centre defroster vent in dash panel ⇒ General body repairs, interior; Rep. gr. 70 ; Dash panel; Exploded view - dash panel .





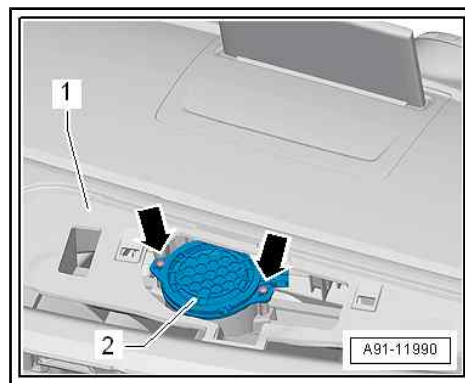
- Remove bolts -arrows- on centre loudspeaker - R208- -2-.
- Release and unplug connector at centre loudspeaker - R208- -2-.
- Remove centre loudspeaker - R208- -2- from dash panel -1-.

Installing

- Install in reverse sequence of removal.

Tightening torques

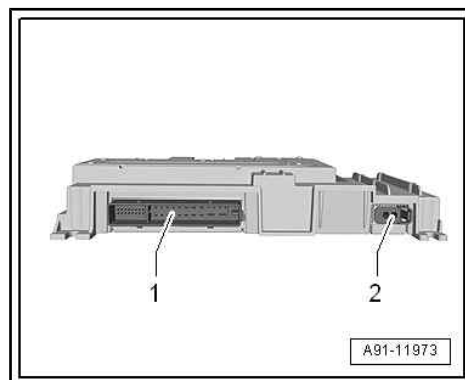
- ◆ ⇒ [“2.2.1 Overview of fitting locations - sound system, 3-door models”, page 28](#)
- ◆ ⇒ [“2.2.2 Overview of fitting locations - sound system, 5-door models”, page 30](#)
- ◆ ⇒ [“2.2.3 Overview of fitting locations - sound system, Saloon”, page 32](#)
- ◆ ⇒ [“2.2.4 Overview of fitting locations - sound system, Cabriolet”, page 33](#)



2.12 Pin assignment

Digital sound package control unit - J525-

- 1 - 38-pin connector - T38-
- 2 - MOST bus



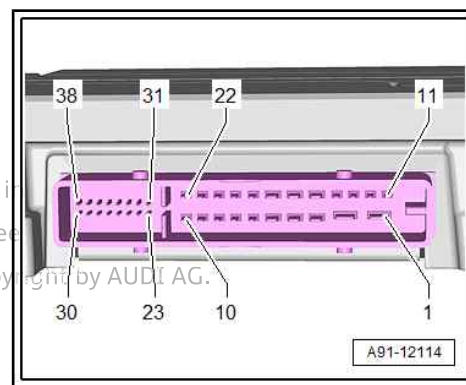
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1 - 38-pin connector - T38-

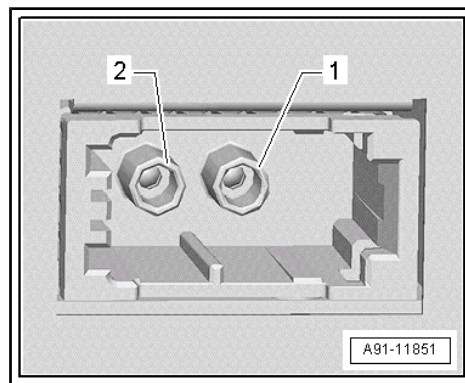
- 1 - Terminal 30
- 2 - Terminal 31
- 3 - Not used
- 4 - Rear left bass loudspeaker - R15- (+)
- 5 - Rear left bass loudspeaker - R15- (-)
- 6 - Centre loudspeaker - R208- (-)
- 7 - Front left bass loudspeaker - R21- (-)
- 8 - Front left bass loudspeaker - R21- (+)
- 9 - Front right bass loudspeaker - R23- (+)
- 10 - Front right bass loudspeaker - R23- (-)
- 11 - Front left mid-range loudspeaker - R103- (-)
- 12 - Front left mid-range loudspeaker - R103- (+)
- 13 - Front right mid-range loudspeaker - R104- (-)
- 14 - Front right mid-range loudspeaker - R104- (+)
- 15 - Not used
- 16 - Rear right bass loudspeaker - R17- (-)
- 17 - Rear right bass loudspeaker - R17- (+)
- 18 - Centre loudspeaker - R208- (+)
- 19 - Subwoofer - R211- (-)
- 20 - Subwoofer - R211- (+)
- 21 - Subwoofer - R211- (+)
- 22 - Subwoofer - R211- (-)
- 23 - Front right treble loudspeaker - R22- (-)
- 24 - Front left treble loudspeaker - R20- (-)
- 25 - Rear left treble loudspeaker - R14- (+)
- 26 - Rear right treble loudspeaker - R16- (-)
- 27 - Right effect loudspeaker - R210- (-)
- 28 - Left effect loudspeaker - R209- (-)
- 29 - Microphone input (-) from microphone unit in front roof module - R164- , internal microphone - R74-
- 30 - Not used
- 31 - Front right treble loudspeaker - R22- (+)
- 32 - Front left treble loudspeaker - R20- (+)
- 33 - Rear left treble loudspeaker - R14- (-)
- 34 - Rear right treble loudspeaker - R16- (-)
- 35 - Right effect loudspeaker - R210- (+)
- 36 - Left effect loudspeaker - R209- (+)
- 37 - Microphone input (+) from microphone unit in front roof module - R164- , internal microphone - R74-
- 38 - Open circuit diagnostic lead





2 - MOST bus

- 1 - Input
- 2 - Output



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3 Aerial systems

⇒ [“3.1 Layout - aerial systems”, page 53](#)

⇒ [“3.2 Overview of fitting locations - aerial systems”, page 55](#)

⇒ [“3.3 Pin assignment”, page 62](#)

⇒ [“3.4 Removing and installing aerial amplifiers”, page 70](#)

⇒ [“3.5 Removing and installing window aerial suppression filter C18”, page 79](#)

⇒ [“3.6 Removing and installing roof aerial”, page 82](#)

⇒ [“3.7 Removing and installing GPS aerial”, page 83](#)

⇒ [“3.8 Removing and installing telephone aerial”, page 84](#)

⇒ [“3.9 Removing and installing satellite tuner aerial”, page 85](#)

⇒ [“3.10 Removing and installing traffic data aerial”, page 85](#)

⇒ [“3.11 Removing and installing dedicated short-range communication aerial”, page 86](#)

⇒ [“3.12 Removing and installing bumper aerals”, page 86](#)

3.1 Layout - aerial systems

⇒ [“3.1.1 Layout - aerial systems, 3-door models, 5-door models”, page 53](#)

⇒ [“3.1.2 Layout - aerial systems, Saloon”, page 54](#)

⇒ [“3.1.3 Layout - aerial systems, Cabriolet”, page 55](#)

3.1.1 Layout - aerial systems, 3-door models, 5-door models

The aerial systems consist of the window aerals, the roof aerial - R216- and the bumper aerals.

Window aerals

- ◆ Aerial - R11- (AM/FM1)/ TV aerial 3 - R57- (TV3) to aerial amplifier - R24- on rear lid (top left)
- ◆ Radio aerial 2 - R93- (FM2)/ TV aerial 2 - R56- (TV2) to aerial amplifier 2 - R111- on rear lid (bottom left)
- ◆ Digital radio aerial - R183- (DAB)/ TV aerial 1 - R55- (TV1) to aerial amplifier 3 - R112- on rear lid (top right)

Roof aerial - R216-

- ◆ GPS aerial - R50- , 7UH/7UF/7UG/EL1/EL5/NZ3 only
- ◆ Telephone aerial - R65- , 9ZC/9ZE and NZ0 only
- ◆ Auxiliary heater aerial - R182- , 9M9 and Europe only
- ◆ Satellite tuner aerial - R172- , NAR and QV3 only
- ◆ Emergency call module aerial - R263- , ERA-GLONASS (NZ3) only

Bumper aerals

- ◆ Telephone aerial - R65- underneath rear bumper cover (right-side), 9ZE/9ZC and NZ3 only
- ◆ GSM aerial - R205- underneath rear bumper cover (right-side), Audi A3 e-tron from week 45/2016 onwards (EL1/EL5) only



- ◆ LTE aerial 1 - R297- underneath rear bumper cover (left-side), EL3/EL5 only
- ◆ LTE aerial 2 - R306- underneath rear bumper cover (right-side), EL3 and NZ0 only

Other aerals

- ◆ Dedicated short-range communication aerial - R269- in dash panel (front centre), Japan only
- ◆ Traffic data aerial - R173- on windscreen (top), Japan only
- ◆ LTE aerial 2 - R306- in dash panel (centre right), EL5 and 0K3 or EL3/EL5 and NZ3 only

Repairing aerial wiring ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing aerial wires

3.1.2 Layout - aerial systems, Saloon

The aerial systems consist of the window aerals, the roof aerial - R216- and the bumper aerals.

Window aerals

- ◆ Aerial - R11- (AM/FM1)/ TV aerial 1 - R55- (TV1) to aerial amplifier - R24- on D-pillar (top right)
- ◆ Radio aerial 2 - R93- (FM2)/ digital radio aerial - R183- (DAB) to aerial amplifier 2 - R111- on D-pillar (top left)
- ◆ TV aerial 2 - R56- (TV2) to aerial amplifier 3 - R112- at D-pillar (bottom right)
- ◆ TV aerial 3 - R57- (TV3) to aerial amplifier 4 - R113- at D-pillar (bottom left)

Roof aerial - R216-

- ◆ GPS aerial - R50- , 7UH/7UF/7UG/NZ3 only
- ◆ Telephone aerial - R65- , 9ZC, 9ZE and NZ0 only
- ◆ Auxiliary heater aerial - R182- , 9M9 and Europe only
- ◆ Satellite tuner aerial - R172- , NAR and QV3 only
- ◆ Emergency call module aerial - R263- , NZ3 only

Bumper aerals

- ◆ Telephone aerial - R65- underneath rear bumper cover (right-side), 9ZE/9ZC and NZ3 only
- ◆ LTE aerial 1 - R297- underneath rear bumper cover (left-side), EL3 only
- ◆ LTE aerial 2 - R306- underneath rear bumper cover (right-side), EL3 and NZ0 only

Other aerals

- ◆ Dedicated short-range communication aerial - R269- in dash panel (front centre), Japan only
- ◆ Traffic data aerial - R173- on windscreen (top), Japan only
- ◆ LTE aerial 2 - R306- in dash panel (centre right), EL3 and NZ3 only

Repairing aerial wiring ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing aerial wires



3.1.3 Layout - aerial systems, Cabriolet

The aerial systems consist of the window aerals, the bumper aerals and other aerals.

Window aerals

- ◆ Digital radio aerial - R183- (DAB) to aerial amplifier 4 - R113- / TV aerial 1 - R55- (TV1) to aerial amplifier 1 for TV - R82- on A-pillar (right-side)
- ◆ TV aerial 2 - R56- (TV2) to aerial amplifier 2 for TV - R83- on A-pillar (left-side)
- ◆ Radio aerial - R248- (AM2) to aerial amplifier 2 - R111- at main mounting for convertible roof (right-side)

Other aerals

- ◆ Aerial - R11- (AM/FM1) to aerial amplifier - R24- at ledge (right-side)
- ◆ Radio aerial 2 - R93- (FM2)/ TV aerial 3 - R57- (TV3) to aerial amplifier 3 - R112- at ledge (left-side)
- ◆ GPS aerial - R50- in dash panel (centre), 7UH/7UF/7UG only
- ◆ Telephone aerial - R65- on convertible roof compartment lid (centre), 9ZC/9ZE only
- ◆ Satellite tuner aerial - R172- , on rear lid (centre), NAR and QV3 only

Bumper aerals

- ◆ LTE aerial 1 - R297- underneath rear bumper cover (left-side), EL3 only
- ◆ LTE aerial 2 - R306- underneath rear bumper cover (right-side), EL3 only

Repairing aerial wiring ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing aerial wires

3.2 Overview of fitting locations - aerial systems

⇒ [“3.2.1 Overview of fitting locations - aerial systems, 3-door models, 5-door models”, page 55](#)

⇒ [“3.2.2 Overview of fitting locations - aerial systems, Saloon”, page 58](#)

⇒ [“3.2.3 Overview of fitting locations - aerial systems, Cabriolet”, page 60](#)

3.2.1 Overview of fitting locations - aerial systems, 3-door models, 5-door models



1 - LTE aerial 2 - R306-

- ☐ ERA-GLONASS (EL3 + 9ZE/9ZC) and Audi A3 e-tron from week 45/2016 onwards (EL5) only
- ☐ Aerial assignment according to equipment version ⇒ [page 53](#)
- ☐ Removing and installing ⇒ [page 88](#)

2 - GPS connection from GPS aerial - R50-

3 - Roof aerial - R216-

- ☐ Removing and installing ⇒ [page 82](#)

4 - RC connection from auxiliary heater aerial - R182-

- SAT connection from satellite aerial - R170-

- ☐ Aerial assignment according to equipment version ⇒ [page 53](#)

5 - GSM connection from telephone aerial - R65-

- GSM connection from emergency call module aerial - R263- , ERA-GLONASS only

- ☐ Aerial assignment according to equipment version ⇒ [page 53](#)

6 - Bolt

- ☐ 6 Nm

7 - Bolt

- ☐ 2 Nm

8 - Aerial amplifier 3 - R112-

- ☐ Pin assignment ⇒ [page 65](#)
- ☐ Removing and installing ⇒ [page 74](#)

9 - Nut

- ☐ 2x on each side
- ☐ 4 Nm

10 - Bracket

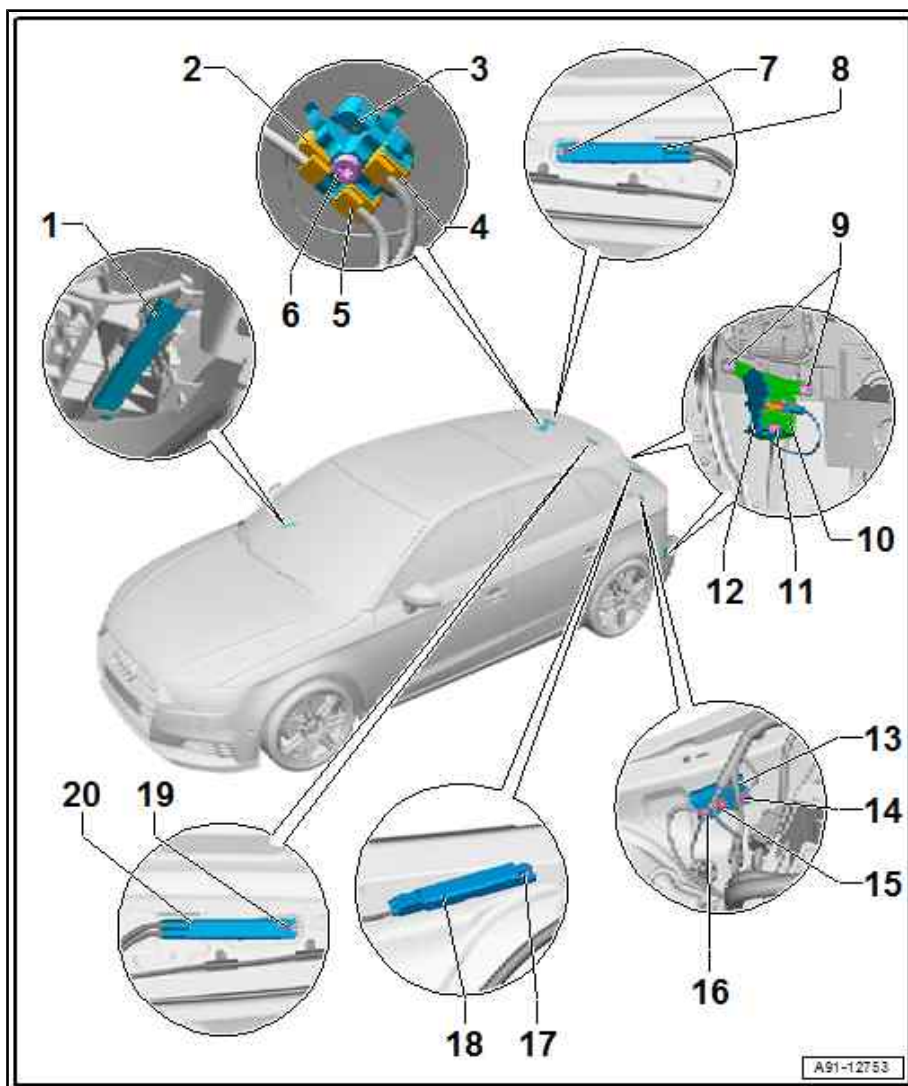
- ☐ Removing and installing ⇒ [page 86](#)

11 - Nut

- ☐ 1x on each side
- ☐ 4 Nm

12 - Bumper aeri

- ☐ Aerial assignment according to equipment version ⇒ [page 53](#)
- ☐ Telephone aerial - R65- underneath rear bumper cover (right-side), ERA-GLONASS (EL3 + 9ZE/9ZC) only
- ☐ GSM aerial - R205- underneath rear bumper cover (right-side), Audi A3 e-tron from week 45/2016 onwards



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- ☐ LTE aerial 1 - R297- underneath rear bumper cover (left-side)
- ☐ LTE aerial 2 - R306- underneath rear bumper cover (right-side)
- ☐ Removing and installing ⇒ [page 86](#)

13 - Window aerial suppression filter - C18-

- ☐ Removing and installing ⇒ [page 79](#)

14 - Nut

- ☐ 9 Nm

15 - Nut

- ☐ 9 Nm

16 - Nut

- ☐ 9 Nm

17 - Bolt

- ☐ 2 Nm

18 - Aerial amplifier 2 - R111-

- ☐ Pin assignment ⇒ [page 64](#)
- ☐ Removing and installing ⇒ [page 72](#)

19 - Bolt

- ☐ 2 Nm

20 - Aerial amplifier - R24-

- ☐ Pin assignment ⇒ [page 62](#)
- ☐ Removing and installing ⇒ [page 70](#)



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3.2.2 Overview of fitting locations - aerial systems, Saloon

1 - LTE aerial 2 - R306-

- ☐ Only installed on vehicles with ERA-GLO-NASS (EL3 + 9ZE/9ZC)
- ☐ Aerial assignment according to equipment version ➔ [page 54](#)
- ☐ Removing and installing ➔ [page 88](#)

2 - Bolt

- ☐ 6 Nm

3 - GPS connection from GPS aerial - R50-

4 - Roof aerial - R216-

- ☐ Removing and installing ➔ [page 82](#)

5 - RC connection from auxiliary heater aerial - R182-

- SAT connection from satellite aerial - R170-

- ☐ Aerial assignment according to equipment version ➔ [page 54](#)

6 - GSM connection from telephone aerial - R65-

- GSM connection from emergency call module aerial - R263- , ERA-GLONASS only

- ☐ Aerial assignment according to equipment version ➔ [page 54](#)

7 - Bolt

- ☐ 2 Nm

8 - Aerial amplifier - R24-

- ☐ Pin assignment ➔ [page 63](#)
- ☐ Removing and installing ➔ [page 71](#)

9 - Bolt

- ☐ 2 Nm

10 - Aerial amplifier 3 - R112-

- ☐ Pin assignment ➔ [page 66](#)
- ☐ Removing and installing ➔ [page 75](#)

11 - Nut

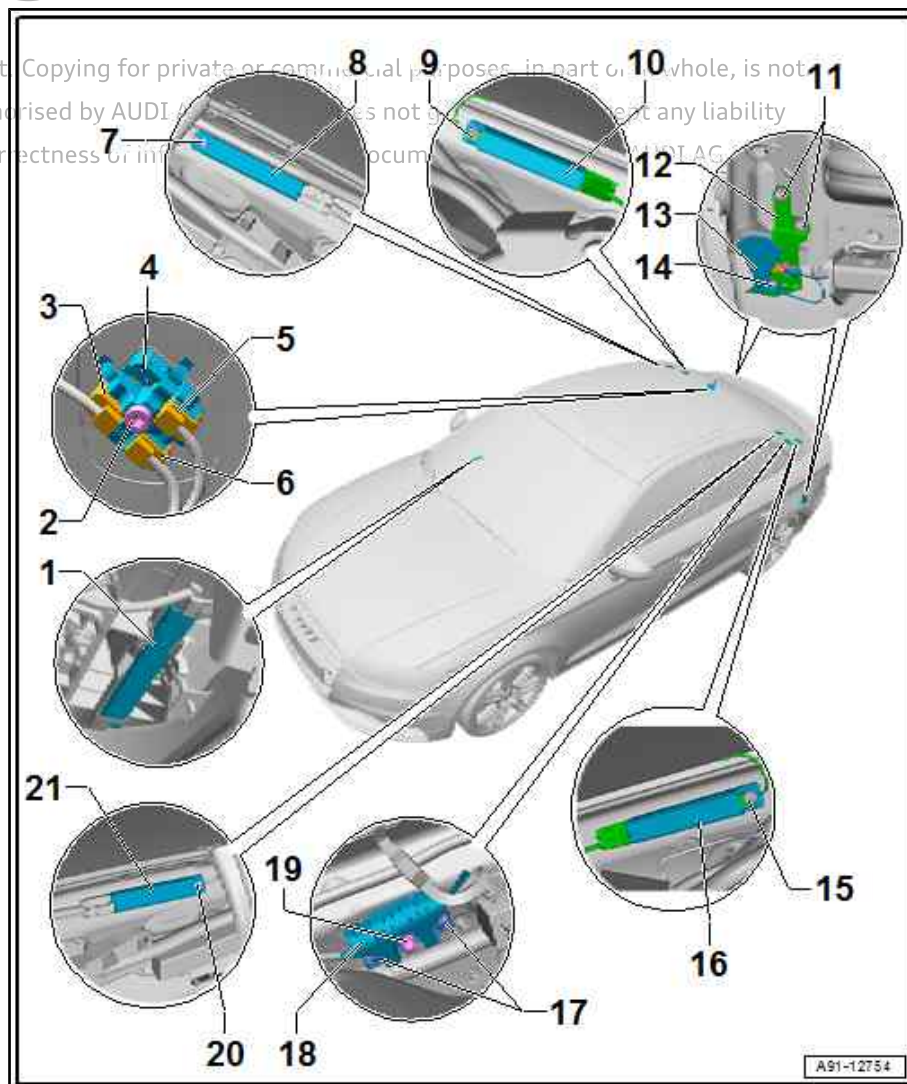
- ☐ 2x on each side
- ☐ 4 Nm

12 - Bracket

- ☐ Removing and installing ➔ [page 87](#)

13 - Bumper aerias

- ☐ Aerial assignment according to equipment version ➔ [page 54](#)





- ☐ Telephone aerial - R65- underneath rear bumper cover (right-side), ERA-GLONASS (EL3 + 9ZE/9ZC) only
- ☐ LTE aerial 1 - R297- underneath rear bumper cover (left-side)
- ☐ LTE aerial 2 - R306- underneath rear bumper cover (right-side)
- ☐ Removing and installing ⇒ [page 87](#)

14 - Nut

- ☐ 1x on each side
- ☐ 4 Nm

15 - Bolt

- ☐ 2 Nm

16 - Aerial amplifier 4 - R113-

- ☐ Pin assignment ⇒ [page 67](#)
- ☐ Removing and installing ⇒ [page 77](#)

17 - Nut

- ☐ 2x
- ☐ 9 Nm

18 - Window aerial suppression filter - C18-

- ☐ Removing and installing ⇒ [page 80](#)

19 - Nut

- ☐ 9 Nm

20 - Bolt

- ☐ 2 Nm

21 - Aerial amplifier 2 - R111-

- ☐ Pin assignment ⇒ [page 64](#)
- ☐ Removing and installing ⇒ [page 73](#)



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3.2.3 Overview of fitting locations - aerial systems, Cabriolet

1 - GPS aerial - R50-

- ☐ Removing and installing
⇒ [page 83](#)

2 - Aerial amplifier -R113- / -R82-

- ☐ Aerial amplifier 4 - R113- / aerial amplifier 1 for TV - R82-
- ☐ Pin assignment for aerial amplifier 4 - R113-
⇒ [page 67](#)
- ☐ Pin assignment for aerial amplifier 1 for TV - R82- ⇒ [page 68](#)
- ☐ Removing and installing aerial amplifier 4 - R113-
⇒ [page 77](#)
- ☐ Removing and installing aerial amplifier 1 for TV - R82- ⇒ [page 78](#)

3 - Bolt

- ☐ 2 Nm

4 - Bolt

- ☐ 2 Nm

5 - Aerial amplifier - R24-

- ☐ Pin assignment
⇒ [page 63](#)
- ☐ Removing and installing
⇒ [page 71](#)

6 - Aerial amplifier 2 - R111-

- ☐ Pin assignment
⇒ [page 65](#)
- ☐ Removing and installing
⇒ [page 74](#)

7 - Bolt

- ☐ 4 Nm

8 - Satellite tuner aerial - R172-

- ☐ Removing and installing ⇒ [page 85](#)

9 - Nut

- ☐ 6 Nm

10 - Nut

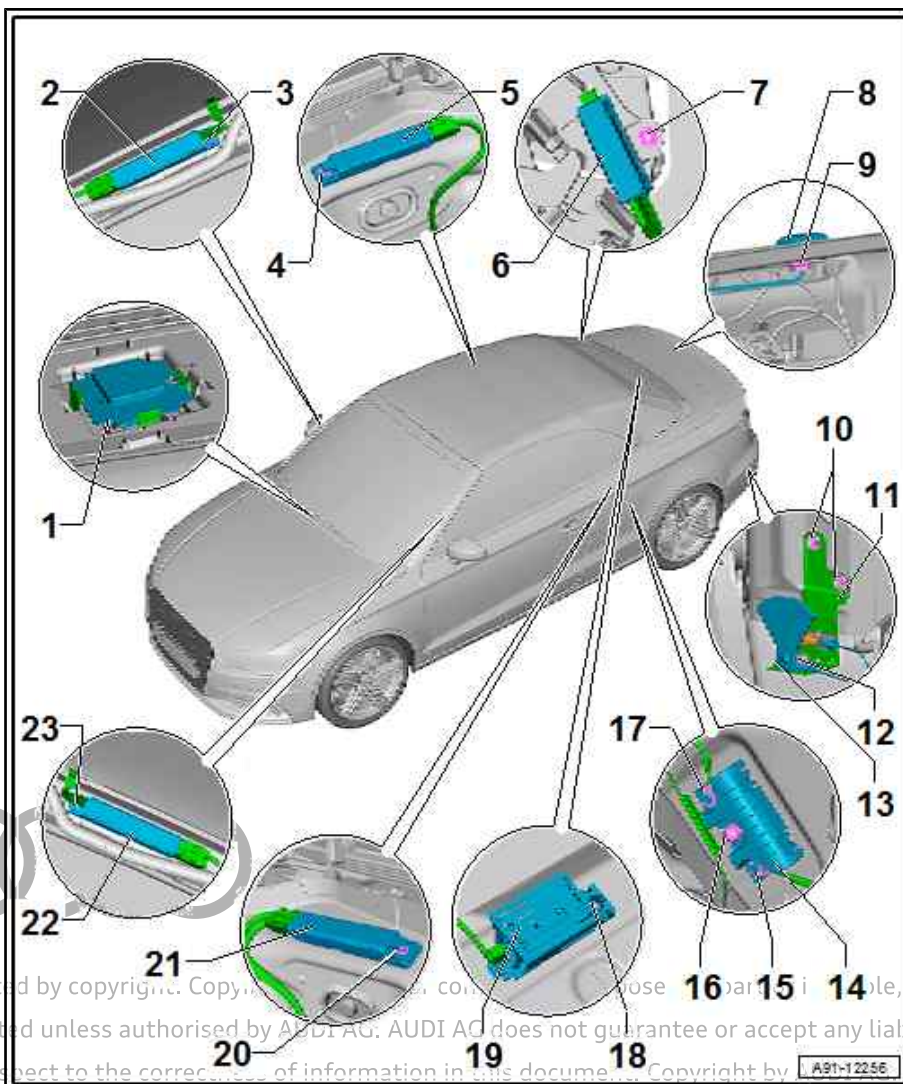
- ☐ 2x on each side
- ☐ 4 Nm

11 - Bracket

- ☐ Removing and installing ⇒ [page 87](#)

12 - Nut

- ☐ 1x on each side
- ☐ 4 Nm





13 - Bumper aërials

- ☐ LTE aerial 1 - R297- underneath rear bumper cover (left-side)
- ☐ LTE aerial 2 - R306- underneath rear bumper cover (right-side)
- ☐ Removing and installing ⇒ [page 87](#)

14 - Window aerial suppression filter - C18-

- ☐ Removing and installing ⇒ [page 81](#)

15 - Nut

- ☐ 9 Nm

16 - Nut

- ☐ 9 Nm

17 - Nut

- ☐ 9 Nm

18 - Bolt

- ☐ 4 Nm

19 - Telephone aerial - R65-

- ☐ Removing and installing ⇒ [page 84](#)

20 - Bolt

- ☐ 2 Nm

21 - Aerial amplifier 3 - R112-

- ☐ Pin assignment ⇒ [page 66](#)
- ☐ Removing and installing ⇒ [page 76](#)

22 - Aerial amplifier 2 for TV - R83-

- ☐ Pin assignment ⇒ [page 68](#)
- ☐ Removing and installing ⇒ [page 78](#)

23 - Bolt

- ☐ 2 Nm

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3.3 Pin assignment

⇒ ["3.3.1 Pin assignment for aerial amplifier R24 - 3-door models, 5-door models", page 62](#)

⇒ ["3.3.2 Pin assignment for aerial amplifier R24 - Saloon", page 63](#)

⇒ ["3.3.3 Pin assignment for aerial amplifier R24 - Cabriolet", page 63](#)

⇒ ["3.3.4 Pin assignment for aerial amplifier 2 R111 - 3-door models, 5-door models", page 64](#)

⇒ ["3.3.5 Pin assignment for aerial amplifier 2 R111 - Saloon", page 64](#)

⇒ ["3.3.6 Pin assignment for aerial amplifier 2 R111 - Cabriolet", page 65](#)

⇒ ["3.3.7 Pin assignment for aerial amplifier 3 R112 - 3-door models, 5-door models", page 65](#)

⇒ ["3.3.8 Pin assignment for aerial amplifier 3 R112 - Saloon", page 66](#)

⇒ ["3.3.9 Pin assignment for aerial amplifier 3 R112 - Cabriolet", page 66](#)

⇒ ["3.3.10 Pin assignment for aerial amplifier 4 R113 - Saloon", page 67](#)

⇒ ["3.3.11 Pin assignment for aerial amplifier 4 R113 - Cabriolet", page 67](#)

⇒ ["3.3.12 Pin assignment for aerial amplifier 1 for TV R82 - Cabriolet", page 68](#)

⇒ ["3.3.13 Pin assignment for aerial amplifier 2 for TV R83 - Cabriolet", page 68](#)

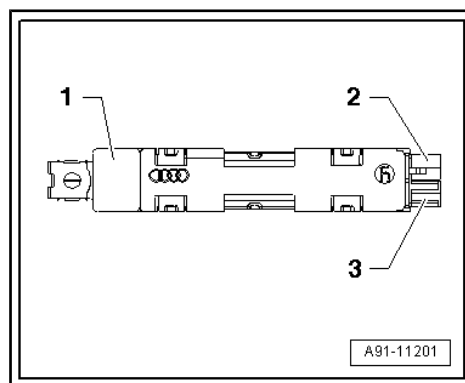
⇒ ["3.3.14 Pin assignment for roof aerial R216 - 3-door models, 5-door models, Saloon", page 69](#)

⇒ ["3.3.15 Coupling point for aerial wires - 3-door models, 5-door models", page 69](#)

3.3.1 Pin assignment for aerial amplifier - R24- - 3-door models, 5-door models

Aerial amplifier - R24-

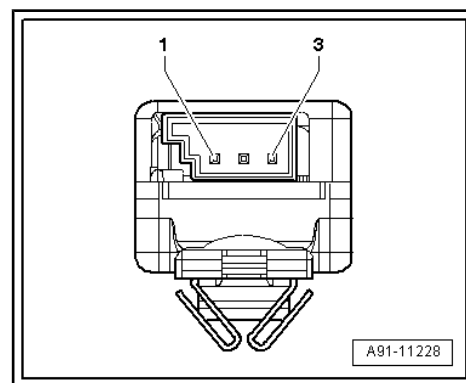
- 1 - Connection for window aerals (aerial - R11- / TV aerial 3 - R57-)
- 2 - Connection AM/FM1 to radio - R-
- 3 - Connection TV3 to TV tuner - R78-





Window aerial connectors

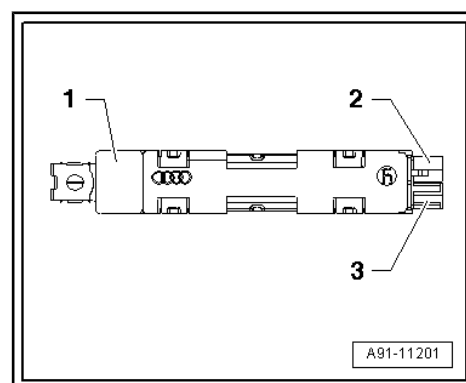
- 1 - Aerial - R11- , AM
- 2 - Aerial - R11- FM1/ TV aerial 3 - R57- /Diag.
- 3 - Diag.



3.3.2 Pin assignment for aerial amplifier - R24- - Saloon

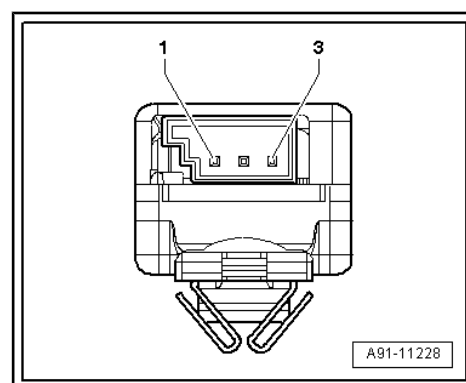
Aerial amplifier - R24-

- 1 - Connection for window aerals (aerial - R11- / TV aerial 1 - R55-)
- 2 - Connection AM/FM1 to radio - R-
- 3 - Connection TV1 to TV tuner - R78-



Window aerial connectors

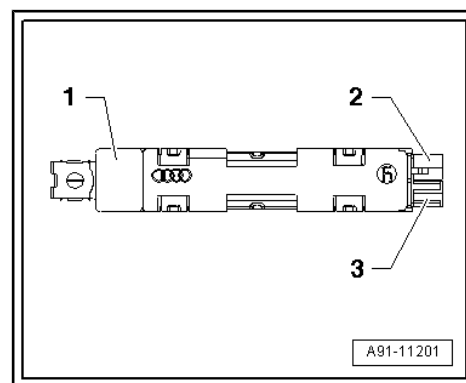
- 1 - Aerial - R11- , AM
- 2 - Aerial - R11- FM1/ TV aerial 1 - R55- /Diag.
- 3 - Not used



3.3.3 Pin assignment for aerial amplifier - R24- - Cabriolet

Aerial amplifier - R24-

- 1 - Connection for window aerals (aerial - R11- / radio aerial - R248-)
- 2 - Connection AM/FM1 to radio - R-
- 3 - Connection AM2 to aerial amplifier 2 - R111-

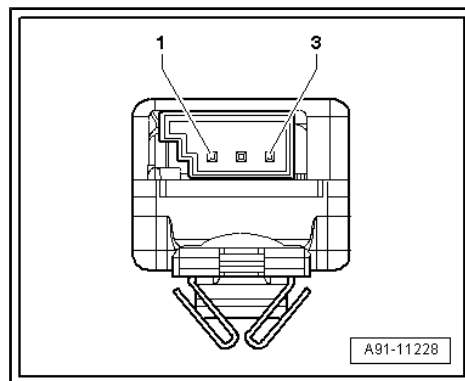


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Window aerial connectors

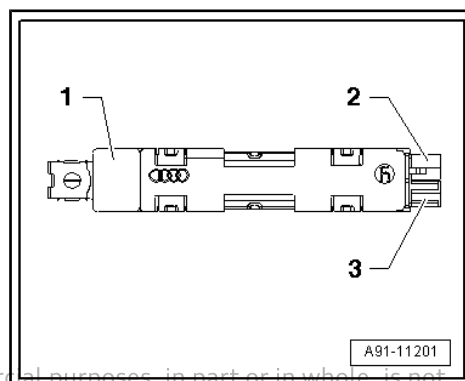
- 1 - Aerial - R11- , AM
- 2 - Aerial - R11- , FM1/Diag.
- 3 - Diag.



3.3.4 Pin assignment for aerial amplifier 2 - R111- - 3-door models, 5-door models

Aerial amplifier 2 - R111-

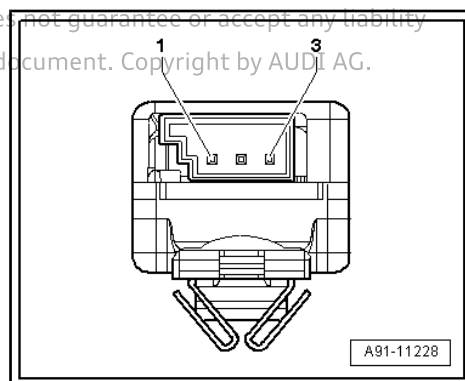
- 1 - Connection for window aerals (radio aerial 2 - R93- / TV aerial 2 - R56-)
- 2 - Connection FM2 to radio - R-
- 3 - Connection TV2 to TV tuner - R78-



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Window aerial connectors

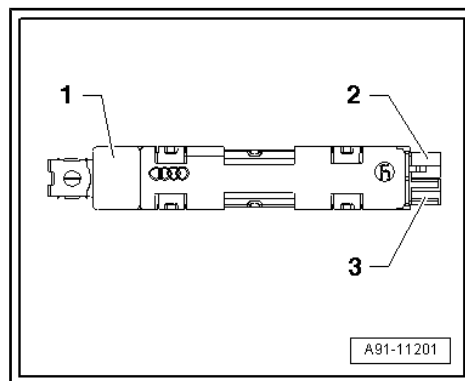
- 1 - Not used
- 2 - Radio aerial 2 - R93- FM2/ TV aerial 2 - R56- TV2/Diag.
- 3 - Not used



3.3.5 Pin assignment for aerial amplifier 2 - R111- - Saloon

Aerial amplifier 2 - R111-

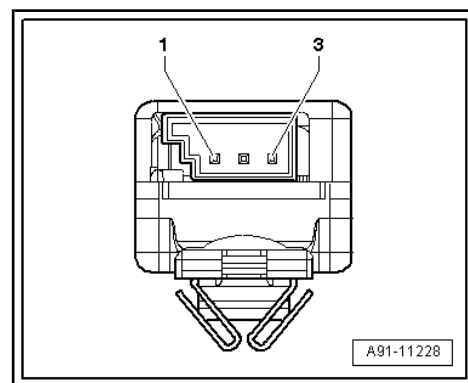
- 1 - Connection for window aerals (radio aerial 2 - R93- / digital radio aerial - R183-)
- 2 - Connection FM2 to radio - R-
- 3 - DAB connection to radio - R-





Window aerial connectors

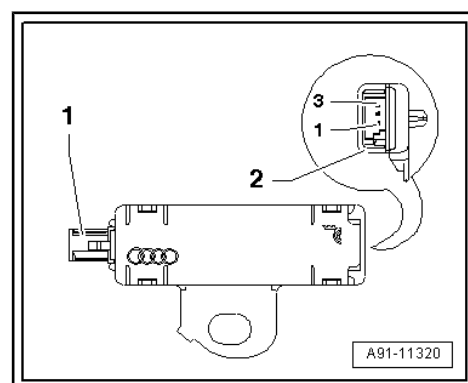
- 1 - Digital radio aerial - R183- , DAB
- 2 - Radio aerial 2 - R93- FM2/Diag.
- 3 - Not used



3.3.6 Pin assignment for aerial amplifier 2 - R111- - Cabriolet

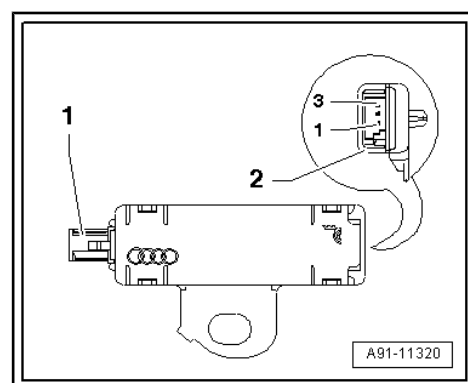
Aerial amplifier 2 - R111-

- 1 - Connection AM2 to aerial amplifier - R24-
- 2 - Connection for window aerals (radio aerial - R248-)



Window aerial connectors

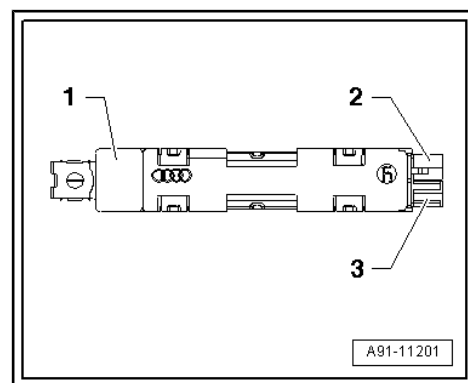
- 1 - Radio aerial - R248-
- 2 - Bridge to pin 3
- 3 - Bridge to pin 2



3.3.7 Pin assignment for aerial amplifier 3 - R112- - 3-door models, 5-door models

Aerial amplifier 3 - R112-

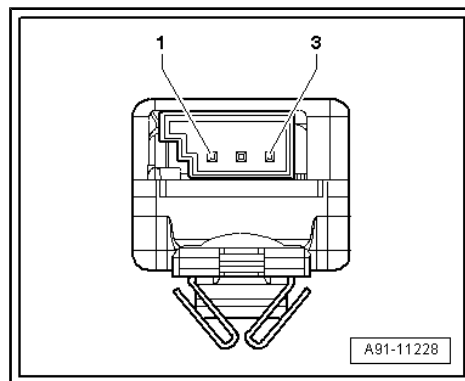
- 1 - Connection for window aerals (digital radio aerial - R183- / TV aerial 1 - R55-)
- 2 - DAB connection to radio - R- , TV1 to TV tuner - R78-
- 3 - Not used





Window aerial connectors

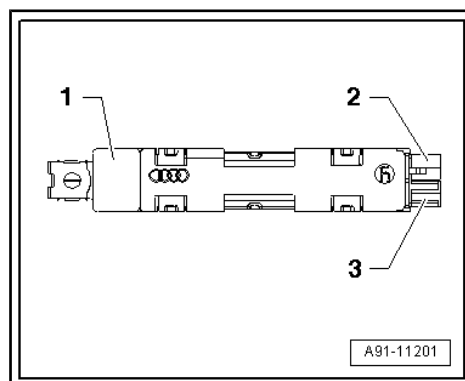
- 1 - Digital radio aerial - R183-
- 2 - TV aerial 1 - R55- , TV1/Diag.
- 3 - Not used



3.3.8 Pin assignment for aerial amplifier 3 - R112- - Saloon

Aerial amplifier 3 - R112-

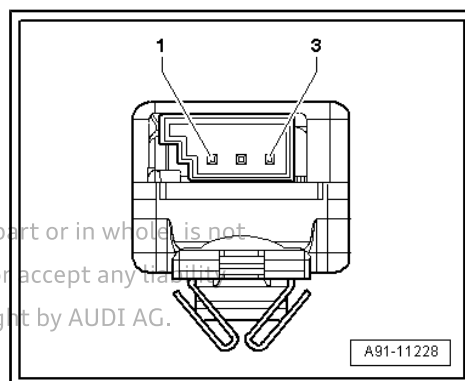
- 1 - Connection for window aerals (TV aerial 2 - R56-)
- 2 - Connection TV2 to TV tuner - R78-
- 3 - Not used



Window aerial connectors

- 1 - Not used
- 2 - TV aerial 2 - R56- , TV2/Diag.
- 3 - Not used

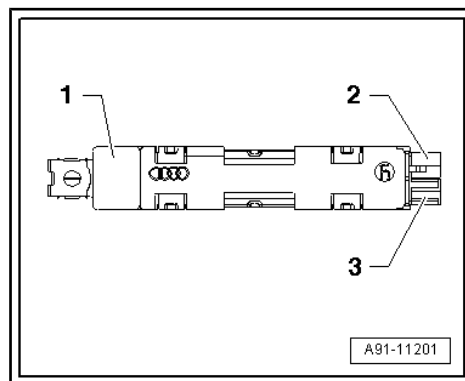
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3.3.9 Pin assignment for aerial amplifier 3 - R112- - Cabriolet

Aerial amplifier 3 - R112-

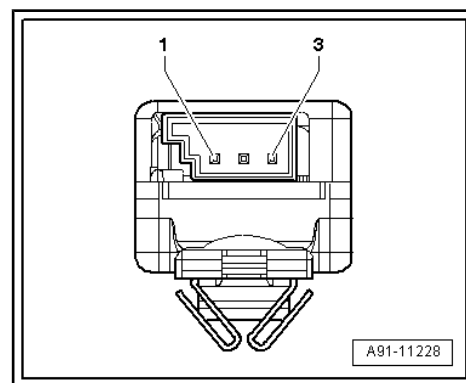
- 1 - Connection for window aerals (radio aerial 2 - R93- / TV aerial 3 - R57-)
- 2 - Connection FM2 to radio - R-
- 3 - Connection TV3 to TV tuner - R78-





Window aerial connectors

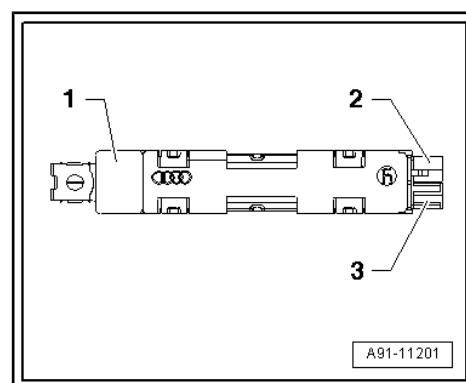
- 1 - Not used
- 2 - Radio aerial 2 - R93- FM2/ TV aerial 3 - R57- TV3/Diag.
- 3 - Diag.



3.3.10 Pin assignment for aerial amplifier 4 - R113- - Saloon

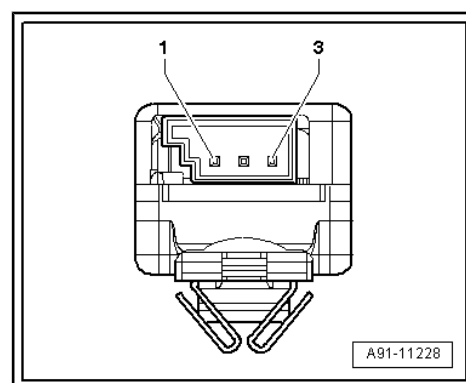
Aerial amplifier 4 - R113-

- 1 - Connection for window aerals (TV aerial 3 - R57-)
- 2 - Connection TV3 to TV tuner - R78-
- 3 - Not used



Window aerial connectors

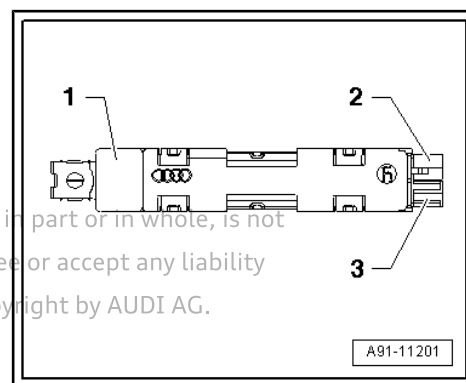
- 1 - Not used
- 2 - TV aerial 3 - R57- , TV3/Diag.
- 3 - Not used



3.3.11 Pin assignment for aerial amplifier 4 - R113- - Cabriolet

Aerial amplifier 4 - R113-

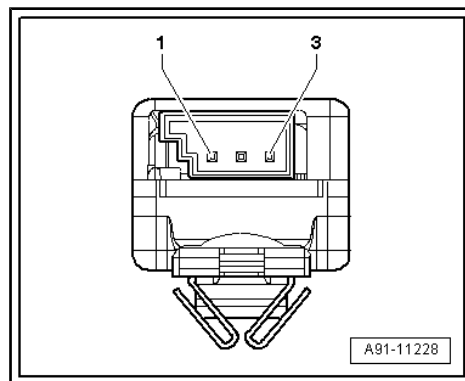
- 1 - Connection for window aerals (digital radio aerial - R183-)
 - 2 - DAB connection to radio - R-
 - 3 - Not used
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Window aerial connectors

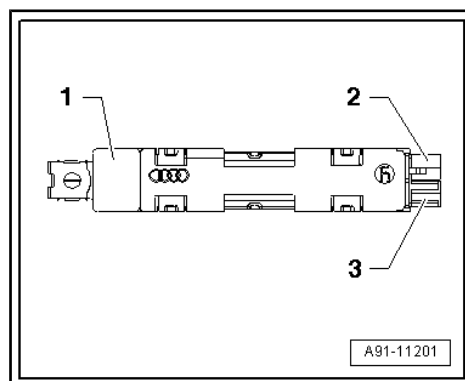
- 1 - Digital radio aerial - R183- , DAB
- 2 - Diag.
- 3 - Not used



3.3.12 Pin assignment for aerial amplifier 1 for TV - R82- - Cabriolet

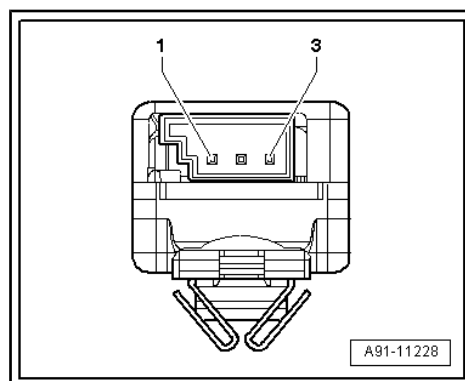
Aerial amplifier 1 for TV - R82-

- 1 - Connection for window aerals (TV aerial 1 - R55-)
- 2 - Connection TV1 to TV tuner - R78-
- 3 - Not used



Window aerial connectors

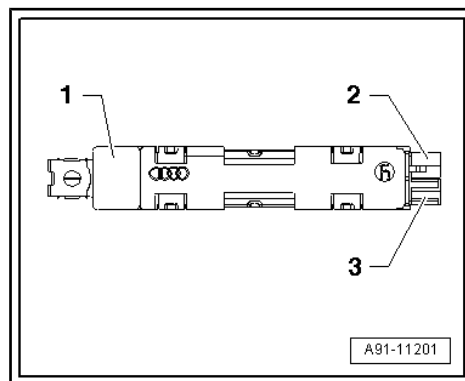
- 1 - TV aerial 1 - R55- , TV1
- 2 - Diag.
- 3 - Diag.



3.3.13 Pin assignment for aerial amplifier 2 for TV - R83- - Cabriolet

Aerial amplifier 1 for TV - R82-

- 1 - Connection for window aerals (TV aerial 2 - R56-)
- 2 - Connection TV2 to TV tuner - R78-
- 3 - Not used

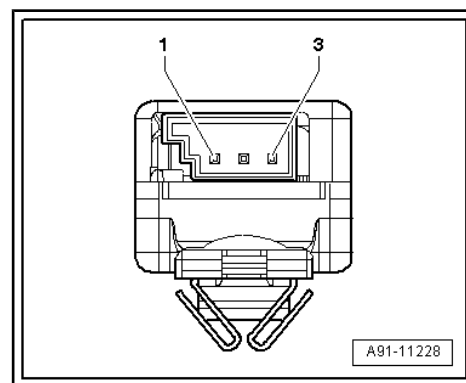


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Window aerial connectors

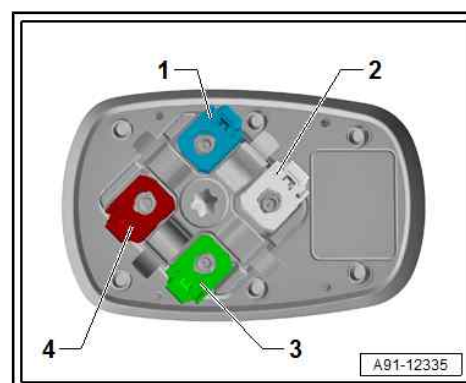
- 1 - TV aerial 2 - R56- , TV2
- 2 - Diag.
- 3 - Diag.



3.3.14 Pin assignment for roof aerial - R216- - 3-door models, 5-door models, Saloon

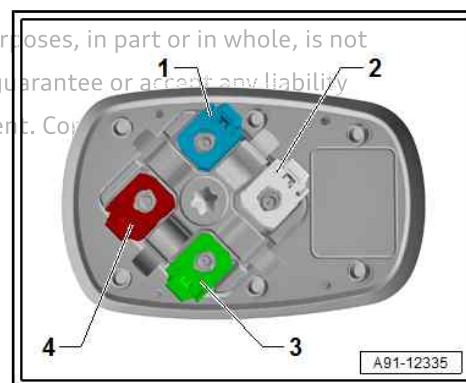
Roof aerial - R216- , all models except NAR vehicles

- 1 - GPS aerial - R50- , blue
- 2 - Not used, white
- 3 - Auxiliary heater aerial - R182- , green
- 4 - Telephone aerial - R65- , burgundy



Roof aerial - R216- , NAR vehicles only

- 1 - GPS aerial - R50- , blue
- 2 - Not used, white
- 3 - Satellite aerial - R170- , green
- 4 - Telephone aerial - R65- , burgundy

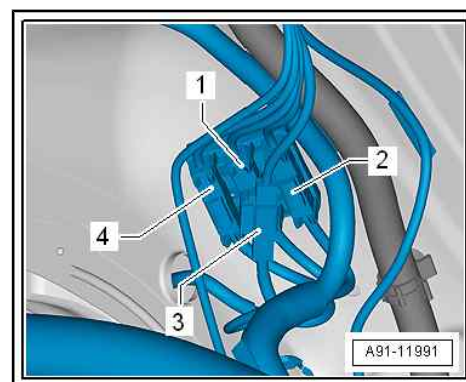


3.3.15 Coupling point for aerial wires - 3-door models, 5-door models

A coupling point is installed on the right C/D-pillar underneath the right effect loudspeaker - R24- for the aerial wires from the aerial amplifier - R111- , aerial amplifier 2 - R112- and aerial amplifier 3 - R210- .

Coupling point

- 1 - Aerial amplifier 2 - R111-
- 2 - Aerial amplifier 3 - R112-
- 3 - Reversing camera - R189-
- 4 - Aerial amplifier - R24-





3.4 Removing and installing aerial amplifiers

⇒ [“3.4.1 Removing and installing aerial amplifier R24 - 3-door models, 5-door models”, page 70](#)

⇒ [“3.4.2 Removing and installing aerial amplifier R24 - Saloon”, page 71](#)

⇒ [“3.4.3 Removing and installing aerial amplifier R24 - Cabriolet”, page 71](#)

⇒ [“3.4.4 Removing and installing aerial amplifier 2 R111 - 3-door models, 5-door models”, page 72](#)

⇒ [“3.4.5 Removing and installing aerial amplifier 2 R111 - Saloon”, page 73](#)

⇒ [“3.4.6 Removing and installing aerial amplifier 2 R111 - Cabriolet”, page 74](#)

⇒ [“3.4.7 Removing and installing aerial amplifier 3 R112 - 3-door models, 5-door models”, page 74](#)

⇒ [“3.4.8 Removing and installing aerial amplifier 3 R112 - Saloon”, page 75](#)

⇒ [“3.4.9 Removing and installing aerial amplifier 3 R112 - Cabriolet”, page 76](#)

⇒ [“3.4.10 Removing and installing aerial amplifier 4 R113 - Saloon”, page 77](#)

⇒ [“3.4.11 Removing and installing aerial amplifier 4 R113 - Cabriolet”, page 77](#)

⇒ [“3.4.12 Removing and installing aerial amplifier 1 for TV R82 - Cabriolet”, page 78](#)

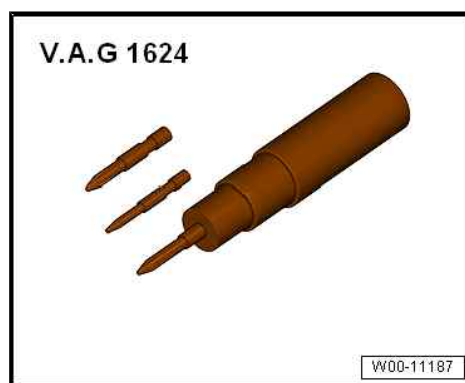
⇒ [“3.4.13 Removing and installing aerial amplifier 2 for TV R83 - Cabriolet”, page 78](#)

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3.4.1 Removing and installing aerial amplifier - R24- - 3-door models, 5-door models

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-



Aerial amplifier - R24- is located on rear lid (top left).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear lid trim (top) ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - rear lid trim (top) .



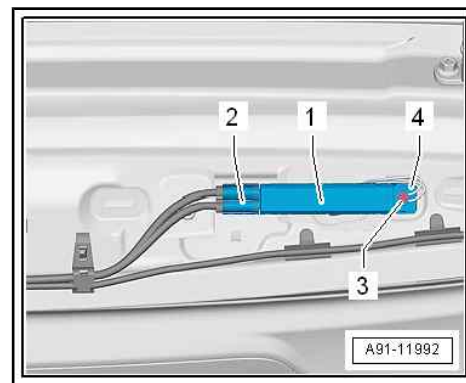
- Release and unplug connectors -2- and -4- at aerial amplifier - R24- -1-.
- Loosen bolt -3- (do not remove) and detach aerial amplifier - R24- -1- from rear lid.

Installing

- Install in reverse sequence of removal.

Tightening torques

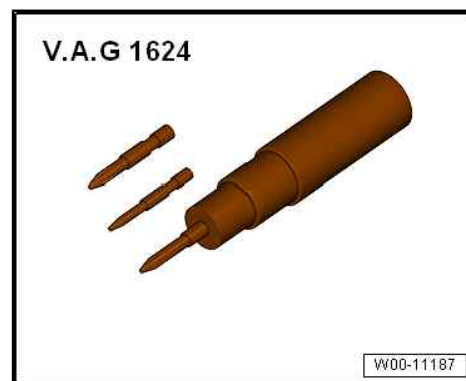
- ◆ ⇒ [“3.2.1 Overview of fitting locations - aerial systems, 3-door models, 5-door models”, page 55](#)



3.4.2 Removing and installing aerial amplifier - R24- - Saloon

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-



Aerial amplifier - R24- is located behind D-pillar trim (right-side) at top of D-pillar.

Removing

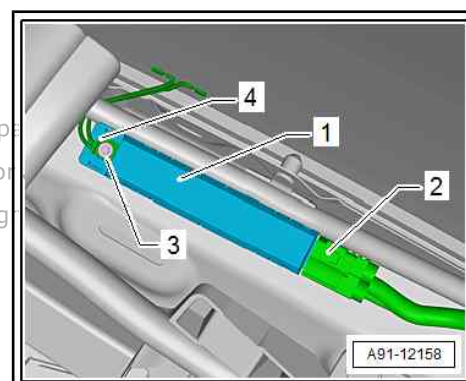
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove D-pillar trim (right-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - D-pillar trim .
- Release and unplug connectors -2- and -4- at aerial amplifier - R24- -1-.
- Loosen bolt -3- (do not remove) and detach aerial amplifier - R24- -1- from D-pillar.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“3.2.2 Overview of fitting locations - aerial systems, Saloon”, page 58](#)

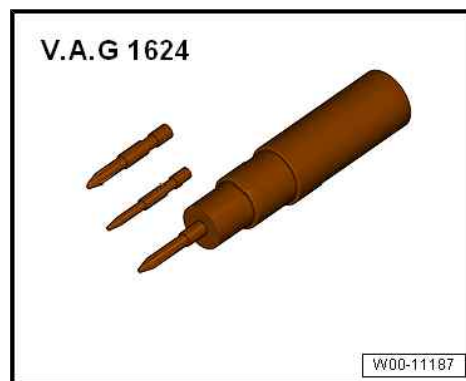


3.4.3 Removing and installing aerial amplifier - R24- - Cabriolet

Special tools and workshop equipment required



- ◆ Torque screwdriver - V.A.G 1624-



Aerial amplifier - R24- is located behind side trim (right-side) at ledge.

Removing

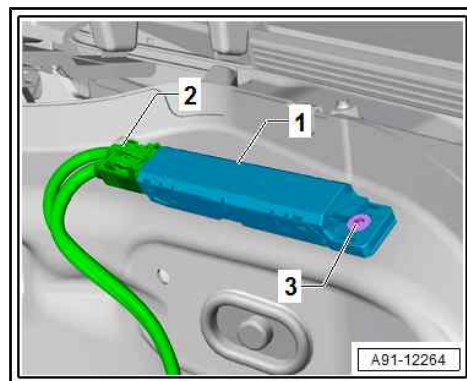
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove side trim (right-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - side trim .
- Release and unplug connectors -2- at aerial amplifier - R24- -1-.
- Loosen bolt -3- (do not remove) and detach aerial amplifier - R24- -1- from ledge.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“3.2.3 Overview of fitting locations - aerial systems, Cabriolet”, page 60](#)



3.4.4 Removing and installing aerial amplifier 2 - R111- - 3-door models, 5-door models

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-

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The aerial amplifier 2 - R111- is located on the rear lid (bottom right).



Removing

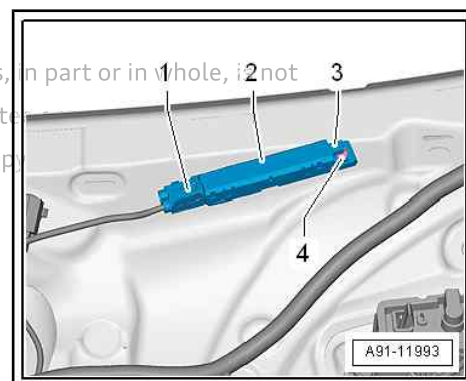
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear lid trim (bottom) ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - rear lid trim (bottom) .
- Release and unplug connectors -1- and -3- at aerial amplifier 2 - R111- -2-.
- Loosen bolt -4- (do not remove) and detach aerial amplifier 2 - R111- -2- from rear lid.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“3.2.1 Overview of fitting locations - aerial systems, 3-door models, 5-door models”, page 55](#)



3.4.5 Removing and installing aerial amplifier 2 - R111- - Saloon

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-



Aerial amplifier 2 - R111- is located behind D-pillar trim (left-side) at top of D-pillar.

Removing

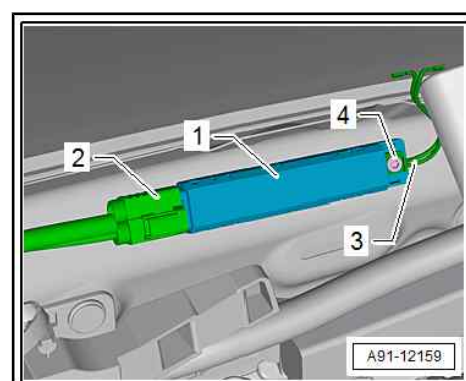
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove D-pillar trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - D-pillar trim .
- Release and unplug connectors -2- and -3- at aerial amplifier 2 - R111- -1-.
- Loosen bolt -4- (do not remove) and detach aerial amplifier 2 - R111- -1- from D-pillar.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“3.2.2 Overview of fitting locations - aerial systems, Saloon”, page 58](#)

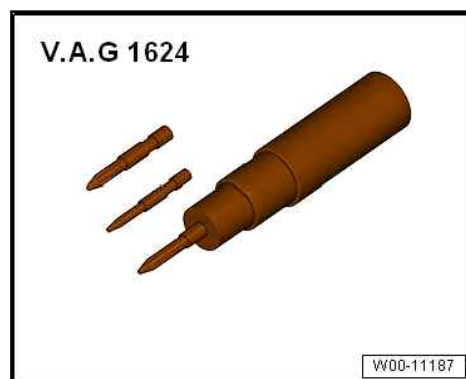




3.4.6 Removing and installing aerial amplifier 2 - R111- - Cabriolet

Special tools and workshop equipment required

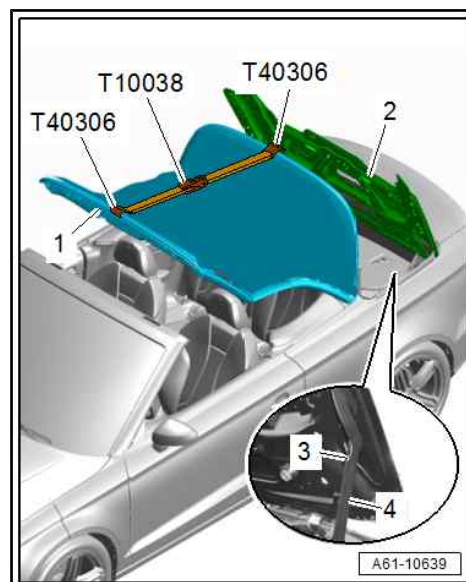
- ◆ Torque screwdriver - V.A.G 1624-



The aerial amplifier 2 - R111- is located at main mounting for convertible roof (right-side).

Removing

- Move convertible roof and convertible roof compartment lid to service position, as shown in illustration ⇒ General body repairs, exterior; Rep. gr. 61 ; Convertible roof .
- Push convertible roof compartment lip upwards until it engages.
- Switch off ignition and all electrical equipment, and remove ignition key.
- Support convertible roof with a suitable piece of wood.



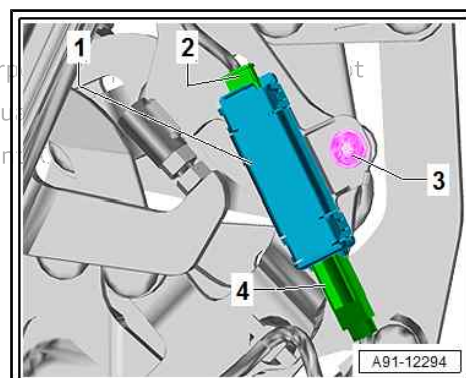
- Release and unplug connectors -2- and -4- at aerial amplifier 2 - R111- -1-.
- Unscrew bolt -3- and remove aerial amplifier 2 - R111- -1- from main mounting for convertible roof (right-side).

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“3.2.3 Overview of fitting locations - aerial systems, Cabriolet”, page 60](#)

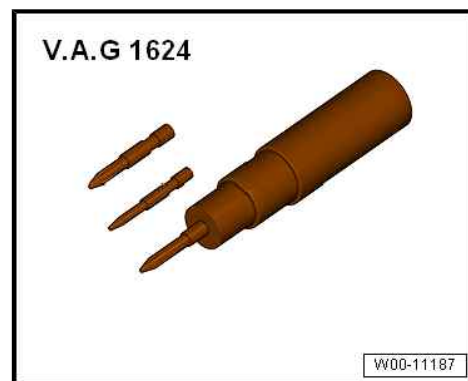


3.4.7 Removing and installing aerial amplifier 3 - R112- - 3-door models, 5-door models

Special tools and workshop equipment required



- ◆ Torque screwdriver - V.A.G 1624-



The aerial amplifier 3 - R112- is located on the rear lid (top right).

Removing

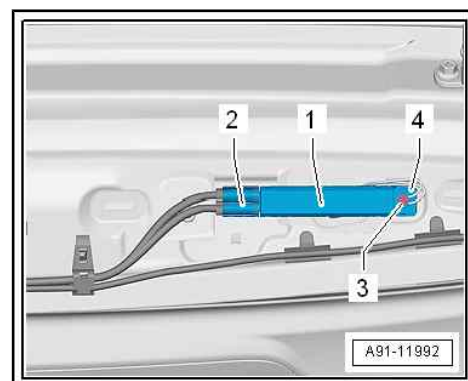
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear lid trim (top) ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - rear lid trim (top) .
- Release and unplug connectors -2- and -4- at aerial amplifier 3 - R112- -1-.
- Loosen bolt -3- (do not remove) and detach aerial amplifier 3 - R112- -1- from rear lid.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“3.2.1 Overview of fitting locations - aerial systems, 3-door models, 5-door models”, page 55](#)



3.4.8 Removing and installing aerial amplifier 3 - R112- - Saloon

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-



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Aerial amplifier 3 - R112- is located behind D-pillar trim (right-side) at bottom of D-pillar.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.



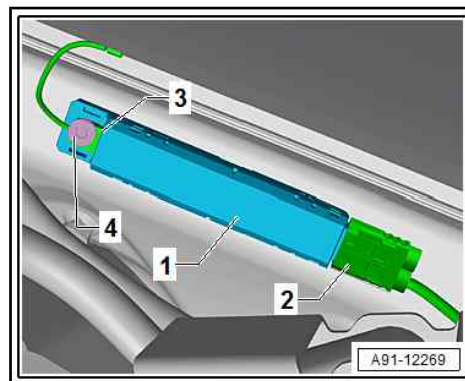
- Remove D-pillar trim (right-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - D-pillar trim .
- Remove rear shelf ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - rear shelf .
- Release and unplug connectors -2- and -3- at aerial amplifier 3 - R112- -1-.
- Loosen bolt -4- (do not remove) and detach aerial amplifier 3 - R112- -1- from D-pillar.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ♦ ⇒ [“3.2.2 Overview of fitting locations - aerial systems, Saloon”, page 58](#)



3.4.9 Removing and installing aerial amplifier 3 - R112- - Cabriolet

Special tools and workshop equipment required

- ♦ Torque screwdriver - V.A.G 1624-



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Aerial amplifier 3 - R112- is located behind side trim (left-side) at ledge.

Removing

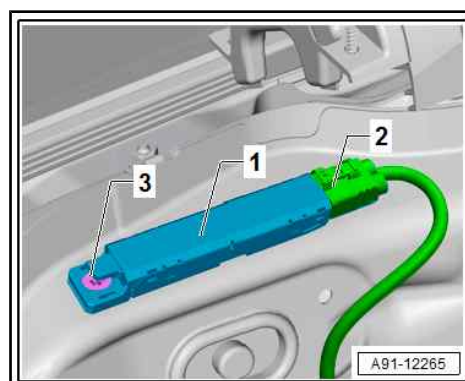
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove side trim (left-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - side trim .
- Release and unplug connector -2- at aerial amplifier 3 - R112- -1-.
- Loosen bolt -3- (do not remove) and detach aerial amplifier 3 - R112- -1- from ledge.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ♦ ⇒ [“3.2.3 Overview of fitting locations - aerial systems, Cabriolet”, page 60](#)

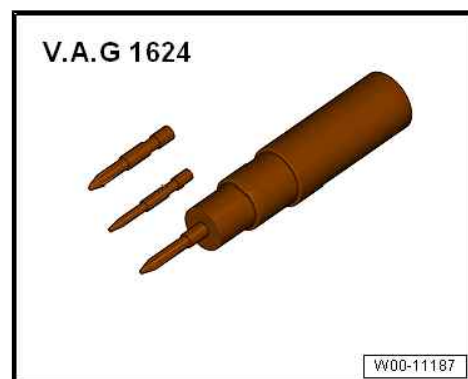




3.4.10 Removing and installing aerial amplifier 4 - R113- - Saloon

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-



Aerial amplifier 4 - R113- is located behind D-pillar trim (left-side) at bottom of D-pillar.

Removing

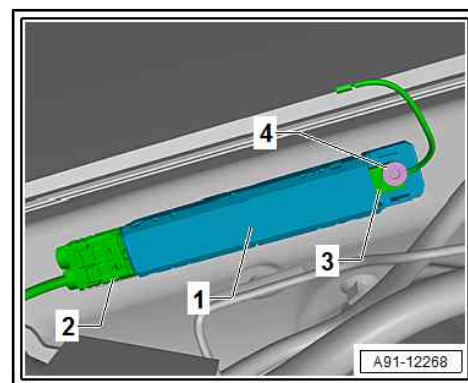
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove D-pillar trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view D-pillar trim .
- Remove rear shelf ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view, rear shelf .
- Release and unplug connectors -2- and -3- at aerial amplifier 4 - R113- -1-.
- Loosen bolt -4- (do not remove) and detach aerial amplifier 4 - R113- -1- from D-pillar.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“3.2.2 Overview of fitting locations - aerial systems, Saloon”, page 58](#)

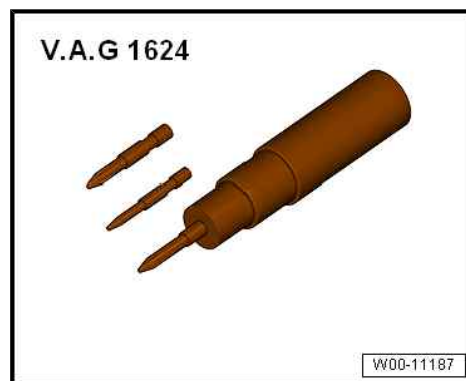


3.4.11 Removing and installing aerial amplifier 4 - R113- - Cabriolet

Special tools and workshop equipment required



- ◆ Torque screwdriver - V.A.G 1624-



Aerial amplifier 4 - R113- is located behind A-pillar trim (right-side) on A-pillar.

Removing

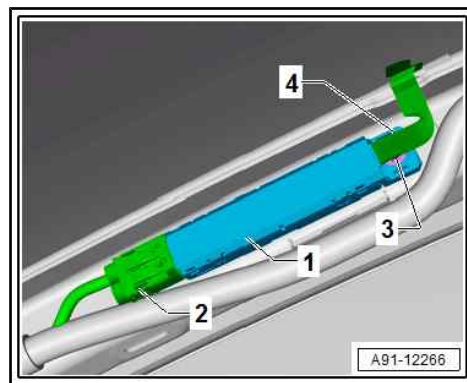
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove A-pillar trim (right-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - A-pillar trim .
- Release and unplug connectors -2- and -4- at aerial amplifier 4 - R113- -1-.
- Loosen bolt -3- (do not remove) and detach aerial amplifier 4 - R113- -1- from A-pillar.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“3.2.3 Overview of fitting locations - aerial systems, Cabriolet”, page 60](#)



3.4.12 Removing and installing aerial amplifier 1 for TV - R82- - Cabriolet

Aerial amplifier 1 for TV - R82- is located behind A-pillar trim (right-side) on A-pillar.

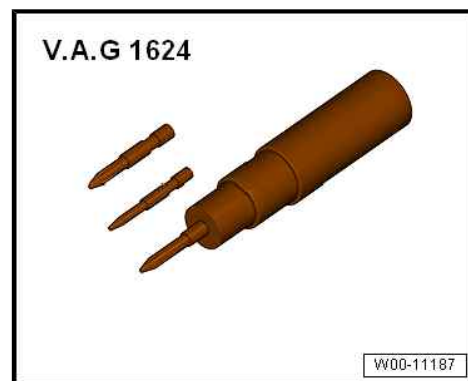
Aerial amplifier 1 for TV - R82- is removed and installed in the same way as aerial amplifier 4 - R113- ⇒ [page 77](#) .

3.4.13 Removing and installing aerial amplifier 2 for TV - R83- - Cabriolet

Special tools and workshop equipment required



- ◆ Torque screwdriver - V.A.G 1624-



Aerial amplifier 2 for TV - R83- is located behind A-pillar trim (left-side) on A-pillar.

Removing

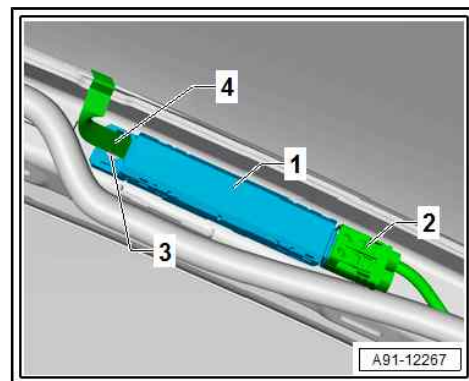
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove A-pillar trim (left-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - A-pillar trim .
- Release and unplug connectors -2- and -4- at aerial amplifier 2 for TV - R83- -1-.
- Loosen bolt -3- (do not remove) and detach aerial amplifier 2 for TV - R83- -1- from A-pillar.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“3.2.3 Overview of fitting locations - aerial systems, Cabriolet”, page 60](#)



3.5 Removing and installing window aerial suppression filter - C18-

⇒ [“3.5.1 Removing and installing window aerial suppression filter C18 - 3-door models, 5-door models”, page 79](#)

⇒ [“3.5.2 Removing and installing window aerial suppression filter C18 - Saloon”, page 80](#)

⇒ [“3.5.3 Removing and installing window aerial suppression filter C18 - Cabriolet”, page 81](#)

3.5.1 Removing and installing window aerial suppression filter - C18- - 3-door models, 5-door models

Special tools and workshop equipment required



◆ Torque wrench - V.A.G 1410-

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Window aerial suppression filter - C18- is located behind C/D-pillar trim (left-side).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.

3-door models

- Remove C-pillar trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - C-pillar trim .

5-door models

- Remove D-pillar trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - D-pillar trim .

All vehicles

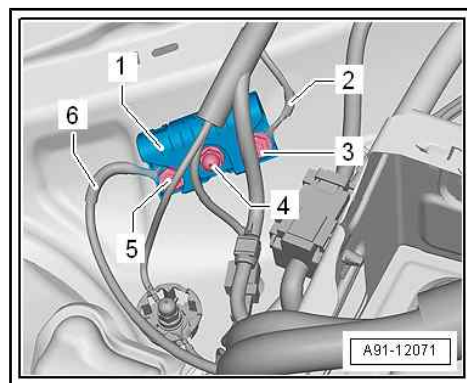
- Unscrew nuts -3- and -5- on window aerial suppression filter - C18- -1-.
- Disconnect wires -2- and -6- on window aerial suppression filter - C18- -1-.
- Unscrew nut -4- and remove window aerial suppression filter - C18- -1- from C/D-pillar.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“3.2.1 Overview of fitting locations - aerial systems, 3-door models, 5-door models”, page 55](#)



3.5.2 Removing and installing window aerial suppression filter - C18- - Saloon

Special tools and workshop equipment required



◆ Torque wrench - V.A.G 1410-

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V.A.G 1410



W00-11174

Window aerial suppression filter - C18- is located behind D-pillar trim (left-side) at centre of D-pillar.

Removing

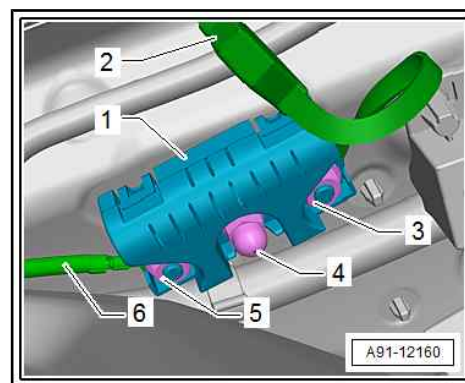
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove D-pillar trim ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - D-pillar trim .
- Unscrew nuts -3- and -5- on window aerial suppression filter - C18- -1-.
- Disconnect wires -2- and -6- on window aerial suppression filter - C18- -1-.
- Unscrew nut -4- and remove window aerial suppression filter - C18- -1- from D-pillar.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ ["3.2.2 Overview of fitting locations - aerial systems, Saloon", page 58](#)



3.5.3 Removing and installing window aerial suppression filter - C18- - Cabriolet

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1410-

V.A.G 1410



W00-11174

Window aerial suppression filter - C18- is located behind side trim (left-side) on body.



Removing

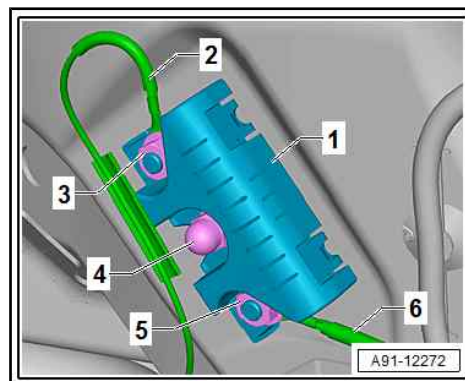
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove side trim (left-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - side trim .
- Unscrew nuts -3- and -5- on window aerial suppression filter - C18- -1-.
- Disconnect wires -2- and -6- on window aerial suppression filter - C18- -1-.
- Unscrew nut -4- and remove window aerial suppression filter - C18- -1- from body.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ♦ ⇒ [“3.2.3 Overview of fitting locations - aerial systems, Cabriolet”, page 60](#)



3.6 Removing and installing roof aerial

The roof aerial - R216- has up to three connections.

Depending on the equipment fitted, the roof aerial - R216- can include the following aerials:

- ♦ GPS aerial - R50-
- ♦ Telephone aerial - R65-
- ♦ Auxiliary heater aerial - R182-
- ♦ Satellite tuner aerial - R172-
- ♦ Emergency call module aerial - R263-

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Aerial wires are plugged in directly at base of roof aerial - R216- .

3-door and 5-door models: To remove roof aerial - R216- , lower moulded headliner at rear.

Saloon: To remove roof aerial - R216- , remove entire moulded headliner and place it down on dash panel.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- 3-door and 5-door models: Lower moulded headliner at rear ⇒ General body repairs, interior; Rep. gr. 70 ; Roof trim panels; Exploded view - moulded headliner .
- Saloon: Remove entire moulded headliner, but do not take it out of vehicle ⇒ General body repairs, interior; Rep. gr. 70 ; Roof trim panels; Exploded view - moulded headliner .



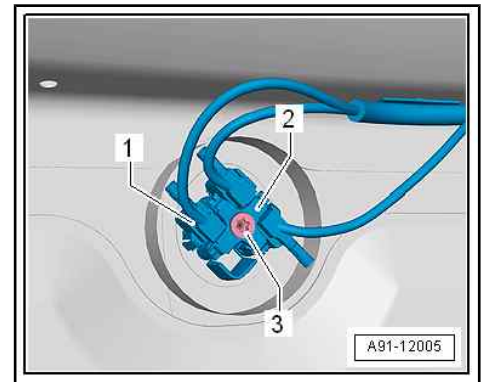
- Depending on equipment fitted, release and unplug connectors -1- to aerial wires.
- Loosen bolt -3-.
- Lift roof aerial - R216- -2- off roof.

Installing

- Installation is carried out in reverse sequence; note the following:
- Fit roof aerial - R216- onto roof and press on until it engages.

Tightening torques

- ◆ ⇒ [“3.2.1 Overview of fitting locations - aerial systems, 3-door models, 5-door models”, page 55](#)
- ◆ ⇒ [“3.2.2 Overview of fitting locations - aerial systems, Saloon”, page 58](#)



3.7 Removing and installing GPS aerial

⇒ [“3.7.1 Removing and installing GSM aerial - 3-door models, 5-door models, Saloon”, page 83](#)

⇒ [“3.7.2 Removing and installing GPS aerial - Cabriolet”, page 83](#)

3.7.1 Removing and installing GSM aerial - 3-door models, 5-door models, Saloon

GPS aerial - R50- is located in roof aerial - R216- .

Removing and installing roof aerial - R216- ⇒ [page 82](#)

3.7.2 Removing and installing GPS aerial - Cabriolet

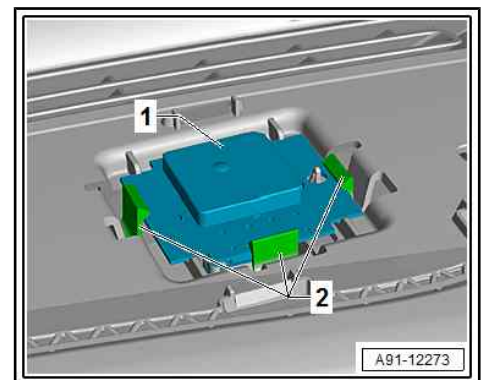
GPS aerial - R50- is located in dash panel (front centre).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove loudspeaker trim (centre) in dash panel ⇒ General body repairs, interior; Rep. gr. 70 ; Dash panel; Exploded view - dash panel .
- Release retaining hooks -2- for GPS aerial - R50- -1-.
- Pull GPS aerial - R50- -1- out of dash panel to such an extent that connector becomes accessible.
- Release and unplug connector at GPS aerial - R50- -1-.
- Detach GPS aerial - R50- .

Installing

- Install in reverse sequence of removal.



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3.8 Removing and installing telephone aerial

⇒ [“3.8.1 Removing and installing telephone aerial - 3-door models, 5-door models, Saloon”, page 84](#)

⇒ [“3.8.2 Removing and installing telephone aerial - Cabriolet”, page 84](#)

3.8.1 Removing and installing telephone aerial - 3-door models, 5-door models, Saloon

The telephone aerial - R65- is located in the roof aerial - R216- on vehicles without emergency call module (NZ0). On vehicles with emergency call module (NZ3), the telephone aerial - R65- is fitted as a bumper aerial behind the rear bumper cover (right-side).

Removing and installing roof aerial - R216- (vehicles without emergency call module, NZ0) ⇒ [page 82](#)

Removing and installing bumper aerial (vehicles with emergency call module, NZ3) ⇒ [page 86](#)

3.8.2 Removing and installing telephone aerial - Cabriolet

Telephone aerial - R65- is located on convertible roof compartment lid (beneath trim).

Removing

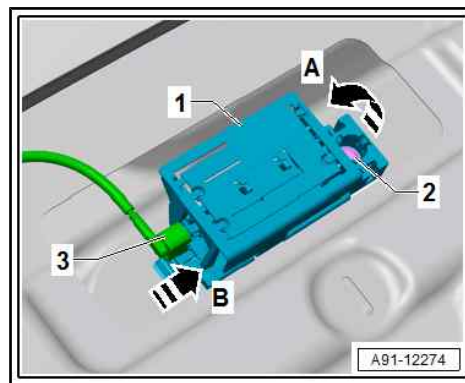
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove trim for convertible roof compartment lid ⇒ General body repairs, exterior; Rep. gr. 61 ; Convertible roof .
- Release and unplug connector -3- at telephone aerial - R65- -1-.
- Remove bolts -2- for telephone aerial - R65- -1-.
- First swivel telephone aerial - R65- -1- upwards -arrow A- on left side.
- Then slide telephone aerial - R65- to the left -arrow B- and take it out.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ♦ ⇒ [“3.2.3 Overview of fitting locations - aerial systems, Cabriolet”, page 60](#)





3.9 Removing and installing satellite tuner aerial

⇒ ["3.9.1 Removing and installing satellite tuner aerial - 3-door models, 5-door models, Saloon", page 85](#)

⇒ ["3.9.2 Removing and installing satellite tuner aerial - Cabriolet", page 85](#)

3.9.1 Removing and installing satellite tuner aerial - 3-door models, 5-door models, Saloon

Satellite tuner aerial - R172- is located in roof aerial - R216- .

Removing and installing roof aerial - R216- ⇒ [page 82](#)

3.9.2 Removing and installing satellite tuner aerial - Cabriolet

Satellite tuner aerial - R172- is located on rear lid.

Removing

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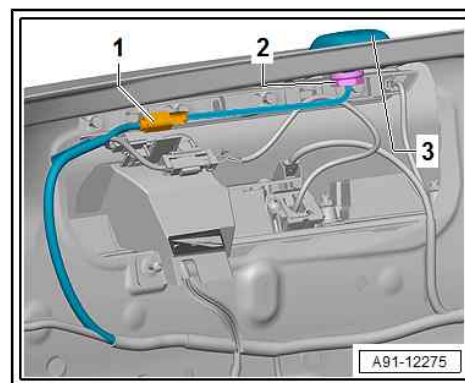
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear lid trim ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - rear lid trim (bottom) .
- Release and unplug connector -1- for satellite tuner aerial - R172- -3-.
- Unscrew nut -2- from satellite tuner aerial - R172- -3- and detach from aerial wire.
- Lift satellite tuner aerial - R172- -3- off rear lid.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ ["3.2.3 Overview of fitting locations - aerial systems, Cabriolet", page 60](#)



3.10 Removing and installing traffic data aerial

Traffic data aerial - R173- is located on windscreen (top left).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.

The electrical connectors for the traffic data aerial - R173- are located behind the front interior light - W1- .

- Remove front interior light - W1- ⇒ Electrical system; Rep. gr. 96 ; Lights; Overview of fitting locations - lights in roof trim .



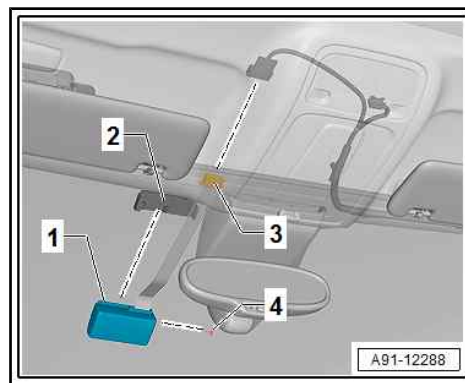
- Release and unplug connector -3-.

Traffic data aerial - R173- -1- is secured in bracket -2- by a locking element -4-. Bracket -2- is bonded to windscreen.

- Use small screwdriver to pull out locking element -4-.
- Pull traffic data aerial - R173- -1- out of bracket -2- and remove.

Installing

- Install in reverse sequence of removal.



3.11 Removing and installing dedicated short-range communication aerial

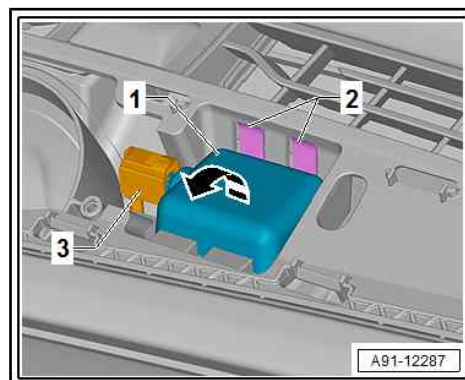
Dedicated short-range communication aerial - R269- is located in dash panel (front centre).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove loudspeaker trim (centre) in dash panel ⇒ General body repairs, interior; Rep. gr. 70 ; Dash panel; Exploded view - dash panel .
- Release retaining hooks -2- for dedicated short-range communication aerial - R269- -1-.
- Swivel dedicated short-range communication aerial - R269- -1- in direction of -arrow- out of mounting in dash panel.
- Release and unplug connector -3- at dedicated short-range communication aerial - R269- -1-.
- Detach dedicated short-range communication aerial - R269- .

Installing

- Install in reverse sequence of removal.



3.12 Removing and installing bumper aerials

⇒ [“3.12.1 Removing and installing bumper aerials - 3-door models, 5-door models”, page 86](#)

⇒ [“3.12.2 Removing and installing bumper aerials - Saloon, Cabriolet”, page 87](#)

3.12.1 Removing and installing bumper aerials - 3-door models, 5-door models

Depending on the equipment fitted, the following bumper aerials are fitted:

- ◆ Behind rear bumper cover (right-side): telephone aerial - R65- / GSM aerial - R205- / LTE aerial 2 - R306-
- ◆ Behind rear bumper cover (left-side): LTE aerial 1 - R297-

Removal and installation are described for bumper aerial (left-side); the procedures are basically the same for bumper aerial (right-side).



Removing

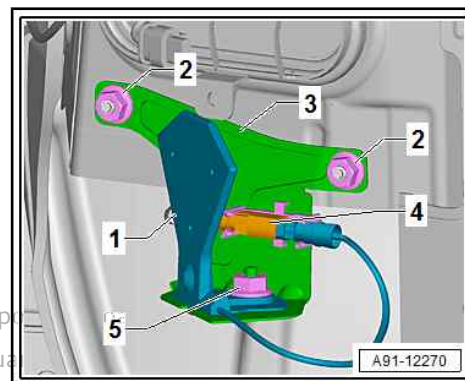
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear bumper cover ⇒ General body repairs, exterior; Rep. gr. 63 ; Bumper (rear); Removing and installing bumper cover .
- Release and unplug connector -4- for bumper aerial (left-side) -1-.



Note

Depending on the version of the bumper aerial fitted, the connector -4- is located directly at the bumper aerial -1-.

- Unscrew nut -5- for bumper aerial (left-side) -1-.
- Detach bumper aerial (left-side) -1- from bracket -3-.
- Remove nuts -2- for bracket -3-.
- Detach bracket -3- from body.



Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ [“3.2.1 Overview of fitting locations - aerial systems, 3-door models, 5-door models”, page 55](#)

3.12.2 Removing and installing bumper aerals - Saloon, Cabriolet

Depending on the equipment fitted, the following bumper aerals are fitted:

- ◆ Behind rear bumper cover (right-side): telephone aerial - R65- / LTE aerial 2 - R306-
- ◆ Behind rear bumper cover (left-side): LTE aerial 1 - R297-

Removal and installation are described for bumper aerial (left-side); the procedures are basically the same for bumper aerial (right-side).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear bumper cover ⇒ General body repairs, exterior; Rep. gr. 63 ; Bumper (rear); Removing and installing bumper cover .



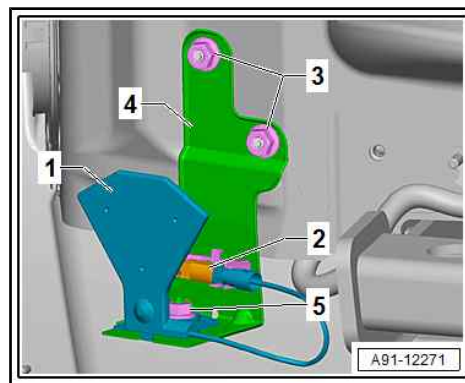
- Release and unplug connector -2- for bumper aerial (left-side) -1-.



Note

Depending on the version of the bumper aerial fitted, the connector -2- is located directly at the bumper aerial -1-.

- Unscrew nut -5- for bumper aerial (left-side) -1-.
- Detach bumper aerial (left-side) -1- from bracket -4-.
- Remove nuts -3- for bracket -4-.
- Detach bracket -4- from body.



Installing

- Install in reverse sequence of removal.

Tightening torques

- ♦ ⇒ [“3.2.2 Overview of fitting locations - aerial systems, Saloon”, page 58](#)
- ♦ ⇒ [“3.2.3 Overview of fitting locations - aerial systems, Cabriolet”, page 60](#)

3.13 Removing and installing dash panel aerial

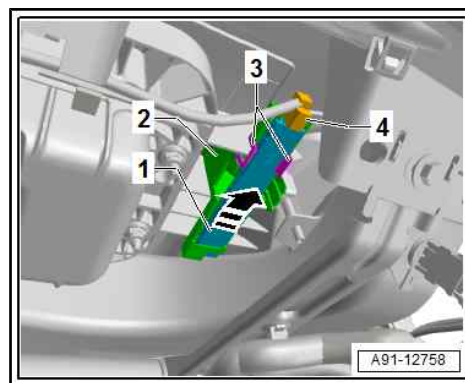
Depending on the equipment fitted, the LTE aerial 2 - R306- may be fitted in the dash panel (right-side).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove glove box ⇒ General body repairs, interior; Rep. gr. 68 ; Storage compartments/covers/trim panels; Removing and installing glove box .
- Release and unplug connector -4-.
- Release retainers -3- on bracket -2-.
- Pull aerial -1- out of bracket -2- in direction of -arrow-.

Installing

- Install in reverse sequence of removal.





4 Radio

⇒ [“4.1 Layout - radio”, page 89](#)

⇒ [“4.2 Overview of fitting locations - radio”, page 99](#)

⇒ [“4.3 Removing and installing radio”, page 101](#)

⇒ [“4.4 Pin assignment”, page 102](#)

4.1 Layout - radio

⇒ [“4.1.1 Layout - radio, CAN radio \(I8A\), up to model year 2016”, page 89](#)

⇒ [“4.1.2 Layout - radio, Audi CAN radio \(I7X\), up to model year 2016”, page 90](#)

⇒ [“4.1.3 Layout - radio, MMI radio MOST \(I8D\), up to model year 2016”, page 90](#)

⇒ [“4.1.4 Layout - radio, MMI radio \(I8E\), from model year 2017 onwards”, page 93](#)

⇒ [“4.1.5 Layout - radio, MMI radio plus \(I8S\), from model year 2017 onwards”, page 95](#)

⇒ [“4.1.6 Layout - radio, MMI navigation system plus \(I8G/I8L\)”, page 97](#)

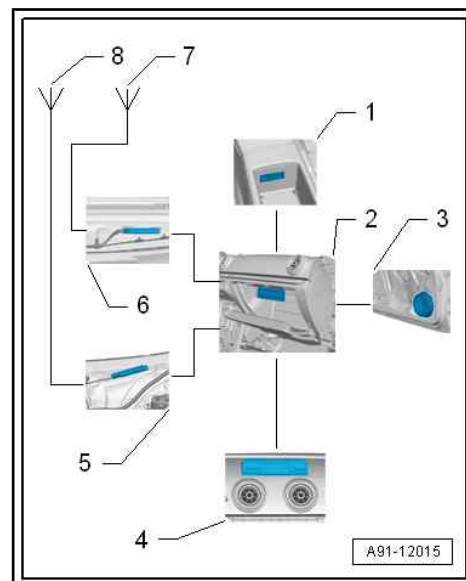
4.1.1 Layout - radio, CAN radio (I8A), up to model year 2016

I8A - CAN radio

- ◆ Control unit 1 for information electronics - J794- with integrated CD player in glove box
- ◆ Radio - R- integrated in control unit 1 for information electronics - J794-
- ◆ External operating unit with display (multimedia system operating unit - E380-) in dash panel (centre)
- ◆ Sound systems: basic/basic plus, 8RE/8RM
- ◆ Connection for external audio sources - R199- (AUX IN socket) in centre console storage compartment, UE3

Fault finding is performed via “Guided Fault Finding” ⇒ Vehicle diagnostic tester.

- 1 - Connection for external audio sources - R199- in centre console storage compartment
- 2 - Control unit 1 for information electronics - J794- in glove box
- 3 - Sound systems
- 4 - Multimedia system operating unit - E380- in dash panel
- 5 - Aerial amplifier 2 - R111- behind rear lid trim, bottom left (3-door and 5-door models) / behind D-pillar trim, top left (Saloon)/ aerial amplifier 3 - R112- behind side trim, rear left (Cabriolet)
- 6 - Aerial amplifier - R24- behind rear lid trim, top left (3-door and 5-door models) / behind D-pillar trim, top right (Saloon) / behind side trim, rear right (Cabriolet)
- 7 - Aerial - R11- , rear window/side trim, rear right
- 8 - Radio aerial 2 - R93- , rear window/side trim, rear left





4.1.2 Layout - radio, Audi CAN radio (I7X), up to model year 2016

I7X - Audi CAN radio

- ◆ Control unit 1 for information electronics - J794- with integrated CD player in glove box
- ◆ Radio - R- integrated in control unit 1 for information electronics - J794-
- ◆ Display unit for front information display and operating unit control unit - J685- (5.8 inch display) in dash panel (centre)
- ◆ Multimedia system operating unit - E380- in centre console
- ◆ Sound system: basic plus, 8RM
- ◆ Connection for external audio sources - R199- (AUX IN socket) in centre console storage compartment, UE3
- ◆ SD memory card reader

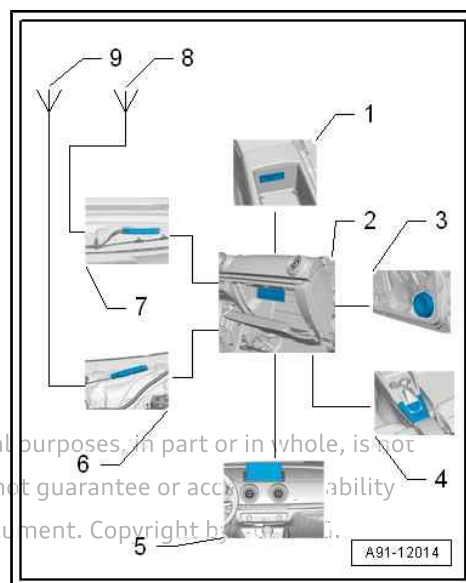
Optional equipment

- ◆ Multi-function steering wheel

The connection to other systems in the vehicle takes place via the CAN bus (infotainment) and the data bus diagnostic interface - J533- .

Fault finding is performed via "Guided Fault Finding" ⇒ Vehicle diagnostic tester.

- 1 - Connection for external audio sources - R199- in centre console storage compartment
- 2 - Control unit 1 for information electronics - J794- in glove box
- 3 - Sound systems
- 4 - Multimedia system operating unit - E380- in centre console
- 5 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)
- 6 - Aerial amplifier 2 - R111- behind rear lid trim, bottom left (3-door and 5-door models) / behind D-pillar trim, top left (Saloon) / aerial amplifier 3 - R112- behind side trim, rear left (Cabriolet)
- 7 - Aerial amplifier - R24- behind rear lid trim, top left (3-door and 5-door models) / behind D-pillar trim, top right (Saloon) / behind side trim, rear right (Cabriolet)
- 8 - Aerial - R11- , rear window/side trim, rear right
- 9 - Radio aerial 2 - R93- , rear window/side trim, rear left



4.1.3 Layout - radio, MMI radio MOST (I8D), up to model year 2016

I8D - MMI radio MOST

- ◆ Control unit 1 for information electronics - J794- with integrated CD player/SD memory card readers in glove box
- ◆ Radio - R- integrated in control unit 1 for information electronics - J794-
- ◆ Multimedia system operating unit - E380- in centre console
- ◆ Display unit for front information display and operating unit control unit - J685- (5.8 inch display) in dash panel (centre)



- ◆ Connection for external audio sources - R199- (AUX IN socket) in centre console storage compartment, UE3
- ◆ Sound system: basic plus, 8RM
- ◆ Video input for camera systems

Optional equipment

- ◆ Digital radio - R147- integrated in control unit 1 for information electronics - J794- , QV3
- ◆ Satellite radio - R146- integrated in control unit 1 for information electronics - J794- , NAR and QV3 only
- ◆ Digital sound package control unit - J525- (Bang & Olufsen sound system) under front left seat
- ◆ Connection for external audio sources - R199- (AMI) in centre console storage compartment, UE7
- ◆ TV tuner - R78- behind right luggage compartment trim (3-door and 5-door models, Saloon)/behind rear right side trim (Cabriolet), QV1
- ◆ Audi sound system, 9VD
- ◆ Bang & Olufsen sound system, 9VS
- ◆ Audi phone box, 9ZE
- ◆ Bluetooth interface, 9ZX
- ◆ Speech dialogue system, QH1
- ◆ Multi-function steering wheel
- ◆ Navigation system pre-installation, 7UH
- ◆ Basic navigation system (SD card), 7UF



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1 - Roof aerial - R216-

❑ Not on Cabriolet

2 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)

3 - Rear window aerials (3-door and 5-door models, Saloon)/windscreen and rear window aerials/aerials in side trim panels (Cabriolet)

4 - Control unit 1 for information electronics - J794- in glove box

5 - Multimedia system operating unit - E380- in centre console

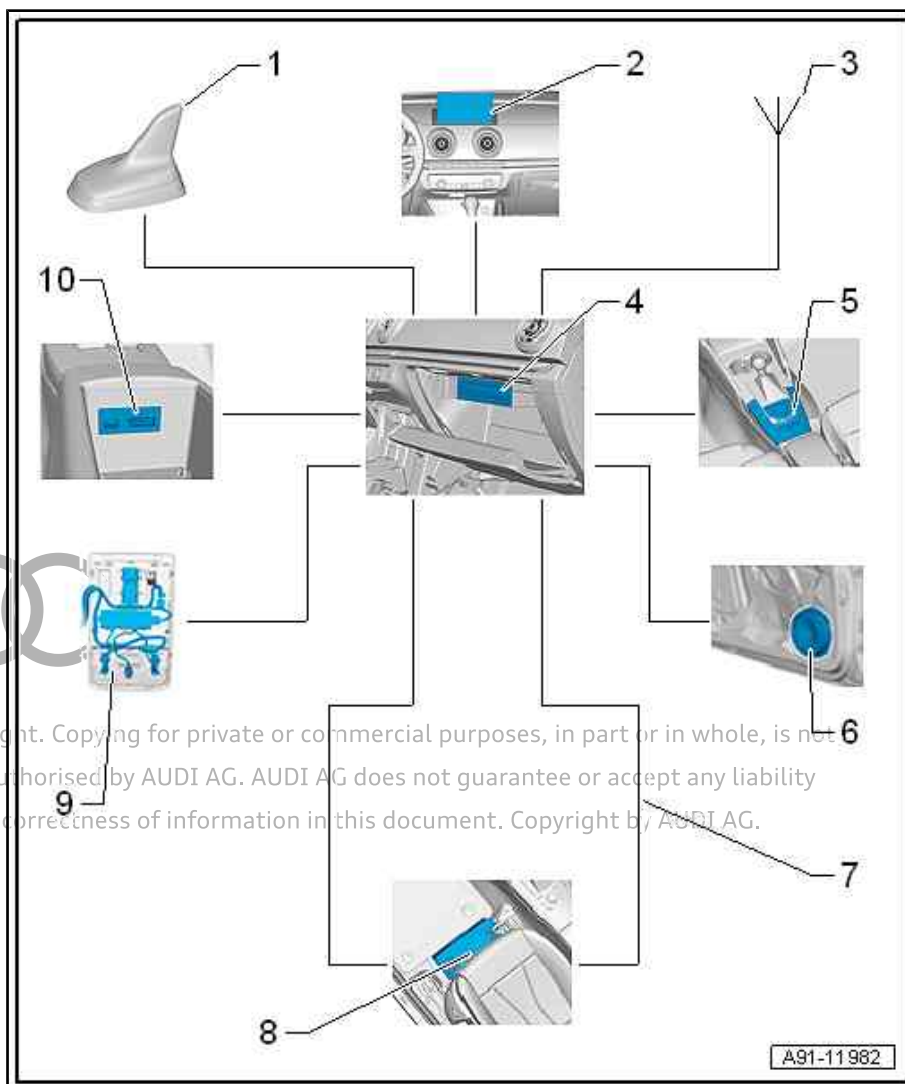
6 - Sound systems

7 - MOST bus

8 - Digital sound package control unit - J525- under left front seat

9 - Microphone unit in front roof module - R164- (telephone microphone - R38-) in front interior light - W1-

10 - Connection for external audio sources - R199- in centre console storage compartment



The data for the Bang & Olufsen sound system (9VS) are transmitted via the MOST bus.

The connection to other systems in the vehicle takes place via the CAN bus (infotainment) and the data bus diagnostic interface - J533- .

Fault finding is performed via "Guided Fault Finding" ⇒ Vehicle diagnostic tester.

Notes on MOST bus

In addition to the CAN bus, the fibre optic data bus "MOST bus" is used.

A "fibre optic cable" is used as the connecting cable. The fibre optic cables are fitted in corrugated tubes for protection.

Renew the complete fibre optic cable whenever possible.

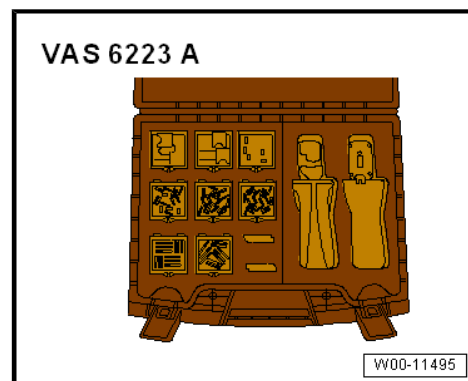
The end faces of the connectors must not become dirty.



If connectors are unplugged: fit a protective cap for cable connector - VAS 6223/9- .

When installing the fibre optic cables, be sure to observe the minimum bending radius of 25 mm. Do not crush or kink the fibre optic cable.

Repairing fibre optic cables ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing fibre optic cables



4.1.4 Layout - radio, MMI radio (I8E), from model year 2017 onwards

I8E - MMI radio

- ◆ Control unit 1 for information electronics - J794- with integrated CD player/SD memory card readers in glove box
- ◆ Radio - R- integrated in control unit 1 for information electronics - J794-
- ◆ Multimedia system operating unit - E380- in centre console
- ◆ Display unit for front information display and operating unit control unit - J685- (7 inch display) in dash panel (centre)
- ◆ Connection for external audio sources - R199- (AUX IN socket) in centre console storage compartment, UE3
- ◆ Sound system: basic plus, 8RM
- ◆ Video input for camera systems
- ◆ Bluetooth interface, 9ZX

Optional equipment

- ◆ Digital radio - R147- integrated in control unit 1 for information electronics - J794- , QV3
- ◆ Satellite radio - R146- integrated in control unit 1 for information electronics - J794- , NAR and QV3 only
- ◆ Digital sound package control unit - J525- under left front seat, 9VS
- ◆ Connection for external audio sources - R199- (AUX IN socket and USB charging socket) in centre console storage compartment, UE4
- ◆ Audi music interface (AUX IN socket and two USB sockets with charging and data transfer functionality) in centre console storage compartment, UE7
- ◆ Audi sound system, 9VD
- ◆ Bang & Olufsen sound system, 9VS
- ◆ Audi phone box, 9ZE
- ◆ Multi-function steering wheel

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1 - Roof aerial - R216-

❑ Not on Cabriolet

2 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)

3 - Rear window aerials (3-door and 5-door models, Saloon)/windscreen and rear window aerials/aerials in side trim panels (Cabriolet)

4 - Control unit 1 for information electronics - J794- in glove box

5 - Multimedia system operating unit - E380- in centre console

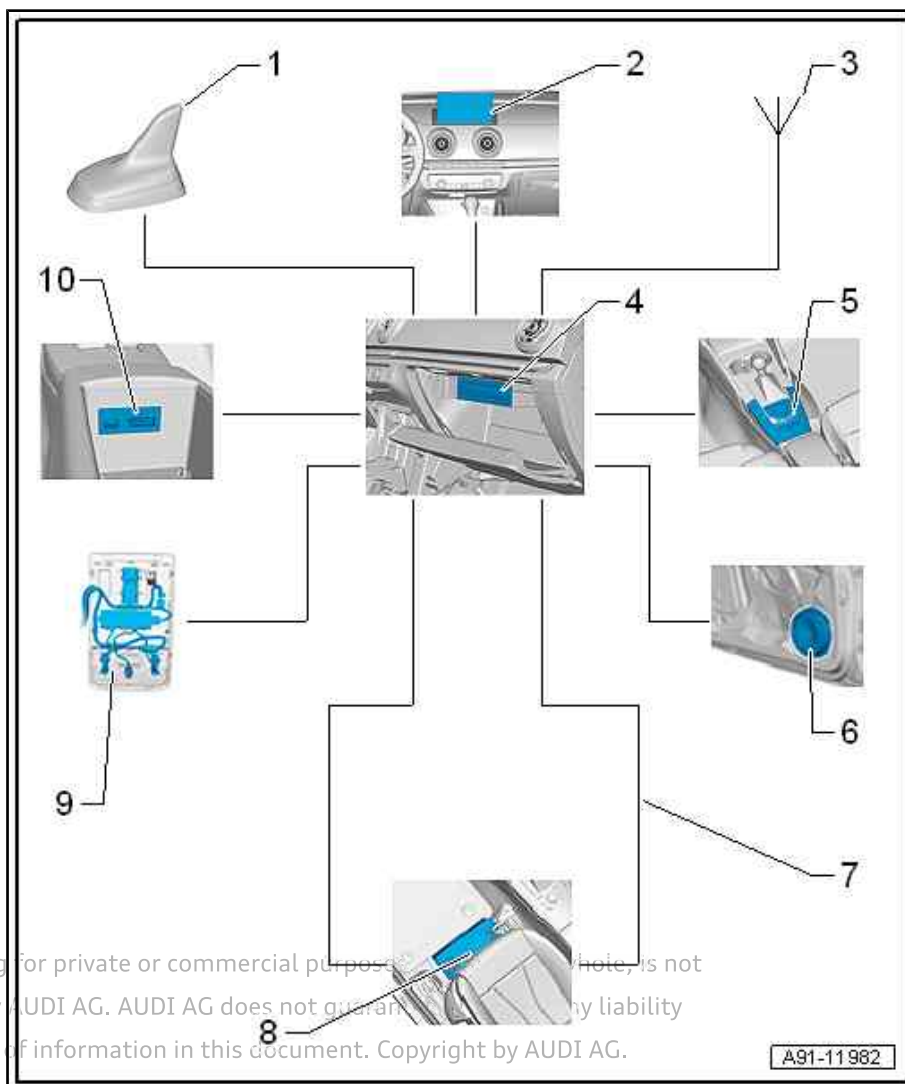
6 - Sound systems

7 - MOST bus

8 - Digital sound package control unit - J525- under left front seat

9 - Microphone unit in front roof module - R164- (telephone microphone - R38-) in front interior light - W1-

10 - Connection for external audio sources - R199- in centre console storage compartment



The data for the Bang & Olufsen sound system (9VS) are transmitted via the MOST bus.

The connection to other systems in the vehicle takes place via the CAN bus (infotainment) and the data bus diagnostic interface - J533- .

Fault finding is performed via "Guided Fault Finding" ⇒ Vehicle diagnostic tester.

Notes on MOST bus

In addition to the CAN bus, the fibre optic data bus "MOST bus" is used.

A "fibre optic cable" is used as the connecting cable. The fibre optic cables are fitted in corrugated tubes for protection.

Renew the complete fibre optic cable whenever possible.

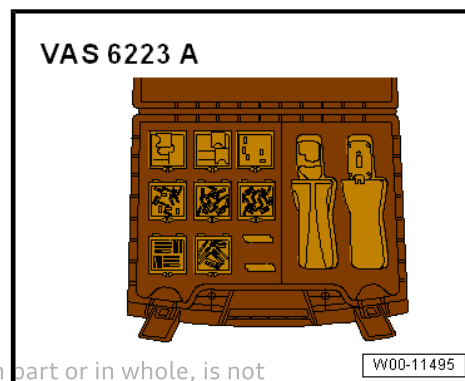
The end faces of the connectors must not become dirty.



If connectors are unplugged: fit a protective cap for cable connector - VAS 6223/9- .

When installing the fibre optic cables, be sure to observe the minimum bending radius of 25 mm. Do not crush or kink the fibre optic cable.

Repairing fibre optic cables ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing fibre optic cables



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4.1.5 Layout - radio, MMI radio plus (I8S), from model year 2017 onwards

I8S - MMI radio plus

- ◆ Control unit 1 for information electronics - J794- with integrated CD player/SD memory card readers in glove box
- ◆ Radio - R- integrated in control unit 1 for information electronics - J794-
- ◆ Multimedia system operating unit - E380- in centre console
- ◆ Display unit for front information display and operating unit control unit - J685- (7 inch display) in dash panel (centre)
- ◆ Connection for external audio sources - R199- (AUX IN socket and USB charging socket) in centre console storage compartment, UE4
- ◆ Sound system: basic plus, 8RM
- ◆ Video input for camera systems
- ◆ Bluetooth interface, 9ZX

Optional equipment

- ◆ Digital radio - R147- integrated in control unit 1 for information electronics - J794- , QV3
- ◆ Satellite radio - R146- integrated in control unit 1 for information electronics - J794- , NAR and QV3 only
- ◆ TV tuner - R78- behind right luggage compartment trim (3-door and 5-door models, Saloon)/behind rear right side trim (Cabriolet), QV1
- ◆ Digital sound package control unit - J525- under left front seat, 9VS
- ◆ Audi smartphone interface (AUX IN socket and two USB sockets with charging and data transfer functionality) in centre console storage compartment, UI2
- ◆ Audi sound system, 9VD
- ◆ Bang & Olufsen sound system, 9VS
- ◆ Audi phone box, 9ZE
- ◆ Audi connect with Audi phone box, 9ZC
- ◆ Multi-function steering wheel
- ◆ Connectivity package ready 4 nav (navigation system pre-installation), 7UH
- ◆ MMI navigation module, 7UF



1 - Roof aerial - R216-

❑ Not on Cabriolet

2 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)

3 - Rear window aerials (3-door and 5-door models, Saloon)/windscreen and rear window aerials/aerials in side trim panels (Cabriolet)

4 - Control unit 1 for information electronics - J794- in glove box

5 - Multimedia system operating unit - E380- in centre console

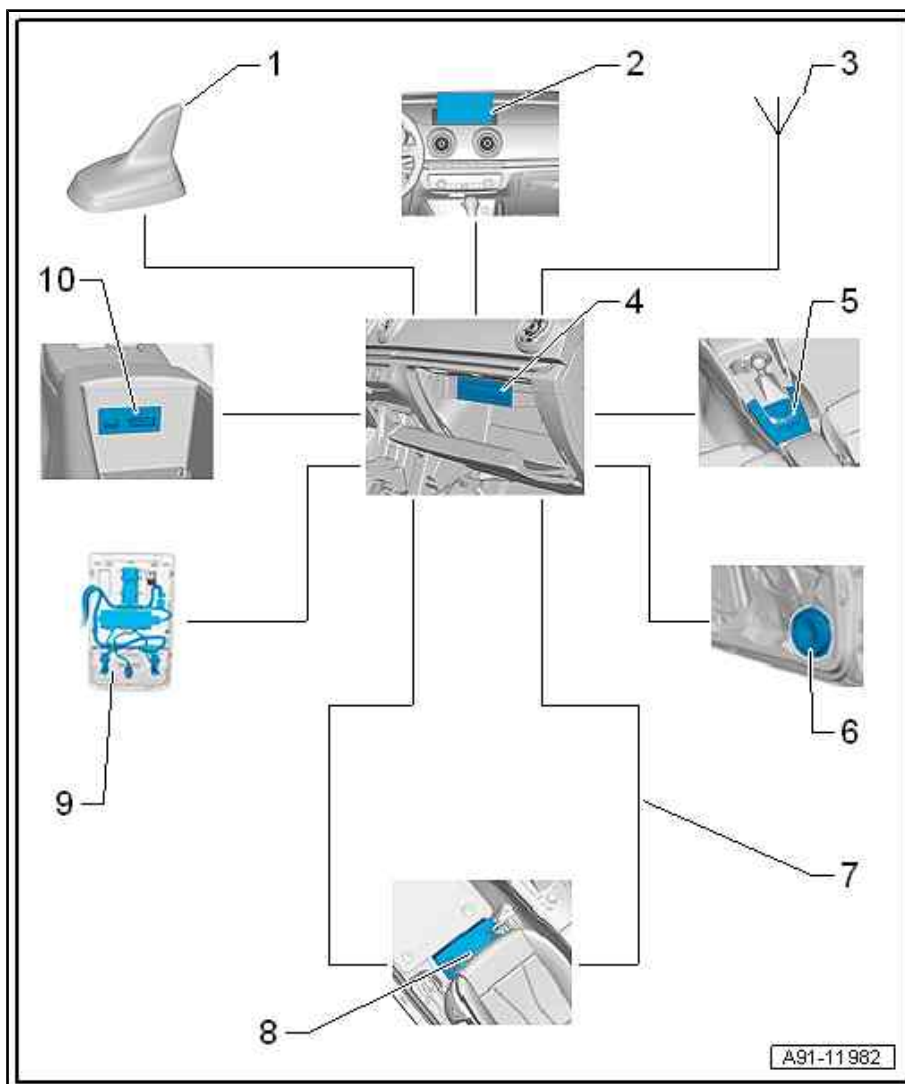
6 - Sound systems

7 - MOST bus

8 - Digital sound package control unit - J525- under left front seat

9 - Microphone unit in front roof module - R164- (telephone microphone - R38-) in front interior light - W1-

10 - Connection for external audio sources - R199- in centre console storage compartment



The data for the Bang & Olufsen sound system (9VS) and for the TV tuner - R78- (QV1) are transmitted via the MOST bus.

The connection to other systems in the vehicle takes place via the CAN bus (infotainment) and the data bus diagnostic interface - J533- .

Fault finding is performed via "Guided Fault Finding" → Vehicle diagnostic tester.

Notes on MOST bus

In addition to the CAN bus, the fibre optic data bus "MOST bus" is used.

A "fibre optic cable" is used as the connecting cable. The fibre optic cables are fitted in corrugated tubes for protection.

Renew the complete fibre optic cable whenever possible.

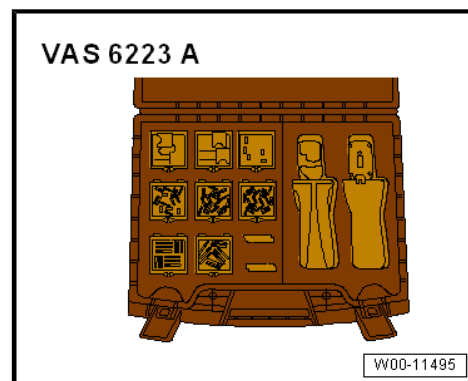
The end faces of the connectors must not become dirty.



If connectors are unplugged: fit a protective cap for cable connector - VAS 6223/9- .

When installing the fibre optic cables, be sure to observe the minimum bending radius of 25 mm. Do not crush or kink the fibre optic cable.

Repairing fibre optic cables ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing fibre optic cables



4.1.6 Layout - radio, MMI navigation system plus (I8G/I8L)

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- ◆ Control unit 1 for information electronics - J794- with integrated DVD player/SD memory card readers/navigation system in glove box
- ◆ Internal hard disk (HD) to store navigation data and MP3 files
- ◆ Radio - R- integrated in control unit 1 for information electronics - J794-
- ◆ Multimedia system operating unit - E380- in centre console
- ◆ Display unit for front information display and operating unit control unit - J685- in dash panel (centre)
- ◆ Connection for external audio sources - R199- in centre console storage compartment, UE3/UE4
- ◆ Sound system: basic plus, 8RM
- ◆ Bluetooth interface, 9ZX (standard equipment from model year 2017 onwards)

Optional equipment

- ◆ Digital radio - R147- integrated in control unit 1 for information electronics - J794- , QV3
- ◆ Satellite radio - R146- integrated in control unit 1 for information electronics - J794- , NAR and QV3 only
- ◆ TV tuner - R78- behind right luggage compartment trim (3-door and 5-door models, Saloon)/behind rear right side trim (Cabriolet), QV1
- ◆ Digital sound package control unit - J525- under left front seat, 9VS
- ◆ Audi sound system, 9VD
- ◆ Bang & Olufsen sound system, 9VS
- ◆ Connection for external multimedia devices in centre console storage compartment, UE7/UI2
- ◆ Bluetooth interface, 9ZX (optional equipment only up to model year 2016)
- ◆ Bluetooth car phone online, 9ZK (only up to model year 2016)
- ◆ Audi phone box, 9ZE
- ◆ Audi connect and Audi phone box, 9ZC (from model year 2017 onwards)
- ◆ Integrated WLAN on Bluetooth car phone, 9ZC, 9ZK



◆ Multi-function steering wheel

1 - Roof aerial - R216-

❑ Not on Cabriolet

2 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)

3 - Rear window aerials (3-door and 5-door models, Saloon)/windscreen and rear window aerials/aerials in side trim panels (Cabriolet)

4 - Control unit 1 for information electronics - J794- in glove box

5 - Multimedia system operating unit - E380- in centre console

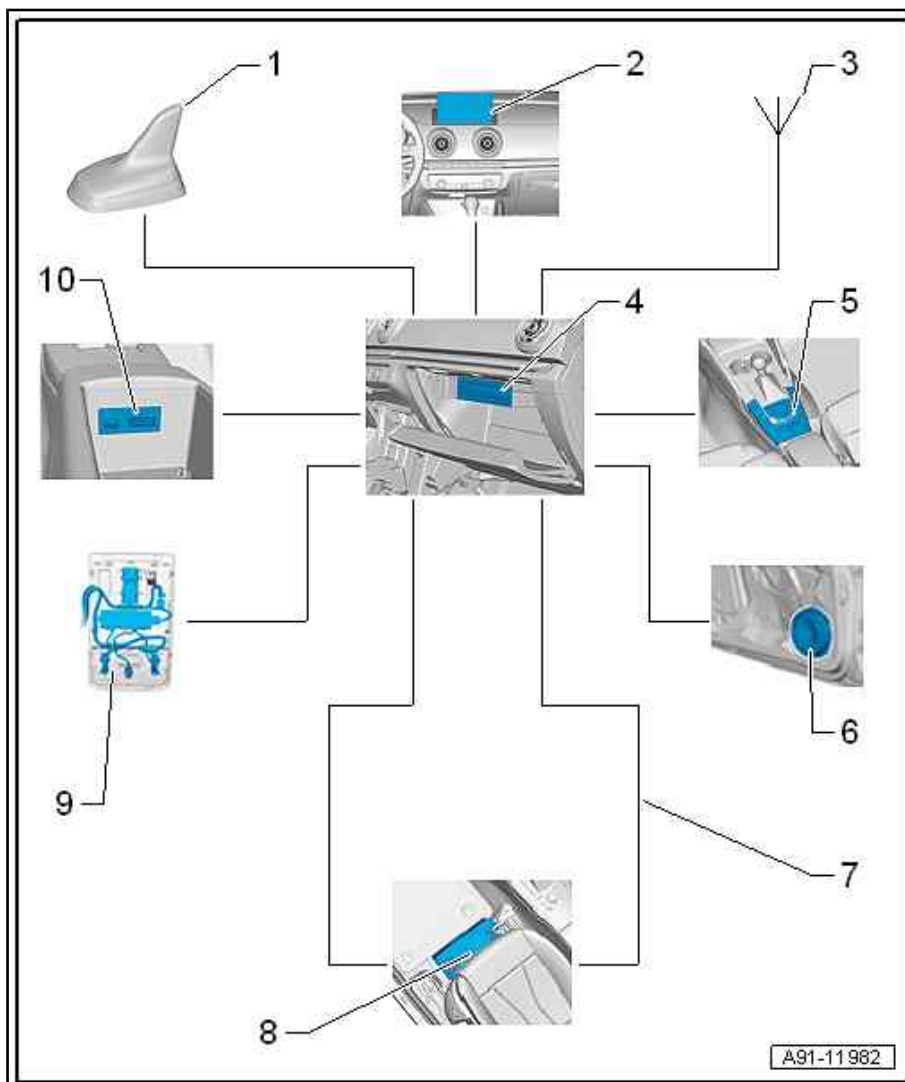
6 - Sound systems

7 - MOST bus

8 - Digital sound package control unit - J525- under left front seat

9 - Microphone unit in front roof module - R164- (telephone microphone - R38-) in front interior light - W1-

10 - Connection for external audio sources - R199- in centre console storage compartment



The data for the Bang & Olufsen sound system (9VS) and for the TV tuner - R78- (QV1) are transmitted via the MOST bus.

The connection to other systems in the vehicle takes place via the CAN bus (infotainment) and the data bus diagnostic interface - J533- .

Fault finding is performed via "Guided Fault Finding" ⇒ Vehicle diagnostic tester.

Notes on MOST bus

In addition to the CAN bus, the fibre optic data bus "MOST bus" is used.

A "fibre optic cable" is used as the connecting cable. The fibre optic cables are fitted in corrugated tubes for protection.

Renew the complete fibre optic cable whenever possible.

The end faces of the connectors must not become dirty.

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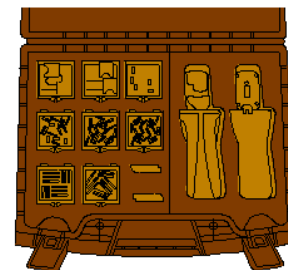


If connectors are unplugged: fit a protective cap for cable connector - VAS 6223/9- .

When installing the fibre optic cables, be sure to observe the minimum bending radius of 25 mm. Do not crush or kink the fibre optic cable.

Repairing fibre optic cables ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing fibre optic cables

VAS 6223 A



WV00-11495

4.2 Overview of fitting locations - radio

⇒ ["4.2.1 Overview of fitting locations - radio, CAN radio \(I8A\)", page 99](#)

⇒ ["4.2.2 Overview of fitting locations - radio, Audi CAN radio \(I7X\)", page 100](#)

⇒ ["4.2.3 Overview of fitting locations - radio, MMI radio MOST \(I8D\), MMI radio \(I8E\), MMI radio plus \(I8S\), MMI navigation system plus \(I8G/I8L\)", page 101](#)

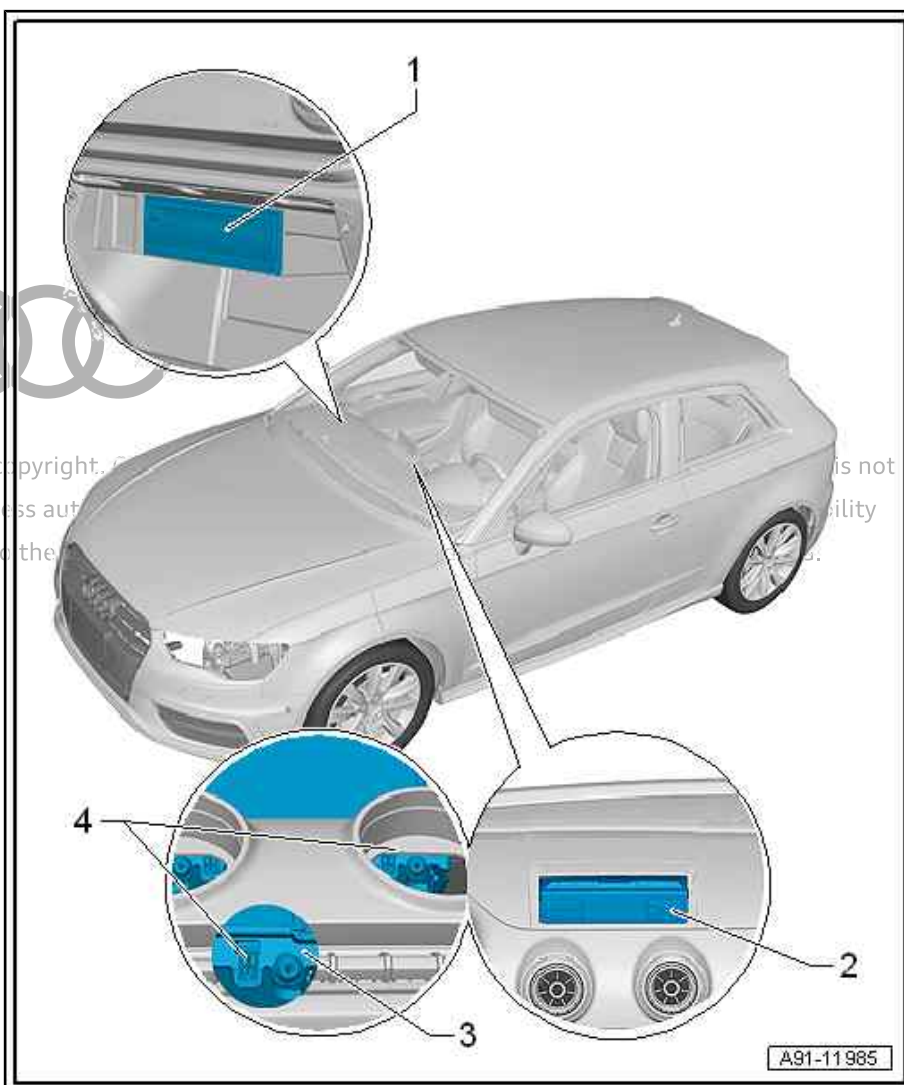
4.2.1 Overview of fitting locations - radio, CAN radio (I8A)

1 - Control unit 1 for information electronics - J794-

- ☐ Pin assignment
⇒ [page 102](#)
- ☐ Removing and installing
⇒ [page 101](#)

2 - Multimedia system operating unit - E380-

- ☐ Pin assignment
⇒ [page 22](#)
- ☐ Removing and installing
⇒ [page 8](#)



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3 - Mounting for multimedia system operating unit - E380-

4 - Spring catch

4.2.2 Overview of fitting locations - radio, Audi CAN radio (I7X)

1 - Control unit 1 for information electronics - J794-

- ☐ Pin assignment
⇒ [page 103](#)
- ☐ Removing and installing
⇒ [page 101](#)

2 - Multimedia system operating unit - E380-

- ☐ Pin assignment
⇒ [page 21](#)
- ☐ Removing and installing
⇒ [page 9](#)

3 - Display unit for front information display and operating unit control unit - J685-

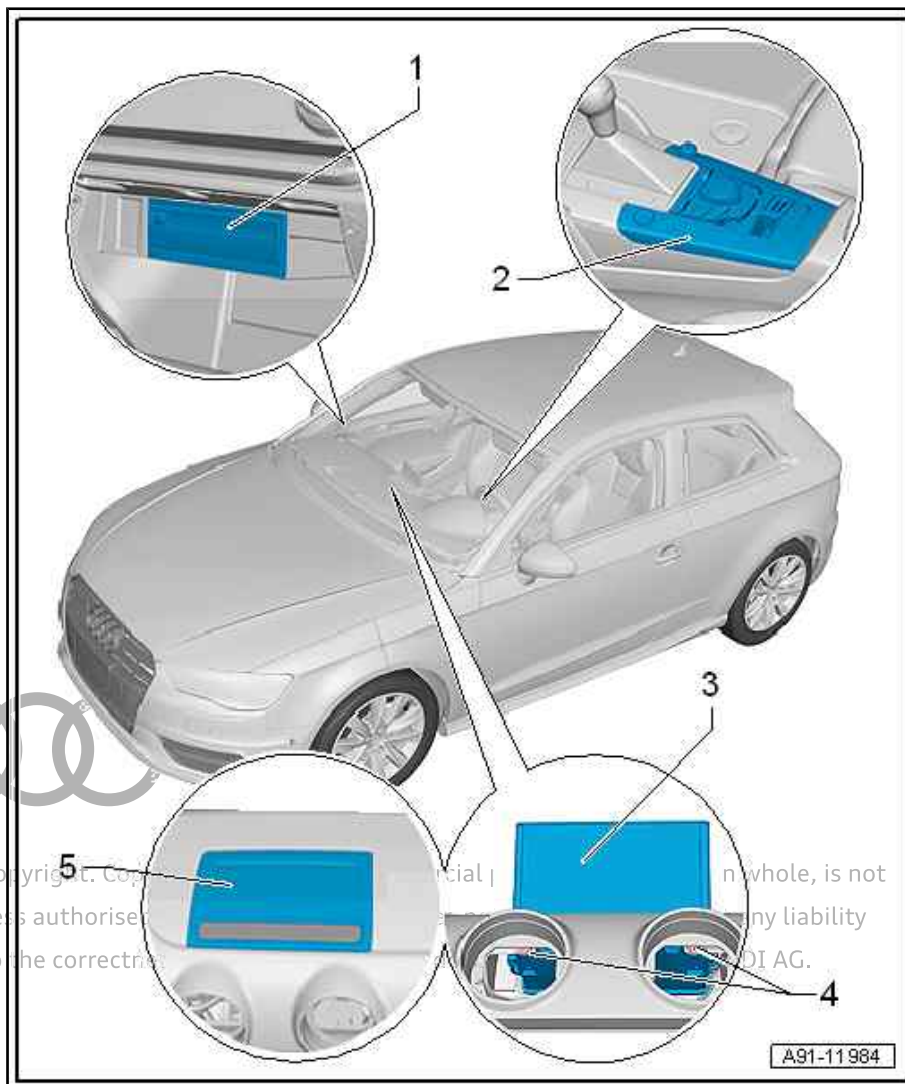
- ☐ Pin assignment
⇒ [page 20](#)
- ☐ Removing and installing
⇒ [page 4](#)

4 - Bolt

- ☐ 2x
- ☐ Captive
- ☐ 3 Nm

5 - Cover

- ☐ Renew after removal



A91-11984



4.2.3 Overview of fitting locations - radio, MMI radio MOST (I8D), MMI radio (I8E), MMI radio plus (I8S), MMI navigation system plus (I8G/I8L)

1 - Control unit 1 for information electronics - J794-

- ☐ Pin assignment for MMI radio MOST (I8D) ➔ [page 105](#)
- ☐ Pin assignment for MMI radio (I8E) ➔ [page 109](#)
- ☐ Pin assignment for MMI radio plus (I8S) ➔ [page 117](#)
- ☐ Pin assignment for MMI navigation system plus (I8G) ➔ [page 112](#)
- ☐ Pin assignment for MMI navigation system plus (I8L) ➔ [page 117](#)
- ☐ Removing and installing ➔ [page 6](#)

2 - Multimedia system operating unit - E380-

- ☐ Pin assignment ➔ [page 21](#)
- ☐ Removing and installing ➔ [page 9](#)

3 - Connection for external multimedia devices

- ☐ See ➔ [page 215](#)

4 - Display unit for front information display and operating unit control unit - J685-

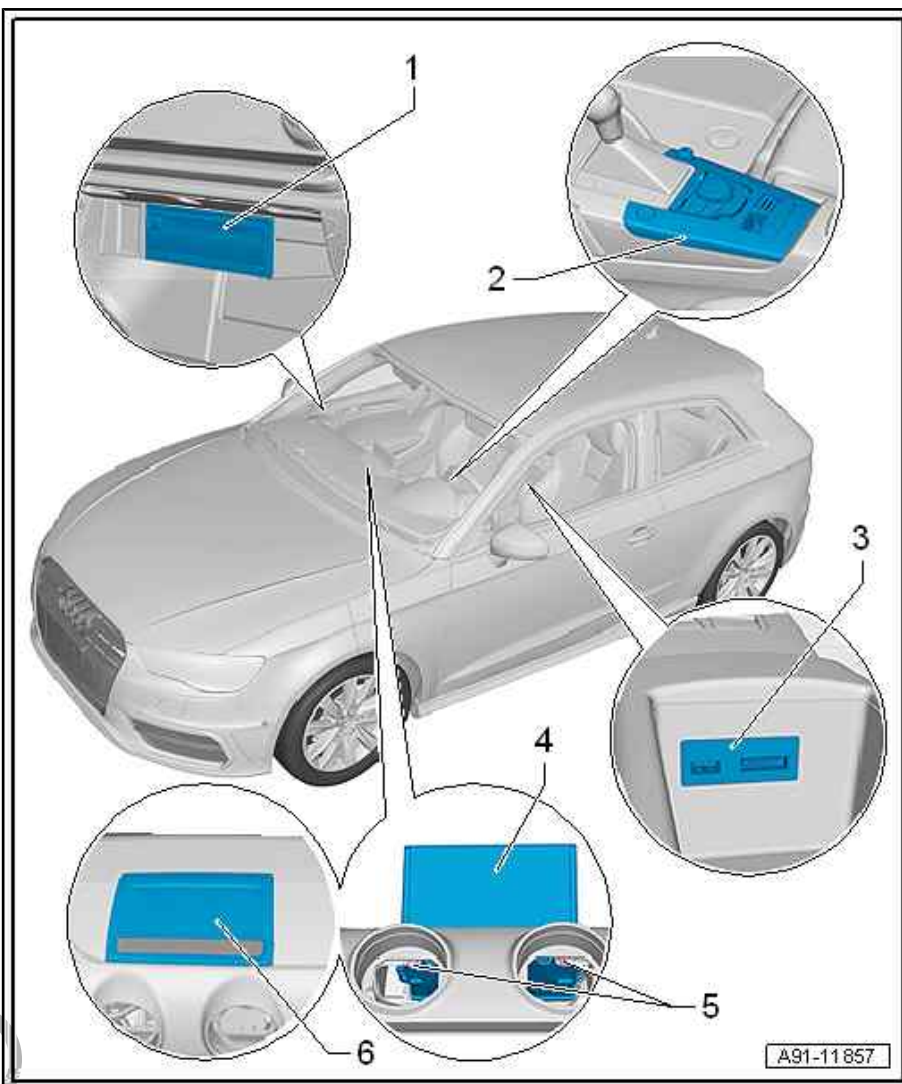
- ☐ Pin assignment ➔ [page 20](#)
- ☐ Removing and installing ➔ [page 4](#)

5 - Bolt

- ☐ 2x
- ☐ Captive
- ☐ 3 Nm

6 - Cover

- ☐ Renew after removal



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4.3 Removing and installing radio

The radio is part of the control unit 1 for information electronics - J794- and is located in the glove box.

- Removing and installing control unit 1 for information electronics - J794- ➔ [page 6](#)



4.4 Pin assignment

⇒ [“4.4.1 CAN radio \(I8A\), up to model year 2016”, page 102](#)

⇒ [“4.4.2 Audi CAN radio \(I7X\), up to model year 2016”, page 103](#)

⇒ [“4.4.3 MMI radio MOST \(I8D\), up to model year 2016”, page 105](#)

⇒ [“4.4.4 MMI radio \(I8E\), from model year 2017 onwards”, page 109](#)

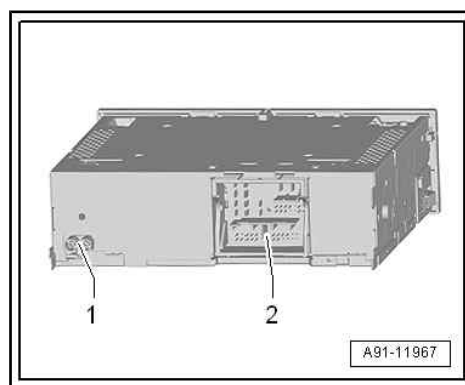
⇒ [“4.4.5 MMI navigation system plus \(I8G\), up to model year 2016”, page 112](#)

⇒ [“4.4.6 MMI radio plus \(I8S\), MMI navigation system plus \(I8L\), from model year 2017 onwards”, page 117](#)

4.4.1 CAN radio (I8A), up to model year 2016

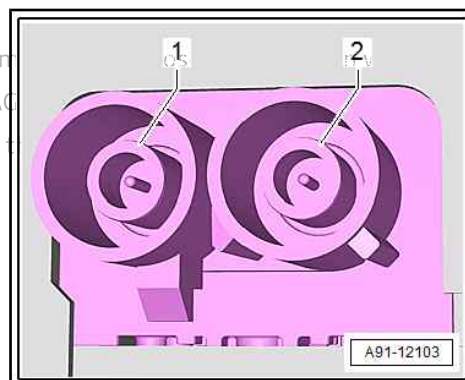
Control unit 1 for information electronics - J794-

- 1 - Aerial connection, AM/FM1/FM2
- 2 - Connection block with four multi-pin connectors



1 - Aerial connection, AM/FM1/FM2

- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



Note

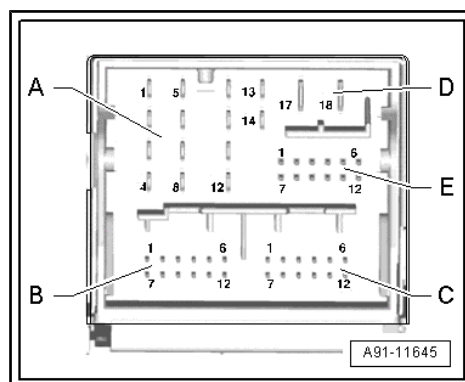
Contacts which are not listed are not used.

2 - Connection block with four multi-pin connectors

A - 8-pin connector - T8ag-

- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left

B - Not used





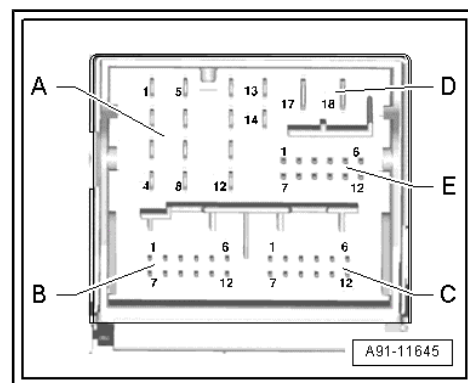
C - 12-pin connector - T12y-

1 - NF in, earth (low frequency) from connection for external audio sources - R199-

2 - NF in, right-side (low frequency) from connection for external audio sources - R199-

7 - NF in, left-side (low frequency) from connection for external audio sources - R199-

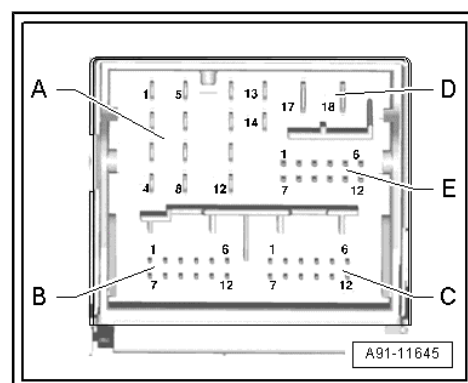
8 - NF in, screen earth (low frequency)



D - 8-pin connector - T8j-

17 - Terminal 31

18 - Terminal 30



E - 12-pin connector - T12v-

1 - CAN bus High to multimedia system operating unit - E380-

2 - Reset to multimedia system operating unit - E380-

3 - BT (-) to multimedia system operating unit - E380-

4 - BT (+) to multimedia system operating unit - E380-

5 - Not used

6 - CAN bus High, infotainment

7 - CAN bus Low to multimedia system operating unit - E380-

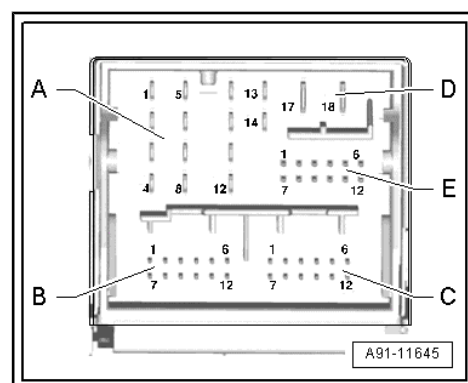
8 - Reset -J794- from multimedia system operating unit - E380-

9 - Wake-up to multimedia system operating unit - E380-

10 - Not used

11 - Not used

12 - CAN bus Low, infotainment



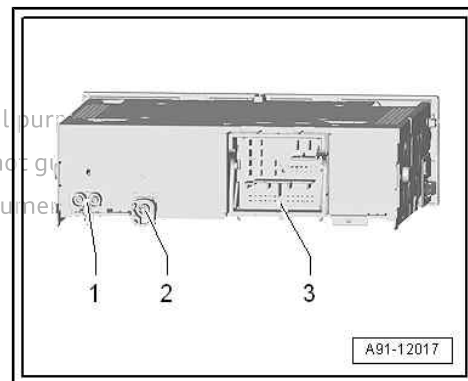
4.4.2 Audi CAN radio (I7X), up to model year 2016

Control unit 1 for information electronics - J794-

1 - Connection, AM/FM1/FM2

2 - 4-pin connector - T4a- to display unit for front information display and operating unit control unit - J685-

3 - Connection block with four multi-pin connectors





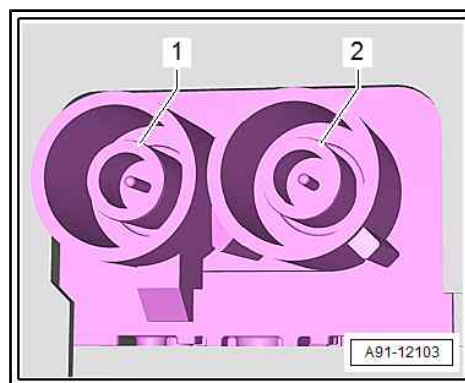
1 - Aerial connection, AM/FM1/FM2

- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



Note

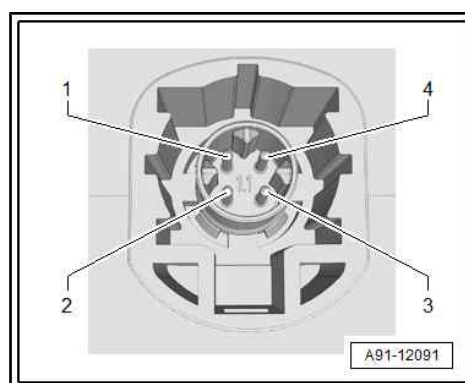
Contacts which are not listed are not used.



2 - 4-pin connector - T4al-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

- 1 - LVDS (-)
- 2 - Not used
- 3 - LVDS (+)
- 4 - Earth

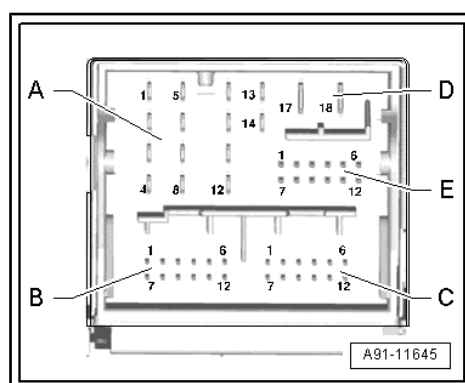


3 - Connection block with four multi-pin connectors

A - 8-pin connector - T8ag-

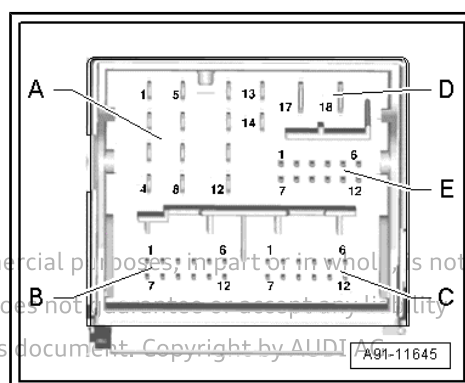
- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left

B - Not used



C - 12-pin connector - T12y-

- 1 - NF in, earth (low frequency) from connection for external audio sources - R199-
- 2 - NF in, right-side (low frequency) from connection for external audio sources - R199-
- 7 - NF in, left-side (low frequency) from connection for external audio sources - R199-
- 8 - NF in, screen earth (low frequency)

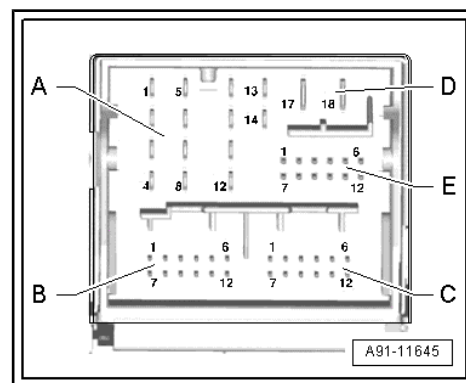




D - 8-pin connector - T8j-

17 - Terminal 31

18 - Terminal 30



E - 12-pin connector - T12v-

1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-

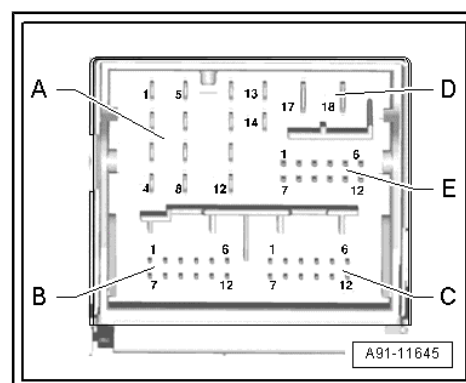
2 - Reset to multimedia system operating unit - E380-

6 - CAN bus High, infotainment

7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-

8 - Reset -J794- from multimedia system operating unit - E380-

12 - CAN bus Low, infotainment



4.4.3 MMI radio MOST (I8D), up to model year 2016

Control unit 1 for information electronics - J794-

1 - Connection, AM/FM1/FM2

2 - DAB connection from digital radio aerial - R183-

3 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-

4 - 4-pin connector - T4w- to connection for external audio sources - R199-

5 - GPS connection from roof aerial - R216-

6 - MOST bus

7 - Connection block with four multi-pin connectors

NAR, I8D and QV3 only

1 - Connection, AM/FM1/FM2

2 - SDARS connection from satellite tuner aerial - R172-

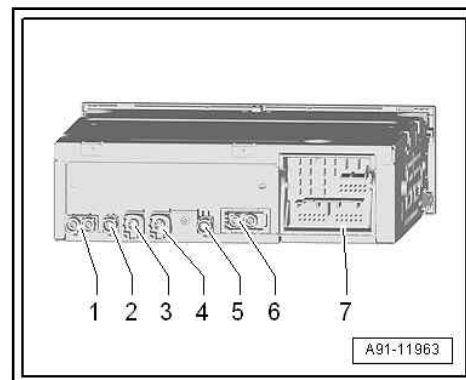
3 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-

4 - 4-pin connector - T4w- to connection for external audio sources - R199-

5 - GPS connection from roof aerial - R216-

6 - MOST bus

7 - Connection block with four multi-pin connectors



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1 - Aerial connection, AM/FM1/FM2

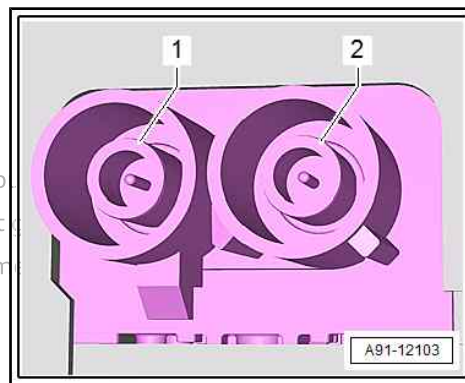
- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



Note

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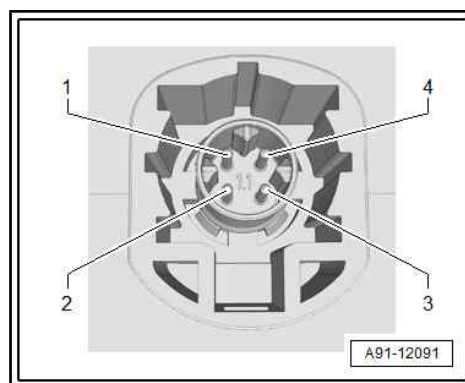
Contacts which are not listed are not used.



3 - 4-pin connector - T4al-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

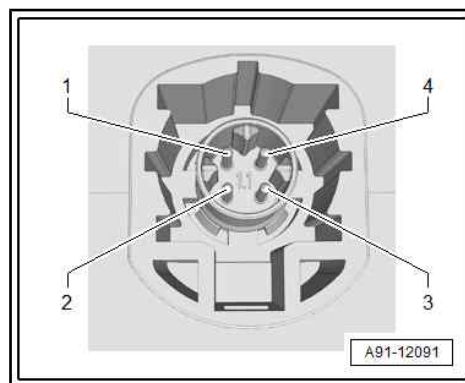
- 1 - LVDS (-)
- 2 - Not used
- 3 - LVDS (+)
- 4 - Earth



4 - 4-pin connector - T4w-

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

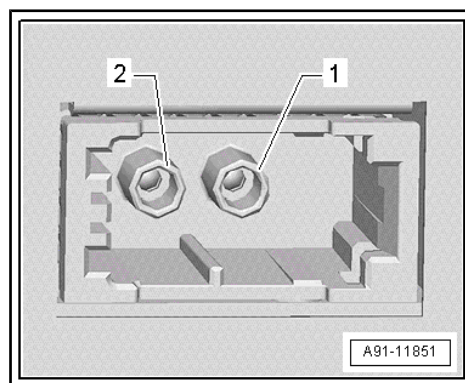
- 1 - USB, earth
- 2 - Data (-)
- 3 - USB, +5 V
- 4 - Data (+)



6 - MOST bus

- 1 - Input
- 2 - Output

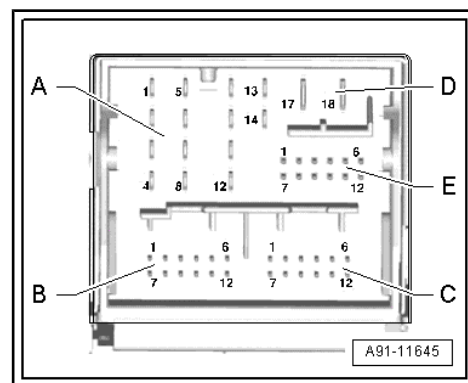
7 - Connection block with four multi-pin connectors





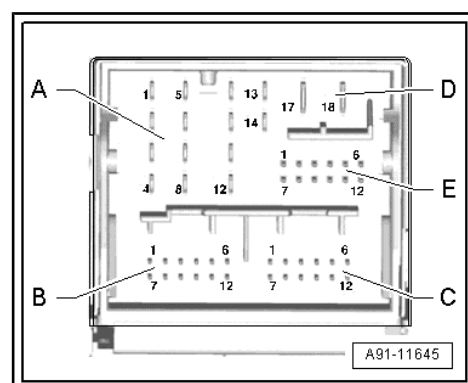
A - 8-pin connector - T8ag-

- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left



B - 12-pin connector - T12x-

- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (+) (low frequency) from pre-fitted components for mobile phone installation
- 5 - NF mute (low frequency) from pre-fitted components for mobile phone installation
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (-) (low frequency) from pre-fitted components for mobile phone installation
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



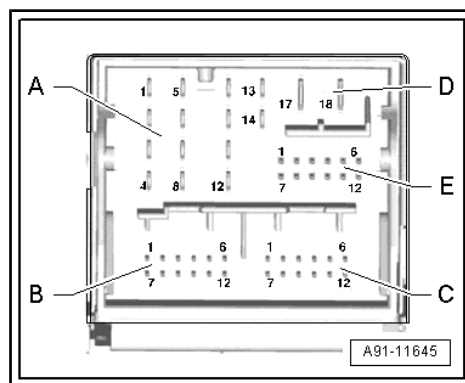
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C - 12-pin connector - T12y-

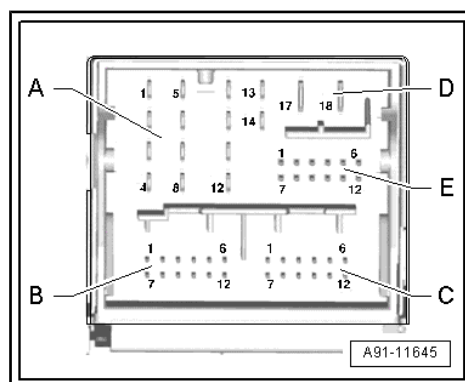
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - iPod, ACC power
- 6 - Detect
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - FBAS wire (+)
- 10 - FBAS wire (-)
- 11 - iPod data
- 12 - iPod data



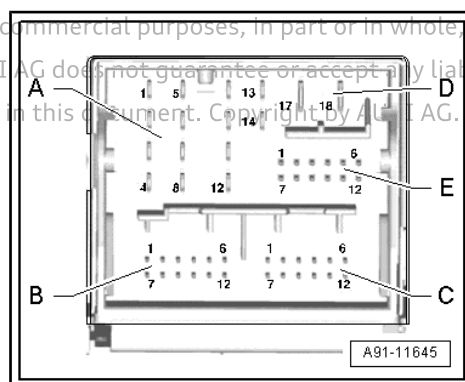
D - 8-pin connector - T8j-

- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30



E - 12-pin connector - T12v-

- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset -J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment

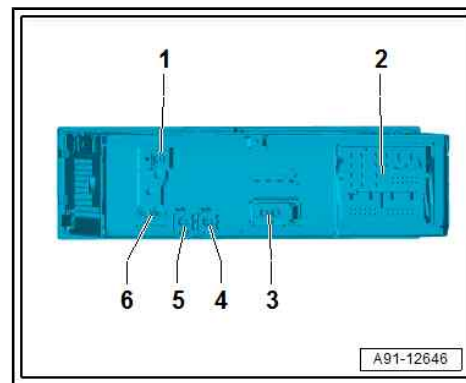




4.4.4 MMI radio (I8E), from model year 2017 onwards

Control unit 1 for information electronics - J794-

- 1 - DAB connection from digital radio aerial - R183- /SDARS connection from satellite tuner aerial - R172-
- 2 - Connection block with four multi-pin connectors
- 3 - MOST bus
- 4 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 5 - 4-pin connector - T4w- to USB hub - R293-
- 6 - Aerial connection, AM/FM/FM2



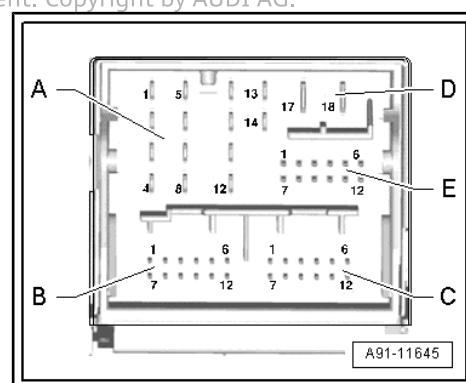
Note

Contacts which are not listed are not used.

2 - Connection block with four multi-pin connectors

A - 8-pin connector - T8ag-

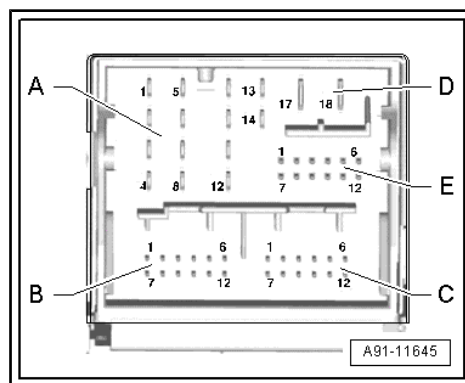
- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left





B - 12-pin connector - T12x-

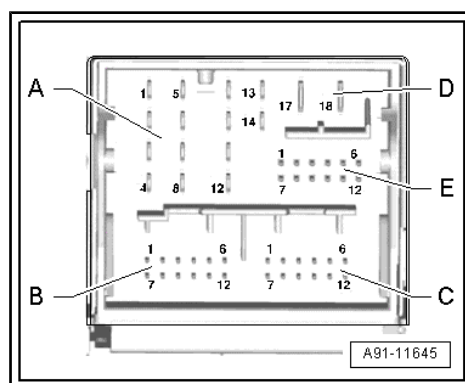
- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (+) (low frequency) from emergency call module control unit and communication unit - J949-
- 5 - NF mute (low frequency) from emergency call module control unit and communication unit - J949-
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (-) (low frequency) from emergency call module control unit and communication unit - J949-
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



C - 12-pin connector - T12y-

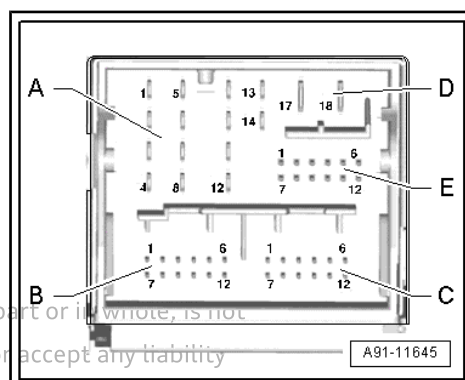
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - Not used
- 6 - Not used
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - Not used
- 10 - Not used
- 11 - Not used
- 12 - Not used



D - 8-pin connector - T8j-

- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30

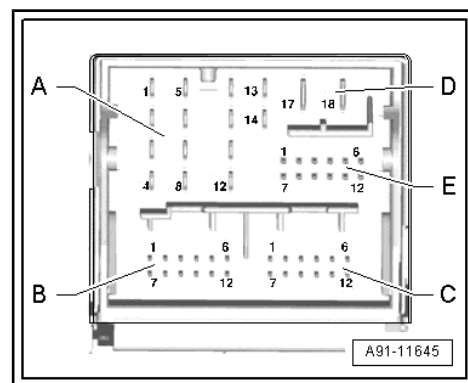


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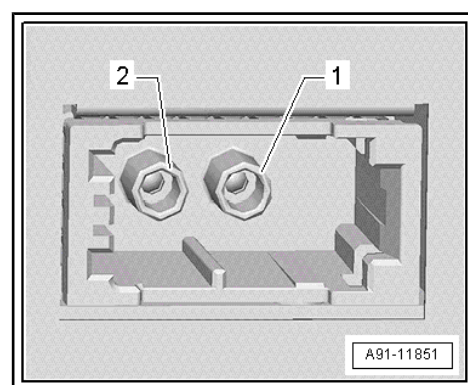
E - 12-pin connector - T12v-

- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset -J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment



3 - MOST bus

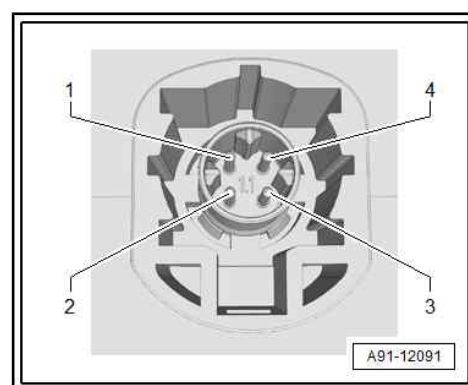
- 1 - Input
- 2 - Output



4 - 4-pin connector - T4ej-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

- 1 - LVDS (-)
- 2 - Earth
- 3 - LVDS (+)
- 4 - Earth



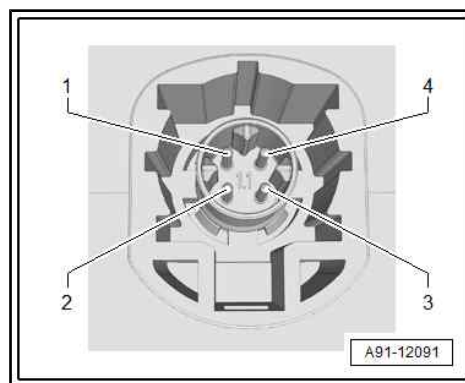
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5 - 4-pin connector - T4ef-

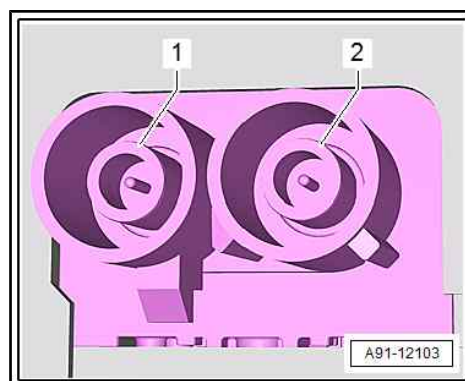
All pins are connected to the USB hub - R293- .

- 1 - USB1 data (+)
- 2 - USB2 data (-)
- 3 - USB1 data (-)
- 4 - USB2 data (+)



6 - Aerial connection, AM/FM1/FM2

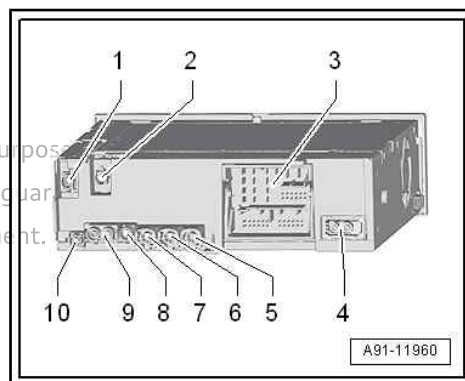
- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



4.4.5 MMI navigation system plus (l8G), up to model year 2016

Control unit 1 for information electronics - J794- , all models except NAR vehicles

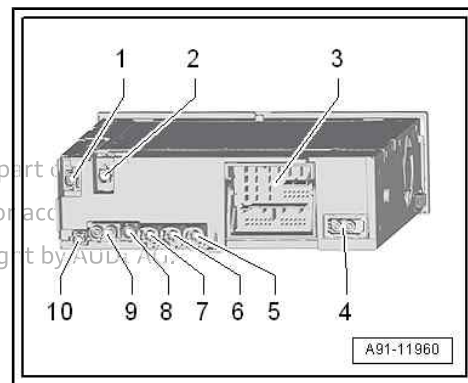
- 1 - GSM connection from telephone aerial - R65- or two GSM connections from LTE aerial 1 - R297- / LTE aerial 2 - R306-
- 2 - DAB connection from digital radio aerial - R183-
- 3 - Connection block with four multi-pin connectors
- 4 - MOST bus
- 5 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 6 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 7 - 4-pin connector - T4ar- to chip card reader control unit - J676- , Japan only
- 8 - Not used
- 9 - Aerial connection, AM/FM/FM2
- 10 - GPS connection from GPS aerial - R50-





Control unit 1 for information electronics - J794- , NAR vehicles only

- 1 - GSM connection from telephone aerial - R65- or two GSM connections from LTE aerial 1 - R297- / LTE aerial 2 - R306-
- 2 - SDARS connection from satellite tuner aerial - R172-
- 3 - Connection block with four multi-pin connectors
- 4 - MOST bus
- 5 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 6 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 7 - Not used
- 8 - Not used
- 9 - Aerial connection, AM/FM/FM2
- 10 - GPS connection from GPS aerial - R50-



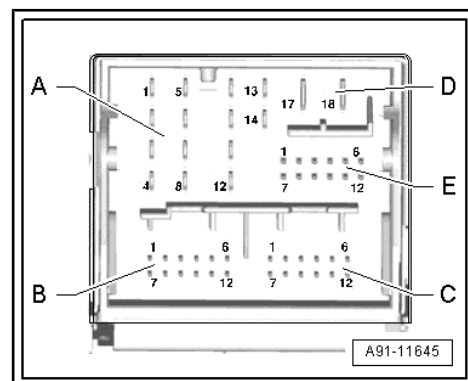
Note

Contacts which are not listed are not used.

3 - Connection block with four multi-pin connectors

A - 8-pin connector - T8ag-

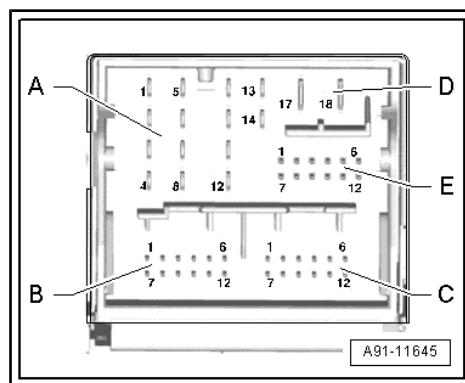
- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left





B - 12-pin connector - T12x-

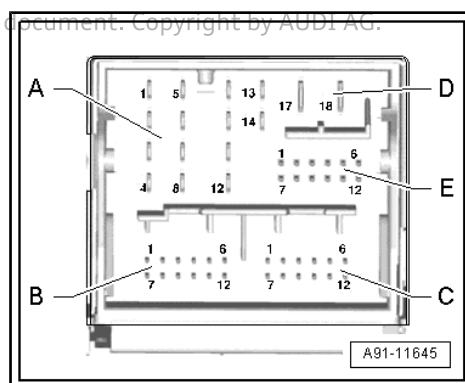
- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (+) (low frequency) from pre-fitted components for mobile phone installation
- 5 - NF mute (low frequency) from pre-fitted components for mobile phone installation
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (-) (low frequency) from pre-fitted components for mobile phone installation
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



C - 12-pin connector - T12y-

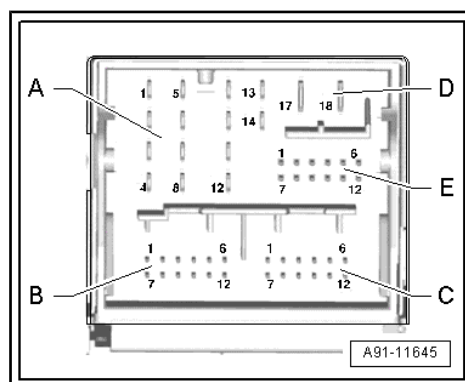
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - Not used
- 6 - Not used
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - Not used
- 10 - Not used
- 11 - Not used
- 12 - Not used



D - 8-pin connector - T8j-

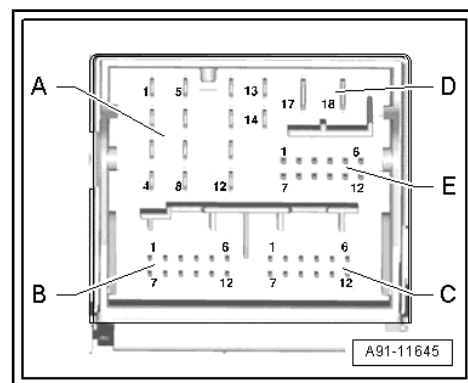
- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30





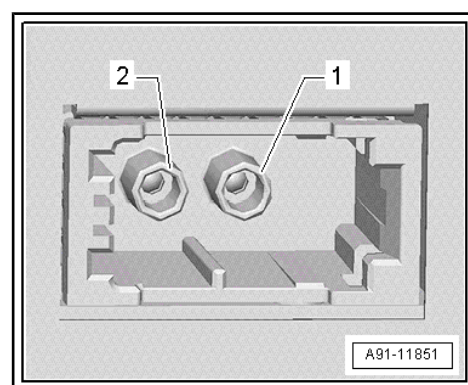
E - 12-pin connector - T12v-

- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset -J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment



4 - MOST bus

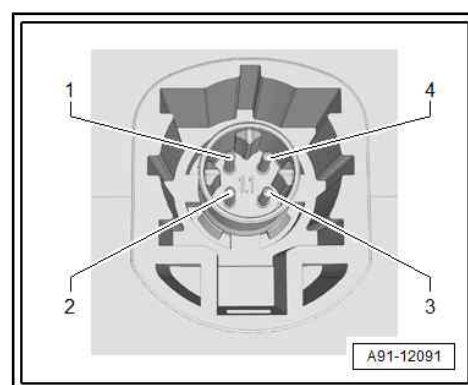
- 1 - Input
- 2 - Output



5 - 4-pin connector - T4a1-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

- 1 - LVDS (-)
- 2 - Not used
- 3 - LVDS (+)
- 4 - Earth

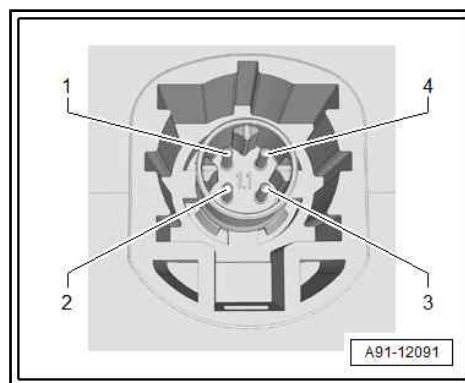




6 - 4-pin connector - T4w-

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

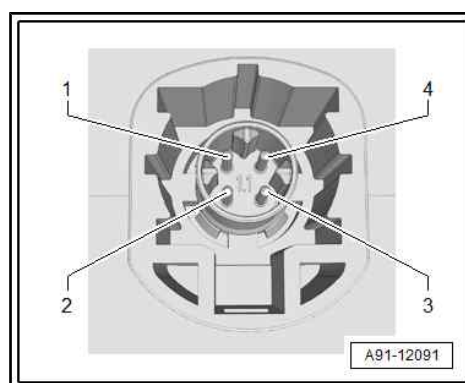
- 1 - D (+)
- 2 - iPod detected
- 3 - D (-)
- 4 - Earth



7 - 4-pin connector - T4ar- , Japan only

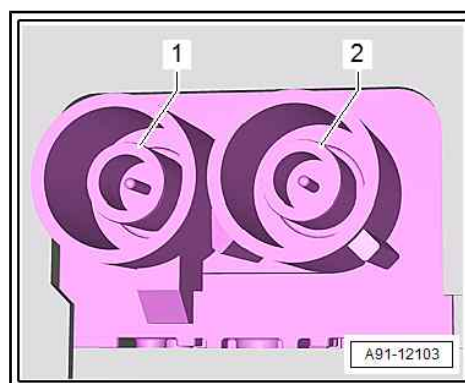
All pins are connected to the chip card reader control unit - J676- .

- 1 - Earth
- 2 - Data (-)
- 3 - Power supply, +5 V
- 4 - Data (+)



9 - Aerial connection, AM/FM1/FM2

- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



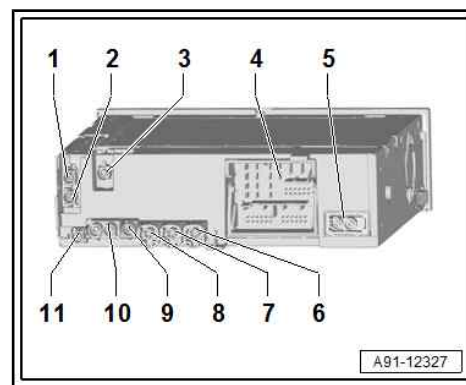
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4.4.6 MMI radio plus (I8S), MMI navigation system plus (I8L), from model year 2017 onwards

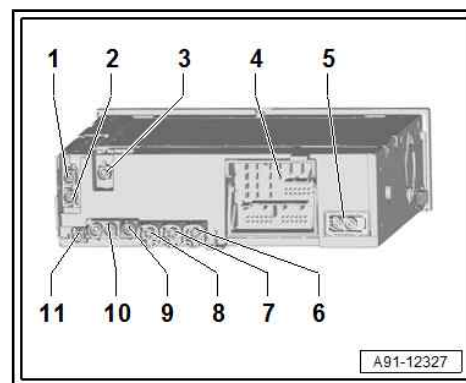
Control unit 1 for information electronics - J794- , all models except NAR vehicles

- 1 - LTE connection from LTE aerial 2 - R306-
- 2 - LTE connection from LTE aerial 1 - R297-
- 3 - DAB connection from digital radio aerial - R183-
- 4 - Connection block with four multi-pin connectors
- 5 - MOST bus
- 6 - 4-pin connector - T4ej- to display unit for front information display and operating unit control unit - J685-
- 7 - 4-pin connector - T4ef- to USB hub - R293-
- 8 - 4-pin connector - T4dx- to dash panel insert - KX2-
- 9 - Not used/not fitted
- 10 - Aerial connection, AM/FM/FM2
- 11 - GPS connection from GPS aerial - R50-



Control unit 1 for information electronics - J794- , NAR vehicles only

- 1 - LTE connection from LTE aerial 2 - R306-
- 2 - LTE connection from LTE aerial 1 - R297-
- 3 - SDARS connection from satellite tuner aerial - R172-
- 4 - Connection block with four multi-pin connectors
- 5 - MOST bus
- 6 - 4-pin connector - T4ej- to display unit for front information display and operating unit control unit - J685-
- 7 - 4-pin connector - T4ef- to USB hub - R293-
- 8 - 4-pin connector - T4dx- to dash panel insert - KX2-
- 9 - Not used/not fitted
- 10 - Aerial connection, AM/FM/FM2
- 11 - GPS connection from GPS aerial - R50-



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Contacts which are not listed are not used.

4 - Connection block with four multi-pin connectors

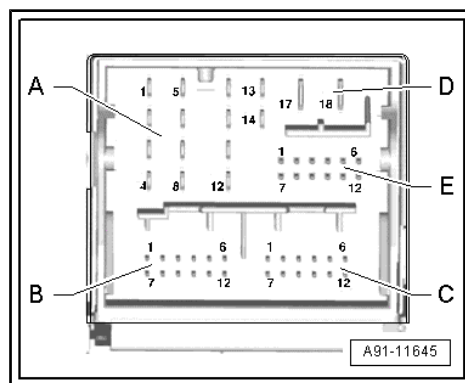


Note



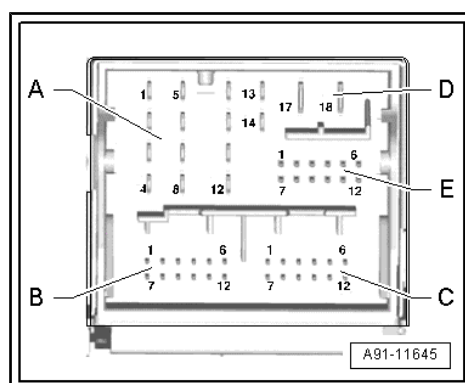
A - 8-pin connector - T8ag-

- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left



B - 12-pin connector - T12x-

- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (+) (low frequency) from emergency call module control unit and communication unit - J949-
- 5 - NF mute (low frequency) from emergency call module control unit and communication unit - J949-
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (-) (low frequency) from emergency call module control unit and communication unit - J949-
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



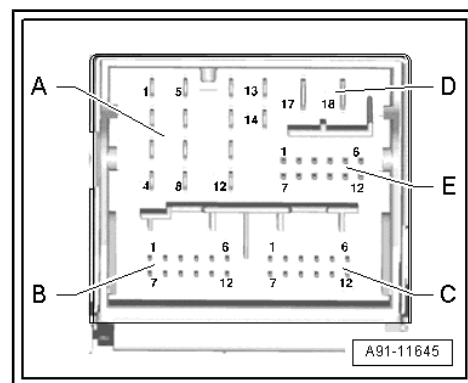
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C - 12-pin connector - T12y-

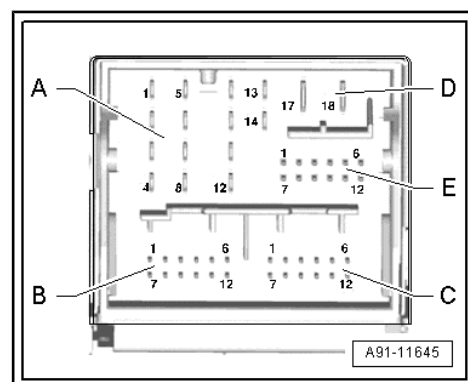
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - Not used
- 6 - Not used
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - Not used
- 10 - Not used
- 11 - Not used
- 12 - Not used



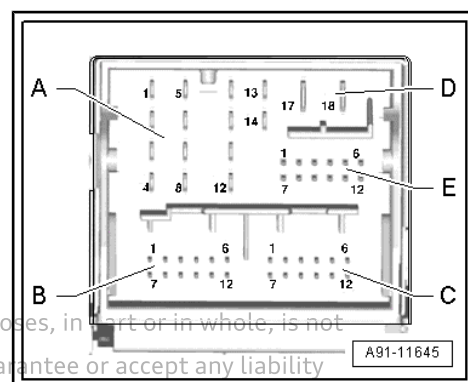
D - 8-pin connector - T8j-

- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30



E - 12-pin connector - T12v-

- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset - J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment



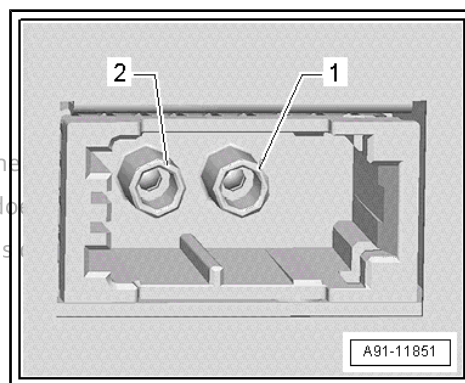


5 - MOST bus

- 1 - Input
- 2 - Output



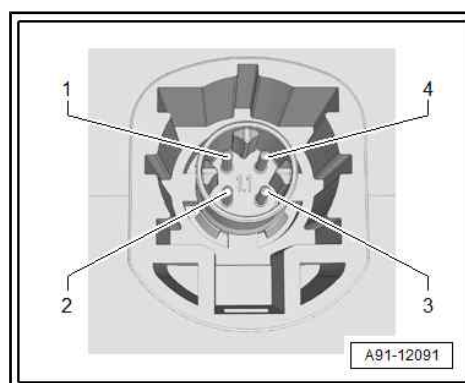
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6 - 4-pin connector - T4ej-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

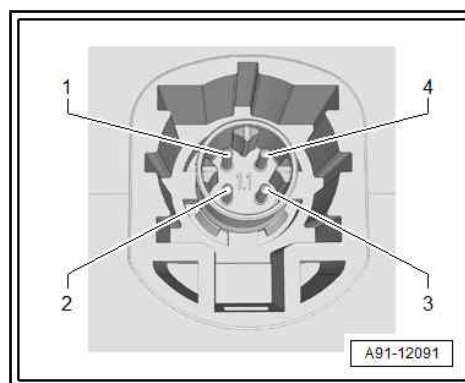
- 1 - LVDS (-)
- 2 - Earth
- 3 - LVDS (+)
- 4 - Earth



7 - 4-pin connector - T4ef-

All pins are connected to the USB hub - R293- .

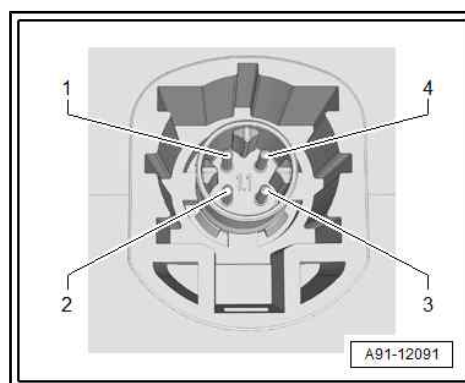
- 1 - USB1 data (+)
- 2 - USB2 data (-)
- 3 - USB1 data (-)
- 4 - USB2 data (+)



8 - 4-pin connector - T4dx-

All pins are connected to the dash panel insert - KX2- .

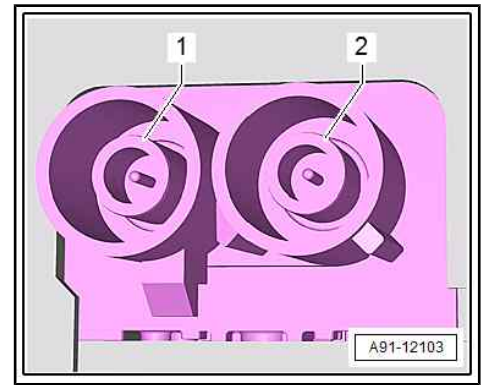
- 1 - LVDS (-)
- 2 - Earth
- 3 - LVDS (+)
- 4 - Earth





10 - Aerial connection, AM/FM1/FM2

- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



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5 Telephone system

⇒ ["5.1 Layout - telephone", page 122](#)

⇒ ["5.2 Overview of fitting locations - telephone system", page 131](#)

⇒ ["5.3 Exploded view - microphone unit", page 134](#)

⇒ ["5.4 Removing and installing microphone unit in front roof module R164 ", page 136](#)

⇒ ["5.5 Removing and installing aerial amplifier for mobile telephone R86 ", page 137](#)

⇒ ["5.6 Removing and installing telephone bracket R126 ", page 139](#)

⇒ ["5.7 Pin assignment", page 141](#)

5.1 Layout - telephone

⇒ ["5.1.1 Layout - telephone, pre-fitted components for mobile phone installation", page 122](#)

⇒ ["5.1.2 Layout - telephone, Bluetooth hands-free system \(9ZX\)", page 123](#)

⇒ ["5.1.3 Layout - telephone, Audi phone box \(9ZE\)", page 124](#)

⇒ ["5.1.4 Layout - telephone, Audi connect and Audi phone box \(9ZC\), from model year 2017 onwards", page 127](#)

⇒ ["5.1.5 Layout - telephone, Bluetooth car phone online \(9ZK\), up to model year 2014", page 128](#)

5.1.1 Layout - telephone, pre-fitted components for mobile phone installation

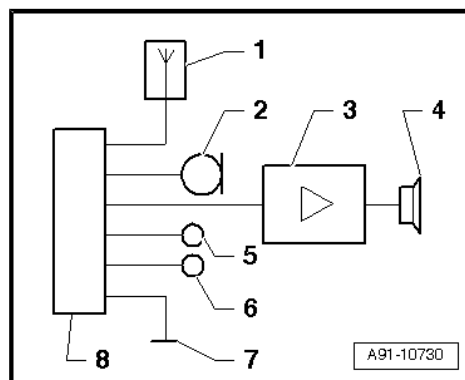
The connector for pre-fitted components is located beneath the storage compartment in the centre console.

Microphones for the microphone unit in front roof module - W1- are integrated in the front interior light - R164-. One of the microphones (telephone microphone - R38-) is connected to the connector.

The aerial connection for the telephone aerial - R65- is located at the connector.

Pre-fitted components for mobile phone installation

- 1 - Telephone aerial - R65- in roof aerial - R216- (3-door and 5-door models, Saloon)/in convertible roof compartment lid (Cabriolet)
- 2 - Microphone unit in front roof module - R164- (telephone microphone - R38-) in front interior light - W1-
- 3 - Radio - R-
- 4 - Sound systems
- 5 - Terminal 15
- 6 - Terminal 30
- 7 - Terminal 31
- 8 - Multi-pin connector, 18-pin, in centre console (rear)





5.1.2 Layout - telephone, Bluetooth hands-free system (9ZX)

Control unit 1 for information electronics - J794- is fitted together with telephone microphone - R38- and serves as a hands-free system.

The system is operated using the multimedia system operating unit - E380- or the mobile telephone - R54- .

The mobile telephone - R54- is connected via Bluetooth. The aerial for Bluetooth - R152- is fitted in control unit 1 for information electronics - J794- .

9ZX - Bluetooth hands-free system

- 1 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)
- 2 - Control unit 1 for information electronics - J794- with aerial for Bluetooth - R152- in glove box
- 3 - Microphone unit in front roof module - R164- (telephone microphone - R38-) in front interior light - W1-
- 4 - Digital sound package control unit - J525- under left front seat

Aerials

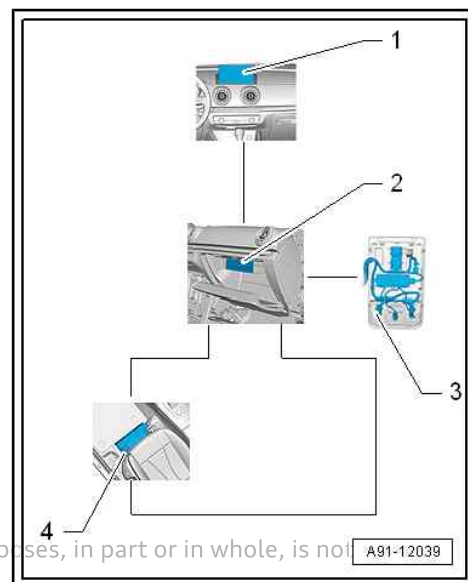
Bluetooth hands-free system (9ZX) without online services (EL0):

- ◆ No telephone aerial - R65- is fitted.
- ◆ No LTE aerials (-R297- / -R306-) are fitted.

Bluetooth hands-free system (9ZX) with Audi connect (EL3/EL5):

- ◆ No telephone aerial - R65- is fitted.
- ◆ LTE aerial 1 - R297- is fitted underneath rear bumper cover (left-side).
- ◆ Depending on equipment fitted, LTE aerial 2 - R306- is fitted underneath rear bumper cover (right-side)/in dash panel (right-side).

Overview of Audi connect (EL3)





1 - Control unit 1 for information electronics - J794-

2 - LTE aerial 2 - R306-

□ EL5 only

3 - Not fitted

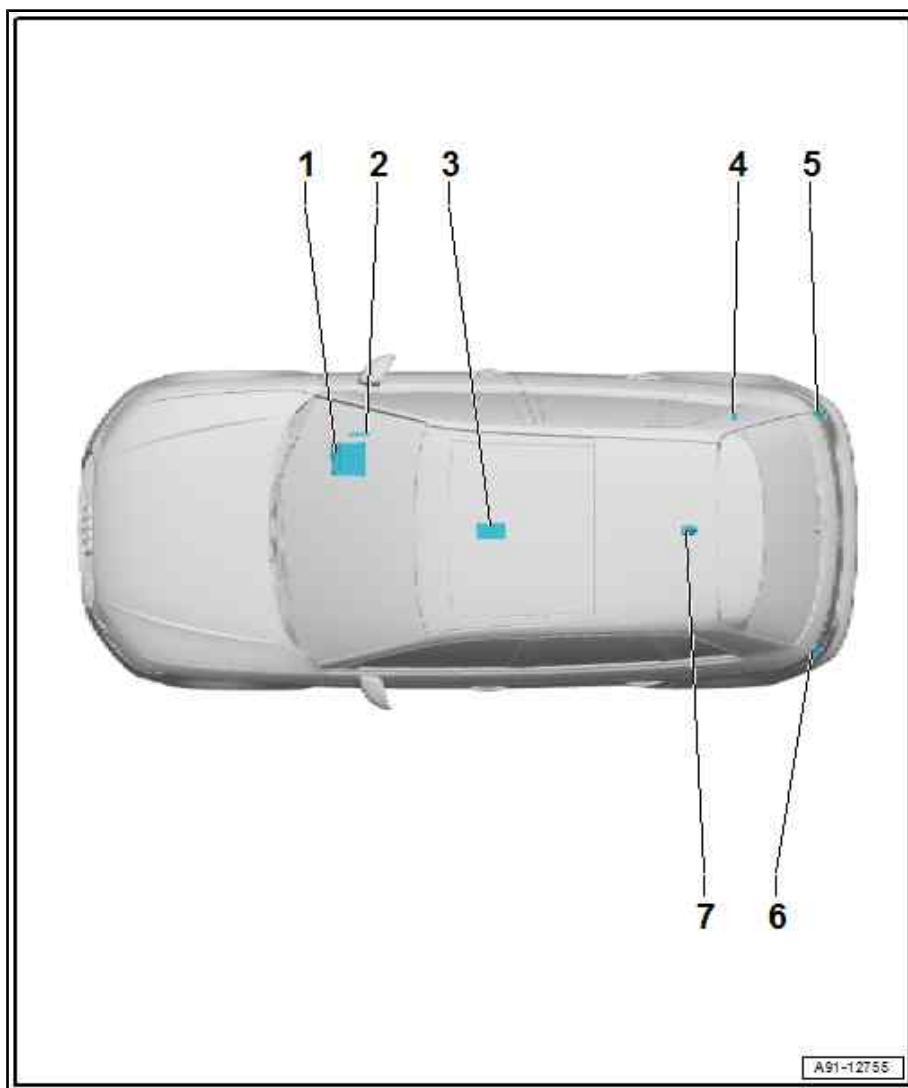
4 - Not fitted

5 - LTE aerial 2 - R306-

□ EL3 only

6 - LTE aerial 1 - R297-

7 - Not fitted



Fault finding is performed via "Guided Fault Finding" ⇒ Vehicle diagnostic tester.

Repairing aerial wiring ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing aerial wires

Notes on Bluetooth technology

A standardised radio connection system (Bluetooth technology) is used to transmit data between the control unit 1 for information electronics - J794- and the mobile telephone - R54- .

An additional transmitter and receiver unit is fitted in the control unit 1 for information electronics - J794- . An aerial for Bluetooth - R152- links the control unit 1 for information electronics - J794- and the mobile telephone - R54- , allowing cordless operation of the mobile telephone - R54- .

The range of the radio wave connection is approx. 10 m.

5.1.3 Layout - telephone, Audi phone box (9ZE)

Control unit 1 for information electronics - J794- is fitted together with telephone microphone - R38- and serves as a hands-free system.



The system is operated using the multimedia system operating unit - E380- or the mobile telephone - R54- .

The mobile telephone - R54- is connected via Bluetooth. The aerial for Bluetooth - R152- is fitted in control unit 1 for information electronics - J794- .

The telephone bracket - R126- (Audi phone box) is fitted in the centre console with an aerial coupling. From model year 2017 onwards, the telephone bracket - R126- is additionally equipped with a module for wireless charging of corresponding mobile telephones - R54- .

Telephone aerial - R65- is connected via aerial amplifier for mobile telephone - R86- to telephone bracket - R126- .

9ZE - Audi phone box

1 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)

2 - Control unit 1 for information electronics - J794- with aerial for Bluetooth - R152- in glove box

3 - Microphone unit in front roof module - R164- (telephone microphone - R38-) in front interior light - W1-

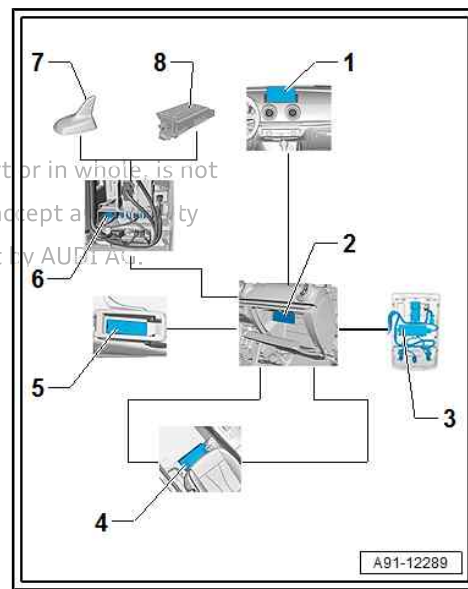
4 - Digital sound package control unit - J525- under left front seat

5 - Telephone bracket - R126- (Audi phone box) in centre console storage compartment

6 - Aerial amplifier for mobile telephone - R86- behind luggage compartment trim (right-side)

7 - Telephone aerial - R65- in roof aerial - R216- /underneath rear bumper cover (right-side), 3-door models, 5-door models, Saloon

8 - Telephone aerial - R65- in convertible roof compartment lid on Cabriolet



Aerials

Audi phone box (9ZE) without online services (EL0):

- ◆ Depending on model and equipment fitted, telephone aerial - R65- is fitted in roof aerial - R216- /underneath rear bumper cover (right-side)/in convertible roof compartment lid.
- ◆ No LTE aerials (-R297- / -R306-) are fitted.

Audi phone box (9ZE) with Audi connect (EL3/EL5):

- ◆ Depending on model and equipment fitted, telephone aerial - R65- is fitted in roof aerial - R216- /underneath rear bumper cover (right-side)/in convertible roof compartment lid.
- ◆ LTE aerial 1 - R297- is fitted underneath rear bumper cover (left-side).
- ◆ Depending on equipment fitted, LTE aerial 2 - R306- is fitted underneath rear bumper cover (right-side)/in dash panel (right-side).

Overview of telephone aerials



1 - Control unit 1 for information electronics - J794-

2 - LTE aerial 2 - R306-

- ❑ EL5/NZ3 only

3 - Telephone bracket - R126-

4 - Aerial amplifier for mobile telephone - R86-

5 - Bumper aerial (right-side)

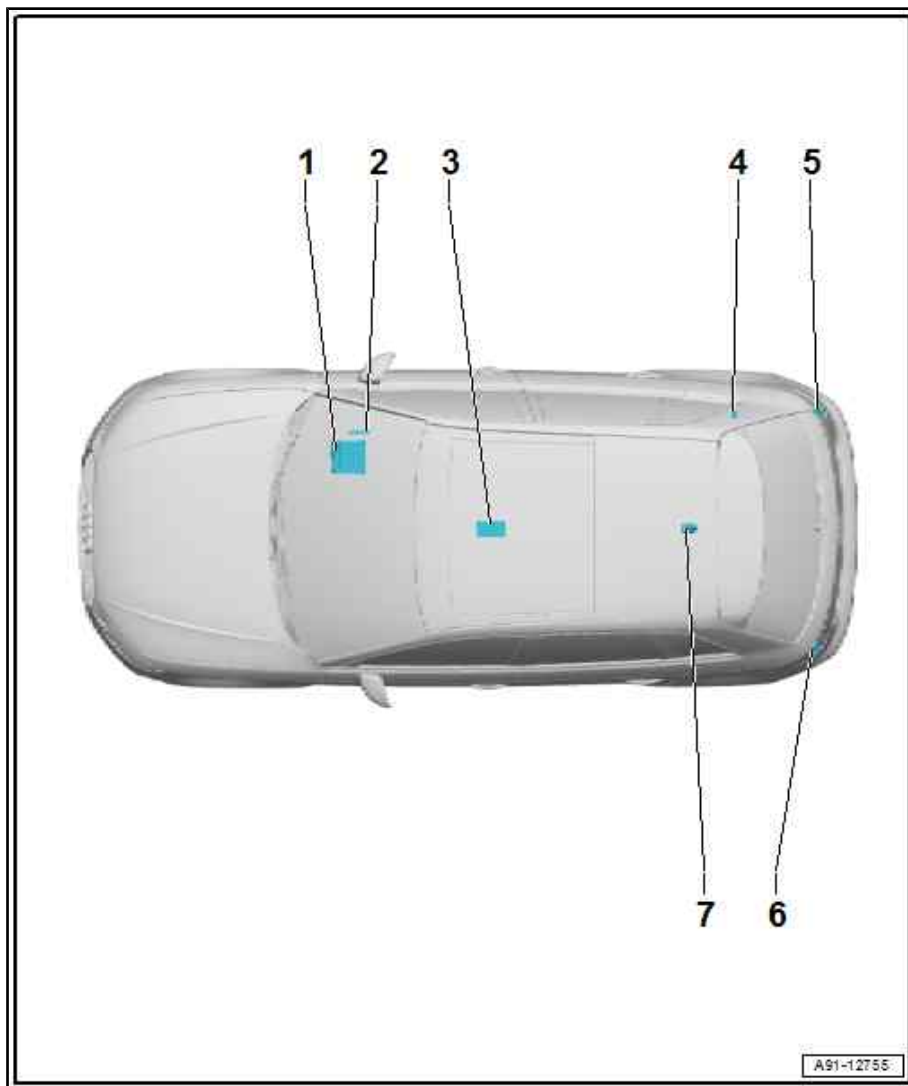
- ❑ LTE aerial 2 - R306- , EL3 and NZ0 only
- ❑ Telephone aerial - R65- , NZ3 only

6 - LTE aerial 1 - R297-

- ❑ EL3/EL5 only

7 - Telephone aerial - R65-

- ❑ In roof aerial - R216- on 3-door models, 5-door models, Saloon and NZ0 only
- ❑ In convertible roof compartment lid, Cabriolet only



Fault finding is performed via "Guided Fault Finding" ⇒ Vehicle diagnostic tester.

Repairing aerial wiring ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing aerial wires

Notes on Bluetooth technology

A standardised radio connection system (Bluetooth technology) is used to transmit data between the control unit 1 for information electronics - J794- and the mobile telephone - R54- .

An additional transmitter and receiver unit is fitted in the control unit 1 for information electronics - J794- . An aerial for Bluetooth - R152- links the control unit 1 for information electronics - J794- and the mobile telephone - R54- , allowing cordless operation of the mobile telephone - R54- .

The range of the radio wave connection is approx. 10 m.



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5.1.4 Layout - telephone, Audi connect and Audi phone box (9ZC), from model year 2017 onwards

Control unit 1 for information electronics - J794- is fitted together with telephone microphone - R38- and serves as a hands-free system.

The system is operated using the multimedia system operating unit - E380- or the mobile telephone - R54- .

The mobile telephone - R54- is connected via Bluetooth. The aerial for Bluetooth - R152- is fitted in control unit 1 for information electronics - J794- .

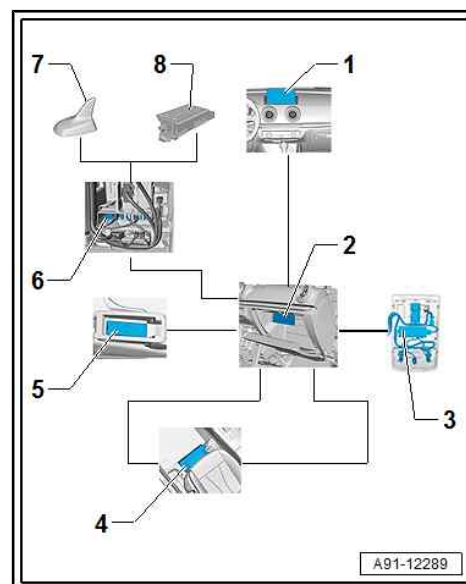
In addition, an LTE module for Internet connectivity (Audi connect) is fitted in control unit 1 for information electronics - J794- .

The telephone bracket - R126- (Audi phone box) is fitted in the centre console with an aerial coupling. The telephone bracket - R126- is equipped additionally with a module for wireless charging of corresponding mobile telephones - R54- .

Telephone aerial - R65- is connected via aerial amplifier for mobile telephone - R86- to telephone bracket - R126- .

9ZC - Audi connect and Audi phone box

- 1 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)
- 2 - Control unit 1 for information electronics - J794- with aerial for Bluetooth - R152- in glove box
- 3 - Microphone unit in front roof module - R164- (telephone microphone - R38-) in front interior light - W1-
- 4 - Digital sound package control unit - J525- under left front seat
- 5 - Telephone bracket - R126- (Audi phone box) in centre console storage compartment
- 6 - Aerial amplifier for mobile telephone - R86- behind luggage compartment trim (right-side)
- 7 - Telephone aerial - R65- in roof aerial - R216- /underneath rear bumper cover (right-side), 3-door models, 5-door models, Saloon
- 8 - Telephone aerial - R65- in convertible roof compartment lid



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Aerials

- ◆ Depending on model and equipment fitted, telephone aerial - R65- is fitted in roof aerial - R216- /underneath rear bumper cover (right-side)/in convertible roof compartment lid.
- ◆ LTE aerial 1 - R297- is fitted underneath rear bumper cover (left-side).
- ◆ Depending on equipment fitted, LTE aerial 2 - R306- is fitted underneath rear bumper cover (right-side)/in dash panel (right-side).



1 - Control unit 1 for information electronics - J794-

2 - LTE aerial 2 - R306-

- ❑ EL5/NZ3 only

3 - Telephone bracket - R126-

4 - Aerial amplifier for mobile telephone - R86-

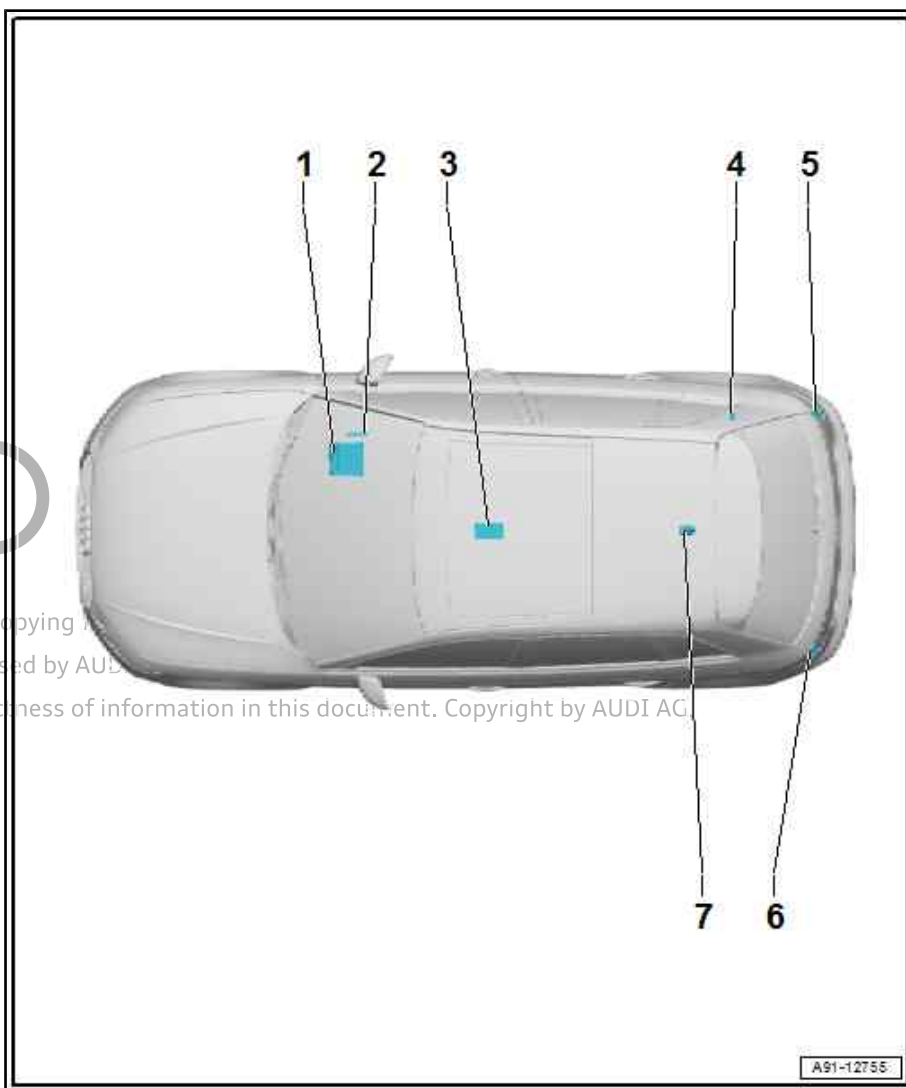
5 - Bumper aerial (right-side)

- ❑ LTE aerial 2 - R306- , EL3 and NZ0 only
- ❑ Telephone aerial - R65- , NZ3 only

6 - LTE aerial 1 - R297-

7 - Telephone aerial - R65-

- ❑ In roof aerial - R216- on 3-door models, 5-door models, Saloon and NZ0 only
- ❑ In convertible roof compartment lid, Cabriolet only



Fault finding is performed via "Guided Fault Finding" ⇒ Vehicle diagnostic tester.

Repairing aerial wiring ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing aerial wires

Notes on Bluetooth technology

A standardised radio connection system (Bluetooth technology) is used to transmit data between the control unit 1 for information electronics - J794- and the mobile telephone - R54- .

An additional transmitter and receiver unit is fitted in the control unit 1 for information electronics - J794- . An aerial for Bluetooth - R152- links the control unit 1 for information electronics - J794- and the mobile telephone - R54- , allowing cordless operation of the mobile telephone - R54- .

The range of the radio wave connection is approx. 10 m.

5.1.5 Layout - telephone, Bluetooth car phone online (9ZK), up to model year 2014

The control unit 1 for information electronics - J794- with microphone unit in front roof module - R164- is fitted and serves solely as the car phone. The mobile telephone - R54- is connected via Bluetooth.

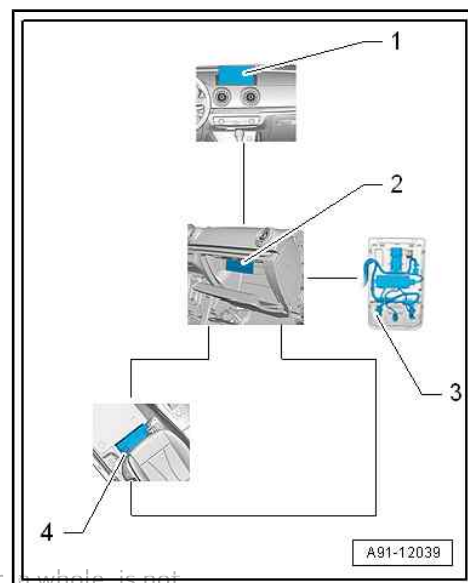


The aerial for Bluetooth - R152- is fitted in control unit 1 for information electronics - J794- .

A WLAN (Wi-Fi) hotspot for connecting WLAN devices is integrated. A suitable mobile telephone contract is required to use this feature.

9ZK - Bluetooth car phone online

- 1 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)
- 2 - Control unit 1 for information electronics - J794- with aerial for Bluetooth - R152- in glove box
- 3 - Microphone unit in front roof module - R164- (telephone microphone - R38-) in front interior light - W1-
- 4 - Digital sound package control unit - J525- under left front seat



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Aerials

- ◆ The telephone aerial - R65- is fitted in the roof aerial - R216- / in the convertible roof compartment lid.
- ◆ No LTE aerials (-R297- / -R306-) are fitted.



1 - Control unit 1 for information electronics - J794-

2 - Not fitted

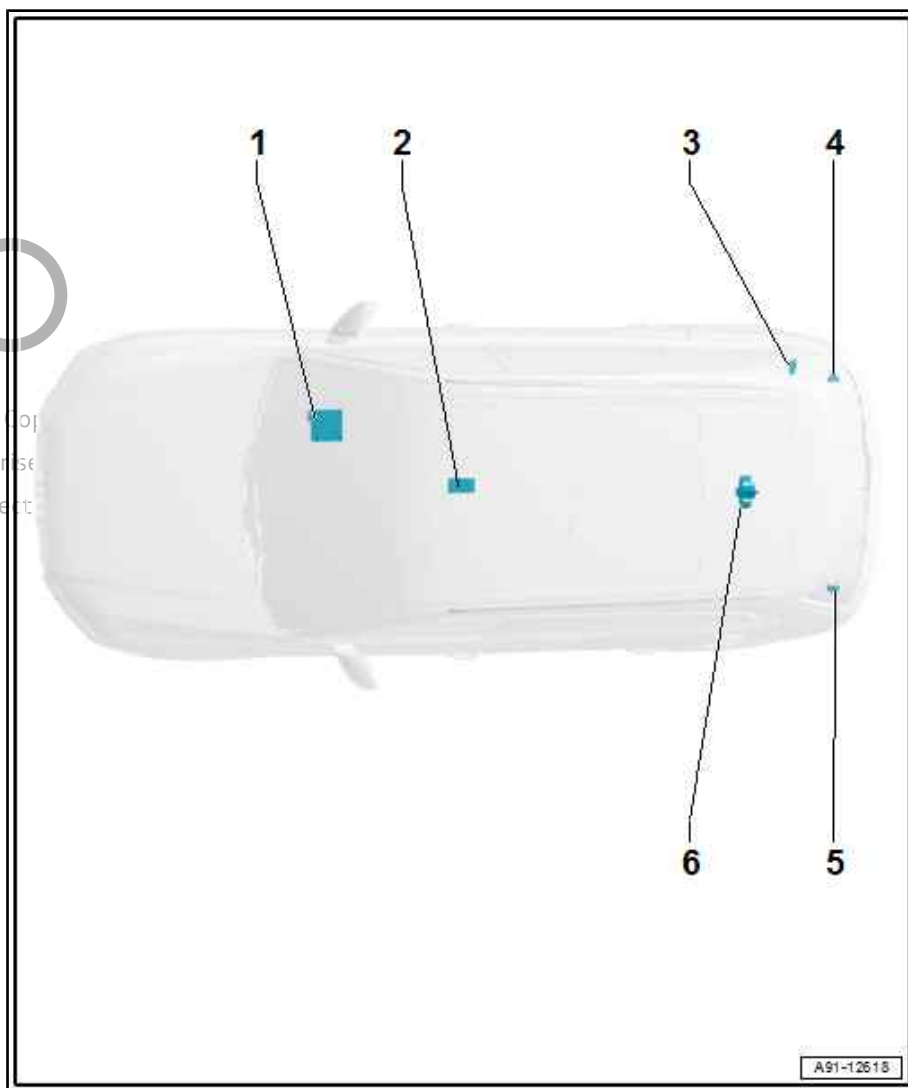
3 - Not fitted

4 - Not fitted

5 - Not fitted

6 - Telephone aerial - R65-

- ☐ In roof aerial - R216- on 3-door models, 5-door models, Saloon
- ☐ In convertible roof compartment lid, Cabriolet
- ☐ To control unit 1 for information electronics - J794-



Fault finding is performed via "Guided Fault Finding" ⇒ Vehicle diagnostic tester.

Repairing aerial wiring ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing aerial wires

Notes on Bluetooth technology

A standardised radio connection system (Bluetooth technology) is used to transmit data between the control unit 1 for information electronics - J794- and the mobile telephone - R54- .

An additional transmitter and receiver unit is fitted in the control unit 1 for information electronics - J794- . An aerial for Bluetooth - R152- links the control unit 1 for information electronics - J794- and the mobile telephone - R54- , allowing cordless operation of the mobile telephone - R54- .

The range of the radio wave connection is approx. 10 m.



5.2 Overview of fitting locations - telephone system

⇒ [“5.2.1 Overview of fitting locations - telephone system, 3-door models, 5-door models, up to model year 2016”, page 131](#)

⇒ [“5.2.2 Overview of fitting locations - telephone system, Saloon, up to model year 2016”, page 132](#)

⇒ [“5.2.3 Overview of fitting locations - telephone system, Cabriolet, up to model year 2016”, page 133](#)

⇒ [“5.2.4 Overview of fitting locations - telephone system, from model year 2017 onwards”, page 134](#)

5.2.1 Overview of fitting locations - telephone system, 3-door models, 5-door models, up to model year 2016

1 - Aerial amplifier for mobile telephone - R86-

- ☐ Pin assignment
⇒ [page 157](#)
- ☐ Removing and installing
⇒ [page 137](#)

2 - Retaining tab on bracket

3 - Centre console storage compartment

4 - Telephone bracket - R126-

- ☐ Audi phone box
- ☐ Pin assignment
⇒ [page 158](#)
- ☐ Removing and installing
⇒ [page 139](#)

5 - Bolt

- ☐ 2x
- ☐ 2 Nm

8 - Front interior light - W1-

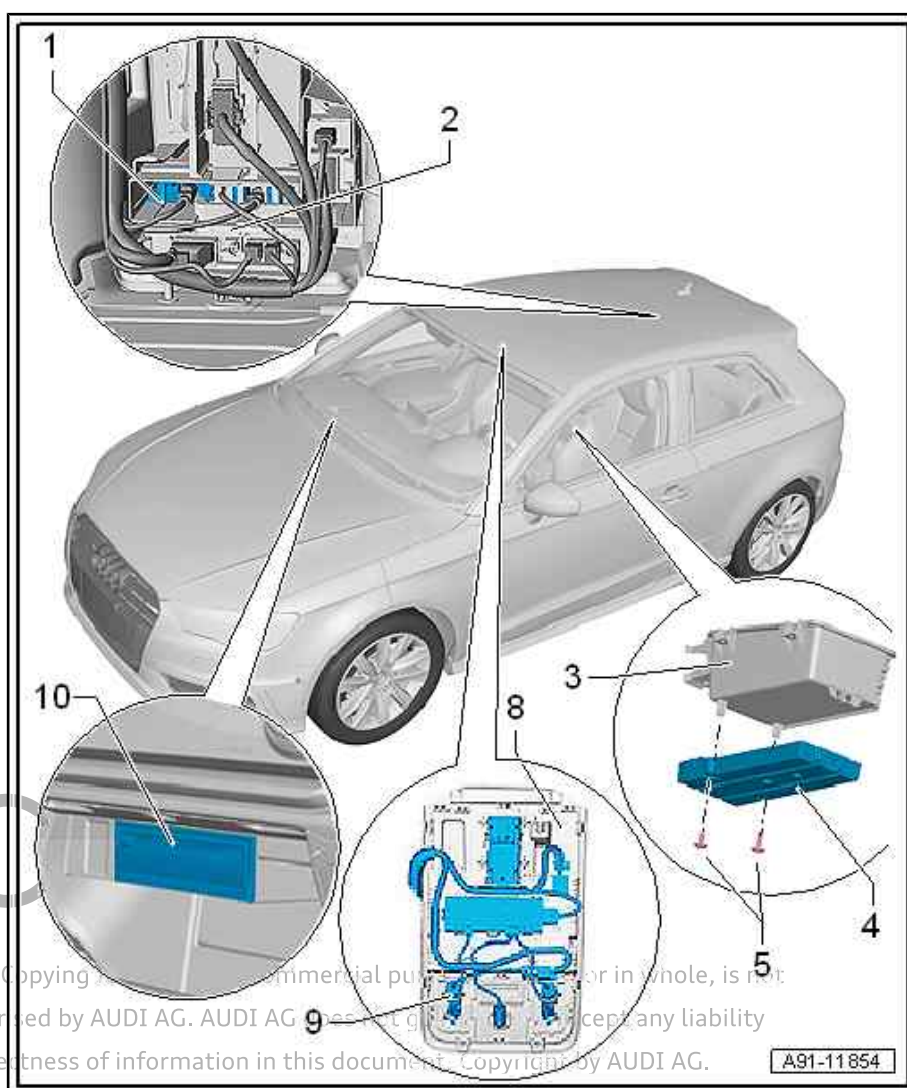
- ☐ Exploded view - microphone unit ⇒ [page 134](#)

9 - Telephone microphone - R38-

- ☐ Exploded view - microphone unit ⇒ [page 134](#)
- ☐ Removing and installing
⇒ [page 136](#)

10 - Control unit 1 for information electronics - J794-

- ☐ Pin assignment for MMI radio MOST (I8D)
⇒ [page 142](#)
- ☐ Pin assignment for MMI navigation system plus (I8G) ⇒ [page 146](#)
- ☐ Removing and installing ⇒ [page 6](#)



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5.2.2 Overview of fitting locations - telephone system, Saloon, up to model year 2016

1 - Front interior light - W1-

- ❑ Exploded view - microphone unit ➔ [page 134](#)

2 - Telephone microphone - R38-

- ❑ Exploded view - microphone unit ➔ [page 134](#)
- ❑ Removing and installing ➔ [page 136](#)

3 - Retaining tab on bracket

4 - Aerial amplifier for mobile telephone - R86-

- ❑ Pin assignment ➔ [page 157](#)
- ❑ Removing and installing ➔ [page 138](#)

5 - Centre console storage compartment

6 - Bolt

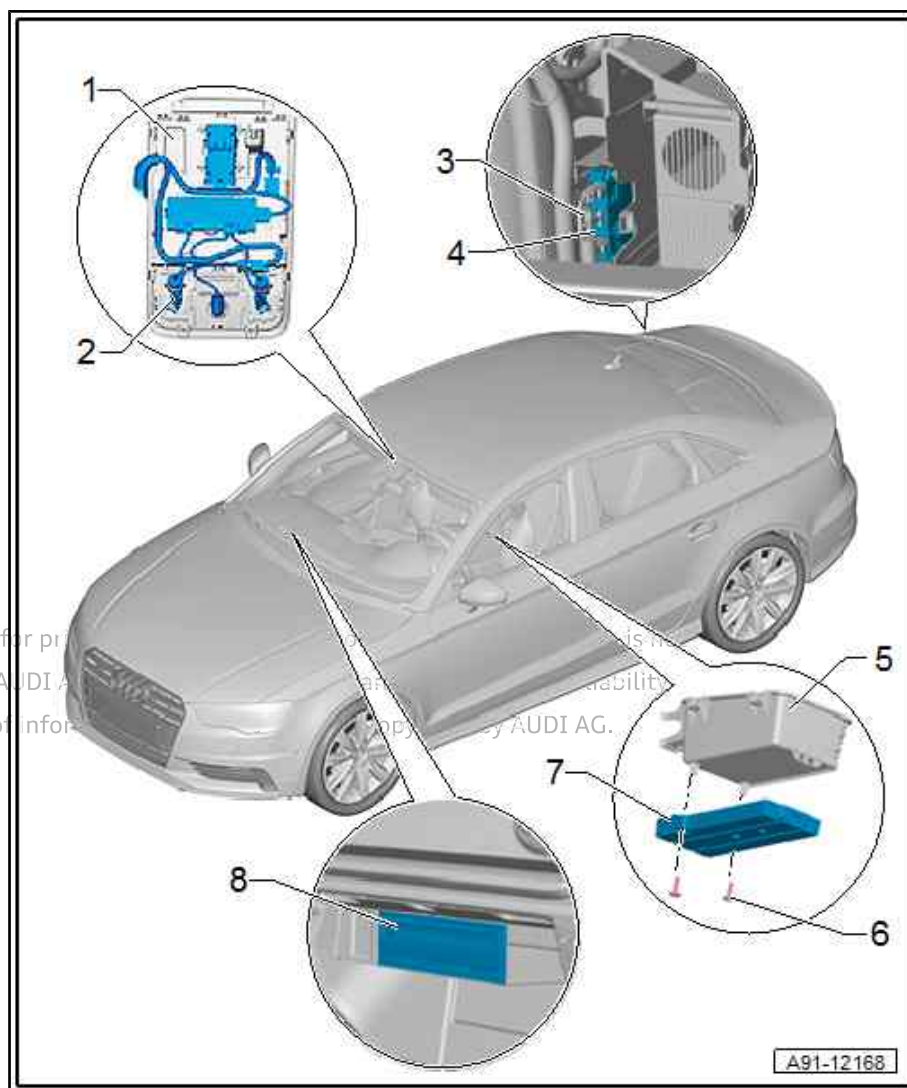
- ❑ 2x
- ❑ 2 Nm

7 - Telephone bracket - R126-

- ❑ Audi phone box
- ❑ Pin assignment ➔ [page 158](#)
- ❑ Removing and installing ➔ [page 139](#)

8 - Control unit 1 for information electronics - J794-

- ❑ Pin assignment for MMI radio MOST (I8D) ➔ [page 142](#)
- ❑ Pin assignment for MMI navigation system plus (I8G) ➔ [page 146](#)
- ❑ Removing and installing ➔ [page 6](#)





5.2.3 Overview of fitting locations - telephone system, Cabriolet, up to model year 2016

1 - Front interior light - W1-

- ☐ Exploded view - microphone unit ➔ [page 134](#)

2 - Telephone microphone - R38-

- ☐ Exploded view - microphone unit ➔ [page 134](#)
- ☐ Removing and installing ➔ [page 136](#)

3 - Aerial amplifier for mobile telephone - R86-

- ☐ Pin assignment ➔ [page 157](#)
- ☐ Removing and installing ➔ [page 138](#)

4 - Retaining tab on bracket

5 - Centre console storage compartment

6 - Bolt

- ☐ 2x
- ☐ 2 Nm

7 - Telephone bracket - R126-

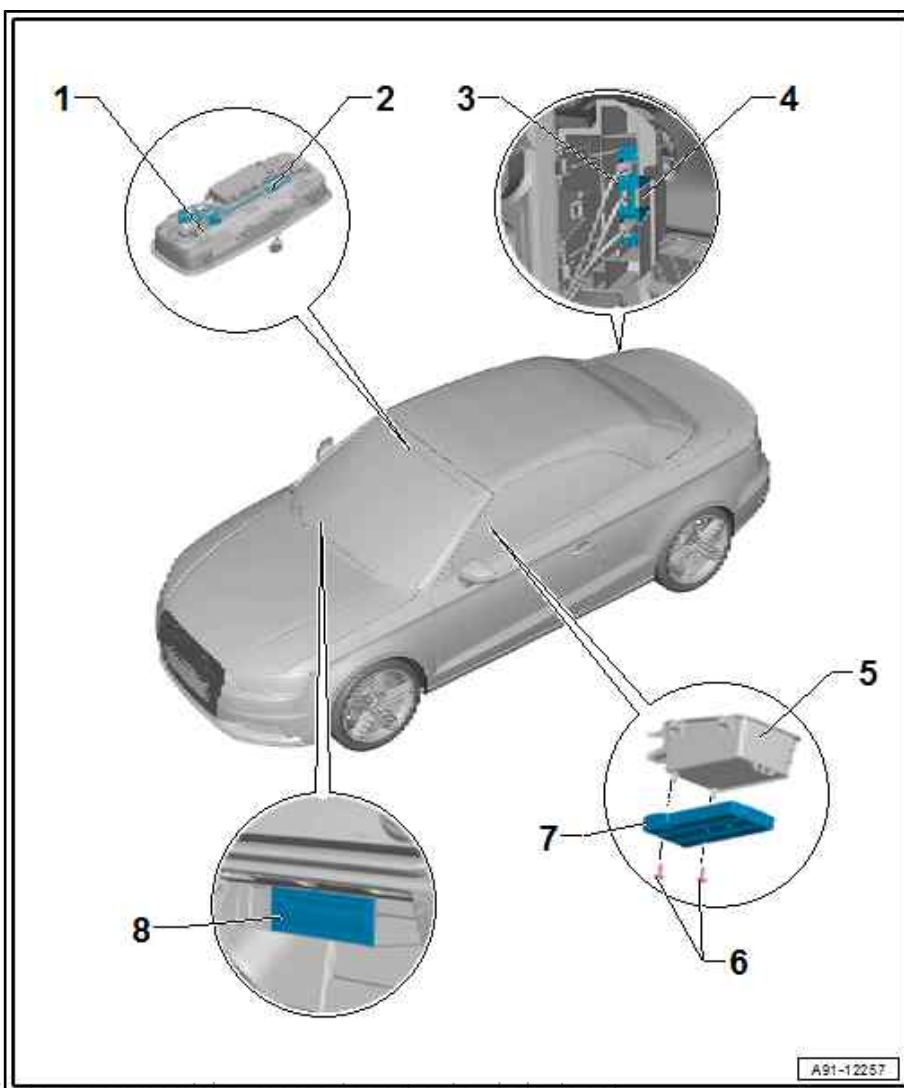
- ☐ Audi phone box
- ☐ Pin assignment ➔ [page 158](#)
- ☐ Removing and installing ➔ [page 139](#)

8 - Control unit 1 for information electronics - J794-

- ☐ Pin assignment for MMI radio MOST (I8D) ➔ [page 142](#)

- ☐ Pin assignment for MMI navigation system plus (I8G) ➔ [page 146](#)

- ☐ Removing and installing ➔ [page 6](#)



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5.2.4 Overview of fitting locations - telephone system, from model year 2017 onwards



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1 - Telephone microphone - R38-

- ☐ Exploded view - microphone unit ⇒ [page 134](#)
- ☐ Removing and installing ⇒ [page 136](#)

2 - Aerial amplifier for mobile telephone - R86-

- ☐ Pin assignment ⇒ [page 157](#)
- ☐ Removing and installing ⇒ [page 137](#)

3 - Telephone aerial - R65-

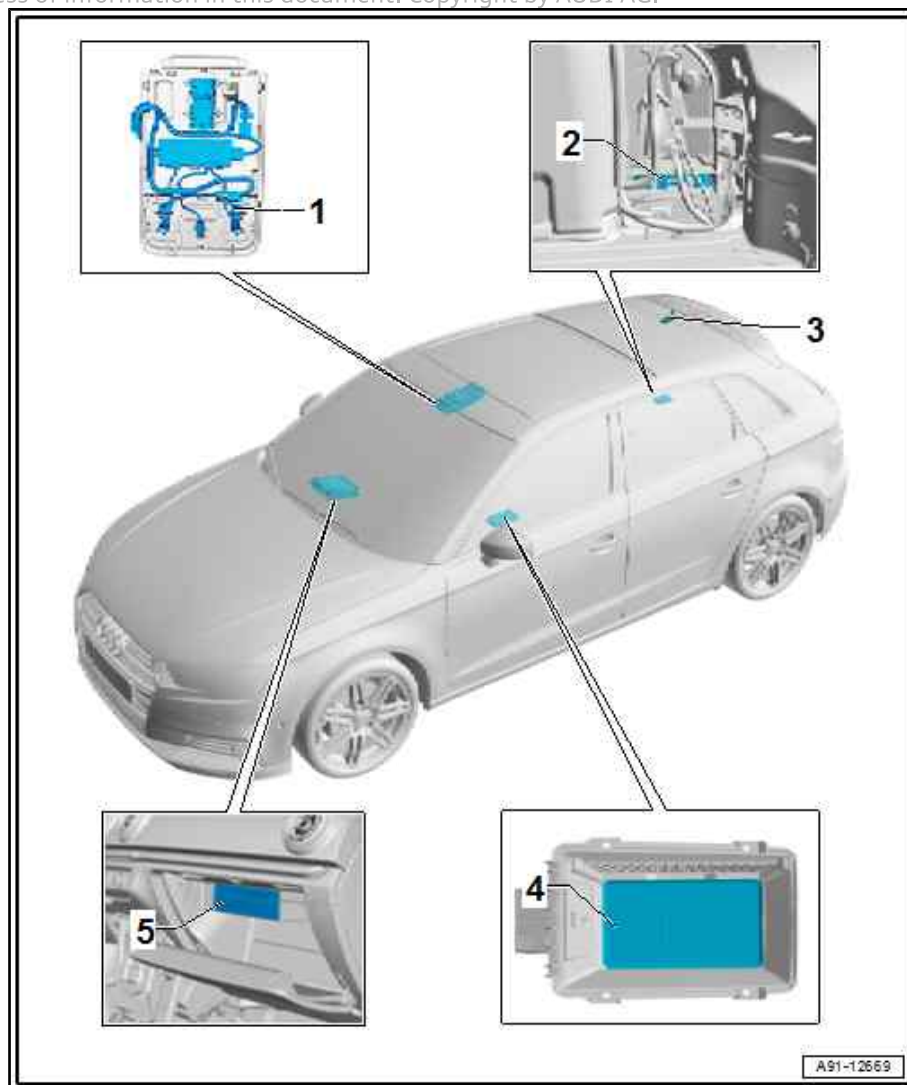
- ☐ In roof aerial - R216- on 3-door models, 5-door models, Saloon
- ☐ In convertible roof compartment lid, Cabriolet
- ☐ Removing and installing ⇒ [page 84](#)

4 - Telephone bracket - R126-

- ☐ Audi phone box
- ☐ Pin assignment ⇒ [page 158](#)
- ☐ Removing and installing ⇒ [page 139](#)

5 - Control unit 1 for information electronics - J794-

- ☐ Pin assignment for MMI radio (I8E) ⇒ [page 150](#)
- ☐ Pin assignment for MMI radio plus (I8S) ⇒ [page 153](#)
- ☐ Pin assignment for MMI navigation system plus (I8L) ⇒ [page 153](#)
- ☐ Removing and installing ⇒ [page 6](#)



5.3 Exploded view - microphone unit

The microphone unit in front roof module - R164- is fitted in the front interior light - W1- . There are up to two microphones installed (depending on equipment version).

One of the microphones (internal microphone - R74-) is connected directly to the digital sound package control unit - J525- . The other microphone (telephone microphone - R38-) is connected to the control unit 1 for information electronics - J794- .

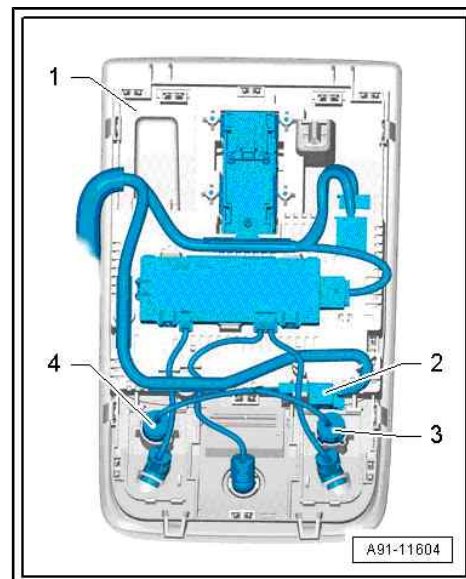


On NZ3, telephone microphone - R38- is connected to emergency call module control unit and communication unit - J949- and is looped through control unit 1 for information electronics - J794- .

The microphone unit in front roof module - R164- in the front interior light - W1- can only be renewed as a complete unit. It is not possible to renew individual microphones (internal microphone - R74- or telephone microphone - R38-).

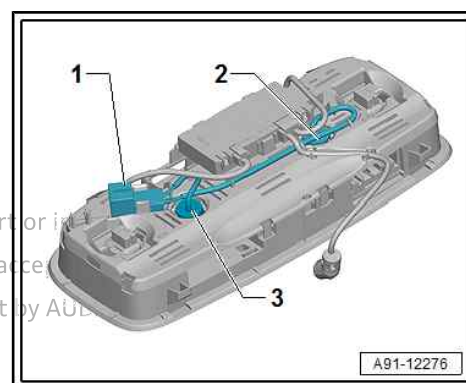
Microphone unit in front roof module - R164- , 3-door and 5-door models, Saloon

- 1 - Front interior light - W1-
- 2 - 4-pin connector - T4t-
- 3 - Internal microphone - R74- , black, to digital sound package control unit - J525-
- 4 - Telephone microphone - R38- , grey, on NZ0 to control unit 1 for information electronics - J794- , on NZ3 to emergency call module control unit and communication unit - J949-



Microphone unit in front roof module - R164- , Cabriolet

- 1 - 4-pin connector - T4t-
- 2 - Telephone microphone - R38- , grey, to control unit 1 for information electronics - J794- , MMI
- 3 - Internal microphone - R74- , black, to digital sound package control unit - J525-



Pin assignment

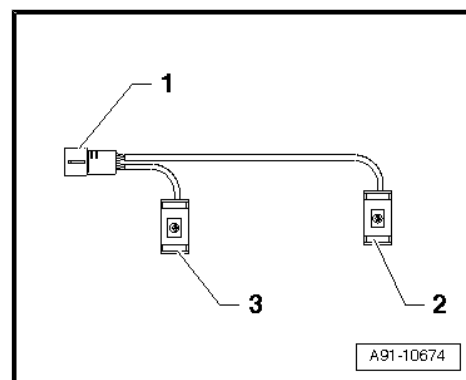
1 - 4-pin connector - T4t-

- 1 - Microphone 1, telephone microphone - R38- to control unit 1 for information electronics - J794- / emergency call module control unit and communication unit - J949-
- 2 - Microphone 1, telephone microphone - R38- to control unit 1 for information electronics - J794- / emergency call module control unit and communication unit - J949-
- 3 - Microphone 2, internal microphone - R74- to digital sound package control unit - J525-
- 4 - Microphone 2, internal microphone - R74- to digital sound package control unit - J525-

2 - Microphone 1, telephone microphone - R38-

3 - Microphone 2, internal microphone - R74-

Removing and installing microphone unit in front roof module - R164- ➔ [page 136](#)





5.4 Removing and installing microphone unit in front roof module - R164-

⇒ [“5.4.1 Removing and installing microphone unit in front roof module R164 - 3-door models, 5-door models, Saloon”, page 136](#)

⇒ [“5.4.2 Removing and installing microphone unit in front roof module R164 - Cabriolet”, page 136](#)

5.4.1 Removing and installing microphone unit in front roof module - R164- - 3-door models, 5-door models, Saloon

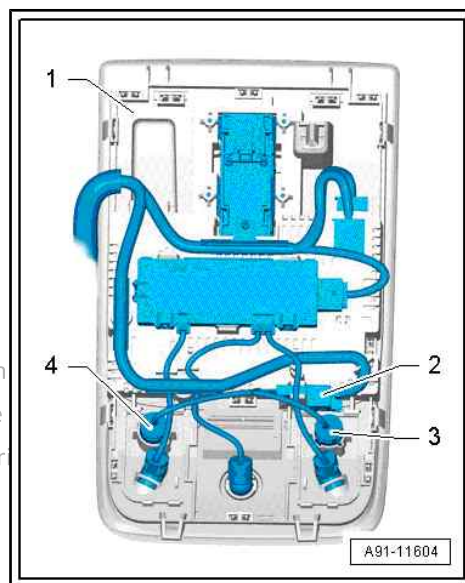
The microphone unit in front roof module - R164- in the front interior light - W1- can only be renewed as a complete unit. It is not possible to renew individual microphones (internal microphone - R74- or telephone microphone - R38-).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove front interior light - W1- ⇒ Electrical system; Rep. gr. 96 ; Controls; Overview of fitting locations - controls in roof trim .
- Unclip connector -2- from bracket in front interior light - W1- -1- and disconnect.
- Pry individual microphones -3- and -4- out of housing for front interior light - W1- -1-.

Installing

- Install in reverse sequence of removal.



5.4.2 Removing and installing microphone unit in front roof module - R164- - Cabriolet

The microphone unit in front roof module - R164- in the front interior light - W1- can only be renewed as a complete unit. It is not possible to renew individual microphones (internal microphone - R74- or telephone microphone - R38-).

Removing

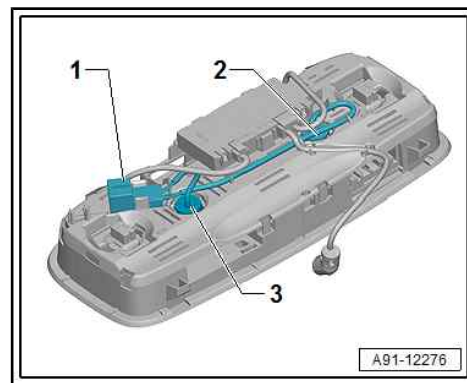
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove front interior light - W1- ⇒ Electrical system; Rep. gr. 96 ; Controls; Overview of fitting locations - controls in roof trim .



- Unclip connector -1- from bracket in front interior light - W1- .
- Pry individual microphones -2- and -3- out of housing for front interior light - W1- .

Installing

- Install in reverse sequence of removal.



5.5 Removing and installing aerial amplifier for mobile telephone - R86-

⇒ [“5.5.1 Removing and installing aerial amplifier for mobile telephone R86 - 3-door models, 5-door models”, page 137](#)

⇒ [“5.5.2 Removing and installing aerial amplifier for mobile telephone R86 - Saloon”, page 138](#)

⇒ [“5.5.3 Removing and installing aerial amplifier for mobile telephone R86 - Cabriolet”, page 138](#)

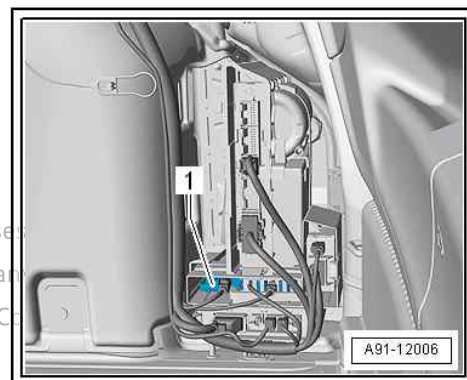
5.5.1 Removing and installing aerial amplifier for mobile telephone - R86- - 3-door models, 5-door models

The aerial amplifier for mobile telephone - R86- -1- is located behind the luggage compartment side trim (right-side).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove luggage compartment side trim (right-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - luggage compartment side trim

with respect to the correctness of information in this document. C

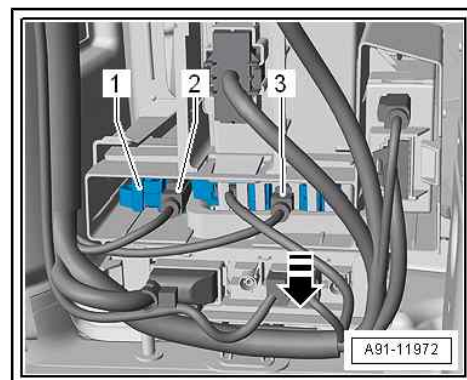


Aerial amplifier for mobile telephone - R86- -1- is engaged in bracket.

- Press retaining tab on bracket -arrow- and pull aerial amplifier for mobile telephone - R86- -1- out of bracket.
- Release and unplug connectors -2- and -3- at aerial amplifier for mobile telephone - R86- -1-.

Installing

- Install in reverse sequence of removal.



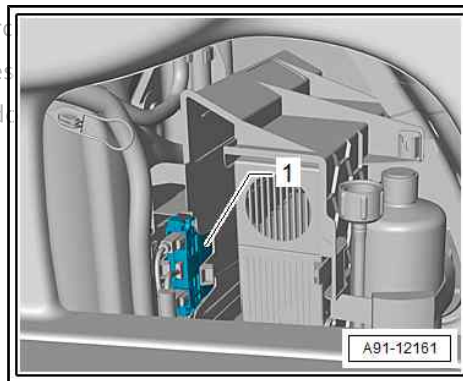


5.5.2 Removing and installing aerial amplifier for mobile telephone - R86- - Saloon

The aerial amplifier for mobile telephone - R86- -1- is located behind the luggage compartment side trim (right-side).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Detach cover from luggage compartment side trim (right-side).

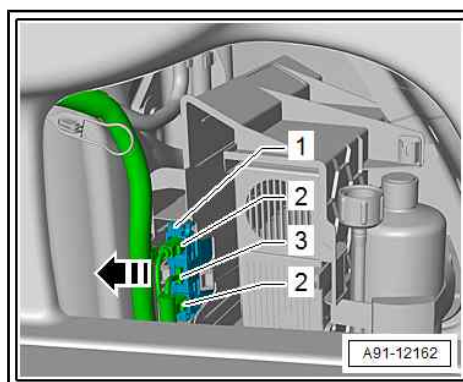


Aerial amplifier for mobile telephone - R86- -1- is engaged in bracket.

- Release and unplug connectors -2- and -3- at aerial amplifier for mobile telephone - R86- -1-.
- Press retaining tab on bracket in direction of -arrow- and pull aerial amplifier for mobile telephone - R86- -1- out of bracket.

Installing

- Install in reverse sequence of removal.

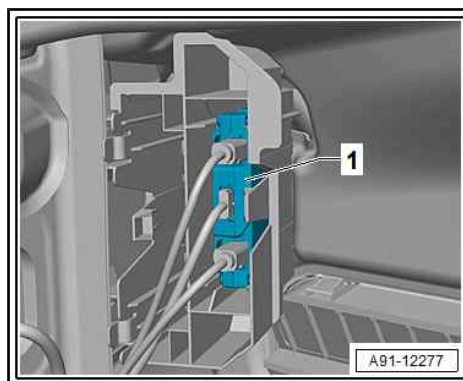


5.5.3 Removing and installing aerial amplifier for mobile telephone - R86- - Cabriolet

The aerial amplifier for mobile telephone - R86- -1- is located behind the luggage compartment side trim (right-side).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove luggage compartment side trim (right-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - luggage compartment side trim .

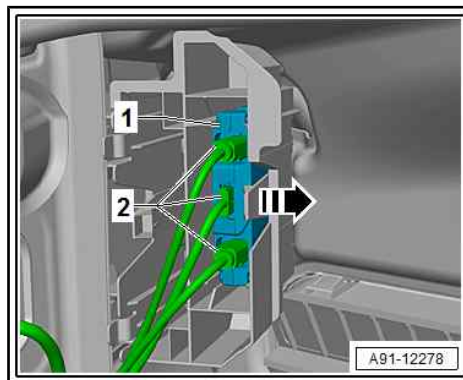


Aerial amplifier for mobile telephone - R86- -1- is engaged in bracket.

- Release and unplug connectors -2- on aerial amplifier for mobile telephone - R86- -1-.
- Press retaining tab on bracket in direction of -arrow- and pull aerial amplifier for mobile telephone - R86- -1- out of bracket.

Installing

- Install in reverse sequence of removal.





5.6 Removing and installing telephone bracket - R126-

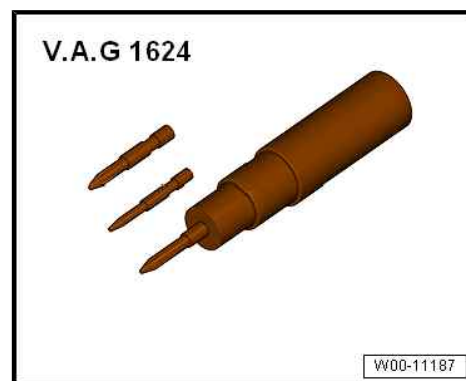
⇒ ["5.6.1 Removing and installing telephone bracket R126 - up to model year 2016", page 139](#)

⇒ ["5.6.2 Removing and installing telephone bracket R126 - from model year 2017 onwards", page 139](#)

5.6.1 Removing and installing telephone bracket - R126- - up to model year 2016

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-



Telephone bracket - R126- (Audi phone box) is located under centre console storage compartment.

Removing

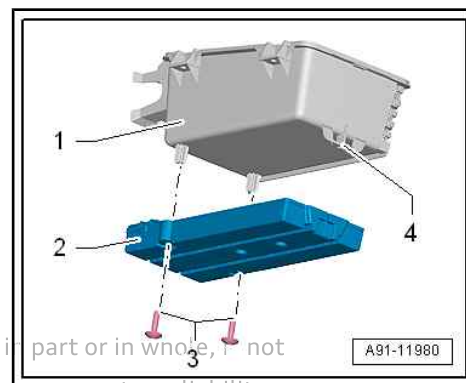
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove centre console storage box (front) ⇒ General body repairs, interior; Rep. gr. 68 ; Centre console; Exploded view - centre console .
- Release and unplug connectors at telephone bracket - R126- .
- Remove bolts -3- on telephone bracket - R126- -2-.
- Swivel telephone bracket - R126- -2- out of hook -4- and remove from storage box -1-.

Installing

- Install in reverse sequence of removal.

Tightening torques

- ◆ ⇒ ["5.2.1 Overview of fitting locations - telephone system, 3-door models, 5-door models, up to model year 2016", page 131](#)
- ◆ ⇒ ["5.2.2 Overview of fitting locations - telephone system, Saloon, up to model year 2016", page 132](#)
- ◆ ⇒ ["5.2.3 Overview of fitting locations - telephone system, Cabriolet, up to model year 2016", page 133](#)



5.6.2 Removing and installing telephone bracket - R126- - from model year 2017 onwards

Special tools and workshop equipment required

- ◆ Removal tool - T40388-



Telephone bracket - R126- is located in centre console storage compartment (front).

- If renewing the control unit, select the “Replace control unit” function for the appropriate control unit ⇒ Vehicle diagnostic tester.

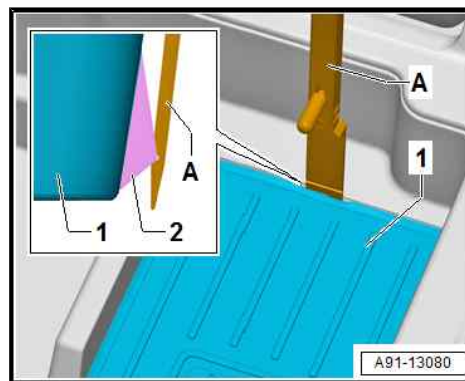
Removing

- Switch off ignition and all electrical equipment. Store ignition key outside of vehicle.

Telephone bracket - R126- -1- is wedged in storage compartment.

There is a small recess in the sealing lip at the location where the removal tool - T40388- must be inserted.

- Carefully press sealing lip on telephone bracket - R126- to side by inserting removal tool - T40388- -A- vertically from above, as shown.
- This disengages lug -2-, which then engages in groove on removal tool - T40388- -A-.
- Pull removal tool - T40388- -A- back out upwards, keeping it vertical, and pull telephone bracket - R126- -1- out of storage compartment.
- Telephone bracket - R126- is wedged in on opposite side. Pivot telephone bracket - R126- -1- out of storage compartment.
- Release and unplug electrical connectors at telephone bracket - R126- .



Installing

Installation is carried out in reverse sequence.

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5.7 Pin assignment

⇒ ["5.7.1 Pre-fitted components for mobile phone installation", page 141](#)

⇒ ["5.7.2 MMI radio MOST \(I8D\), up to model year 2016", page 142](#)

⇒ ["5.7.3 MMI navigation system plus \(I8G\), up to model year 2016", page 146](#)

⇒ ["5.7.4 MMI radio \(I8E\), from model year 2017 onwards", page 150](#)

⇒ ["5.7.5 MMI radio plus \(I8S\), MMI navigation system plus \(I8L\), from model year 2017 onwards", page 153](#)

⇒ ["5.7.6 Aerial amplifier for mobile telephone R86 ", page 157](#)

⇒ ["5.7.7 Telephone bracket R126 , up to model year 2016", page 158](#)

⇒ ["5.7.8 Telephone bracket R126 , from model year 2017 onwards", page 158](#)

5.7.1 Pre-fitted components for mobile phone installation



Note

Contacts which are not listed are not used.

Multi-pin connector, 18-pin

1 - Terminal 31

4 - NF mute (low frequency) to control unit 1 for information electronics - J794-

7 - NF (-) to control unit 1 for information electronics - J794-

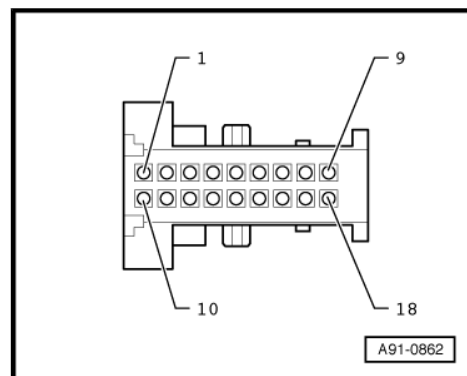
9 - Microphone input (-) from microphone unit in front roof module - R164-, telephone microphone - R38-

10 - Terminal 15

11 - Terminal 30

16 - NF (+) to control unit 1 for information electronics - J794-

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



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5.7.2 MMI radio MOST (I8D), up to model year 2016

Control unit 1 for information electronics - J794-

- 1 - Connection, AM/FM1/FM2
- 2 - DAB connection from digital radio aerial - R183-
- 3 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 4 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 5 - GPS connection from roof aerial - R216-
- 6 - MOST bus
- 7 - Connection block with four multi-pin connectors

NAR, I8D and QV3 only

- 1 - Connection, AM/FM1/FM2
- 2 - SDARS connection from satellite tuner aerial - R172-
- 3 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 4 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 5 - GPS connection from roof aerial - R216-
- 6 - MOST bus
- 7 - Connection block with four multi-pin connectors

1 - Aerial connection, AM/FM1/FM2

- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



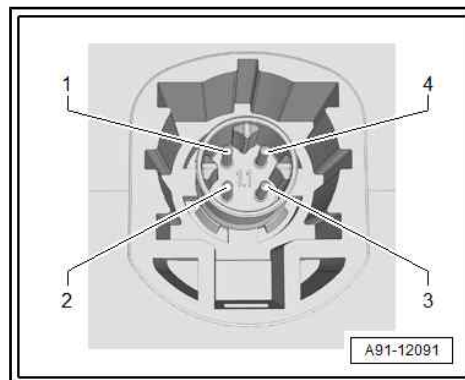
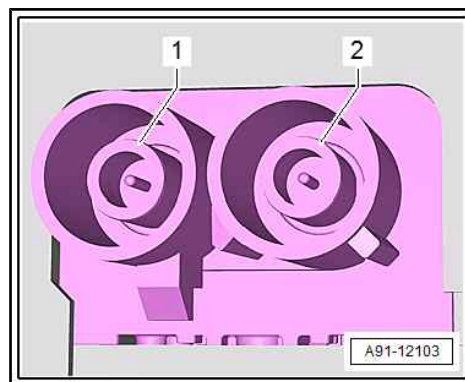
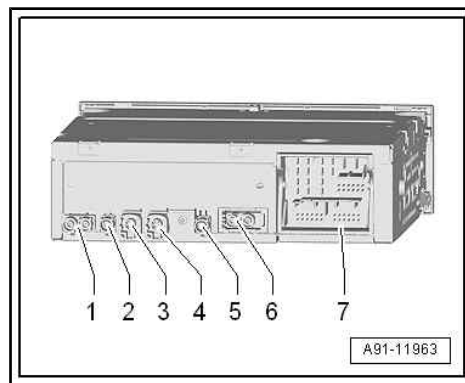
Note

Contacts which are not listed are not used.

3 - 4-pin connector - T4al-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

- 1 - LVDS (-)
- 2 - Not used
- 3 - LVDS (+)
- 4 - Earth

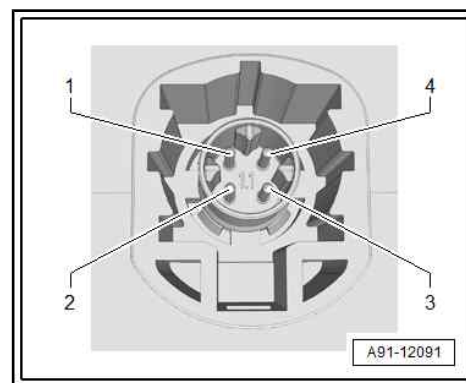




4 - 4-pin connector - T4w-

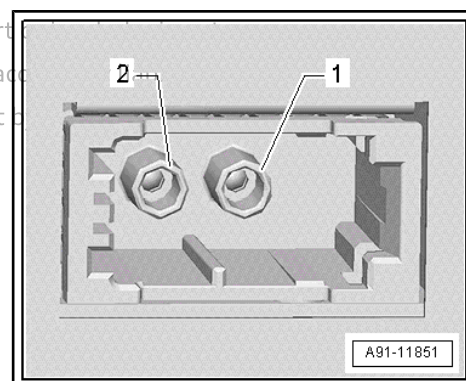
All pins are connected to the connection for external audio sources - R199- .

- 1 - D (+)
- 2 - iPod detected
- 3 - D (-)
- 4 - Earth



6 - MOST bus

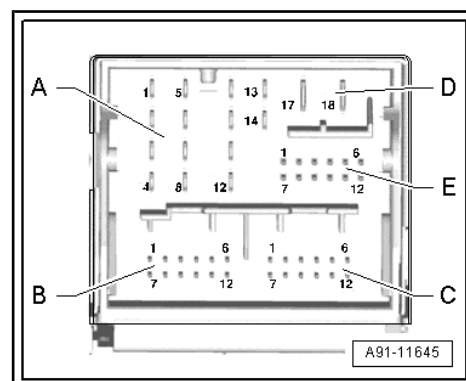
- 1 - Input
- 2 - Output



7 - Connection block with four multi-pin connectors

A - 8-pin connector - T8ag-

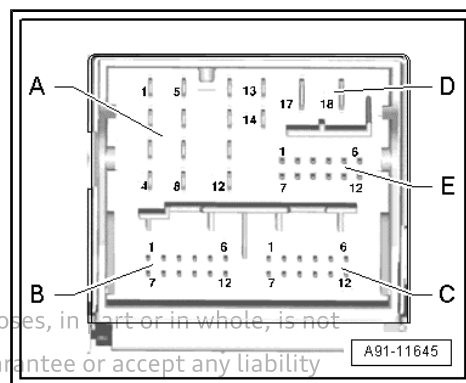
- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left





B - 12-pin connector - T12x-

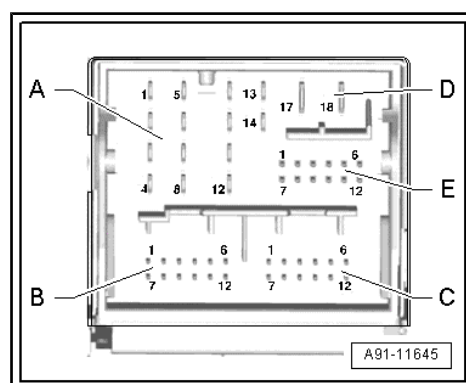
- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (low frequency) (+)
- 5 - NF mute (low frequency)
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (low frequency) (-)
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



C - 12-pin connector - T12y-

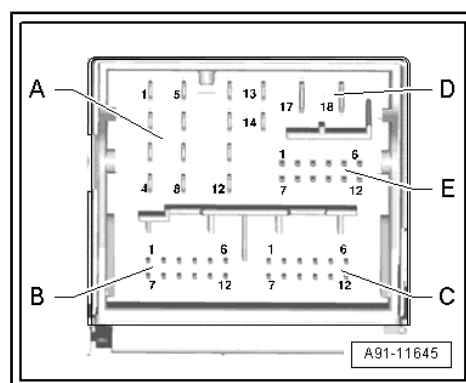
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - iPod, ACC power
- 6 - Detect
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - FBAS wire (+)
- 10 - FBAS wire (-)
- 11 - iPod data
- 12 - iPod data



D - 8-pin connector - T8j-

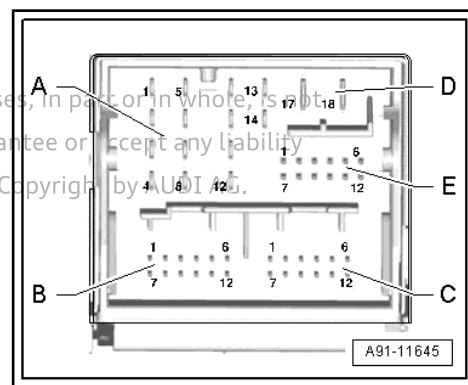
- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30





E - 12-pin connector - T12v-

- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset -J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment





5.7.3 MMI navigation system plus (I8G), up to model year 2016

Control unit 1 for information electronics - J794-

- 1 - GSM connection from telephone aerial - R65- or two GSM connections from LTE aerial 1 - R297- / LTE aerial 2 - R306-
- 2 - DAB connection from digital radio aerial - R183-
- 3 - Connection block with four multi-pin connectors
- 4 - MOST bus
- 5 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 6 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 7 - 4-pin connector - T4ar- to chip card reader control unit - J676- , Japan only
- 8 - Not used
- 9 - Aerial connection, AM/FM/FM2
- 10 - GPS connection from GPS aerial - R50-

NAR, I8G and QV3 only

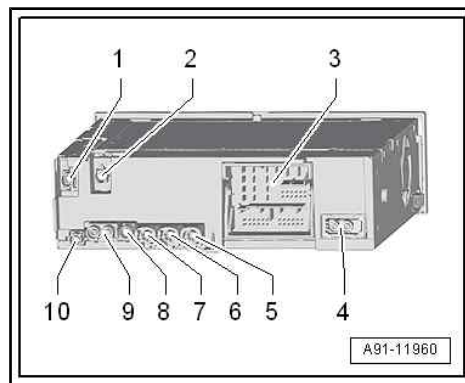
- 1 - GSM connection from telephone aerial - R65- or two GSM connections from LTE aerial 1 - R297- / LTE aerial 2 - R306-
- 2 - SDARS connection from satellite tuner aerial - R172-
- 3 - Connection block with four multi-pin connectors
- 4 - MOST bus
- 5 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 6 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 7 - Not used
- 8 - Not used
- 9 - Aerial connection, AM/FM/FM2
- 10 - GPS connection from GPS aerial - R50-



Note

Contacts which are not listed are not used.

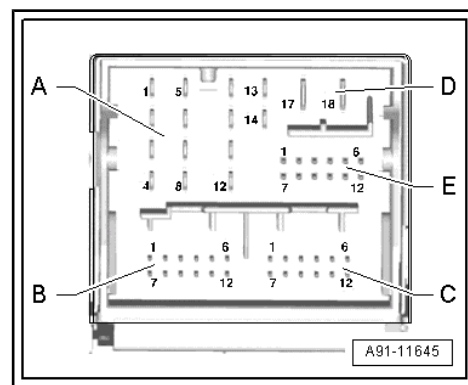
3 - Connection block with four multi-pin connectors





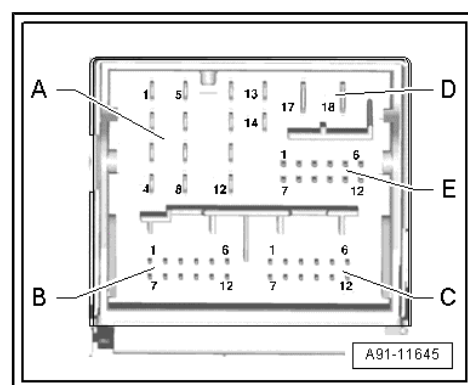
A - 8-pin connector - T8ag-

- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left



B - 12-pin connector - T12x-

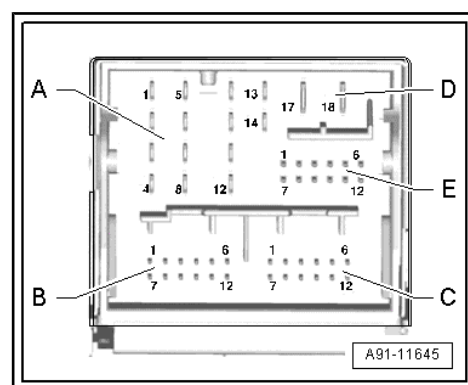
- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (low frequency) (+)
- 5 - NF mute (low frequency)
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (low frequency) (-)
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



C - 12-pin connector - T12y-

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

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - iPod, ACC power
- 6 - Detect
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - FBAS wire (+)
- 10 - FBAS wire (-)
- 11 - iPod data
- 12 - iPod data

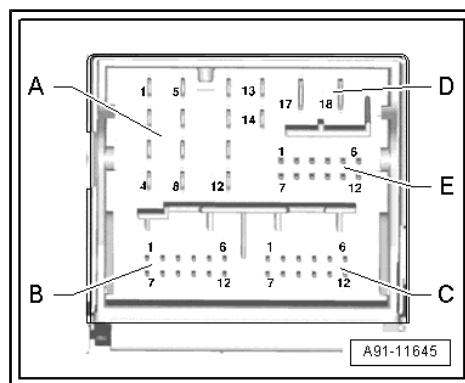


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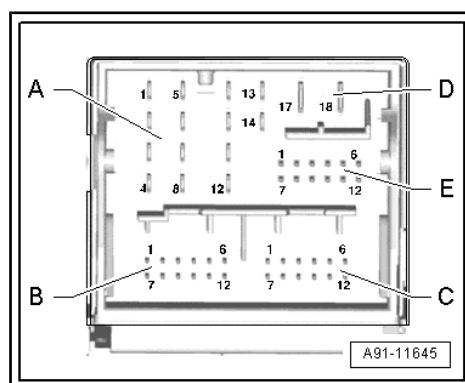
D - 8-pin connector - T8j-

- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30



E - 12-pin connector - T12v-

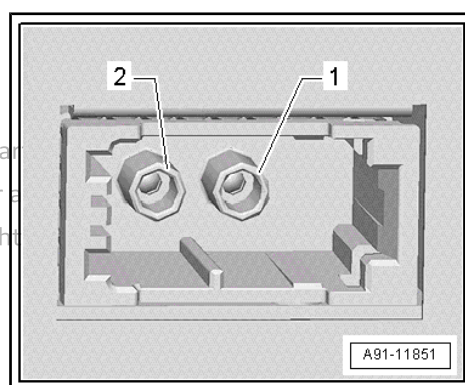
- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset -J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment



4 - MOST bus

- 1 - Input
- 2 - Output

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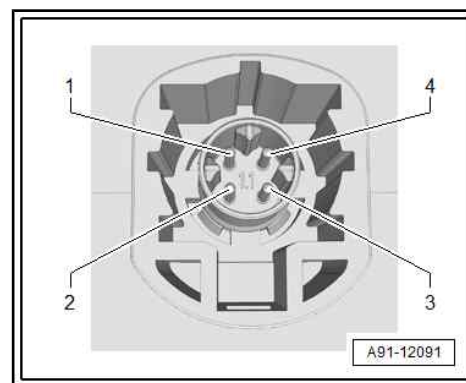




5 - 4-pin connector - T4a1-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

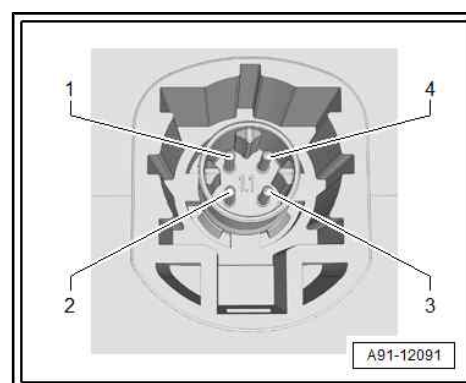
- 1 - LVDS (-)
- 2 - Not used
- 3 - LVDS (+)
- 4 - Earth



6 - 4-pin connector - T4w-

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

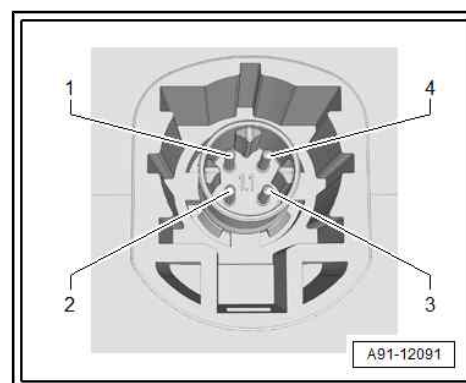
- 1 - D (+)
- 2 - iPod detected
- 3 - D (-)
- 4 - Earth



7 - 4-pin connector - T4ar- , Japan only

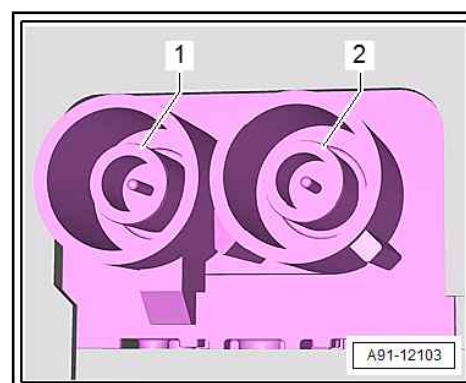
All pins are connected to the chip card reader control unit - J676- .

- 1 - Earth
- 2 - Data (-)
- 3 - Power supply, +5 V
- 4 - Data (+)



9 - Aerial connection, AM/FM1/FM2

- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



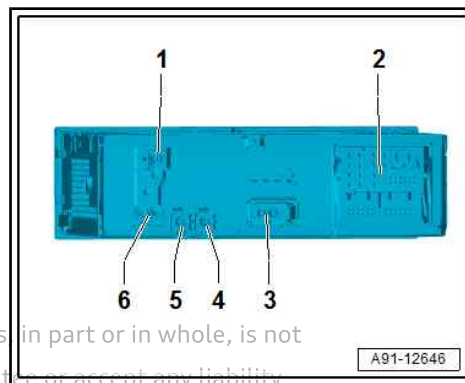
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5.7.4 MMI radio (l8E), from model year 2017 onwards

Control unit 1 for information electronics - J794-

- 1 - DAB connection from digital radio aerial - R183-
- 2 - Connection block with four multi-pin connectors
- 3 - MOST bus
- 4 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 5 - 4-pin connector - T4w- to USB hub - R293-
- 6 - Aerial connection, AM/FM/FM2



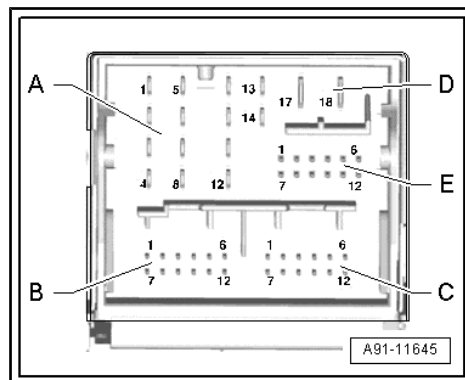
Note

Contacts which are not listed are not used.

2 - Connection block with four multi-pin connectors

A - 8-pin connector - T8ag-

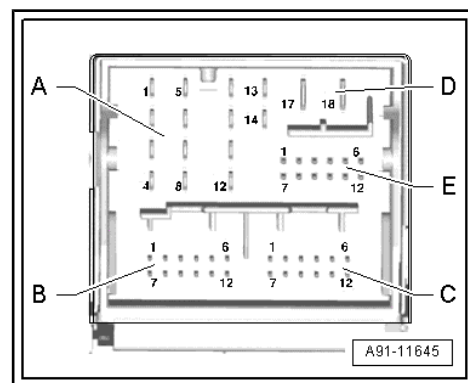
- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left





B - 12-pin connector - T12x-

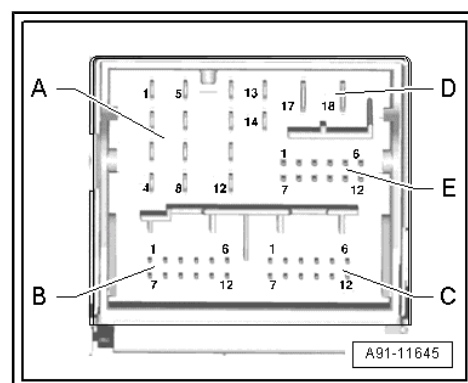
- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (+) (low frequency) from emergency call module control unit and communication unit - J949-
- 5 - NF mute (low frequency) from emergency call module control unit and communication unit - J949-
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (-) (low frequency) from emergency call module control unit and communication unit - J949-
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



C - 12-pin connector - T12y-

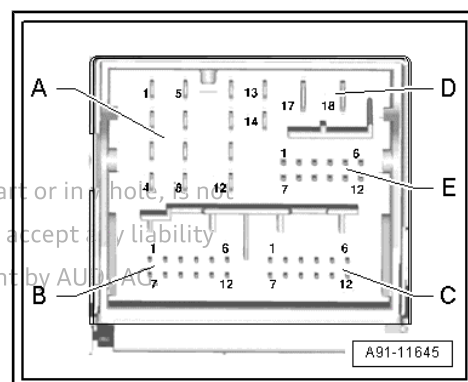
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - Not used
- 6 - Not used
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - Not used
- 10 - Not used
- 11 - Not used
- 12 - Not used



D - 8-pin connector - T8j-

- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30

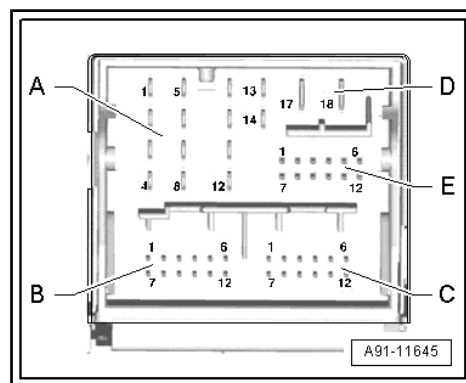


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E - 12-pin connector - T12v-

- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset -J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment

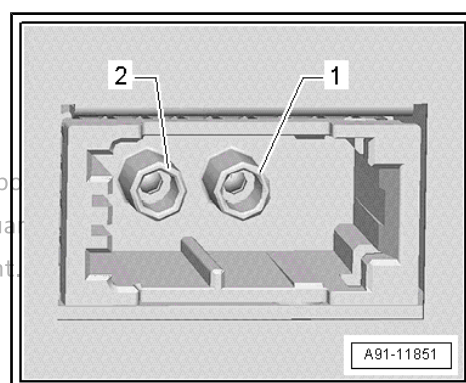


3 - MOST bus

- 1 - Input
- 2 - Output



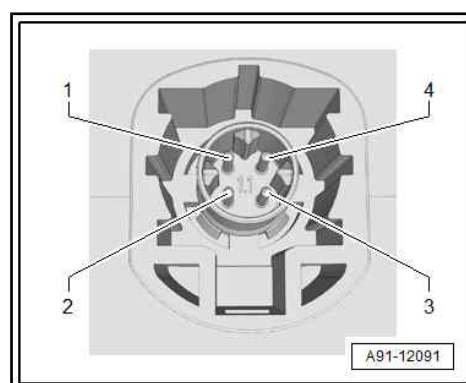
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4 - 4-pin connector - T4ej-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

- 1 - LVDS (-)
- 2 - Earth
- 3 - LVDS (+)
- 4 - Earth

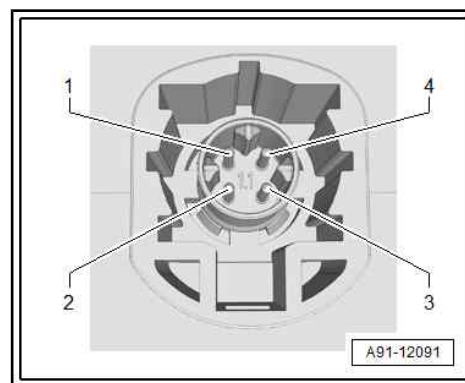




5 - 4-pin connector - T4ef-

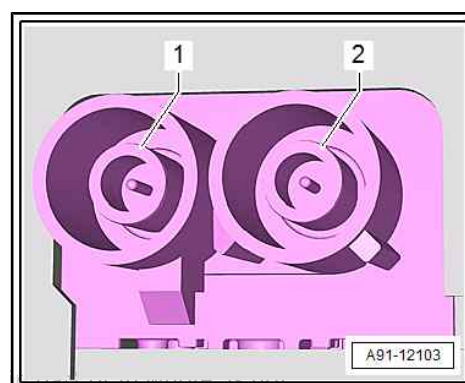
All pins are connected to the USB hub - R293- .

- 1 - USB1 data (+)
- 2 - USB2 data (-)
- 3 - USB1 data (-)
- 4 - USB2 data (+)



6 - Aerial connection, AM/FM1/FM2

- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-

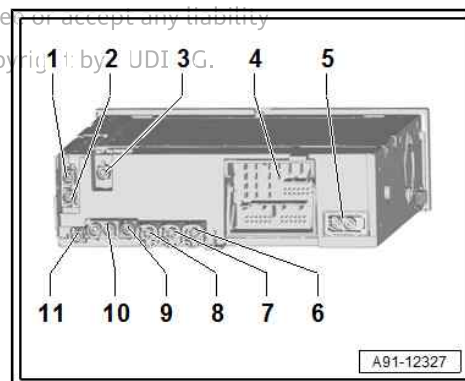


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5.7.5 MMI radio plus (I8S), MMI navigation system plus (I8L), from model year 2017 onwards

Control unit 1 for information electronics - J794- , all models except NAR vehicles

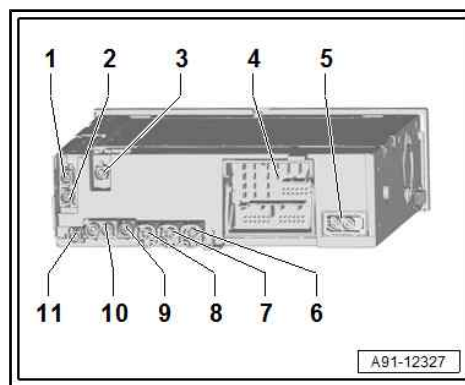
- 1 - LTE connection from LTE aerial 2 - R306-
- 2 - LTE connection from LTE aerial 1 - R297-
- 3 - DAB connection from digital radio aerial - R183-
- 4 - Connection block with four multi-pin connectors
- 5 - MOST bus
- 6 - 4-pin connector - T4ej- to display unit for front information display and operating unit control unit - J685-
- 7 - 4-pin connector - T4ef- to USB hub - R293-
- 8 - 4-pin connector - T4dx- to dash panel insert - KX2-
- 9 - Not used/not fitted
- 10 - Aerial connection, AM/FM/FM2
- 11 - GPS connection from GPS aerial - R50-





Control unit 1 for information electronics - J794- , NAR vehicles only

- 1 - LTE connection from LTE aerial 2 - R306-
- 2 - LTE connection from LTE aerial 1 - R297-
- 3 - SDARS connection from satellite tuner aerial - R172-
- 4 - Connection block with four multi-pin connectors
- 5 - MOST bus
- 6 - 4-pin connector - T4ej- to display unit for front information display and operating unit control unit - J685-
- 7 - 4-pin connector - T4ef- to USB hub - R293-
- 8 - 4-pin connector - T4dx- to dash panel insert - KX2-
- 9 - Not used/not fitted
- 10 - Aerial connection, AM/FM/FM2
- 11 - GPS connection from GPS aerial - R50-



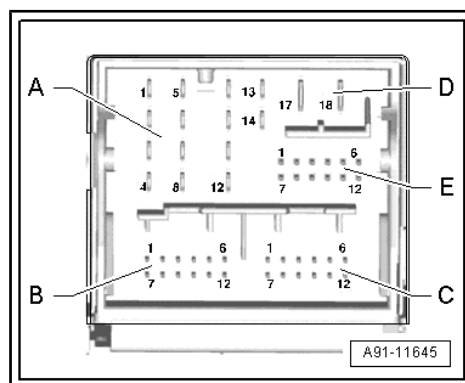
Note

Contacts which are not listed are not used.

4 - Connection block with four multi-pin connectors

A - 8-pin connector - T8ag-

- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left

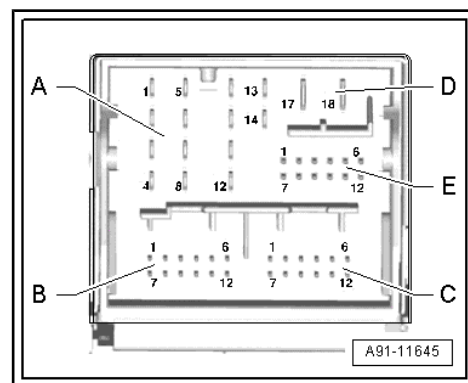


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B - 12-pin connector - T12x-

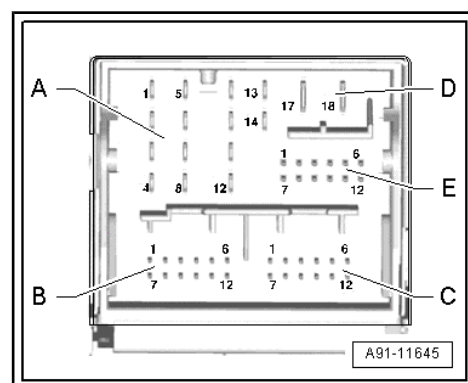
- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (+) (low frequency) from emergency call module control unit and communication unit - J949-
- 5 - NF mute (low frequency) from emergency call module control unit and communication unit - J949-
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (-) (low frequency) from emergency call module control unit and communication unit - J949-
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



C - 12-pin connector - T12y-

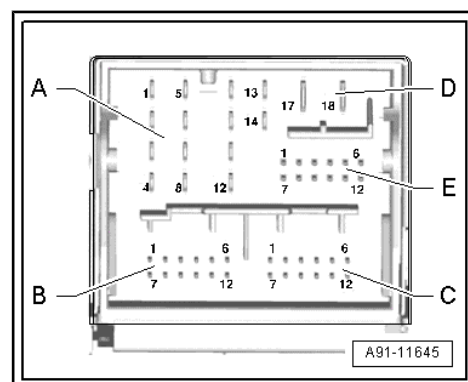
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - Not used
- 6 - Not used
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - Not used
- 10 - Not used
- 11 - Not used
- 12 - Not used



D - 8-pin connector - T8j-

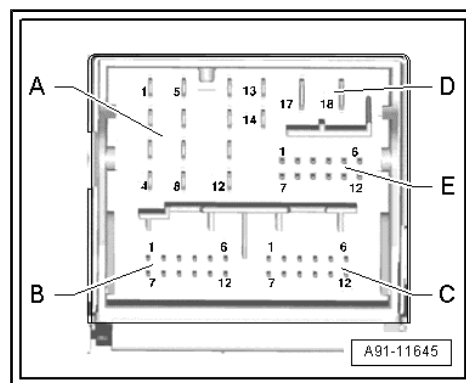
- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30





E - 12-pin connector - T12v-

- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset -J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment

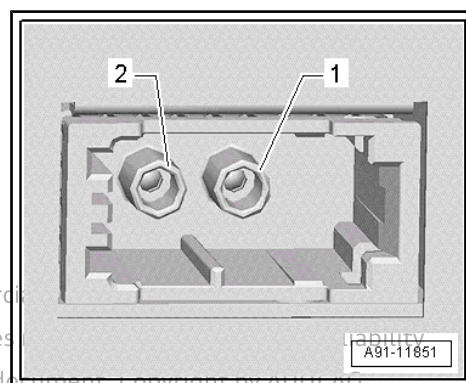


5 - MOST bus

- 1 - Input
- 2 - Output



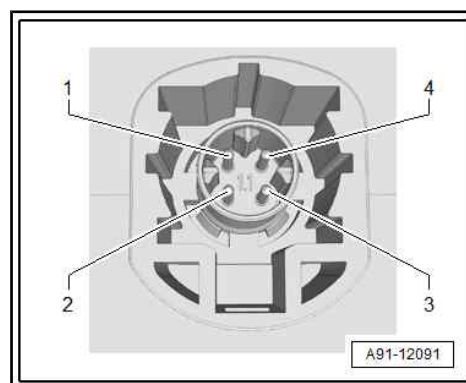
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6 - 4-pin connector - T4ej-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

- 1 - LVDS (-)
- 2 - Earth
- 3 - LVDS (+)
- 4 - Earth

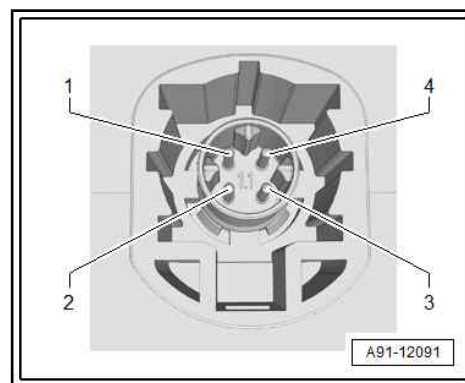




7 - 4-pin connector - T4ef-

All pins are connected to the USB hub - R293- .

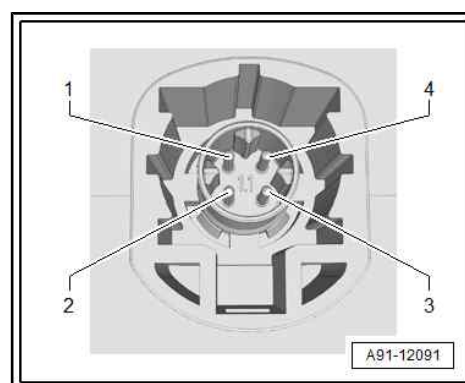
- 1 - USB1 data (+)
- 2 - USB2 data (-)
- 3 - USB1 data (-)
- 4 - USB2 data (+)



8 - 4-pin connector - T4dx-

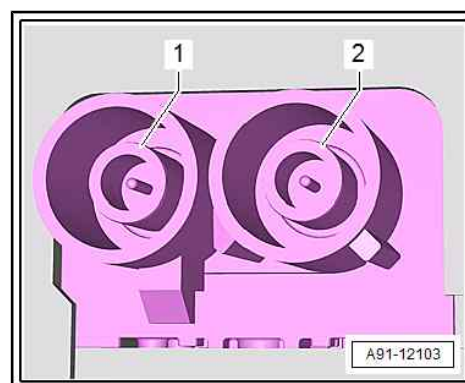
All pins are connected to the dash panel insert - KX2- .

- 1 - LVDS (-)
- 2 - Earth
- 3 - LVDS (+)
- 4 - Earth



10 - Aerial connection, AM/FM1/FM2

- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



5.7.6 Aerial amplifier for mobile telephone - R86-

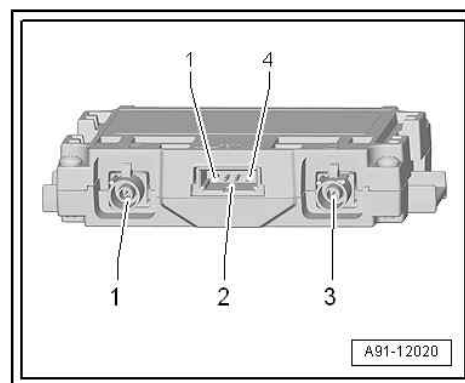
Aerial amplifier for mobile telephone - R86-

- 1 - GSM connection from roof aerial - R216-
- 2 - 4-pin connector - T4y-
- 3 - Aerial connection to telephone bracket - R126-



Note

Contacts which are not listed are not used.

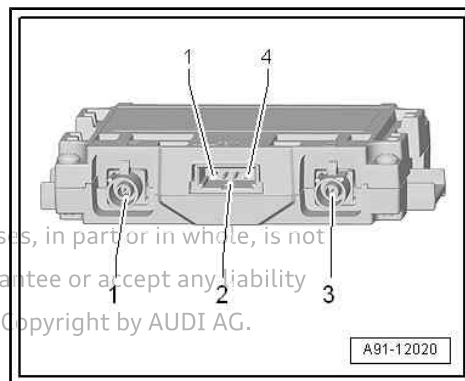




2 - 4-pin connector - T4y-

- 1 - Terminal 30
- 2 - Terminal 31
- 3 - Switch-on signal from control unit 1 for information electronics - J794-
- 4 - Safety PIN, not used

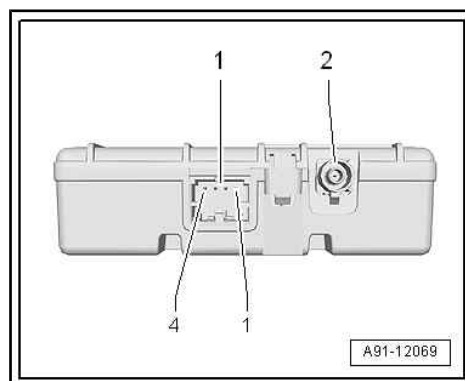
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5.7.7 Telephone bracket - R126- , up to model year 2016

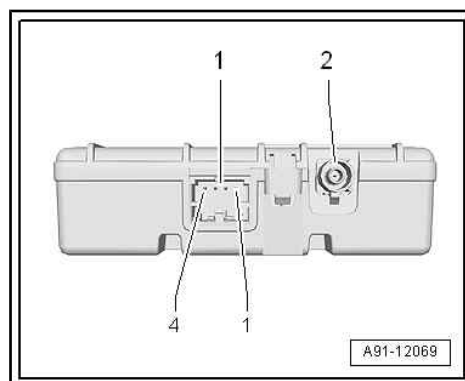
Telephone bracket - R126-

- 1 - 4-pin connector - T4x-
- 2 - Aerial connection to aerial amplifier for mobile telephone - R86-



1 - 4-pin connector - T4x-

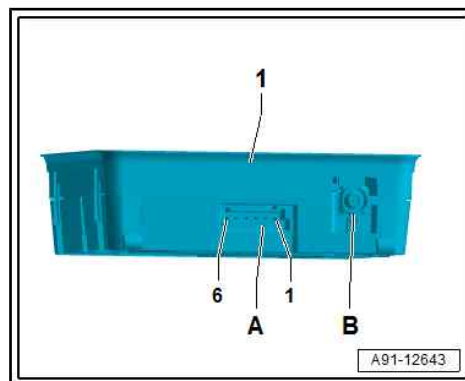
- 1 - Terminal 30
- 2 - Switch-on signal from control unit 1 for information electronics - J794-
- 3 - Status signal to control unit 1 for information electronics - J794-
- 4 - Terminal 31

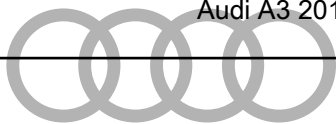


5.7.8 Telephone bracket - R126- , from model year 2017 onwards

Telephone bracket - R126-

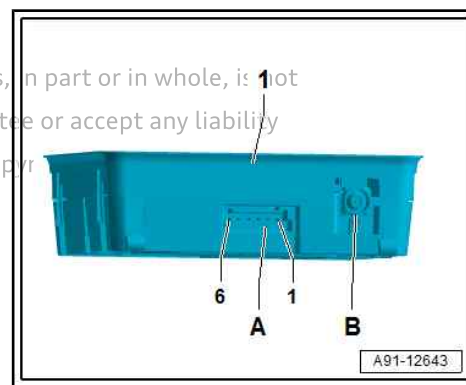
- 1 - Telephone bracket - R126-
- A - 6-pin connector - T6ca-
- B - Aerial connection to aerial amplifier for mobile telephone - R86-





A - 6-pin connector - T6ca-

- 1 - Terminal 30
- 2 - Switch-on signal from control unit 1 for information electronics - J794-
- 3 - Status signal to control unit 1 for information electronics - J794-
- 4 - Terminal 31
- 5 - Wake-up wire to entry and start authorisation control unit - J518- / onboard supply control unit - J519-
- 6 - Not used





6 Navigation system

⇒ [“6.1 Layout - navigation system”, page 160](#)

⇒ [“6.2 Overview of fitting locations - navigation system”, page 160](#)

⇒ [“6.3 Removing and installing chip card reader control unit”, page 162](#)

⇒ [“6.4 Pin assignment”, page 163](#)

6.1 Layout - navigation system

The following navigation system versions are available: navigation system pre-installation “ready 4 nav” (7UH), standard navigation system (7UF) and MMI navigation system plus (7UG).

The navigation system is part of the control unit 1 for information electronics - J794- in the glove box.

On vehicles with navigation system pre-installation “ready 4 nav” (7UH), all components for the navigation system are fitted (control unit 1 for information electronics - J794- with GPS aerial - R50-). The system is missing the navigation data on an SD card and software activation in control unit 1 for information electronics - J794- .

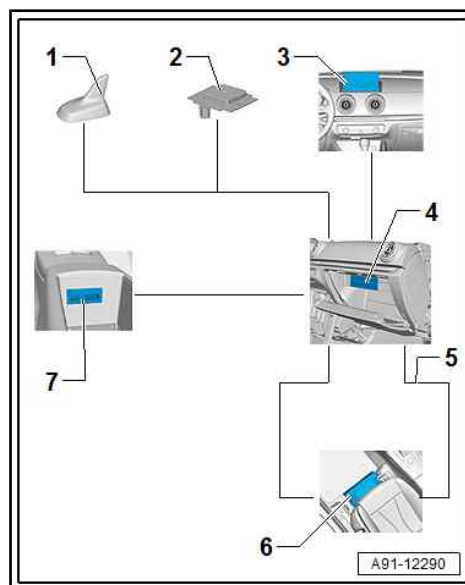
On versions with standard navigation system (7UF), the navigation data are stored on an SD card.

On versions with MMI navigation system plus (7UG), the navigation data are stored on an internal hard disk drive (HDD).

Fault finding is performed via “Guided Fault Finding” ⇒ Vehicle diagnostic tester.

Repairing aerial wiring ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing aerial wires

- 1 - GPS aerial - R50- in roof aerial - R216- , 3-door and 5-door models, Saloon
- 2 - GPS aerial - R50- in dash panel, Cabriolet
- 3 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)
- 4 - Control unit 1 for information electronics - J794- in glove box
- 5 - MOST bus
- 6 - Digital sound package control unit - J525- under left front seat
- 7 - Connection for external multimedia devices in centre console storage compartment



6.2 Overview of fitting locations - navigation system

⇒ [“6.2.1 Overview of fitting locations - navigation system”, page 160](#)

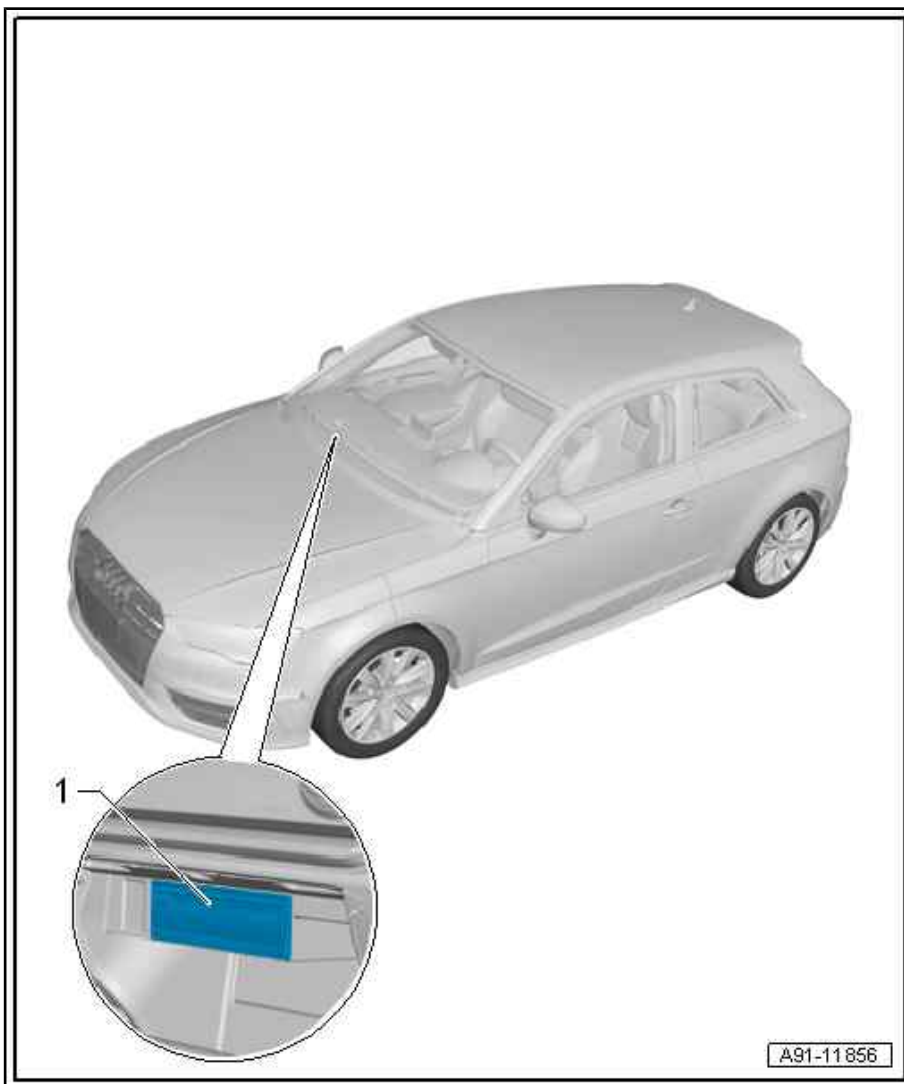
⇒ [“6.2.2 Overview of fitting locations - navigation system, Japan”, page 162](#)

6.2.1 Overview of fitting locations - navigation system



1 - Control unit 1 for information electronics - J794-

- ❑ Pin assignment for standard navigation system (7UF), up to model year 2016
⇒ [page 163](#)
- ❑ Pin assignment for MMI navigation system plus (7UG), up to model year 2016 ⇒ [page 167](#)
- ❑ Pin assignment for standard navigation system (7UF), from model year 2017 onwards ⇒ [page 171](#)
- ❑ Pin assignment for MMI navigation system plus (7UG), from model year 2017 onwards ⇒ [page 171](#)
- ❑ Removing and installing ⇒ [page 6](#)



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6.2.2 Overview of fitting locations - navigation system, Japan

1 - Dedicated short-range communication aerial - R269-

- ❑ Removing and installing
⇒ [page 86](#)

2 - Retaining hooks

3 - Bracket

- ❑ Bonded to windscreen

4 - Traffic data aerial - R173-

- ❑ Removing and installing
⇒ [page 85](#)

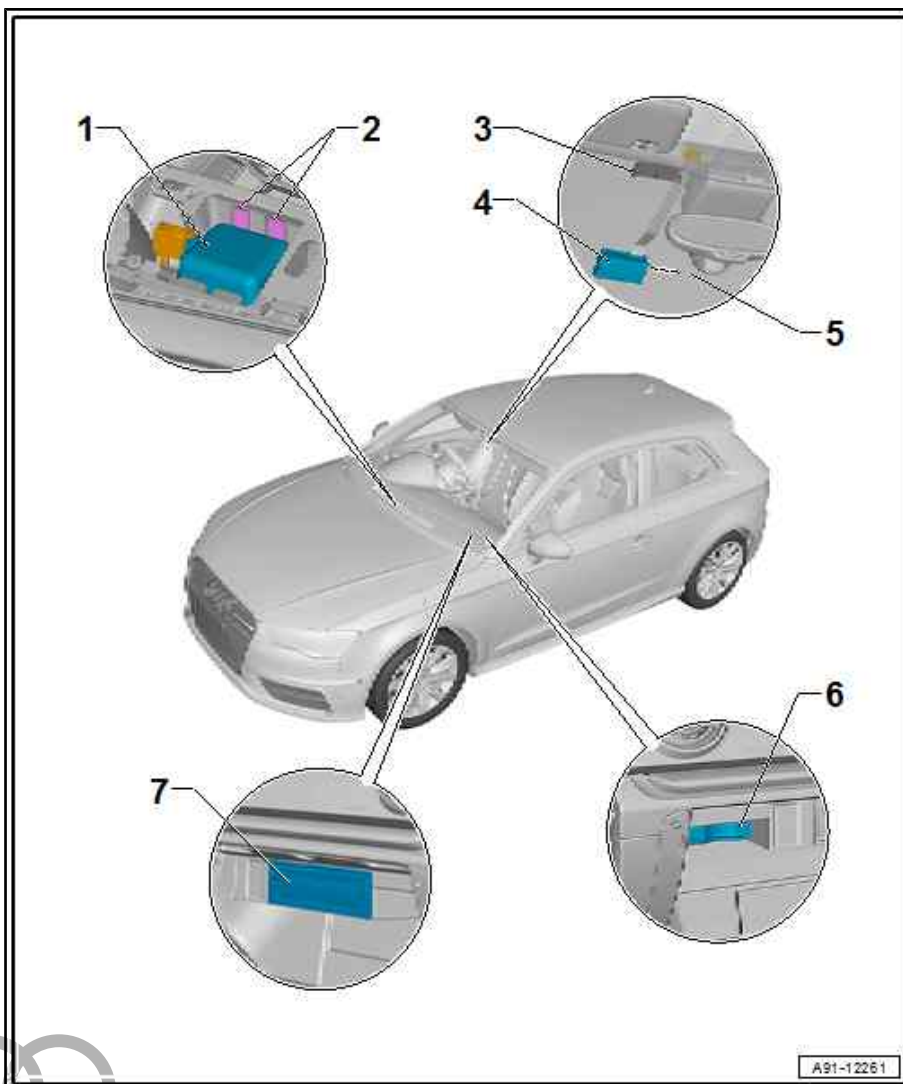
5 - Locking element

6 - Chip card reader control unit - J676-

- ❑ Pin assignment
⇒ [page 175](#)
- ❑ Removing and installing
⇒ [page 162](#)

7 - Control unit 1 for information electronics - J794-

- ❑ Pin assignment, up to model year 2016
⇒ [page 167](#)
- ❑ Pin assignment, from model year 2017 onwards
⇒ [page 171](#)
- ❑ Removing and installing
⇒ [page 6](#)



6.3 Removing and installing chip card reader control unit

The chip card reader control unit - J676- is located in the glove box.

Removing

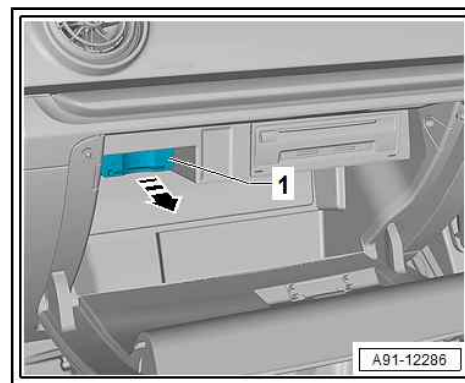
- Switch off ignition and all electrical equipment, and remove ignition key.
- Open glove box.
- Remove chip card from chip card reader control unit - J676- .



- Slide chip card reader control unit - J676- -1- towards rear in direction of -arrow- until it can be detached from lining.
- Release and unplug connectors at chip card reader control unit - J676- -1-.
- Remove chip card reader control unit - J676- .

Installing

- Installation is carried out in reverse sequence; note the following:
- Make sure all retaining tabs on chip card reader control unit - J676- engage in lining.



6.4 Pin assignment

⇒ ["6.4.1 Standard navigation system \(7UF\), up to model year 2016", page 163](#)

⇒ ["6.4.2 MMI navigation system plus \(7UG\), up to model year 2016", page 167](#)

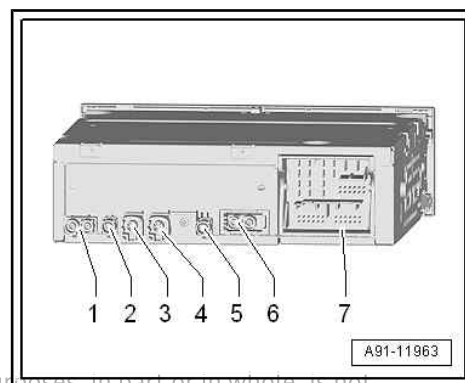
⇒ ["6.4.3 Standard navigation system \(7UF\), MMI navigation system plus \(7UG\), from model year 2017 onwards", page 171](#)

⇒ ["6.4.4 Chip card reader control unit J676 ", page 175](#)

6.4.1 Standard navigation system (7UF), up to model year 2016

Control unit 1 for information electronics - J794-

- 1 - Connection, AM/FM1/FM2
- 2 - DAB connection from digital radio aerial - R183-
- 3 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 4 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 5 - GPS connection from roof aerial - R216-
- 6 - MOST bus
- 7 - Connection block with four multi-pin connectors



NAR, I8D and QV3 only

- 1 - Connection, AM/FM1/FM2
- 2 - SDARS connection from satellite tuner aerial - R172-
- 3 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 4 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 5 - GPS connection from roof aerial - R216-
- 6 - MOST bus
- 7 - Connection block with four multi-pin connectors



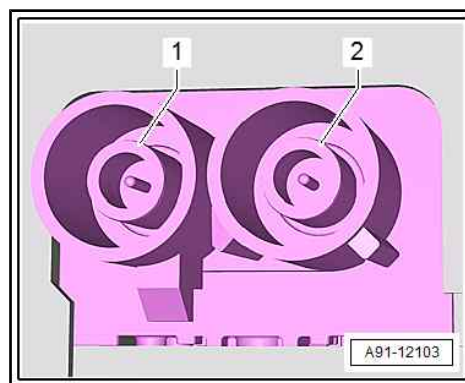
1 - Aerial connection, AM/FM1/FM2

- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



Note

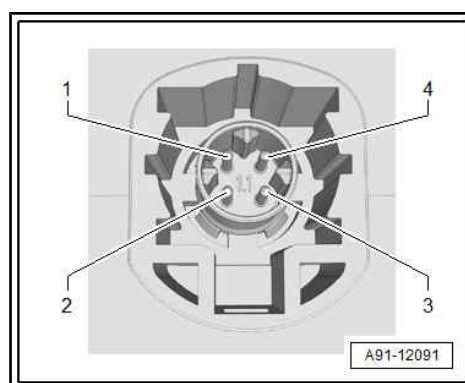
Contacts which are not listed are not used.



3 - 4-pin connector - T4al-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

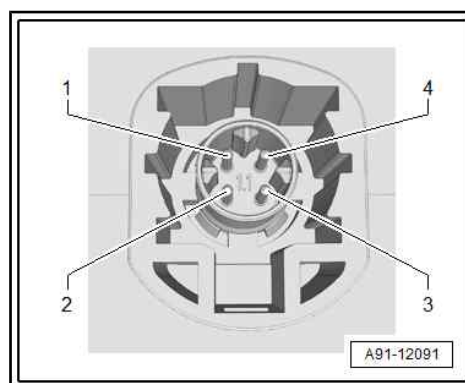
- 1 - LVDS (-)
- 2 - Not used
- 3 - LVDS (+)
- 4 - Earth



4 - 4-pin connector - T4w-

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

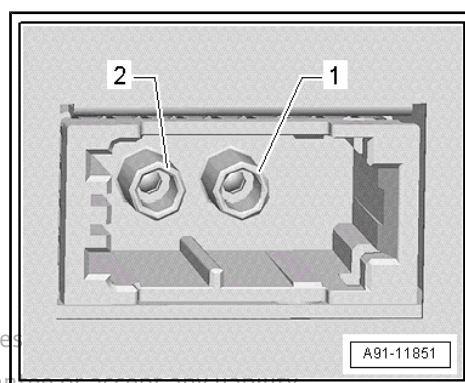
- 1 - D (+)
- 2 - iPod detected
- 3 - D (-)
- 4 - Earth



6 - MOST bus

- 1 - Input
- 2 - Output

7 - Connection block with four multi-pin connectors

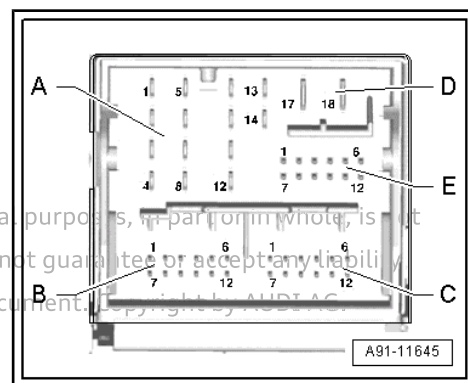


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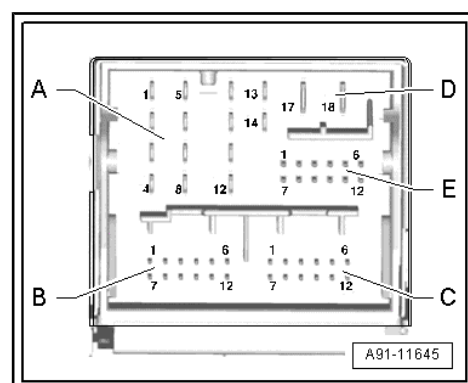
A - 8-pin connector - T8ag-

- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left



B - 12-pin connector - T12x-

- 1 - Microphone input (+) from microphone unit in front roof module - R164-, telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (+) (low frequency) from pre-fitted components for mobile phone installation
- 5 - NF mute (low frequency) from pre-fitted components for mobile phone installation
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164-, telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (-) (low frequency) from pre-fitted components for mobile phone installation
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-

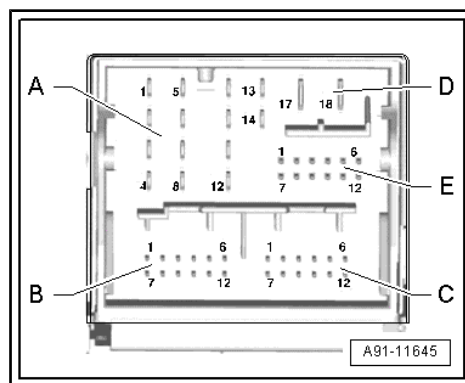




C - 12-pin connector - T12y-

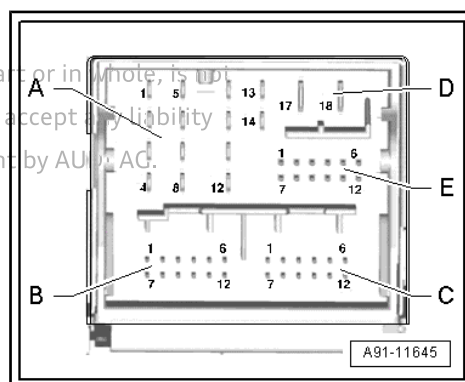
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - iPod, ACC power
- 6 - Detect
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - FBAS wire (+)
- 10 - FBAS wire (-)
- 11 - iPod data
- 12 - iPod data



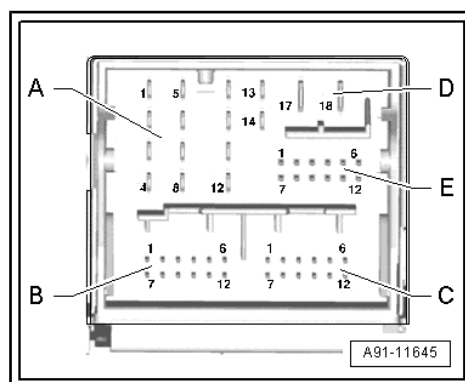
D - 8-pin connector - T8j-

- 9 - Subwoofer - R211 (+)
- 10 - Centre loudspeaker - R208 (+)
- 13 - Subwoofer - R211 (-)
- 14 - Centre loudspeaker - R208 (-)
- 17 - Terminal 31
- 18 - Terminal 30



E - 12-pin connector - T12v-

- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset -J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment





6.4.2 MMI navigation system plus (7UG), up to model year 2016

Control unit 1 for information electronics - J794-

- 1 - GSM connection from telephone aerial - R65- or two GSM connections from LTE aerial 1 - R297- / LTE aerial 2 - R306-
- 2 - DAB connection from digital radio aerial - R183-
- 3 - Connection block with four multi-pin connectors
- 4 - MOST bus
- 5 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 6 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 7 - 4-pin connector - T4ar- to chip card reader control unit - J676- , Japan only
- 8 - Not used
- 9 - Aerial connection, AM/FM/FM2
- 10 - GPS connection from GPS aerial - R50-

NAR, I8G and QV3 only

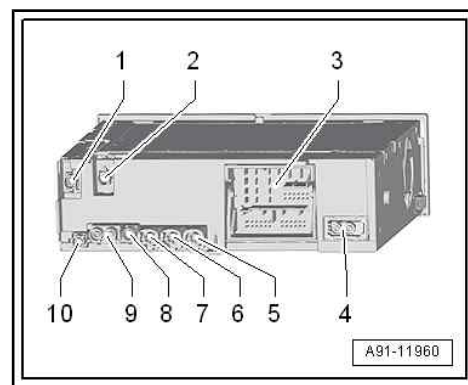
- 1 - GSM connection from telephone aerial - R65- or two GSM connections from LTE aerial 1 - R297- / LTE aerial 2 - R306-
- 2 - SDARS connection from satellite tuner aerial - R172-
- 3 - Connection block with four multi-pin connectors
- 4 - MOST bus
- 5 - 4-pin connector - T4al- to display unit for front information display and operating unit control unit - J685-
- 6 - 4-pin connector - T4w- to connection for external audio sources - R199-
- 7 - Not used
- 8 - Not used
- 9 - Aerial connection, AM/FM/FM2
- 10 - GPS connection from GPS aerial - R50-



Note

Contacts which are not listed are not used.

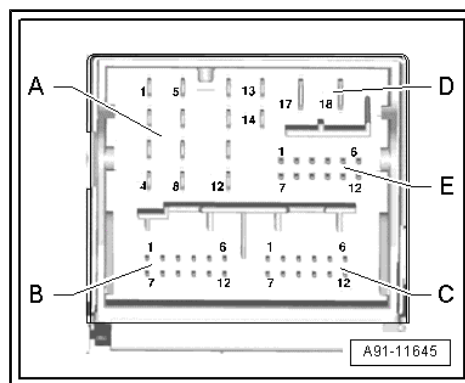
3 - Connection block with four multi-pin connectors





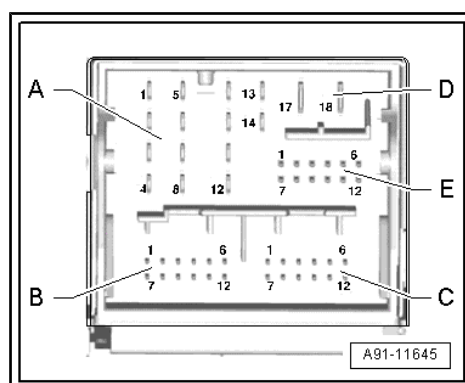
A - 8-pin connector - T8ag-

- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left



B - 12-pin connector - T12x-

- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (+) (low frequency) from pre-fitted components for mobile phone installation
- 5 - NF mute (low frequency) from pre-fitted components for mobile phone installation
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (-) (low frequency) from pre-fitted components for mobile phone installation
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



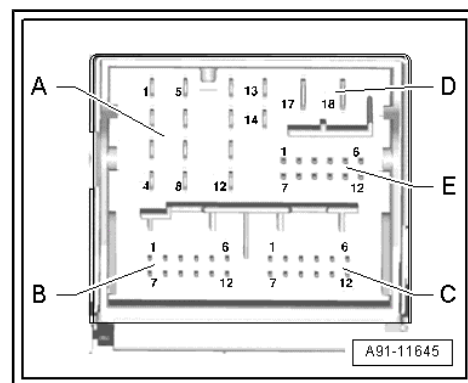
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C - 12-pin connector - T12y-

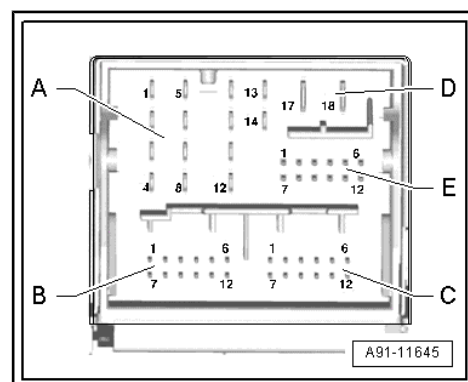
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - iPod, ACC power
- 6 - Detect
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - FBAS wire (+)
- 10 - FBAS wire (-)
- 11 - iPod data
- 12 - iPod data



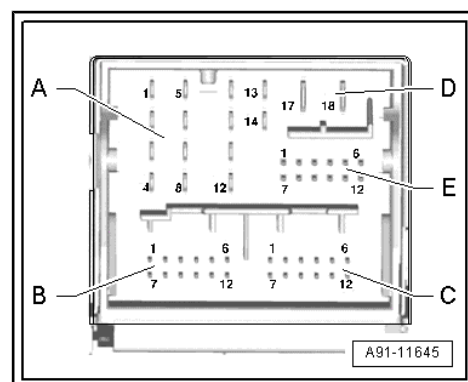
D - 8-pin connector - T8j-

- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30



E - 12-pin connector - T12v-

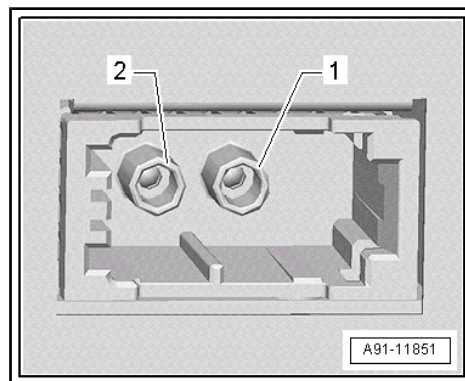
- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset - J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment





4 - MOST bus

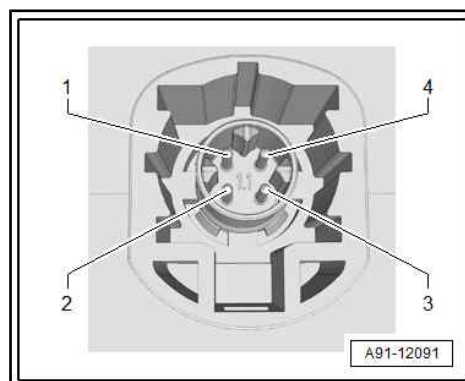
- 1 - Input
- 2 - Output



5 - 4-pin connector - T4al-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

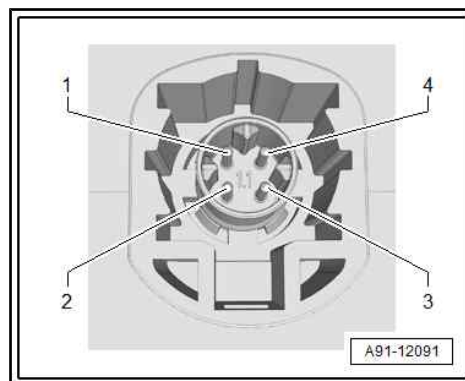
- 1 - LVDS (-)
- 2 - Not used
- 3 - LVDS (+)
- 4 - Earth



6 - 4-pin connector - T4w-

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

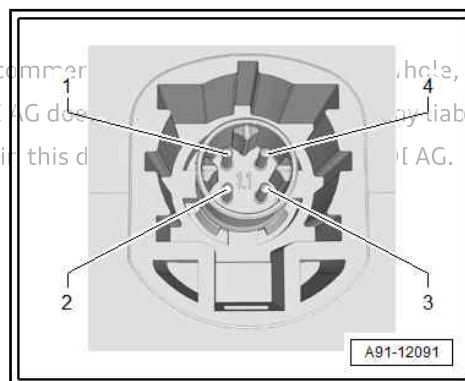
- 1 - D (+)
- 2 - iPod detected
- 3 - D (-)
- 4 - Earth



7 - 4-pin connector - T4ar- , Japan only

All pins are connected to the chip card reader control unit - J676-

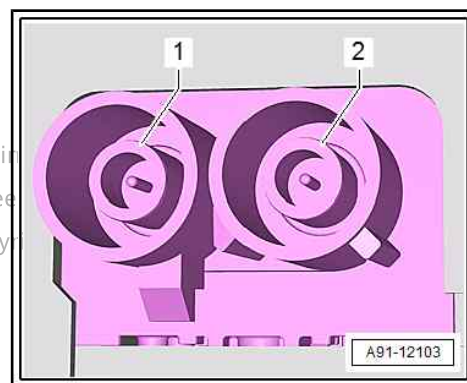
- 1 - Earth
- 2 - Data (-)
- 3 - Power supply, +5 V
- 4 - Data (+)





9 - Aerial connection, AM/FM1/FM2

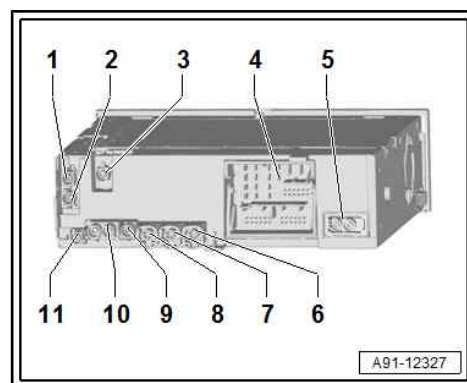
- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



6.4.3 Standard navigation system (7UF), MMI navigation system plus (7UG), from model year 2017 onwards

Control unit 1 for information electronics - J794- , all models except NAR vehicles

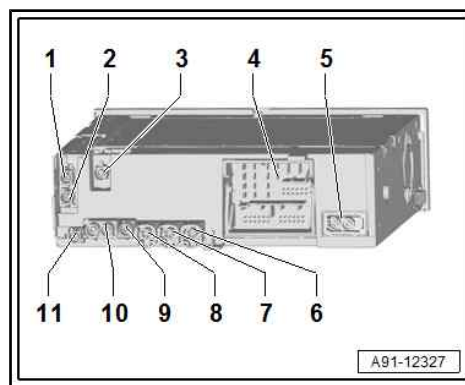
- 1 - LTE connection from LTE aerial 2 - R306-
- 2 - LTE connection from LTE aerial 1 - R297-
- 3 - DAB connection from digital radio aerial - R183-
- 4 - Connection block with four multi-pin connectors
- 5 - MOST bus
- 6 - 4-pin connector - T4ej- to display unit for front information display and operating unit control unit - J685-
- 7 - 4-pin connector - T4ef- to USB hub - R293-
- 8 - 4-pin connector - T4dx- to dash panel insert - KX2-
- 9 - Not used/not fitted
- 10 - Aerial connection, AM/FM/FM2
- 11 - GPS connection from GPS aerial - R50-





Control unit 1 for information electronics - J794- , NAR vehicles only

- 1 - LTE connection from LTE aerial 2 - R306-
- 2 - LTE connection from LTE aerial 1 - R297-
- 3 - SDARS connection from satellite tuner aerial - R172-
- 4 - Connection block with four multi-pin connectors
- 5 - MOST bus
- 6 - 4-pin connector - T4ej- to display unit for front information display and operating unit control unit - J685-
- 7 - 4-pin connector - T4ef- to USB hub - R293-
- 8 - 4-pin connector - T4dx- to dash panel insert - KX2-
- 9 - Not used/not fitted
- 10 - Aerial connection, AM/FM/FM2
- 11 - GPS connection from GPS aerial - R50-



Note

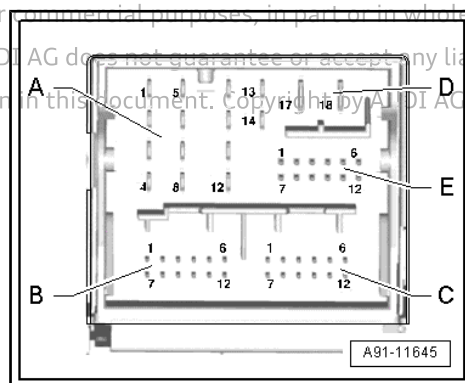
Contacts which are not listed are not used.



4 - Connection block with four multi-pin connectors

A - 8-pin connector - T8ag-

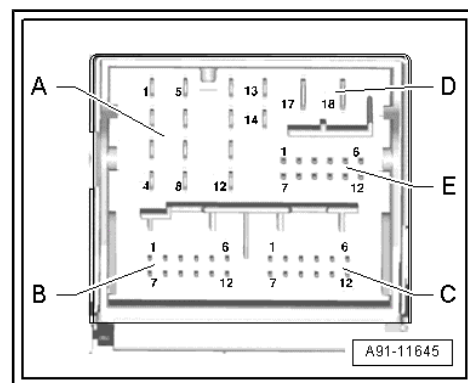
- 1 - Loudspeaker (+), rear right
- 2 - Loudspeaker (+), front right
- 3 - Loudspeaker (+), front left
- 4 - Loudspeaker (+), rear left
- 5 - Loudspeaker (-), rear right
- 6 - Loudspeaker (-), front right
- 7 - Loudspeaker (-), front left
- 8 - Loudspeaker (-), rear left





B - 12-pin connector - T12x-

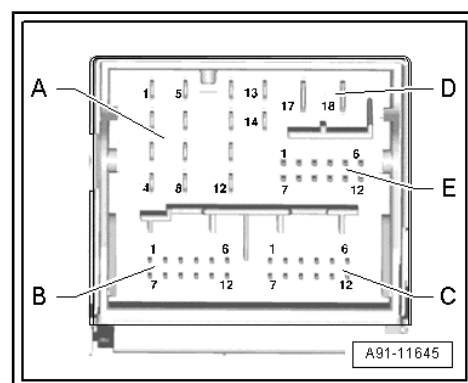
- 1 - Microphone input (+) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 2 - Not used
- 3 - Not used
- 4 - NF (+) (low frequency) from emergency call module control unit and communication unit - J949-
- 5 - NF mute (low frequency) from emergency call module control unit and communication unit - J949-
- 6 - FBAS wire (-) from reversing camera system control unit - J772-
- 7 - Microphone input (-) from microphone unit in front roof module - R164- , telephone microphone - R38-
- 8 - Not used
- 9 - Not used
- 10 - NF (-) (low frequency) from emergency call module control unit and communication unit - J949-
- 11 - Not used
- 12 - FBAS wire (+) from reversing camera system control unit - J772-



C - 12-pin connector - T12y-

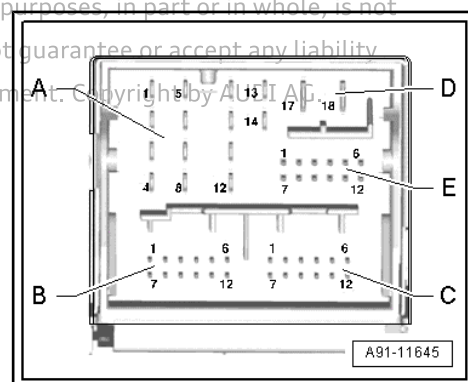
All pins are connected to the connection for external audio sources - R199- .

- 1 - NF in, earth (low frequency)
- 2 - NF in, right-side (low frequency)
- 3 - USB, +5 V
- 4 - USB, earth
- 5 - Not used
- 6 - Not used
- 7 - NF in, left-side (low frequency)
- 8 - NF in, screen earth (low frequency)
- 9 - Not used
- 10 - Not used
- 11 - Not used
- 12 - Not used



D - 8-pin connector - T8j-

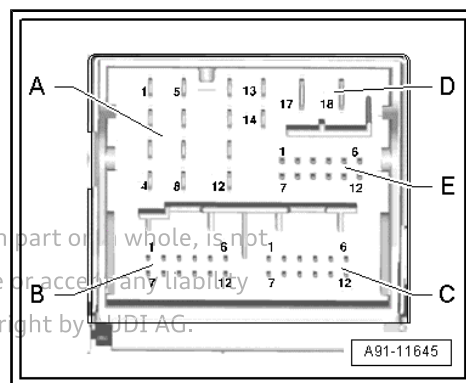
- 9 - Subwoofer - R211- (+)
- 10 - Centre loudspeaker - R208- (+)
- 13 - Subwoofer - R211- (-)
- 14 - Centre loudspeaker - R208- (-)
- 17 - Terminal 31
- 18 - Terminal 30





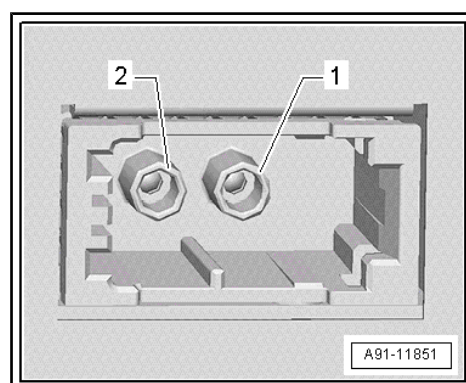
E - 12-pin connector - T12v-

- 1 - CAN bus High to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 2 - Reset to multimedia system operating unit - E380-
- 3 - Open circuit diagnostic lead
- 4 - Not used
- 5 - Switch-on signal to telephone bracket - R126-
- 6 - CAN bus High, infotainment
- 7 - CAN bus Low to multimedia system operating unit - E380- / display unit for front information display and operating unit control unit - J685-
- 8 - Reset -J794- from multimedia system operating unit - E380-
- 9 - Not used
- 10 - Not used
- 11 - Status signal from telephone bracket - R126-
- 12 - CAN bus Low, infotainment



5 - MOST bus

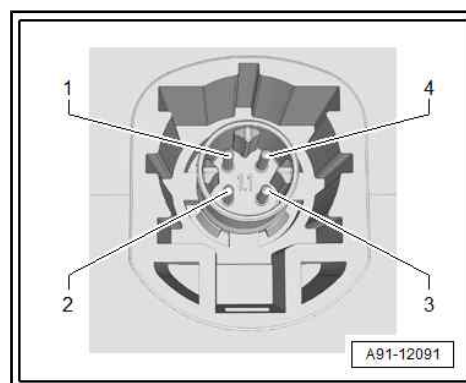
- 1 - Input
- 2 - Output



6 - 4-pin connector - T4ej-

All pins are connected to the display unit for front information display and operating unit control unit - J685- .

- 1 - LVDS (-)
- 2 - Earth
- 3 - LVDS (+)
- 4 - Earth

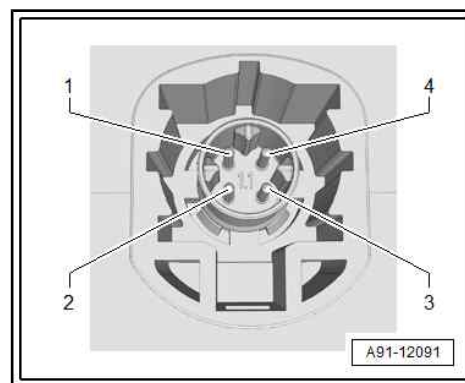




7 - 4-pin connector - T4ef-

All pins are connected to the USB hub - R293- .

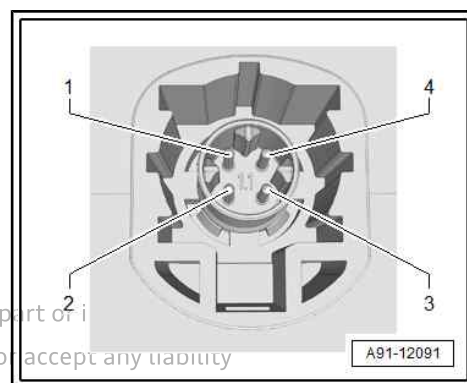
- 1 - USB1 data (+)
- 2 - USB2 data (-)
- 3 - USB1 data (-)
- 4 - USB2 data (+)



8 - 4-pin connector - T4dx-

All pins are connected to the dash panel insert - KX2- .

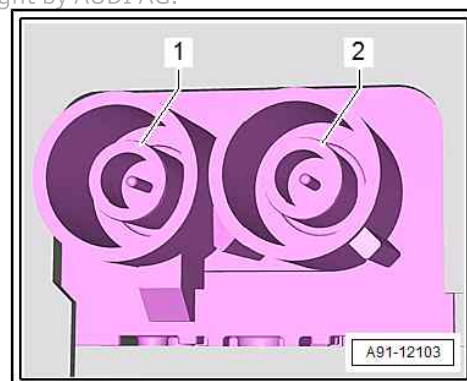
- 1 - LVDS (-)
- 2 - Earth
- 3 - LVDS (+)
- 4 - Earth



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10 - Aerial connection, AM/FM1/FM2

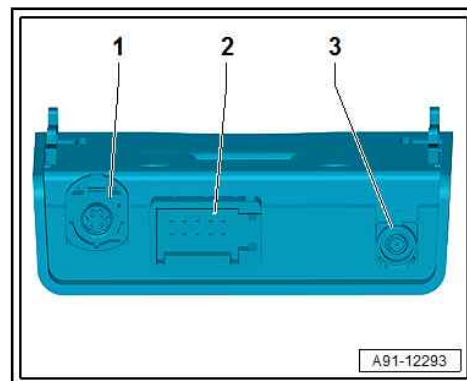
- 1 - Contact 2, AM/FM1 from aerial amplifier - R24- , aerial - R11-
- 2 - Contact 1, FM2 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112- , radio aerial 2 - R93-



6.4.4 Chip card reader control unit - J676-

Chip card reader control unit - J676-

- 1 - 4-pin connector - T4ac- to control unit 1 for information electronics - J794- / USB hub - R293-
- 2 - 10-pin connector - T10z-
- 3 - Connection for dedicated short-range communication aerial - R269-

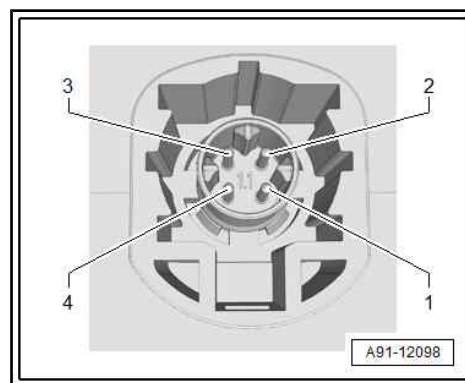




1 - 4-pin connector - T4ac-

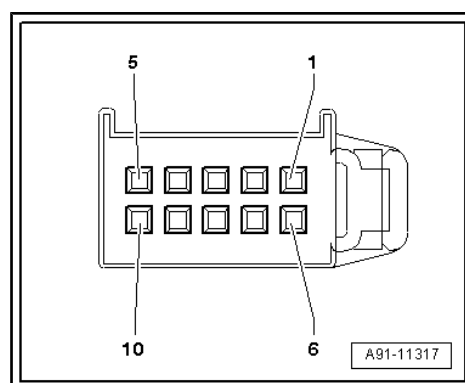
All pins are connected to the control unit 1 for information electronics - J794- / USB hub - R293- .

- 1 - Data (+)
- 2 - Power supply, +5 V
- 3 - Data (-)
- 4 - Earth



2 - 10-pin connector - T10z-

- 1 - Power supply (+) for traffic data aerial - R173-
- 2 - Power supply (-) for traffic data aerial - R173-
- 3 - Data to traffic data aerial - R173-
- 4 - Data from traffic data aerial - R173-
- 5 - Not used
- 6 - Switch-on signal from control unit 1 for information electronics - J794-
- 7 - Diagnosis 1, traffic data aerial - R173- :
- 8 - Diagnosis 2, traffic data aerial - R173- :
- 9 - Power supply (+) for chip card reader control unit - J676-
- 10 - Power supply (-) for chip card reader control unit - J676-



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7 TV system

⇒ [“7.1 Layout - TV system”, page 177](#)

⇒ [“7.2 Overview of fitting locations - TV system”, page 177](#)

⇒ [“7.3 Pin assignment”, page 180](#)

⇒ [“7.4 Removing and installing TV tuner”, page 181](#)

7.1 Layout - TV system

The TV system (QV1) is part of the MMI infotainment system.

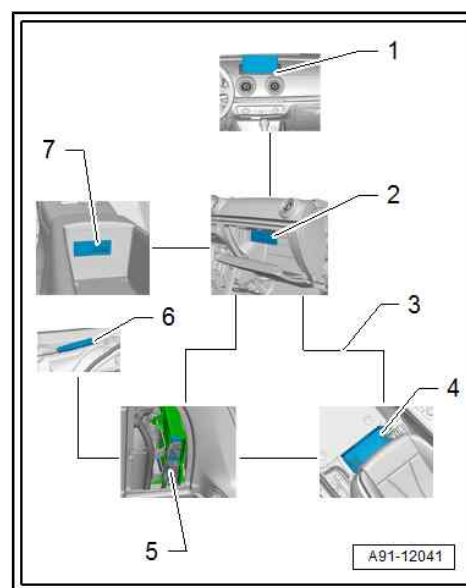
The TV tuner - R78- is connected to the other components of the infotainment system via the MOST bus. The control unit 1 for information electronics - J794- is used for operation.

Fault finding is performed via “Guided Fault Finding” ⇒ Vehicle diagnostic tester.

Repairing aerial wiring ⇒ Electrical system; General information; Rep. gr. 97 ; Repairing wiring harnesses and connectors; Repairing aerial wires

QV1 - TV system

- 1 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)
- 2 - Control unit 1 for information electronics - J794- in glove box
- 3 - MOST bus
- 4 - Digital sound package control unit - J525- under left front seat
- 5 - TV tuner - R78- behind right luggage compartment trim (3-door and 5-door models, Saloon)/behind rear right side trim (Cabriolet)
- 6 - Aerial amplifier on rear lid (3-door and 5-door models)/at D-pillars (Saloon)/at A-pillar and left ledge (Cabriolet)
- 7 - Connection for external multimedia devices in centre console storage compartment



7.2 Overview of fitting locations - TV system

⇒ [“7.2.1 Overview of fitting locations - TV system, 3-door models, 5-door models”, page 177](#)

⇒ [“7.2.2 Overview of fitting locations - TV system, Saloon”, page 179](#)

⇒ [“7.2.3 Overview of fitting locations - TV system, Cabriolet”, page 180](#)

7.2.1 Overview of fitting locations - TV system, 3-door models, 5-door models



1 - Bracket

2 - TV tuner - R78-

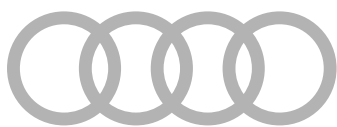
☐ Pin assignment

⇒ [page 180](#)

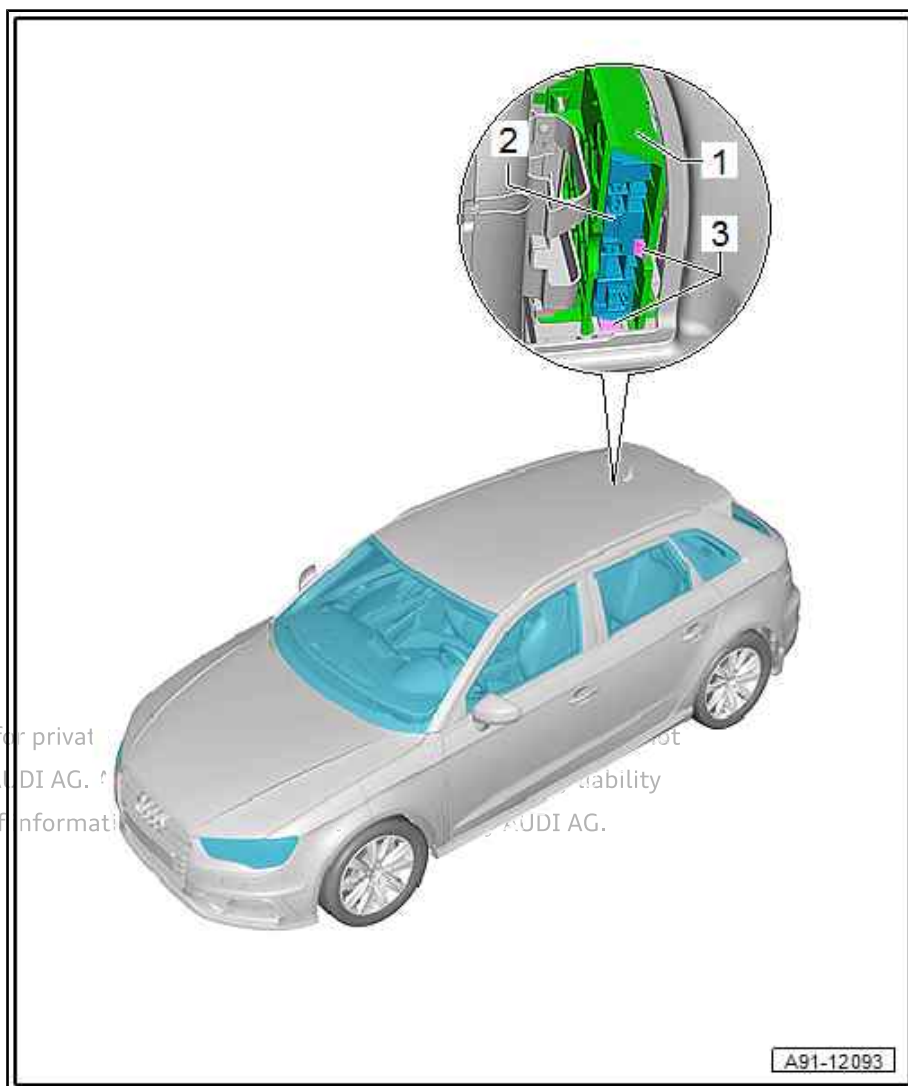
☐ Removing and installing

⇒ [page 181](#)

3 - Lugs



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7.2.2 Overview of fitting locations - TV system, Saloon

1 - Bracket

2 - TV tuner - R78-

- ❑ Pin assignment

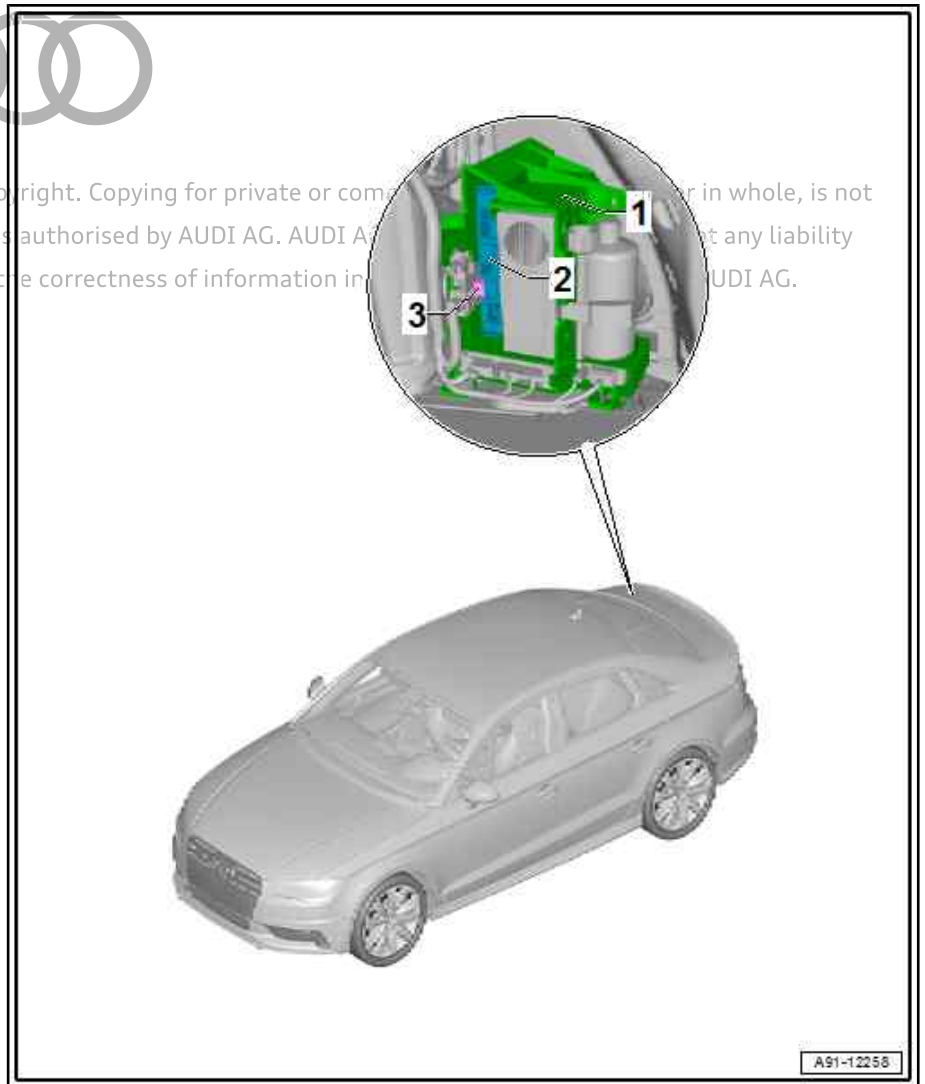
⇒ [page 180](#)

- ❑ Removing and installing

⇒ [page 182](#)

3 - Lug

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7.2.3 Overview of fitting locations - TV system, Cabriolet

1 - Bracket (top)

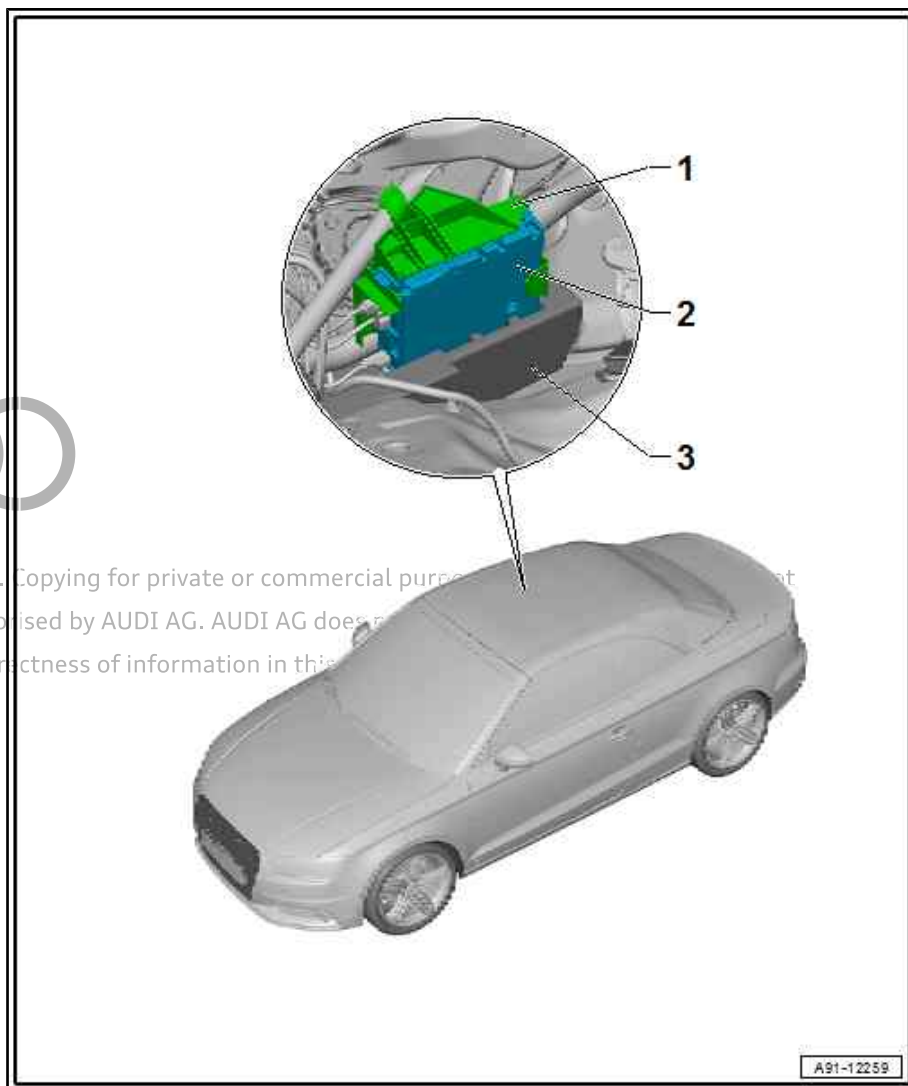
2 - TV tuner - R78-

- ❑ Pin assignment
⇒ [page 180](#)
- ❑ Removing and installing
⇒ [page 184](#)

3 - Bracket (bottom)



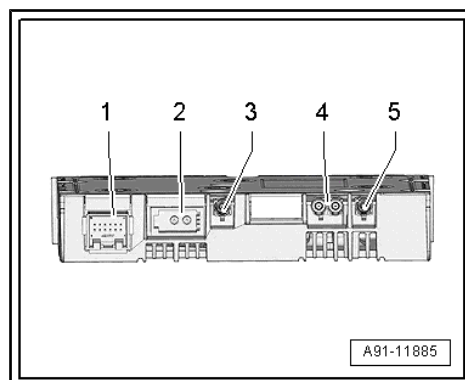
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7.3 Pin assignment

TV tuner - R78-

- 1 - 12-pin connector - T12aa-
- 2 - MOST bus
- 3 - FBAS output to control unit 1 for information electronics - J794- , gradual discontinuation of FBAS wire
- 4 - Aerial connection TV2/TV3 from aerial amplifier 2 - R111- / aerial amplifier 3 - R112-
- 5 - Aerial connection TV1 from aerial amplifier - R24-



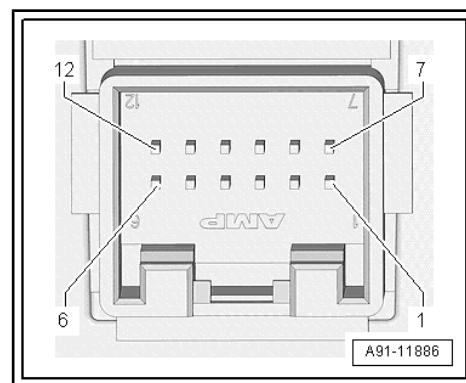
Note

Contacts which are not listed are not used.



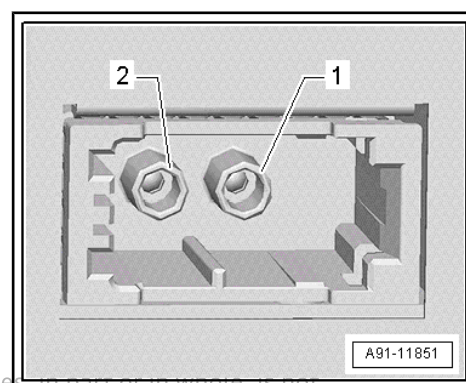
1 - 12-pin connector - T12aa-

- 1 - Terminal 30
- 2 - Terminal 31
- 3 - Open circuit diagnostic lead



2 - MOST bus

- 1 - Input
- 2 - Output



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7.4 Removing and installing TV tuner

⇒ [“7.4.1 Removing and installing TV tuner - 3-door models, 5-door models”, page 181](#)

⇒ [“7.4.2 Removing and installing TV tuner - Saloon”, page 182](#)

⇒ [“7.4.3 Removing and installing TV tuner - Cabriolet”, page 184](#)

7.4.1 Removing and installing TV tuner - 3-door models, 5-door models

Special tools and workshop equipment required

- ◆ Protective cap for cable connector - VAS 6223/9-





TV tuner - R78- -1- is located behind luggage compartment side trim (right-side).

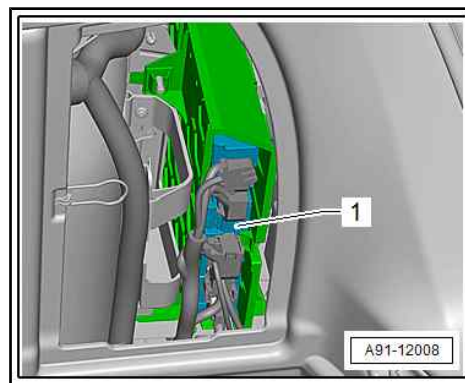


Note

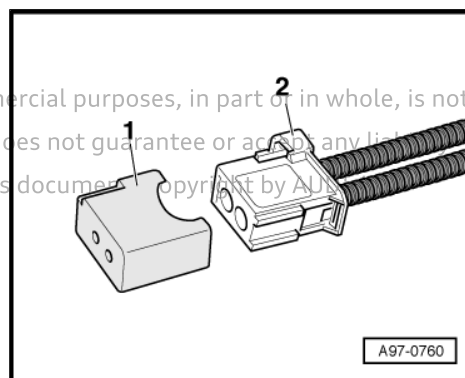
If renewing the control unit, select the "Replace control unit" function for the appropriate control unit ⇒ Vehicle diagnostic tester.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove luggage compartment side trim (right-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - luggage compartment side trim .
- Release and unplug all connectors on TV tuner - R78- .
- Fit protective cap for cable connector - VAS 6223/9- -1- onto MOST bus connector -2-.



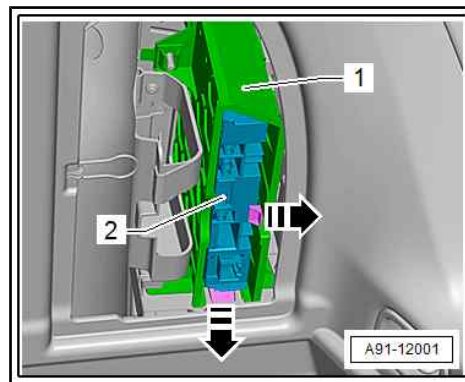
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- Press lugs outwards -arrows- on bracket -1-.
- Pull TV tuner - R78- -2- out of bracket -1-.

Installing

- Install in reverse sequence of removal.

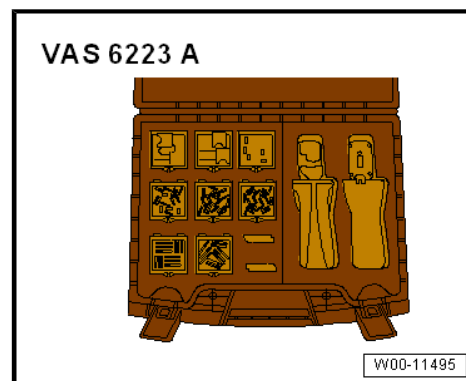


7.4.2 Removing and installing TV tuner - Saloon

Special tools and workshop equipment required



◆ Protective cap for cable connector - VAS 6223/9-



TV tuner - R78- -1- is located behind luggage compartment side trim (right-side).

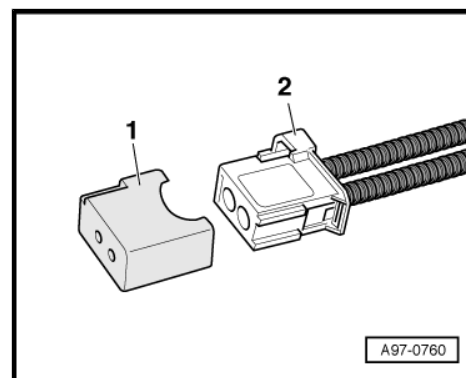
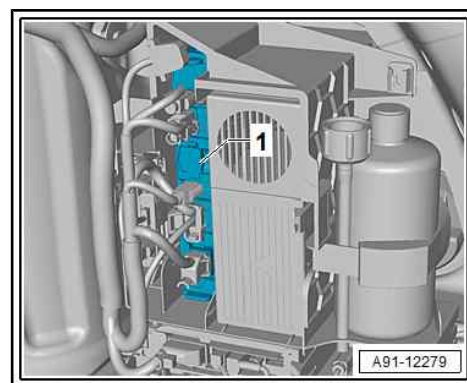


Note

If renewing the control unit, select the "Replace control unit" function for the appropriate control unit ⇒ Vehicle diagnostic tester.

Removing

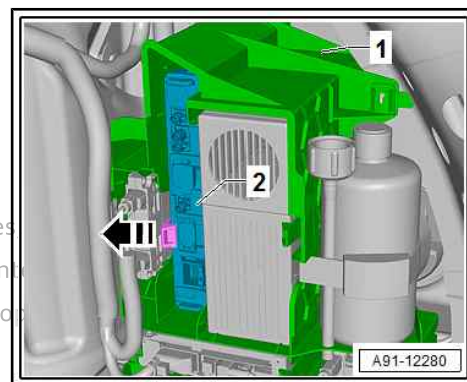
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove luggage compartment side trim (right-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - luggage compartment side trim .
- Release and unplug all connectors on TV tuner - R78- .
- Fit protective cap for cable connector - VAS 6223/9- -1- onto MOST bus connector -2-.



- Press lug on bracket -1- outwards -arrow-.
- Pull TV tuner - R78- -2- out of bracket -1-.

Installing

- Install in reverse sequence of removal.



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7.4.3 Removing and installing TV tuner - Cabriolet

Special tools and workshop equipment required

- ◆ Protective cap for cable connector - VAS 6223/9-



TV tuner - R78- -1- is located behind side trim (right-side).

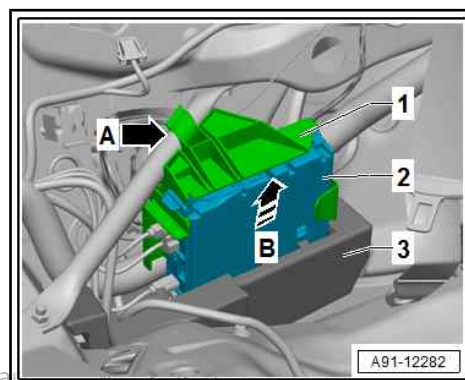
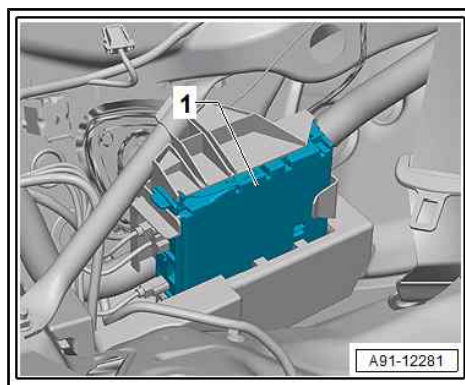


Note

If renewing the control unit, select the "Replace control unit" function for the appropriate control unit → Vehicle diagnostic tester.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove side trim (right-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Passenger compartment trim panels; Exploded view - side trim .
- Unclip bracket (top) -1- from brace -arrow A-.
- Pull bracket (top) -1- with TV tuner - R78- -2- out of bracket (bottom) -3- -arrow B-.
- Release and unplug all connectors on TV tuner - R78- .



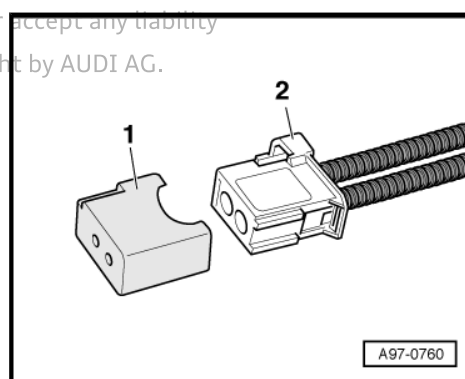
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- Fit protective cap for cable connector - VAS 6223/9- -1- onto MOST bus connector -2-

- Unclip TV tuner - R78- from bracket (top) and detach.

Installing

- Install in reverse sequence of removal.





8 Reversing camera system

⇒ ["8.1 Layout - reversing camera system", page 185](#)

⇒ ["8.2 Overview of fitting locations - reversing camera system", page 187](#)

⇒ ["8.3 Removing and installing reversing camera R189", page 191](#)

⇒ ["8.4 Calibrating reversing camera system", page 194](#)

⇒ ["8.5 Removing and installing reversing camera system control unit J772", page 200](#)

⇒ ["8.6 Connectors on reversing camera system control unit J772", page 203](#)

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8.1 Layout - reversing camera system

⇒ ["8.1.1 Layout - reversing camera system, up to model year 2016", page 185](#)

⇒ ["8.1.2 Layout - reversing camera system, from model year 2017 onwards", page 186](#)

8.1.1 Layout - reversing camera system, up to model year 2016

The reversing camera system provides assistance to the driver when driving the vehicle backwards; the information about the prevailing traffic conditions behind the vehicle is supplied to the driver via the display unit for front information display and operating unit control unit - J685-.

The system will be switched on as soon as reverse gear is engaged. The system can be activated manually by operating the parking aid button - E266- in the dash panel (optional).

The reversing camera system consists of the following components:

- ◆ Reversing camera - R189-
- ◆ Reversing camera system control unit - J772-
- ◆ Control unit 1 for information electronics - J794-
- ◆ Steering wheel with steering angle sender - G85-

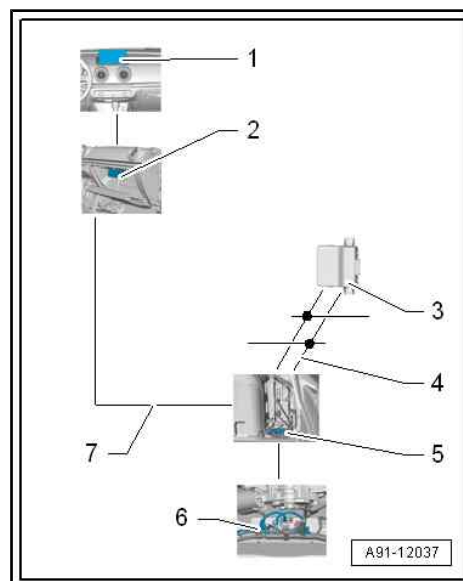
As an option, other control units may also be installed.

Do not fit an additional number plate on vehicles equipped with reversing camera system as this will impair the function of the reversing camera system.



Fault finding is performed via the "Guided Fault Finding" function using ⇒ Vehicle diagnostic tester.

- 1 - Display unit for front information display and operating unit control unit - J685- in dash panel (centre)
- 2 - Control unit 1 for information electronics - J794- in glove box
- 3 - Data bus diagnostic interface - J533- behind shelf on front passenger side
- 4 - Infotainment CAN bus
- 5 - Reversing camera system control unit - J772- behind luggage compartment side trim (right-side)
- 6 - Reversing camera - R189- in rear lid
- 7 - FBAS wire to control unit 1 for information electronics - J794-



8.1.2 Layout - reversing camera system, from model year 2017 onwards

The reversing camera system (KA2) provides assistance to the driver when driving the vehicle backwards in both parallel and perpendicular parking manoeuvres, while towing a trailer and when monitoring cross-traffic; the information about the prevailing traffic conditions behind the vehicle is supplied to the driver via the display unit for front information display and operating unit control unit - J685- .

The system will be switched on as soon as reverse gear is engaged. The system can be activated manually by operating the parking aid button - E266- in the dash panel (optional).

The reversing camera system consists of the following components:

- ◆ Reversing camera - R189-
- ◆ Reversing camera system control unit - J772- (integrated in reversing camera - R189-)
- ◆ Control unit 1 for information electronics - J794-
- ◆ Display unit for front information display and operating unit control unit - J685-

As an option, other control units may also be installed.

Do not fit an additional number plate on vehicles equipped with reversing camera system as this will impair the function of the reversing camera system.

Fault finding is performed via the "Guided Fault Finding" function using ⇒ Vehicle diagnostic tester.

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8.2 Overview of fitting locations - reversing camera system

⇒ ["8.2.1 Overview of fitting locations - reversing camera system, 3-door models, 5-door models, up to model year 2016", page 187](#)

⇒ ["8.2.2 Overview of fitting locations - reversing camera system, Saloon, up to model year 2016", page 188](#)

⇒ ["8.2.3 Overview of fitting locations - reversing camera system, Cabriolet, up to model year 2016", page 189](#)

⇒ ["8.2.4 Overview of fitting locations - reversing camera system, from model year 2017 onwards", page 190](#)

8.2.1 Overview of fitting locations - reversing camera system, 3-door models, 5-door models, up to model year 2016

1 - Reversing camera - R189-in handle

- ☐ Removing and installing
⇒ [page 191](#)
- ☐ Calibration ⇒ [page 194](#)

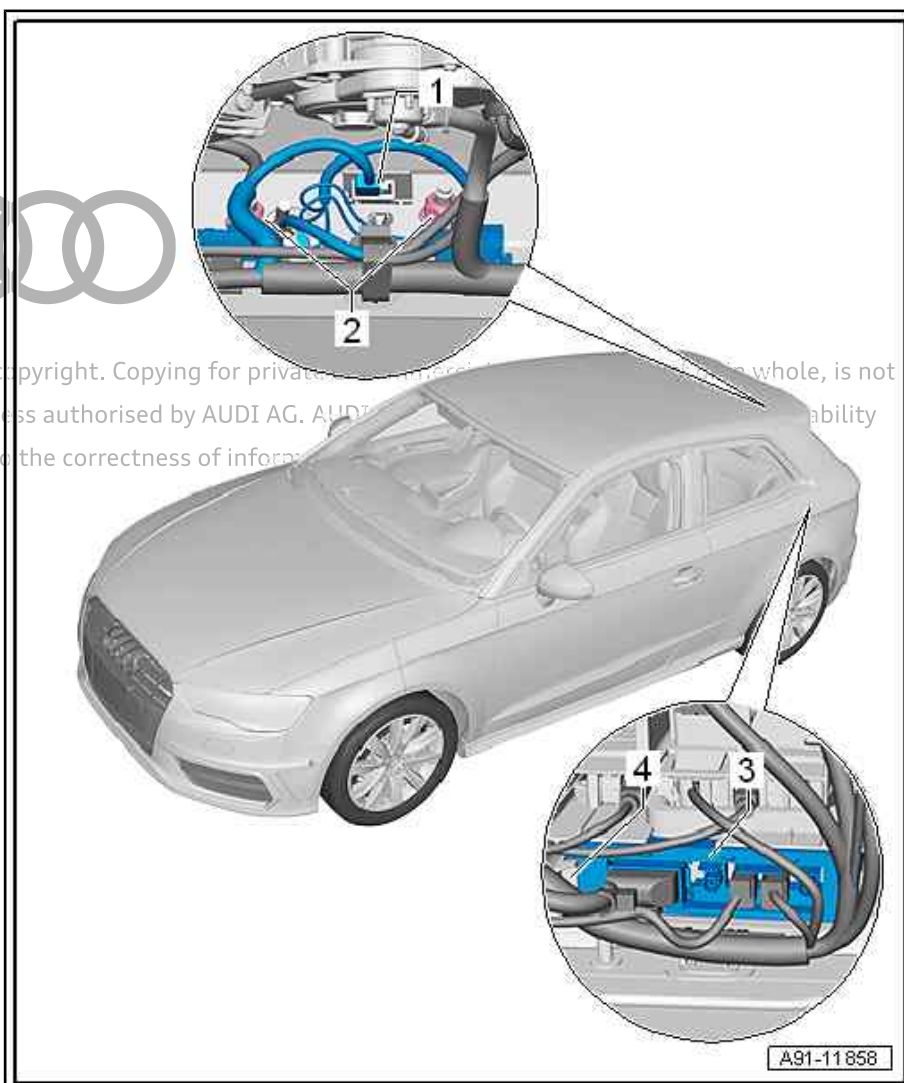
2 - Nut

- ☐ 2x
- ☐ 6 Nm

3 - Reversing camera system control unit - J772-

- ☐ Pin assignment
⇒ [page 203](#)
- ☐ Removing and installing
⇒ [page 200](#)
- ☐ Calibration ⇒ [page 194](#)

4 - Lug





8.2.2 Overview of fitting locations - reversing camera system, Saloon, up to model year 2016

1 - Reversing camera system control unit - J772-

- ☐ Pin assignment
⇒ [page 203](#)
- ☐ Removing and installing
⇒ [page 201](#)
- ☐ Calibration ⇒ [page 194](#)

2 - Lugs

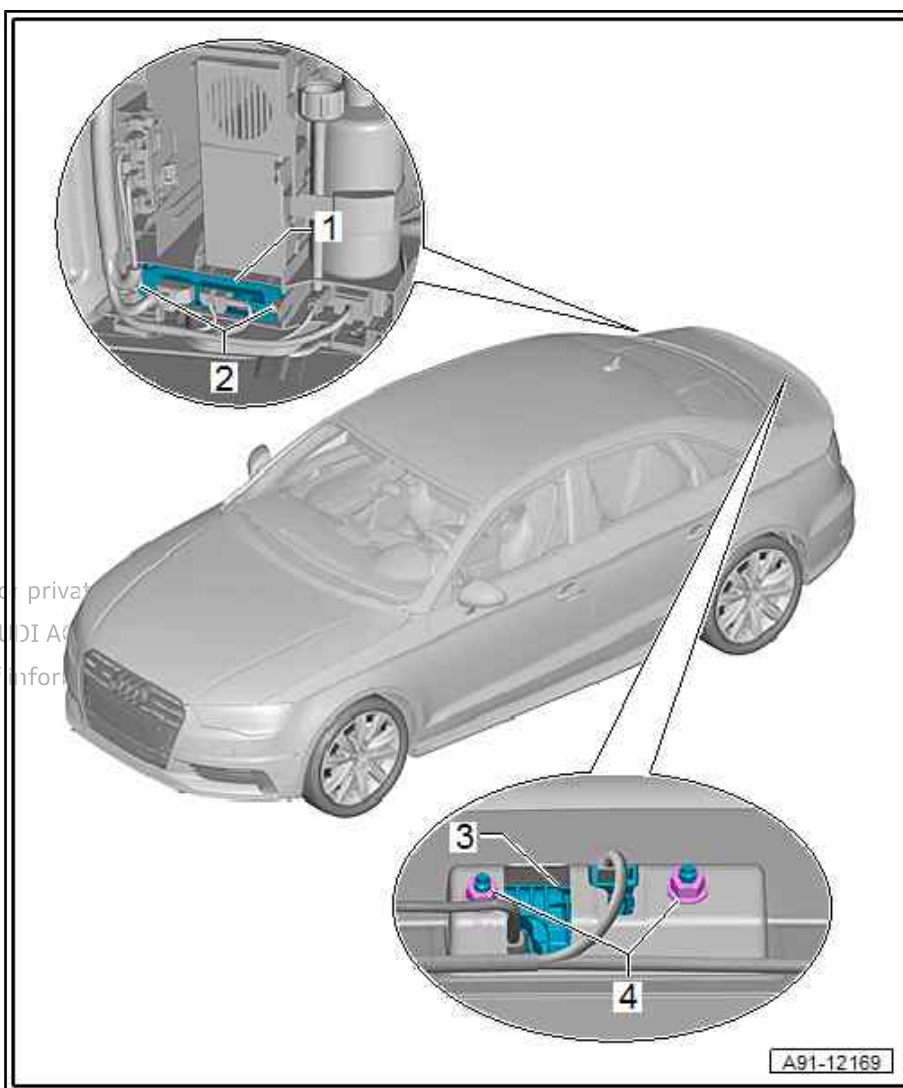
3 - Reversing camera - R189-in handle

- ☐ Removing and installing
⇒ [page 192](#)
- ☐ Calibration ⇒ [page 194](#)

4 - Nut

- ☐ 2x
- ☐ 4 Nm

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8.2.3 Overview of fitting locations - reversing camera system, Cabriolet, up to model year 2016

1 - Reversing camera system control unit - J772-

- ☐ Pin assignment
⇒ [page 203](#)
- ☐ Removing and installing
⇒ [page 201](#)
- ☐ Calibration ⇒ [page 194](#)

2 - Nut

- ☐ 4 Nm

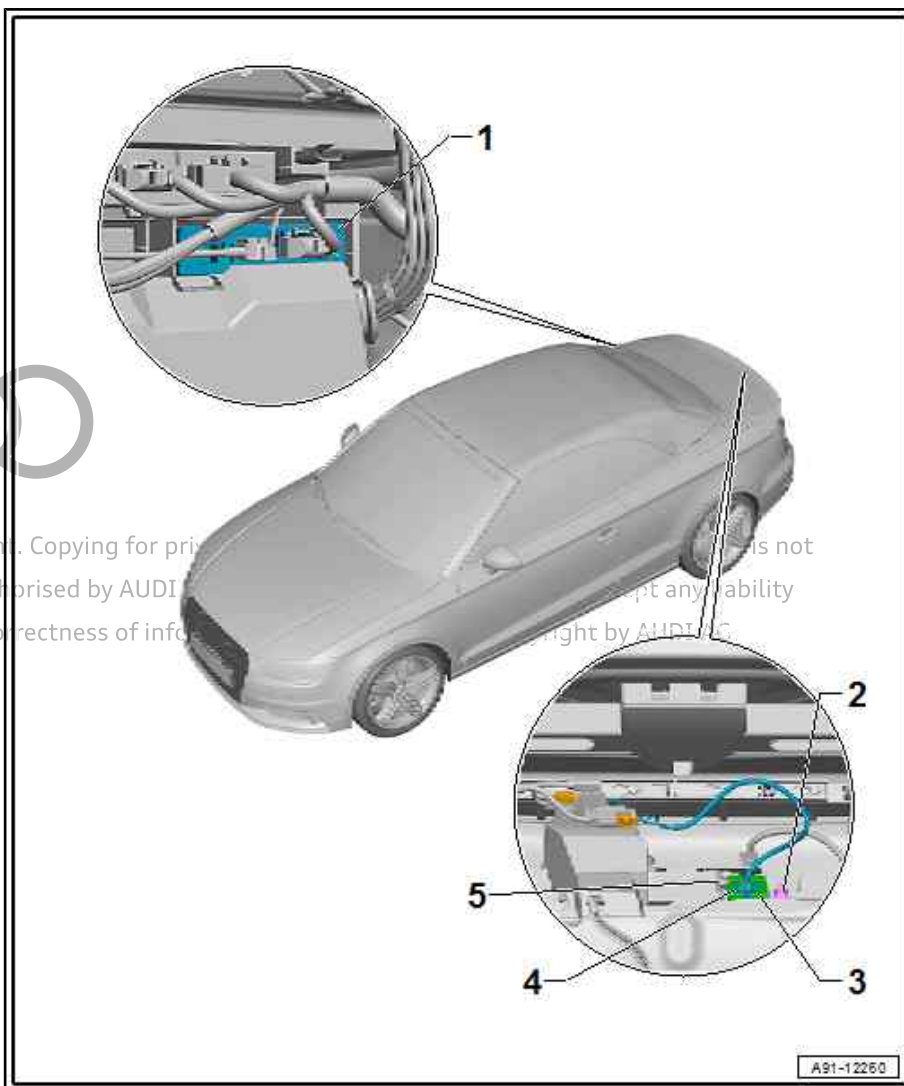
3 - Retaining plate

4 - Reversing camera - R189-in handle

- ☐ Removing and installing
⇒ [page 193](#)
- ☐ Calibration ⇒ [page 194](#)

5 - Bolt

- ☐ 5 Nm





8.2.4 Overview of fitting locations - reversing camera system, from model year 2017 onwards



Note

The fitting locations are shown on a 5-door model as an example; they are identical on other vehicle types.

1 - Display unit for front information display and operating unit control unit - J685-

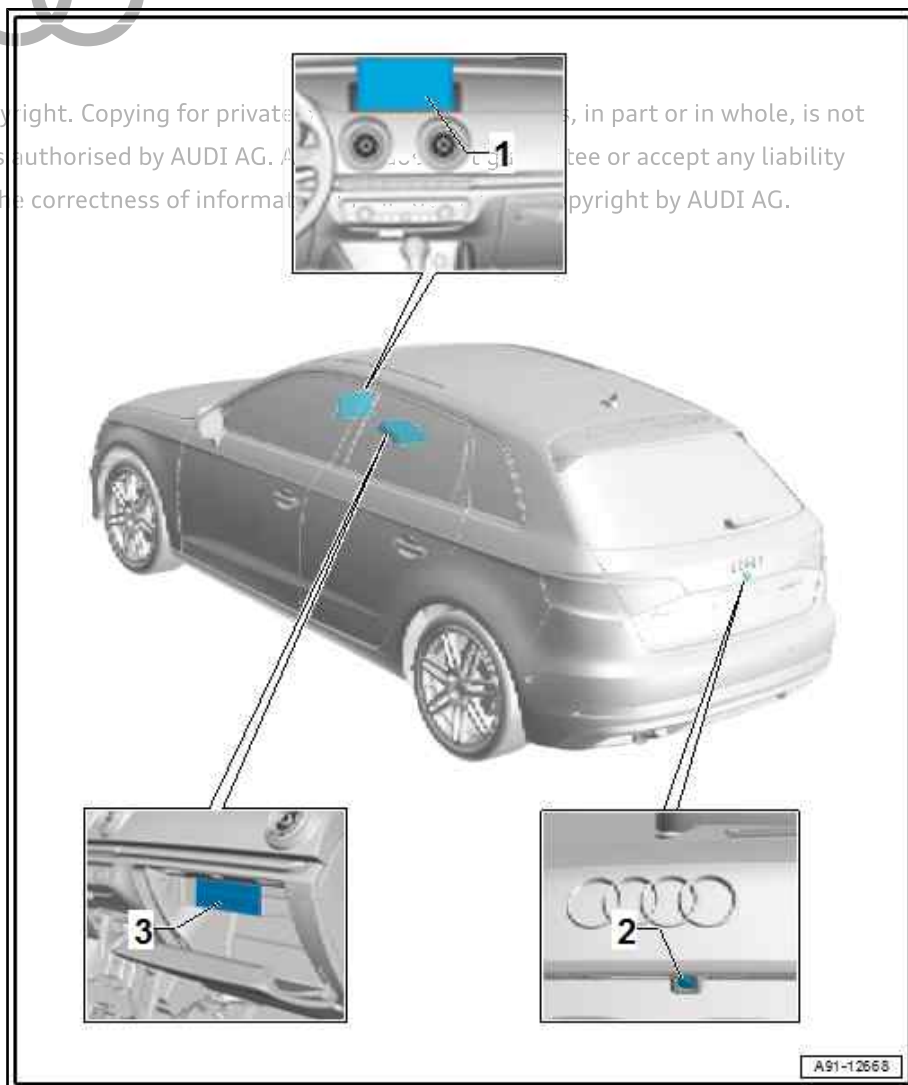
- ☐ Pin assignment [⇒ page 20](#)
- ☐ Removing and installing [⇒ page 4](#)

2 - Reversing camera - R189-

- ☐ With reversing camera system control unit - J772-
- ☐ Pin assignment [⇒ page 203](#)
- ☐ Removing and installing [⇒ page 191](#)
- ☐ Calibration [⇒ page 194](#)

3 - Control unit 1 for information electronics - J794-

- ☐ Pin assignment [⇒ page 102](#)
- ☐ Removing and installing [⇒ page 6](#)





8.3 Removing and installing reversing camera - R189-

⇒ ["8.3.1 Removing and installing reversing camera R189 - 3-door models, 5-door models", page 191](#)

⇒ ["8.3.2 Removing and installing reversing camera R189 - Saloon", page 192](#)

⇒ ["8.3.3 Removing and installing reversing camera R189 - Cabriolet", page 193](#)

8.3.1 Removing and installing reversing camera - R189- - 3-door models, 5-door models

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1410-



Reversing camera - R189- is installed in rear lid in handle and is permanently fitted in handle.

When renewing the reversing camera - R189- the handle must also be renewed.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear lid trim (bottom) ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - rear lid trim (bottom) .

The reversing camera - R189- is equipped with a trailing cable. The connectors to the vehicle wiring harness are located in the rear lid.



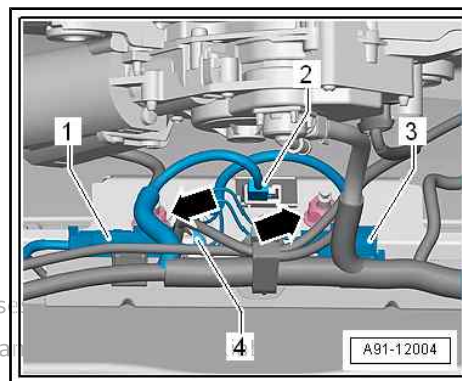
- Release and unplug connectors -1-, -2- and -3- in rear lid.

Reversing camera - R189- -4- is permanently fitted in handle.

- Remove nuts -arrows-.
- Pull handle -4- together with reversing camera - R189- out of mounting in rear lid.

Installing

- Installation is carried out in reverse sequence; note the following:
- Close rear lid.
- Perform calibration [⇒ page 194](#).



Tightening torques

- ♦ [⇒ "8.2.1 Overview of fitting locations - reversing camera system, 3-door models, 5-door models, up to model year 2016", page 187](#)

8.3.2 Removing and installing reversing camera - R189- - Saloon

Special tools and workshop equipment required

- ♦ Torque wrench - V.A.G 1410-



Reversing camera - R189- is installed in rear lid in handle and is permanently fitted in handle.

When renewing the reversing camera - R189- the handle must also be renewed.

Removing

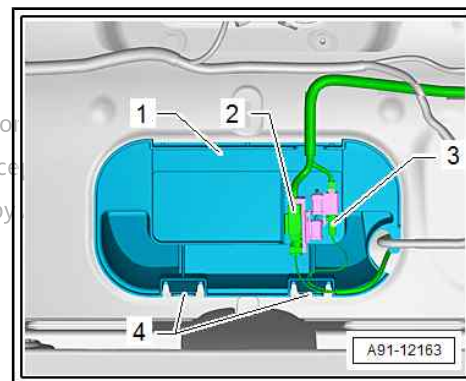
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear lid trim ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - rear lid trim (bottom) .

The reversing camera - R189- is equipped with a trailing cable. The connectors to the vehicle wiring harness are located in the rear lid.



- Release and unplug connectors -2- and -3-.
- If necessary, unclip connectors -2- and -3- from anti-theft protection -1-.
- Release tab -4- on anti-theft protection -1- and detach anti-theft protection -1- from rear lid.

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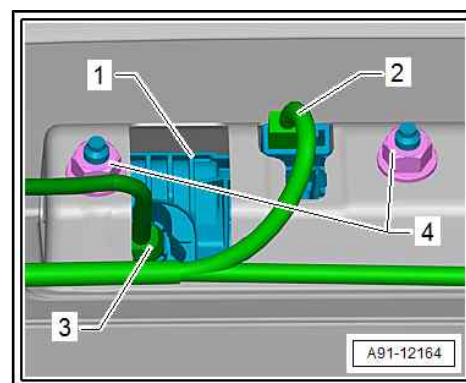


Reversing camera - R189- -3- is permanently fitted in handle.

- Release and unplug connectors -2- on handle.
- Remove nuts -4-.
- Pull handle -1- together with reversing camera - R189- -3- out of mounting in rear lid.

Installing

- Installation is carried out in reverse sequence; note the following:
- Close rear lid.
- Perform calibration ⇒ [page 194](#) .



Tightening torques

- ◆ ⇒ [“8.2.2 Overview of fitting locations - reversing camera system, Saloon, up to model year 2016”, page 188](#)

8.3.3 Removing and installing reversing camera - R189- - Cabriolet

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1410-





◆ Torque screwdriver - V.A.G 1624-

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The reversing camera - R189- is installed in the handle in the rear lid.

Removing

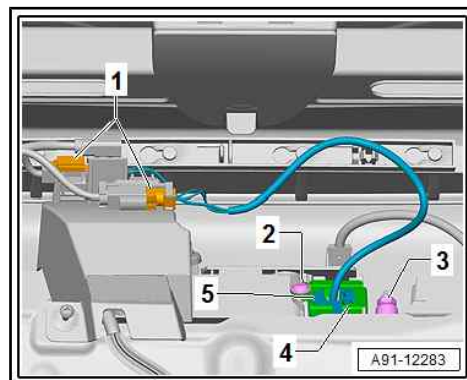
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove rear lid trim ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - rear lid trim (bottom) .

The reversing camera - R189- is equipped with a trailing cable. The connectors to the vehicle wiring harness are located in the rear lid.

- Release and unplug connectors -1-.
- Remove bolt -2-.
- Unscrew nut -3-.
- Detach retaining plate -4-.
- Pull reversing camera - R189- -5- out of handle trim.

Installing

- Installation is carried out in reverse sequence; note the following:
- Close rear lid.
- Perform calibration ⇒ [page 194](#) .



Tightening torques

- ◆ ⇒ [“8.2.3 Overview of fitting locations - reversing camera system, Cabriolet, up to model year 2016”, page 189](#)

8.4 Calibrating reversing camera system

⇒ [“8.4.1 Setting up and aligning calibration unit VAS 6350”, page 194](#)

⇒ [“8.4.2 Calibrating reversing camera R189”, page 197](#)

8.4.1 Setting up and aligning calibration unit - VAS 6350-

After performing service work on the vehicle it may be necessary to re-calibrate the reversing camera system. This is required after:

- ◆ Removing and installing reversing camera - R189-
- ◆ Renewing reversing camera system control unit - J772-
- ◆ Performing accident repair work on rear lid



- ◆ Changes to wheel alignment on rear axle

Requirements for calibration

- ◆ Camera lens must be clean.
- ◆ Vehicle must be positioned on a firm and even surface.

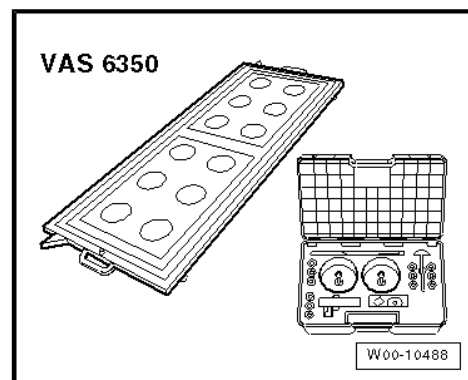
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- ◆ There must be sufficient space around the vehicle (at least 2 m).
- ◆ Parking brake must be activated.
- ◆ Steering wheel must be in centre position, wheels must be straight.
- ◆ All doors and the rear lid must be closed.
- ◆ There must not be anyone inside the vehicle.
- ◆ Vehicle must not be loaded (unladen weight).
- ◆ The battery charger must be connected.
- ◆ The ignition must be switched on.

Special tools and workshop equipment required

- ◆ Calibration unit - VAS 6350-



- ◆ ⇒ Vehicle diagnostic tester

The calibration unit - VAS 6350- consists of the following items:

- ◆ Wheel centre mounting - VAS 6350/1-
- ◆ Spacing laser - VAS 6350/2-
- ◆ Linear laser - VAS 6350/3-

Overview of calibration equipment - VAS 6350- when set up



Note

The vehicle in the illustration is only intended to serve as an example.



1 - Wheel centre mounting - VAS 6350/1-

2 - Wheel centre mounting - VAS 6350/1-

3 - Locating bracket (right-side)

- ☐ Mounting for spacing laser - VAS 6350/2-

4 - Plastic foot

- ☐ Three on underside of calibration platform
- ☐ Adjustable, for aligning horizontal position of calibration platform

5 - Linear laser - VAS 6350/3-

- ☐ On calibration platform
- ☐ Switching on and off ⇒ Owner's Manual

6 - Spacing laser - VAS 6350/2-

- ☐ On calibration platform
- ☐ Operating instructions ⇒ Owner's Manual

7 - Spirit level

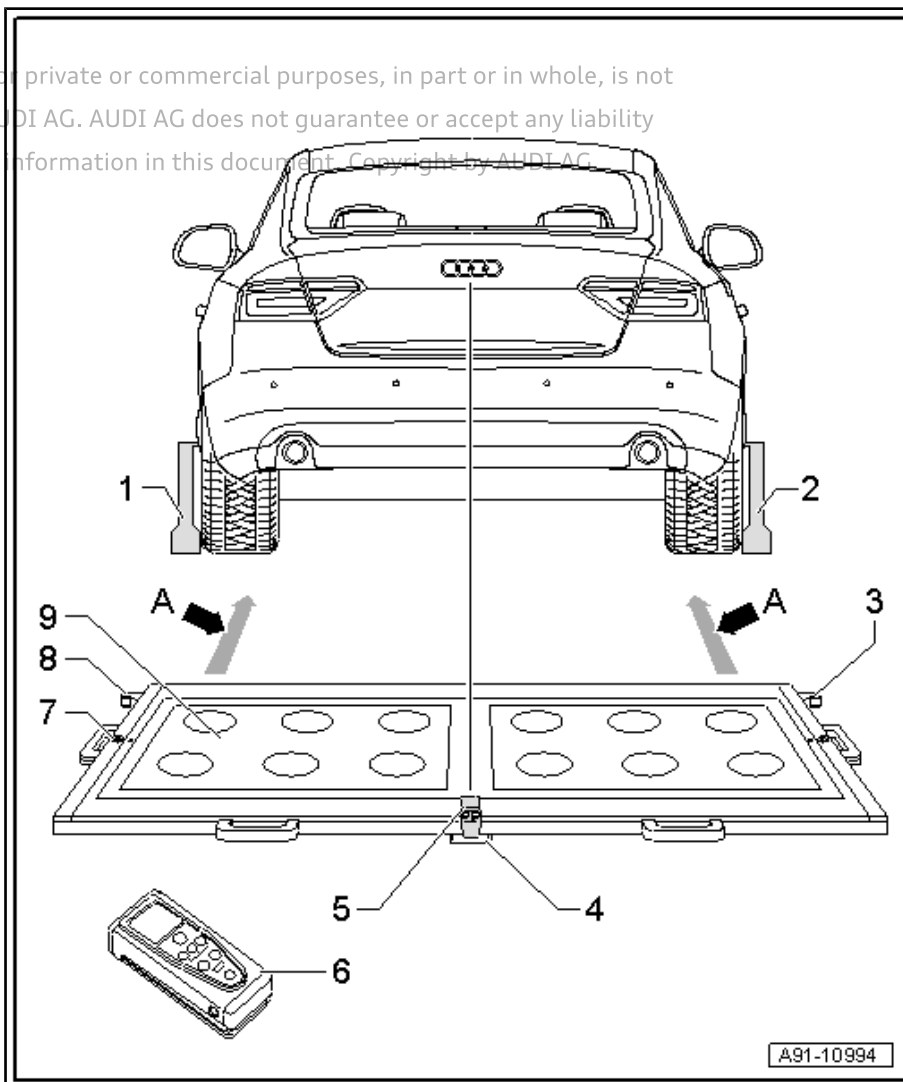
- ☐ On calibration platform
- ☐ For checking horizontal position

8 - Locating bracket (left-side)

- ☐ Mounting for spacing laser - VAS 6350/2-

9 - Calibration platform

- ☐ -Dimension A- = 1.47 m - 1.90 m between locating brackets of calibration platform and wheel centre mountings - VAS 6350/1-



Aligning calibration platform

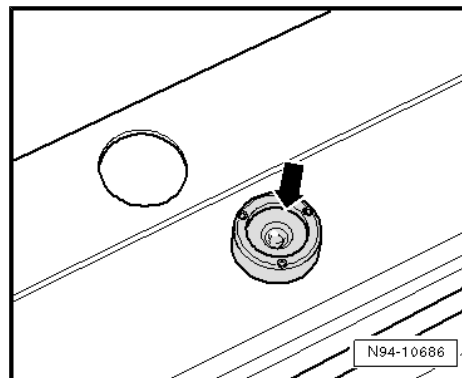
- Position calibration platform behind vehicle at a distance of 1.47 m - 1.90 m from rear wheels, refer to -dimension A- in overview ⇒ [page 195](#).
- Move calibration unit - VAS 6350- to a horizontal position.
- To do so, turn plastic feet beneath calibration platform to make air bubble in spirit level move exactly to centre of display -arrow-.



WARNING

Make sure no light is reflected on calibration platform.

Reflected light impairs the view of the reversing camera - R189- and therefore it may be impossible to perform calibration.



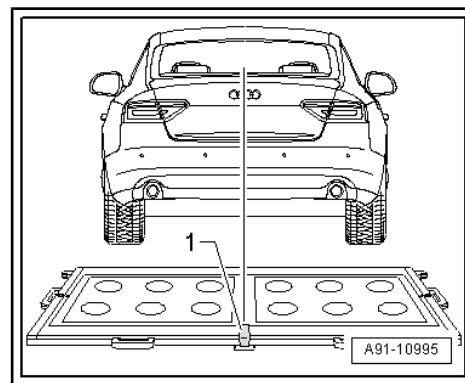


Note

The vehicle in the illustration is only intended to serve as an example.

- Switch on linear laser - VAS 6350/3- -1- on calibration platform and align entire calibration unit - VAS 6350- so that laser beam shines onto centre of Audi rings on rear of vehicle.
- Check whether Audi rings are in centre on rear of vehicle and adjust laser beam accordingly.

Continue by calibrating reversing camera - R189- ➔ [page 197](#) .



8.4.2 Calibrating reversing camera - R189-

- Ensure requirements are met ➔ [page 195](#)

- Connect ➔ Vehicle diagnostic tester.

Fit wheel centre mounting - VAS 6350/1- :

- Check the bolt hole circle pattern on the wheels.
- Prepare wheel centre mountings - VAS 6350/1- as required.
- To do so, secure three wheel bolt adapters to each wheel centre mounting - VAS 6350/1- to match the hole circle.
- Position paddles on both wheel centre mountings - VAS 6350/1- and secure each paddle with clamping bolt.
- Fit wheel centre mountings - VAS 6350/1- onto wheel bolts on rear wheels.

The wheel centre mountings - VAS 6350/1- are kept in position by the O-rings in the adapters.



Note

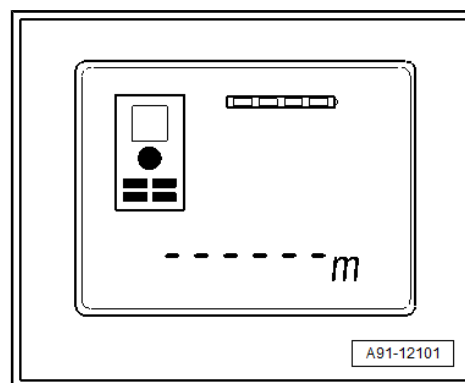
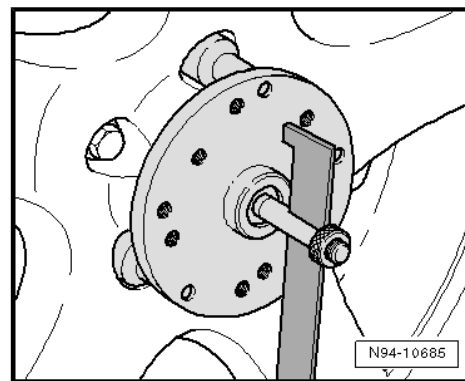
When fitting the wheel centre mountings - VAS 6350/1- onto the wheels, make sure that they are not mounted on any "anti-theft" wheel bolts that might be installed.

- Use clamping bolts to adjust paddles so that they are free to move just slightly above the ground. Make sure the paddles can move freely.
- Set up and align calibration unit - VAS 6350- ➔ [page 194](#) .

Measuring gap:

- Switch on spacing laser - VAS 6350/2- .

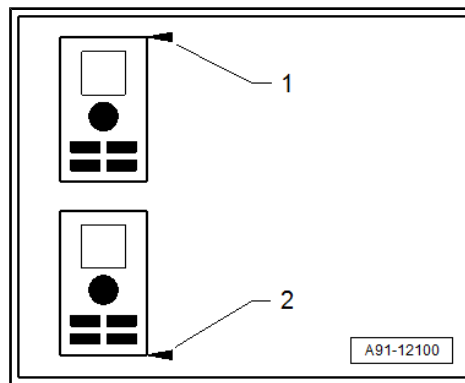
The following display will appear:





The display will show how the spacing laser - VAS 6350/2- should be positioned. Press the appropriate key.

- 1 - Position at front edge.
- 2 - Position at rear edge.

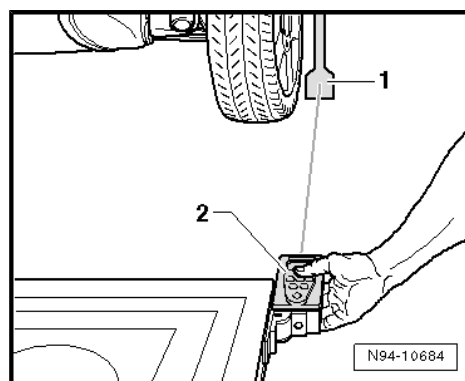


- Hold spacing laser - VAS 6350/2- -2- flush with bracket on one side of the calibration unit as shown in illustration. Spacing laser - VAS 6350/2- -2- must make firm contact with bracket.
- Briefly press the measurement button.

The laser will switch on.

Laser beam from spacing laser - VAS 6350/2- -2- must hit lower, larger part of paddle -1-.

If this is not the case, position of paddles must be corrected accordingly using clamping bolts on wheel centre mounting - VAS 6350/1- .



- Hold spacing laser - VAS 6350/2- in locating bracket on calibration unit - VAS 6350- with one hand while laser beam is visible on paddle.
- Now press measurement button briefly to measure distance.
- Note down the measured value.
- Perform same measuring procedure for rear wheel on other side of calibration unit - VAS 6350- .

Measured distance value must be identical on both sides.

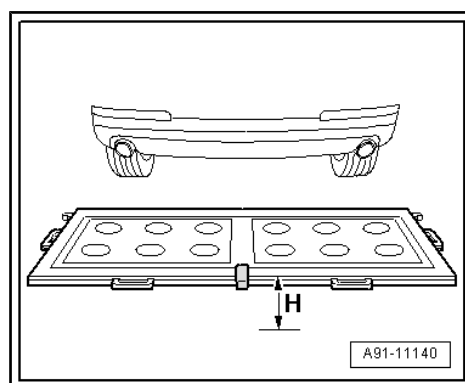
If values are not identical:

- Adjust calibration unit - VAS 6350- until values on both sides are identical.
- When adjusting, make sure that linear laser - VAS 6350/3- hits centre of Audi rings and spirit level display also remains central. Correct if necessary.

Measuring dimension -H-:

- Measure height of calibration unit - VAS 6350- : dimension -H- (top edge of platform - floor).

Ensure that spacing laser - VAS 6350/2- is correctly adjusted (position at front edge).



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The display will show how the spacing laser - VAS 6350/2- should be positioned. Press the appropriate key.

- 1 - Position at front edge.
- 2 - Position at rear edge.

Now enter measured distance value and height in millimetres in
⇒ Vehicle diagnostic tester.

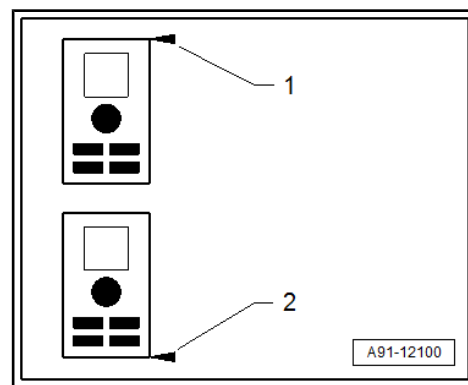
Performing calibration

⇒ Vehicle diagnostic tester must be connected.

- Select **Diagnosis** mode and begin diagnosis.
- Select **Test plan** tab.
- Choose **Select own test** and select following options one after the other:

- ◆ Body
- ◆ Electrical system
- ◆ 01 - Self-diagnosis compatible systems
- ◆ 6C - Rear-view camera system - J772
- ◆ 6C - Reversing camera system control unit, functions
- ◆ 6C - Calibrate

Further instructions are given by ⇒ Vehicle diagnostic tester during calibration procedure.



WARNING

Make sure no light is reflected on calibration platform.

Reflected light impairs the view of the reversing camera - R189- and therefore it may be impossible to perform calibration.



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8.5 Removing and installing reversing camera system control unit - J772-

⇒ [“8.5.1 Removing and installing reversing camera system control unit J772 - 3-door models, 5-door models, up to model year 2016”, page 200](#)

⇒ [“8.5.2 Removing and installing reversing camera system control unit J772 - Saloon, up to model year 2016”, page 201](#)

⇒ [“8.5.3 Removing and installing reversing camera system control unit J772 - Cabriolet, up to model year 2016”, page 201](#)

⇒ [“8.5.4 Removing and installing reversing camera system control unit J772 - from model year 2017 onwards”, page 202](#)

8.5.1 Removing and installing reversing camera system control unit - J772- - 3-door models, 5-door models, up to model year 2016

The reversing camera system control unit - J772- -1- is located behind the luggage compartment side trim (right-side).



Note

If renewing the control unit, select the “Replace control unit” function for the appropriate control unit ⇒ Vehicle diagnostic tester.

Removing

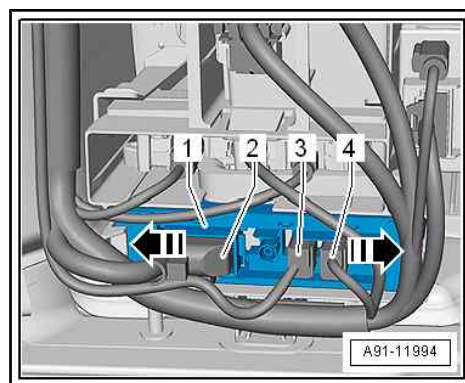
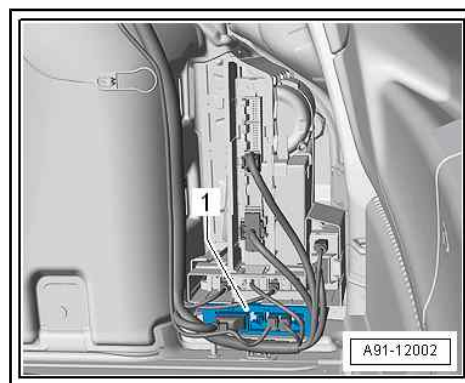
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove luggage compartment side trim (right-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - luggage compartment side trim .

The reversing camera system control unit - J772- -1- is only wedged in the bracket.

- Release and unplug connectors -2 to 4- on reversing camera system control unit - J772- -1-.
- Press lugs in direction of -arrows- and take reversing camera system control unit - J772- -1- out of bracket.

Installing

- Installation is carried out in reverse sequence; note the following:
- Perform calibration ⇒ [page 194](#) .





8.5.2 Removing and installing reversing camera system control unit - J772- - Saloon, up to model year 2016

The reversing camera system control unit - J772- -1- is located behind the luggage compartment side trim (right-side).



Note

If renewing the control unit, select the "Replace control unit" function for the appropriate control unit ⇒ Vehicle diagnostic tester.

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Removing

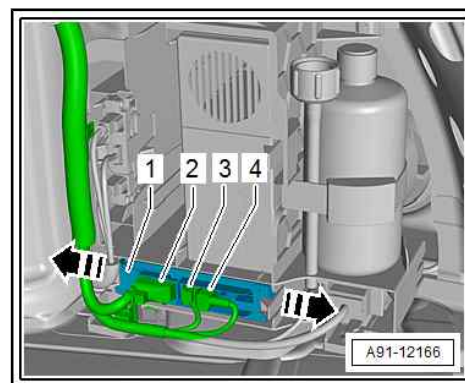
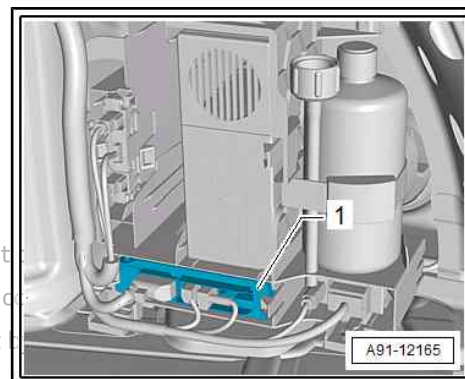
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove luggage compartment side trim (right-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - luggage compartment side trim .

The reversing camera system control unit - J772- -1- is only wedged in the bracket.

- Release and unplug connectors -2 to 4- on reversing camera system control unit - J772- -1-.
- Press lugs in direction of -arrows- and take reversing camera system control unit - J772- -1- out of bracket.

Installing

- Installation is carried out in reverse sequence; note the following:
- Perform calibration ⇒ [page 194](#) .



8.5.3 Removing and installing reversing camera system control unit - J772- - Cabriolet, up to model year 2016

The reversing camera system control unit - J772- -1- is located behind the luggage compartment side trim (left-side).

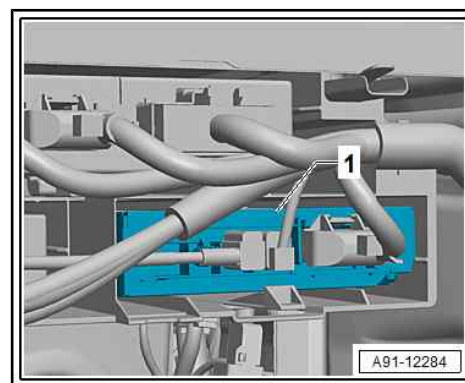


Note

If renewing the control unit, select the "Replace control unit" function for the appropriate control unit ⇒ Vehicle diagnostic tester.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove luggage compartment side trim (left-side) ⇒ General body repairs, interior; Rep. gr. 70 ; Luggage compartment trim panels; Exploded view - luggage compartment side trim .



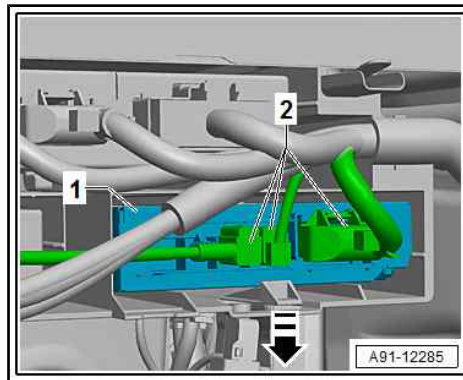


The reversing camera system control unit - J772- -1- is only wedged in the bracket.

- Release and unplug connectors -2- on reversing camera system control unit - J772- -1-.
- Push lug in direction of -arrow- and pull reversing camera system control unit - J772- -1- out of bracket.

Installing

- Installation is carried out in reverse sequence; note the following:
- Perform calibration ⇒ [page 194](#) .



8.5.4 Removing and installing reversing camera system control unit - J772- - from model year 2017 onwards

Reversing camera system control unit - J772- is integrated in reversing camera - R189- and cannot be renewed separately.

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Note

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If renewing the control unit, select the "Replace control unit" function for the appropriate control unit ⇒ Vehicle diagnostic tester.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove reversing camera - R189- ⇒ [page 191](#) .

Installing

- Install reversing camera - R189- ⇒ [page 191](#) .
- Perform calibration ⇒ [page 194](#) .



8.6 Connectors on reversing camera system control unit - J772-

⇒ "8.6.1 Connectors on reversing camera system control unit J772 , up to model year 2016", page 203

⇒ "8.6.2 Connectors on reversing camera system control unit J772 , from model year 2017 onwards", page 203

8.6.1 Connectors on reversing camera system control unit - J772- , up to model year 2016

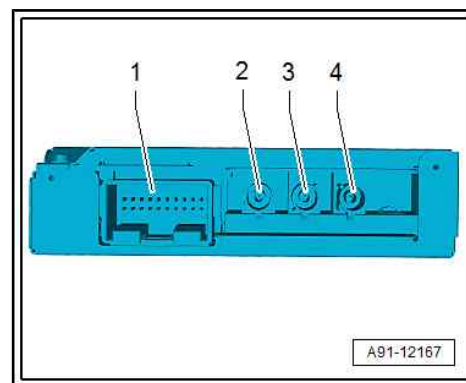
Reversing camera system control unit - J772-

- 1 - 20-pin connector - T20i-
- 2 - FBAS output to control unit 1 for information electronics - J794-
- 3 - FBAS input from reversing camera - R189-
- 4 - Not used



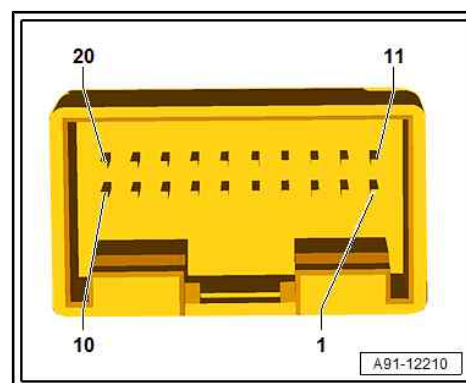
Note

Contacts which are not listed are not used.



3 - 20-pin connector - T20i-

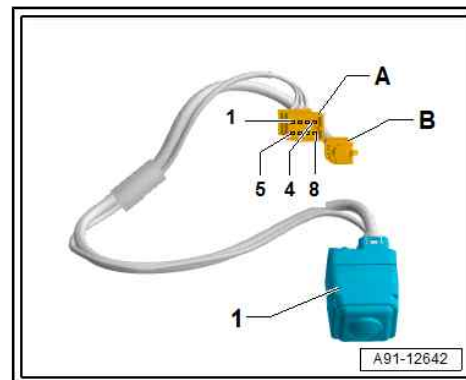
- 9 - Voltage supply for reversing camera - R189-
- 10 - Terminal 30
- 11 - CAN bus Low, infotainment
- 12 - CAN bus High, infotainment
- 19 - Terminal 31 to reversing camera - R189-
- 20 - Terminal 31



8.6.2 Connectors on reversing camera system control unit - J772- , from model year 2017 onwards

Reversing camera system control unit - J772- integrated in reversing camera - R189-

- 1 - Reversing camera system control unit - J772- integrated in reversing camera - R189-
- A - 8-pin connector - T8ao-
- B - 2-pin connector - T2ps- to control unit 1 for information electronics - J794-



Note

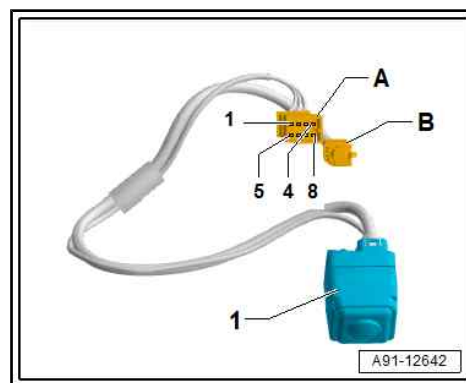
Contacts which are not listed are not used.

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A - 8-pin connector - T8ao-

- 1 - Terminal 30
- 4 - CAN bus High, infotainment
- 5 - Terminal 31
- 8 - CAN bus Low, infotainment



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9 Multi-function steering wheel

⇒ [“9.1 Layout - multi-function steering wheel”, page 205](#)

⇒ [“9.2 Exploded view - multi-function steering wheel”, page 205](#)

⇒ [“9.3 Removing and installing multifunction buttons in steering wheel E441 / E440 ”, page 207](#)

⇒ [“9.4 Removing and installing tiptronic switches in steering wheel E439 / E438 ”, page 213](#)

9.1 Layout - multi-function steering wheel

Buttons are integrated in the steering wheel in order to make the infotainment, telephone and navigation systems easier to use. On vehicles with tiptronic, rocker switches are also fitted on the right and left side of the steering wheel.

The multi-function steering wheel control unit - J453- (in the right-side button) reads out the button information and transfers it to the steering column electronics control unit - J527- via the LIN data bus. From the steering column electronics control unit - J527- the information is transferred to the individual components via the CAN bus (convenience) and the data bus diagnostic interface - J533- .

Fault finding is performed via “Guided Fault Finding” ⇒ Vehicle diagnostic tester.

9.2 Exploded view - multi-function steering wheel

⇒ [“9.2.1 Exploded view - 3-spoke steering wheel”, page 205](#)

⇒ [“9.2.2 Exploded view - 4-spoke steering wheel”, page 207](#)

9.2.1 Exploded view - 3-spoke steering wheel



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1 - Tiptronic switch in steering wheel to shift down - E439-

- ❑ Removing and installing
⇒ [page 213](#)

2 - 3-spoke steering wheel

3 - Tiptronic switch in steering wheel to shift up - E438-

- ❑ Removing and installing
⇒ [page 213](#)

4 - Bolt

- ❑ 2x
- ❑ 1 Nm

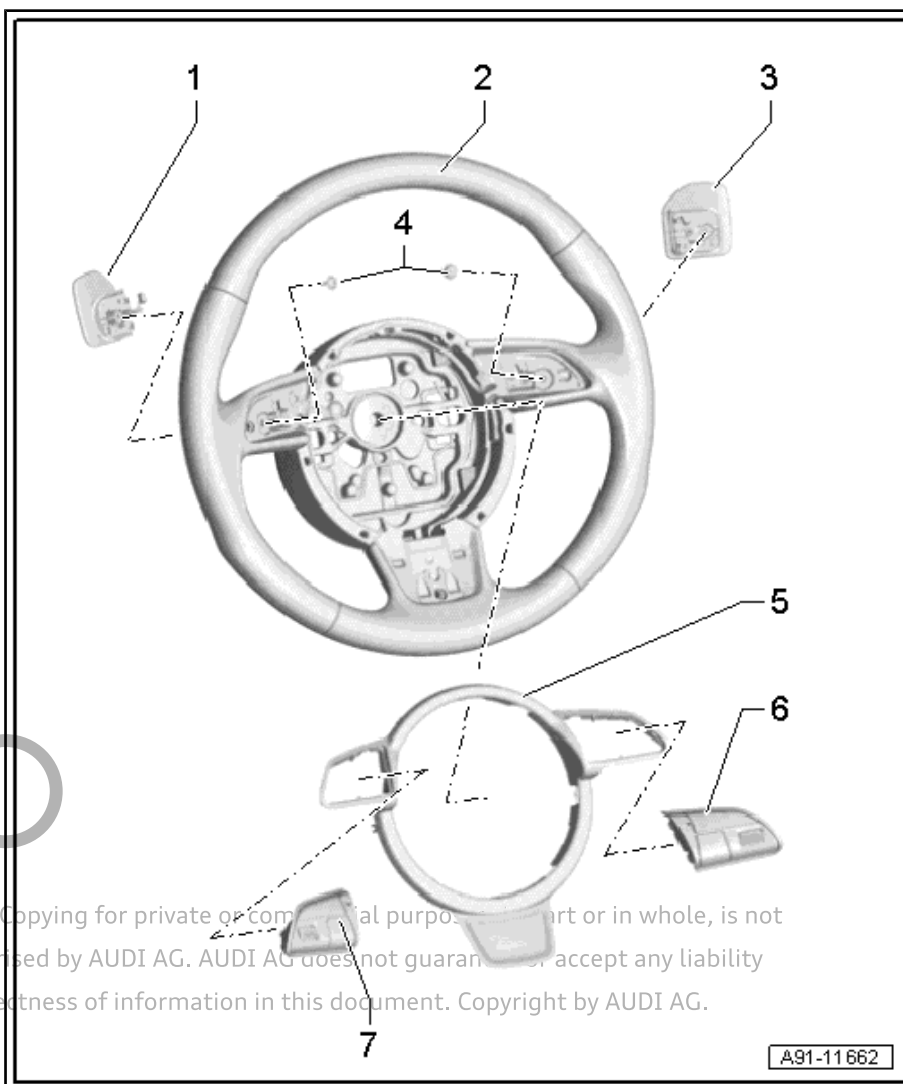
5 - Trim panel

6 - Multifunction buttons on right in steering wheel - E441-

- ❑ Removing and installing
⇒ [page 207](#)

7 - Multifunction buttons on left in steering wheel - E440-

- ❑ Removing and installing
⇒ [page 207](#)





9.2.2 Exploded view - 4-spoke steering wheel

1 - Tiptronic switch in steering wheel to shift down - E439-

- ❑ Removing and installing
⇒ [page 213](#)

2 - 4-spoke steering wheel

3 - Tiptronic switch in steering wheel to shift up - E438-

- ❑ Removing and installing
⇒ [page 213](#)

4 - Bolt

- ❑ 2x
- ❑ 1 Nm

5 - Multifunction buttons on right in steering wheel - E441-

- ❑ Removing and installing
⇒ [page 210](#)

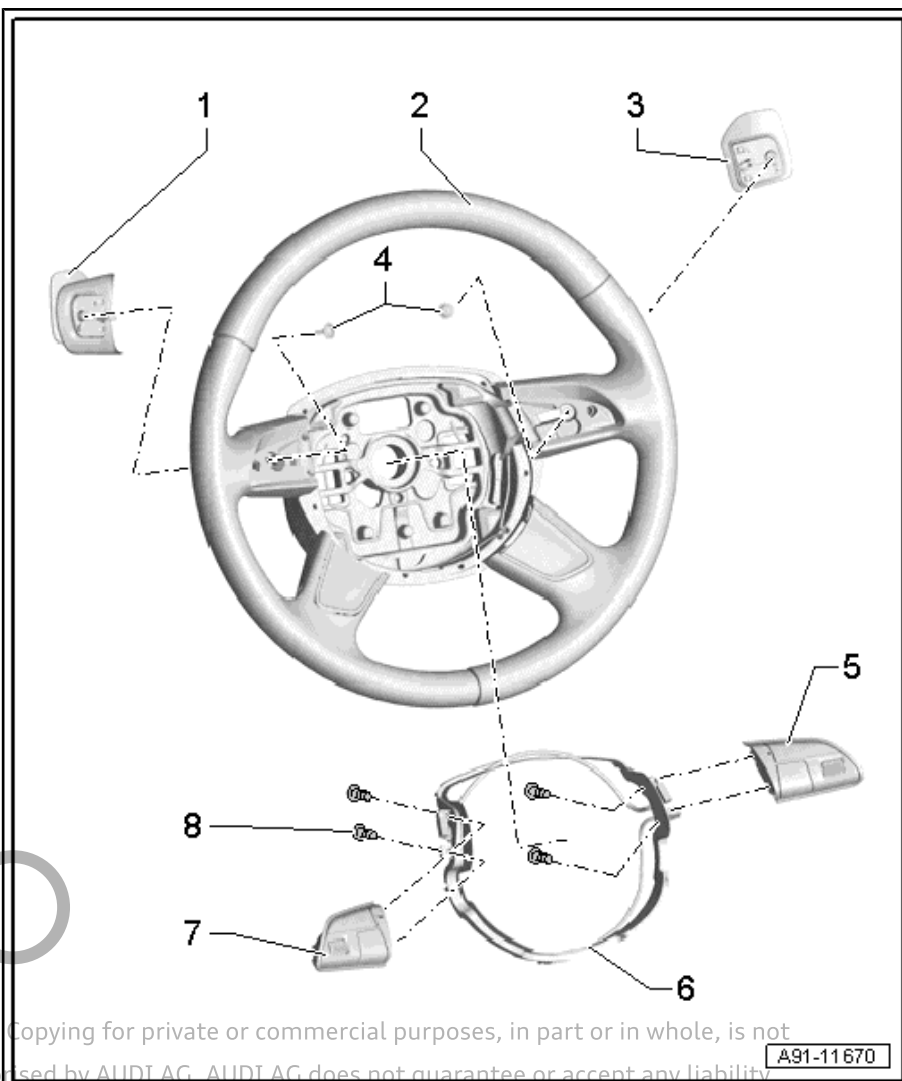
6 - Trim panel

7 - Multifunction buttons on left in steering wheel - E440-

- ❑ Removing and installing
⇒ [page 210](#)

8 - Bolt

- ❑ 4x
- ❑ 1 Nm



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9.3 Removing and installing multifunction buttons in steering wheel -E441- / - E440-

⇒ [“9.3.1 Removing and installing multifunction buttons in steering wheel E441 / E440 - 3-spoke steering wheel”, page 207](#)

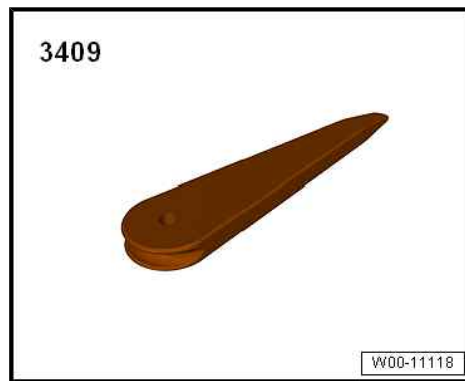
⇒ [“9.3.2 Removing and installing multifunction buttons in steering wheel E441 / E440 - 4-spoke steering wheel”, page 210](#)

9.3.1 Removing and installing multifunction buttons in steering wheel -E441- / - E440- - 3-spoke steering wheel

Special tools and workshop equipment required

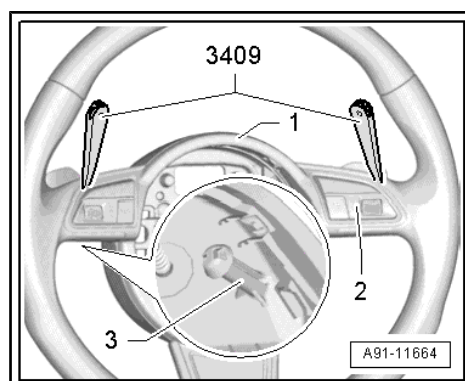


◆ Removal wedge - 3409-



The multifunction buttons -2- are clipped into the trim panel -1-. The trim panel -1- is secured on the steering wheel together with the multifunction buttons -2-. Each multifunction button -2- has an extra retainer -3-.

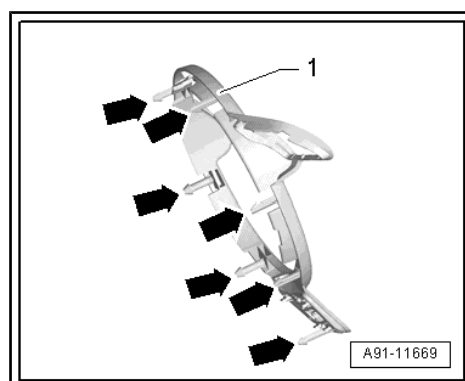
When removing, ensure that you loosen trim panel -1- by hand first (approx. 5 mm). Then disengage retainers -3- for multifunction buttons -2- using removal wedge - 3409- and, finally, pull off trim panel -1- together with multifunction buttons -2-.



Retainers for trim panel

1 - Trim panel

Arrows - retainers



Retainer for multifunction buttons

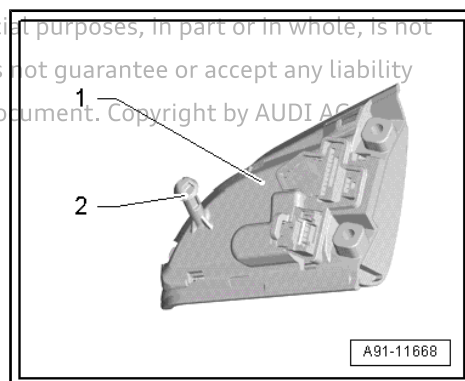
1 - Multifunction button

2 - Retainer

- Switch off ignition and all electrical equipment, and remove ignition key.

Removing

- Remove driver airbag ⇒ General body repairs, interior; Rep. gr. 69 ; Removing and installing airbag (driver side); Exploded view - airbag (driver side) .
- Take connecting wires out of their guides in steering wheel.





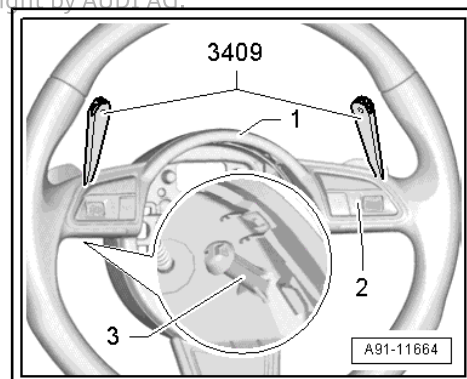
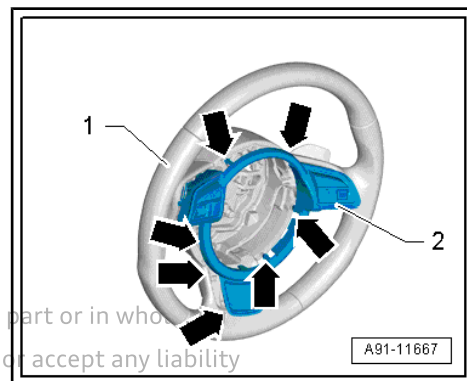
- Slightly loosen trim panel -2- together with multifunction buttons -arrows- by hand and pull it out of steering wheel -1- (by approx. 5 mm).



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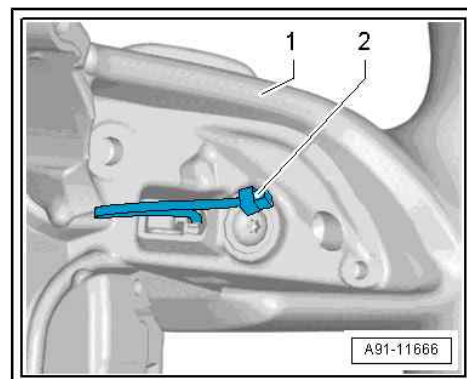
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- Disengage multifunction buttons -2- in area of retainers -3- using removal wedge - 3409- . Apply removal wedge - 3409- as shown in illustration.



- At the same time, pay attention to connectors leading to tiptronic switches -2-.
- Release and unplug connector -2- at multifunction buttons.
- Detach trim panel together with multifunction buttons from steering wheel.

The multifunction buttons are clipped into the trim panel.

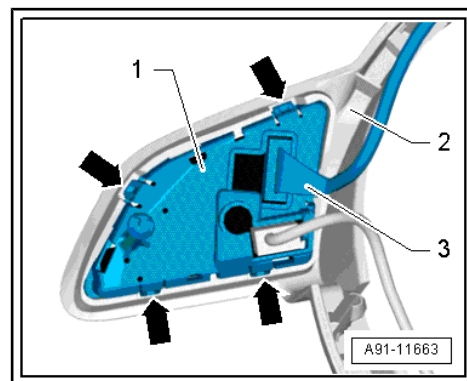


- Release and unplug connector -3- at multifunction button -1-.
- Release clips -arrows- and press multifunction button -1- out of trim panel -2-.

The additional wiring on the multifunction button (right-side) remains attached to the multifunction button.

Installing

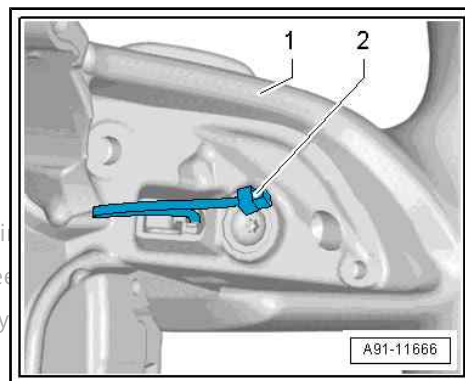
- Installation is carried out in reverse sequence; note the following:
- Position trim panel on steering wheel with multifunction buttons fitted.





- Ensure connecting wiring -2- for tiptronic switches is routed as shown in illustration.
- Route remaining connecting wiring, including connectors, through guides in steering wheel.

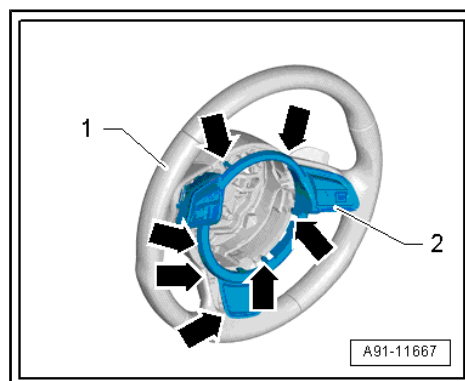
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- Push trim panel -2- together with multifunction buttons onto steering wheel -1- until they engage properly.
- Finally, check again that wiring in steering wheel is correctly routed.

Tightening torques

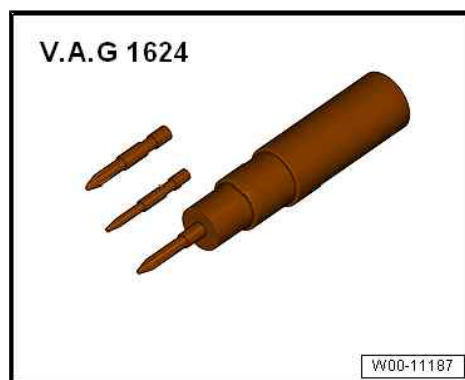
- ♦ ⇒ ["9.2.1 Exploded view - 3-spoke steering wheel", page 205](#)



9.3.2 Removing and installing multifunction buttons in steering wheel -E441- / -E440- - 4-spoke steering wheel

Special tools and workshop equipment required

- ♦ Removal wedge - 3409-
- ♦ Torque screwdriver - V.A.G 1624-

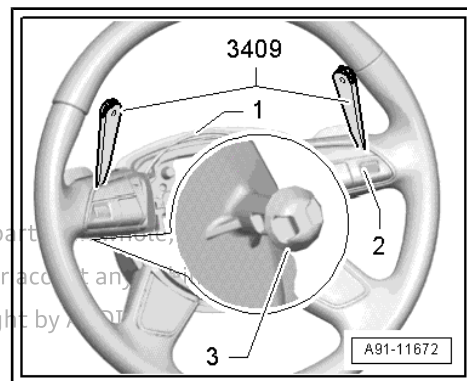




The multifunction buttons -2- are bolted to the trim panel -1-. The trim panel -1- is secured on the steering wheel together with the multifunction buttons -2-. Each multifunction button -2- has an extra retainer -3-.

When removing, ensure that you loosen trim panel -1- by hand first (approx. 5 mm). Then disengage retainers -3- for multifunction buttons -2- using removal wedge - 3409- and, finally, pull off trim panel -1- together with multifunction buttons -2-.

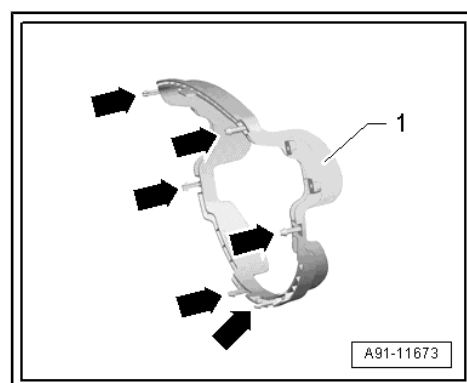
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Retainers for trim panel

1 - Trim panel

Arrows - retainers



Retainer for multifunction buttons

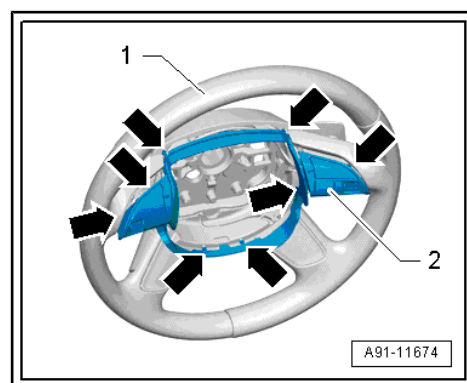
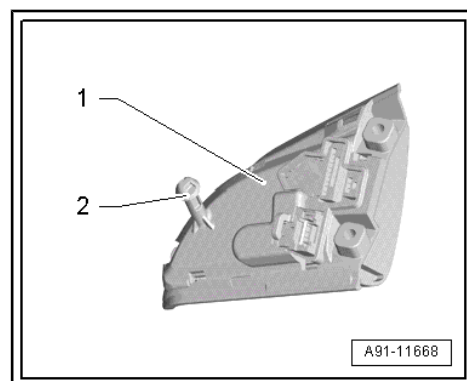
1 - Multifunction button

2 - Retainer

- Switch off ignition and all electrical equipment, and remove ignition key.

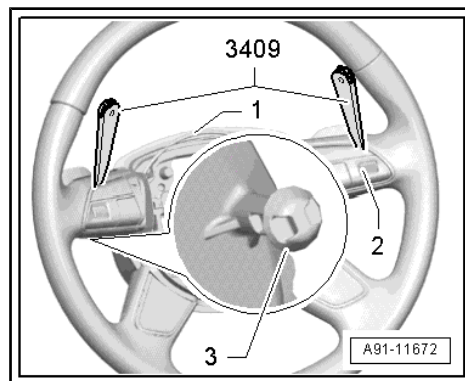
Removing

- Remove driver airbag ⇒ General body repairs, interior; Rep. gr. 69 ; Removing and installing airbag (driver side); Exploded view - airbag (driver side) .
- Take connecting wires out of their guides in steering wheel.
- Slightly loosen trim panel -2- together with multifunction buttons -arrows- by hand and pull it out of steering wheel -1- (by approx. 5 mm).





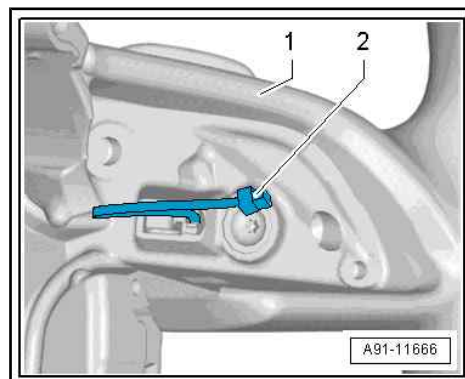
- Disengage multifunction buttons -2- in area of retainers -3- using removal wedge - 3409- . Apply removal wedge - 3409- as shown in illustration.



- At the same time, pay attention to connectors leading to tiptronic switches -2-.
- Release and unplug connector -2- at multifunction buttons.
- Detach trim panel together with multifunction buttons from steering wheel.

The multifunction buttons are bolted to the trim panel.

- Release and unplug connector on multifunction button.

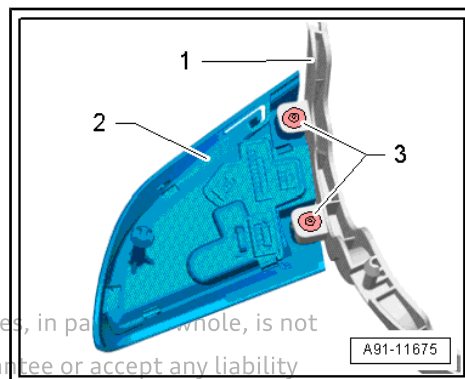


- Remove bolts -3- and press multifunction button -2- out of trim panel -1-.

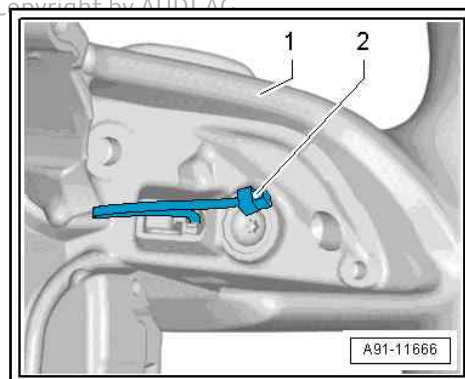
The additional wiring on the multifunction button (right-side) remains attached to the multifunction button.

Installing

- Installation is carried out in reverse sequence; note the following:
- Position trim panel on steering wheel with multifunction buttons fitted.



- Ensure connecting wiring -2- for tiptronic switches is routed as shown in illustration.
- Route remaining connecting wiring, including connectors, through guides in steering wheel.



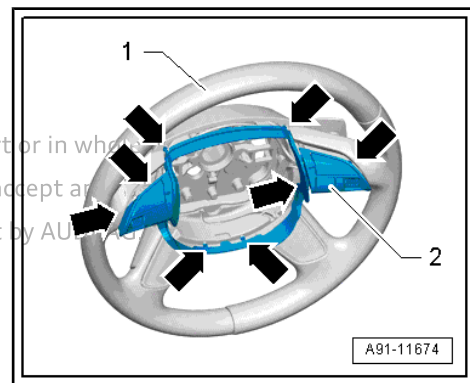


- Push trim panel -2- together with multifunction buttons onto steering wheel -1- until they engage properly.
- Finally, check again that wiring in steering wheel is correctly routed.

Tightening torques

- ◆ ⇒ [“9.2.2 Exploded view - 4-spoke steering wheel”, page 207](#)

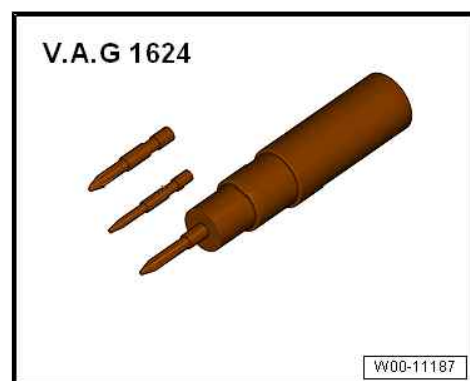
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9.4 Removing and installing tiptronic switches in steering wheel -E439- / -E438-

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624-



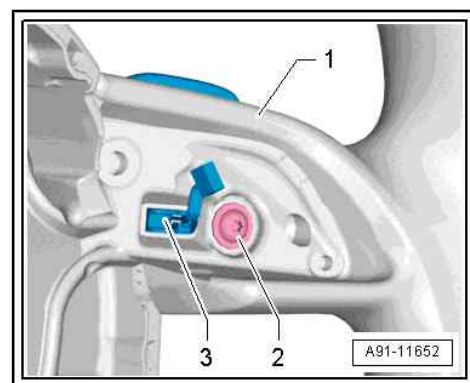
- Switch off ignition and all electrical equipment, and remove ignition key.

Removing

- Remove trim panel with multifunction buttons ⇒ [page 207](#) (3-spoke steering wheel), ⇒ [page 210](#) (4-spoke steering wheel).
- Remove bolt -2- on steering wheel -1- and detach tiptronic switch -3- with connecting wire towards rear.

Installing

- Installation is carried out in reverse sequence; note the following:

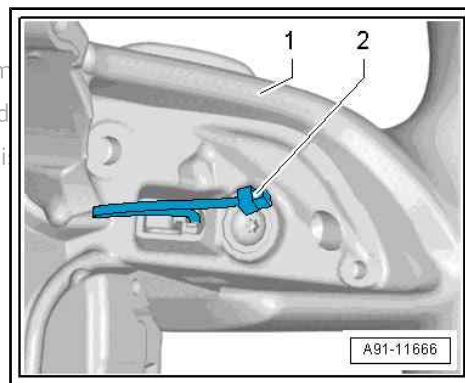




- Note position of connecting wire -2- to multifunction button.

Tightening torques Protected by copyright. Copying for private or comm

- ♦ ⇒ ["9.2 Exploded view multi-function steering wheel"](#), AUDI AG d
[page 205](#) with respect to the correctness of information in thi





10 Connection for external multimedia devices

⇒ ["10.1 Layout - connection for external multimedia devices", page 215](#)

⇒ ["10.2 Connectors on connection for external multimedia devices", page 218](#)

⇒ ["10.3 Removing and installing connection for external audio sources R199", page 224](#)

⇒ ["10.4 Removing and installing USB connection 1 U41", page 225](#)

10.1 Layout - connection for external multimedia devices

⇒ ["10.1.1 Layout - connection for external multimedia devices, up to model year 2016", page 215](#)

⇒ ["10.1.2 Layout - connection for external multimedia devices, from model year 2017 onwards", page 216](#)

10.1.1 Layout - connection for external multimedia devices, up to model year 2016

The connection for external audio sources - R199- is available in several versions:

- ◆ AMI (Audi music interface)
- ◆ AMI (Audi music interface) - USB charging
- ◆ AUX IN
- ◆ AUX IN - USB charging

»USB charging« refers to USB connection holder - R193-

The connection for external audio sources - R199- is connected at control unit 1 for information electronics - J794- .

Fitting location of AMI, UE7

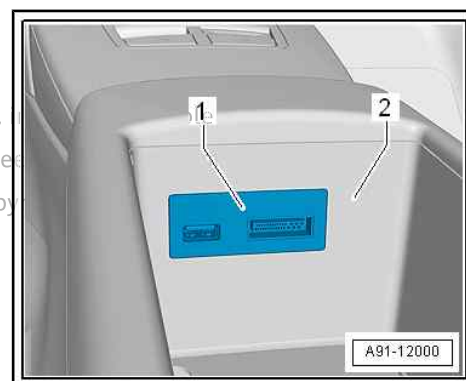
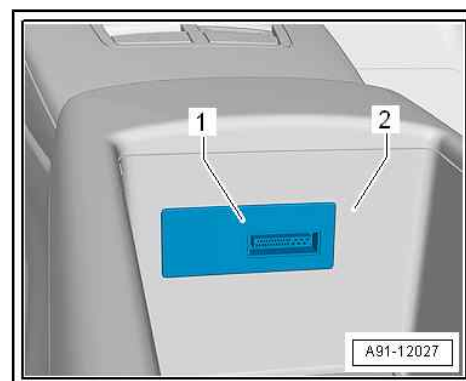
Connection -1- is located in centre console storage compartment -2-.



Fitting location of AMI - USB connection holder - R193- , UE7

Connections -1- are located in centre console storage compartment -2-.

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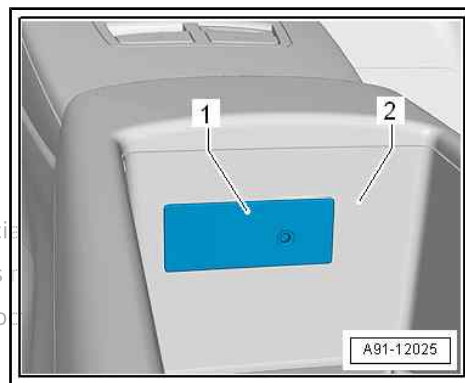


Fitting location of AUX IN socket, UE3

Connection -1- is located in centre console storage compartment -2-.



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Fitting location of AUX IN - USB connection holder - R193-

Connection -1- is located in centre console storage compartment -2-.

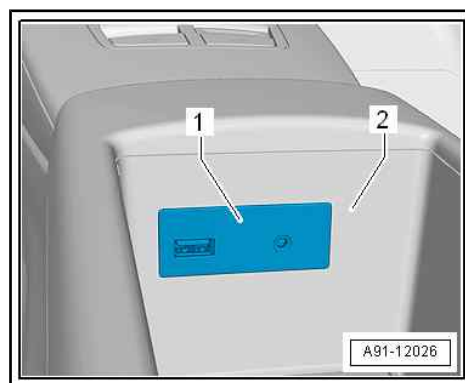
Either an AMI or an AUX IN socket is fitted.

The following external audio sources can be connected to connection for external audio sources - R199- :

- ◆ iPod
- ◆ MP3 player
- ◆ USB stick

Appropriate adapter cables are required ⇒ Owner's Manual .

Fault finding is performed via "Guided Fault Finding" ⇒ Vehicle diagnostic tester.



10.1.2 Layout - connection for external multimedia devices, from model year 2017 onwards

The connection for external multimedia devices is available in several versions:

- ◆ AUX IN socket, UE3
- ◆ AUX IN socket and USB charging socket, UE4
- ◆ AUX IN socket and two USB sockets with charging and data transfer functionality (Audi music interface), UE7
- ◆ AUX IN socket and two USB sockets with charging and data transfer functionality (Audi smartphone interface), UI2

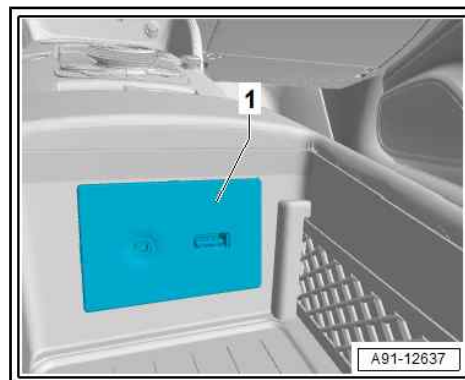
On versions with two USB sockets with charging and data transfer functionality (UE7/UI2), there are the following different installation positions for the two USB sockets:

- ◆ Both USB sockets in centre console storage compartment under centre armrest (front)
- ◆ One USB socket in centre console storage compartment under centre armrest (front) and one USB socket in storage compartment in centre console (front)

Fitting location for connection for external audio sources - R199-

Connection for external audio sources - R199- -1- is located in centre console storage compartment under centre armrest (front).

Either one AUX IN socket (UE3) only or one AUX IN socket and one USB charging socket (UE4) is/are installed.



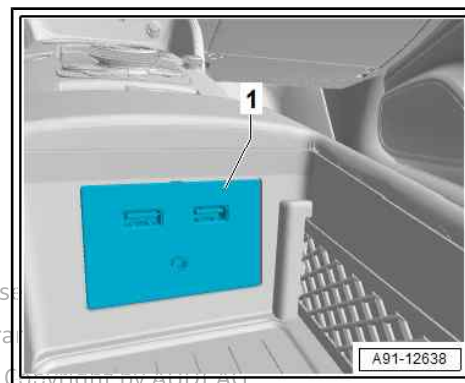


Fitting location for USB hub - R293-

USB hub - R293- -1- is located in centre console storage compartment under centre armrest (front).

Either one AUX IN socket and a USB socket with charging and data transfer functionality or one AUX IN socket and two USB sockets with charging and data transfer functionality are installed.

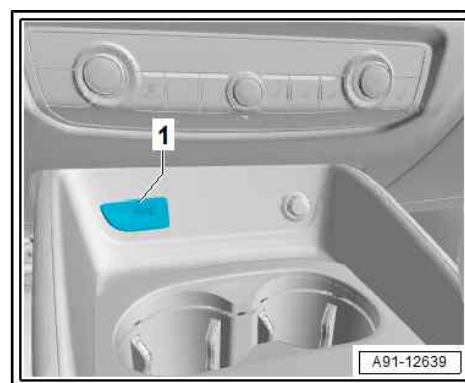
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Fitting location for USB connection 1 - U41-

USB connection 1 - U41- -1- is located in storage compartment in centre console (front).

The USB connection 1 - U41- -1- is installed if the USB hub - R293- in the centre console storage compartment under the centre armrest (front) only has one USB socket.





10.2 Connectors on connection for external multimedia devices

⇒ ["10.2.1 AMI, up to model year 2016", page 218](#)

⇒ ["10.2.2 AMI - USB connection holder R193 , up to model year 2016", page 219](#)

⇒ ["10.2.3 AUX IN, up to model year 2016", page 220](#)

⇒ ["10.2.4 AUX IN - USB connection holder R193 , up to model year 2016", page 221](#)

⇒ ["10.2.5 Connectors for AUX IN socket \(UE3\), from model year 2017 onwards", page 221](#)

⇒ ["10.2.6 Connectors for AUX IN socket and USB charging socket \(UE4\), from model year 2017 onwards", page 222](#)

⇒ ["10.2.7 Connectors for AUX IN socket and two USB sockets \(UE7/UE2\), from model year 2017 onwards", page 222](#)

⇒ ["10.2.8 Connectors for USB connection 1 U41 , from model year 2017 onwards", page 223](#)

10.2.1 AMI, up to model year 2016



Note

Contacts which are not listed are not used.

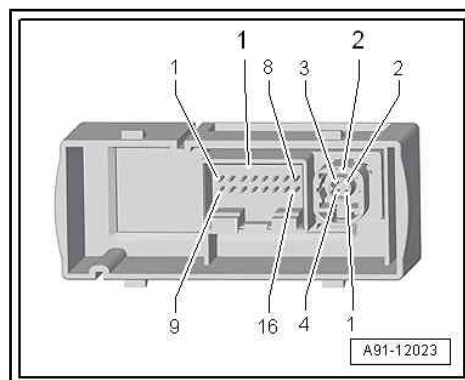
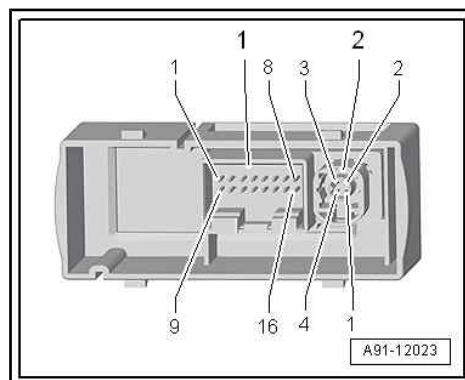
AMI connectors

- 1 - 16-pin connector - T16m-
- 2 - 4-pin connector - T4u-

1 - 16-pin connector - T16m-

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

- 1 - Low frequency earth
- 2 - Low frequency, right-side
- 3 - Not used
- 4 - Not used
- 5 - iPod, ACC power
- 6 - Detect
- 7 - USB, +5 V
- 8 - USB, earth
- 9 - Low frequency, left-side
- 10 - NF screen earth (low frequency)
- 11 - FBAS wire (+)
- 12 - FBAS wire (-)
- 13 - iPod data
- 14 - iPod data

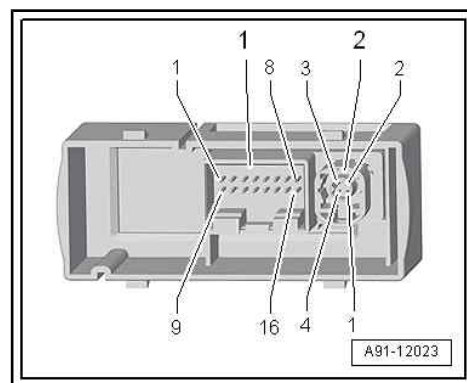




2 - 4-pin connector - T4u-

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

- 1 - Earth
- 2 - D (-)
- 3 - iPod Detect
- 4 - D (+)



10.2.2 AMI - USB connection holder - R193- , up to model year 2016

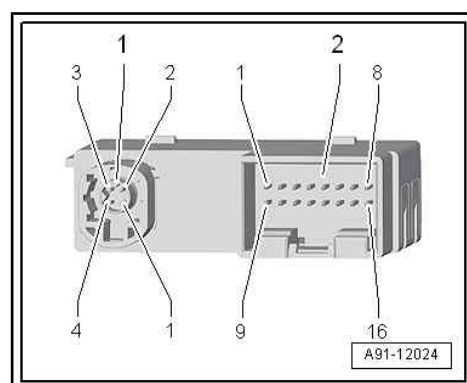


Note

Contacts which are not listed are not used.

AMI connectors - USB connection holder - R193-

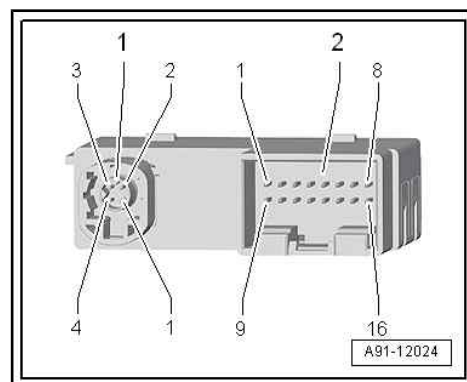
- 1 - 4-pin connector - T4u-
- 2 - 16-pin connector - T16m-



1 - 4-pin connector - T4u-

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

- 1 - Earth
- 2 - D (-)
- 3 - Detect
- 4 - D (+)



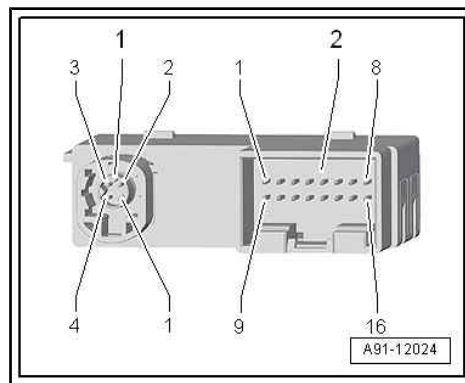
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2 - 16-pin connector - T16m-

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

- 1 - Low frequency earth
- 2 - Low frequency, right-side
- 3 - Not used
- 4 - Not used
- 5 - iPod, ACC power
- 6 - Detect
- 7 - USB, +5 V
- 8 - USB, earth
- 9 - Low frequency, left-side
- 10 - NF screen earth (low frequency)
- 11 - FBAS wire (+)
- 12 - FBAS wire (-)
- 13 - iPod data
- 14 - iPod data
- 15 - Terminal 30
- 16 - Terminal 31



10.2.3 AUX IN, up to model year 2016



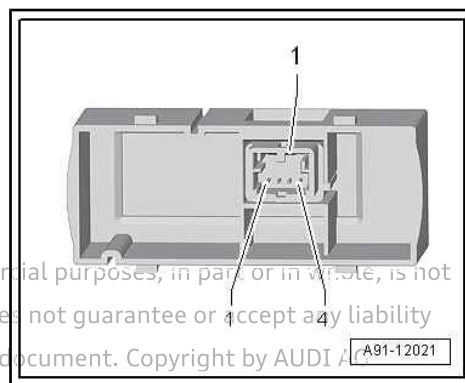
Note

Contacts which are not listed are not used.

1 - 4-pin connector - T4s-

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

- 1 - Low frequency, right-side
- 2 - Low frequency earth
- 3 - Low frequency, left-side
- 4 - Low frequency earth





10.2.4 AUX IN - USB connection holder - R193- , up to model year 2016

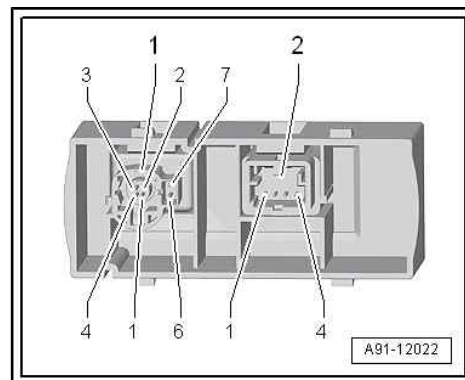


Note

Contacts which are not listed are not used.

AUX IN - USB connection holder - R193-

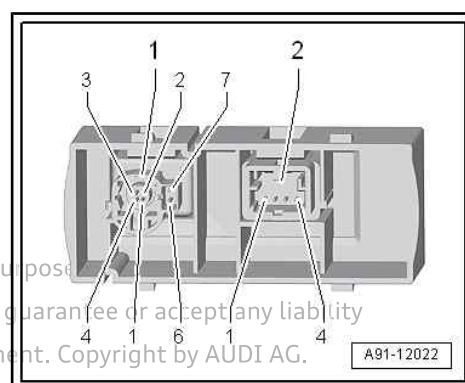
- 1 - 7-pin connector - T7-
- 2 - 4-pin connector - T4s-



1 - 7-pin connector - T7-

All pins are connected to the control unit 1 for information electronics - J794-

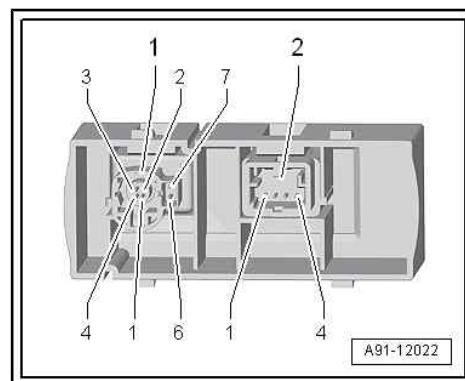
- 1 - Earth
- 2 - D (-)
- 3 - Not used
- 4 - D (+)
- 5 - Screen earth
- 6 - USB, +5V
- 7 - USB, earth



2 - 4-pin connector - T4s-

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

- 1 - Low frequency, right-side
- 2 - Low frequency earth
- 3 - Low frequency, left-side
- 4 - Low frequency earth

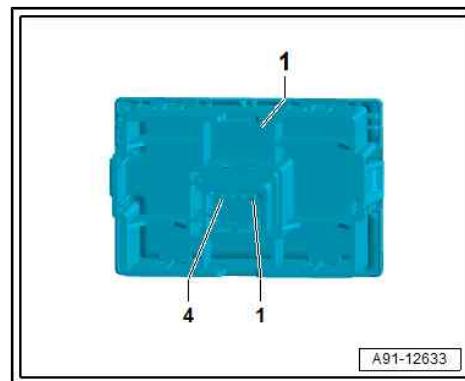


10.2.5 Connectors for AUX IN socket (UE3), from model year 2017 onwards

Connector for AUX IN socket (UE3) -1-

4-pin connector - T4ee-

- 1 - Low frequency, right-side
- 2 - Low frequency earth
- 3 - Low frequency, left-side
- 4 - Not used



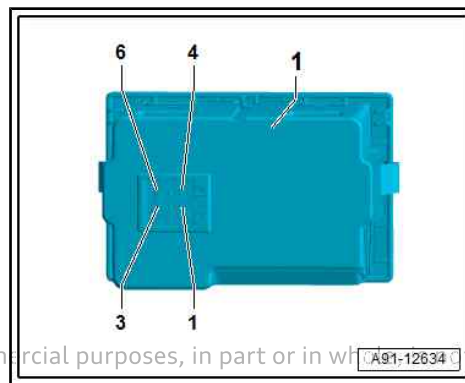


10.2.6 Connectors for AUX IN socket and USB charging socket (UE4), from model year 2017 onwards

Connector for AUX IN socket and USB charging socket (UE4)
-1-

6-pin connector - T6cb-

- 1 - USB, +5V
- 2 - USB, earth
- 3 - Not used
- 4 - Low frequency, right-side
- 5 - Low frequency earth
- 6 - Low frequency, left-side



10.2.7 Connectors for AUX IN socket and two USB sockets (UE7/UI2), from model year 2017 onwards

Connectors for AUX IN socket and two USB sockets with charging and data transfer functionality (UE7/UI2) -1-

1 - USB hub - R293-

A - 4-pin connector - T4eg-

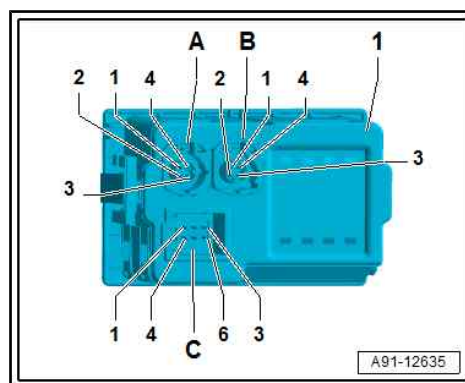
B - 4-pin connector - T4eh- / 4-pin connector - T4en-

C - 6-pin connector - T6cc-

A - 4-pin connector - T4eg-

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

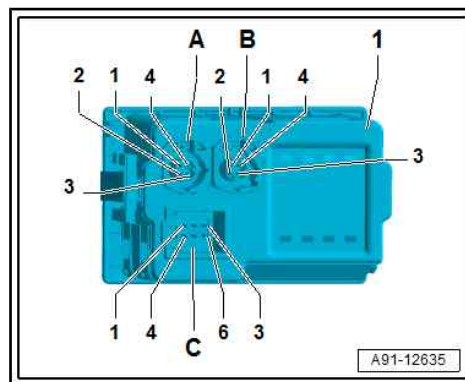
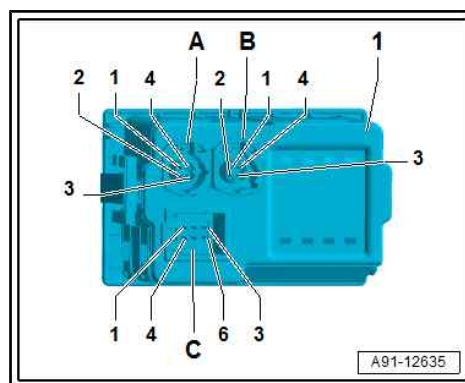
- 1 - USB2 data (+)
- 2 - USB1 data (-)
- 3 - USB2 data (-)
- 4 - USB1 data (+)



B - 4-pin connector - T4eh-

All pins are connected to the chip card reader control unit - J676- .

- 1 - Earth
- 2 - Data (-)
- 3 - Power supply, +5 V
- 4 - Data (+)

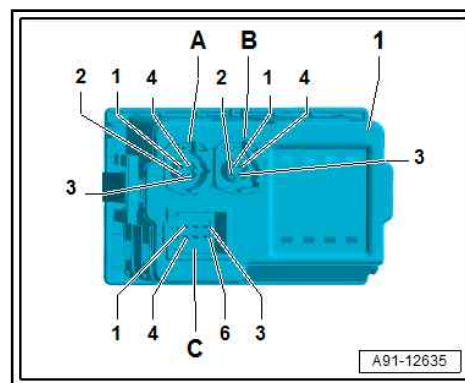




B - 4-pin connector - T4en-

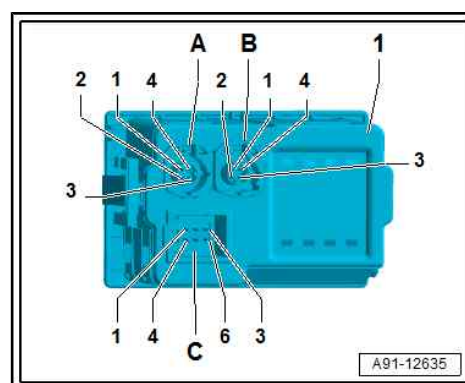
All pins are connected to USB connection 1 - U41- .

- 1 - USB1 data (+)
- 2 - USB2 data (-)
- 3 - USB1 data (-)
- 4 - USB2 data (+)



C - 6-pin connector - T6cc-

- 1 - Terminal 30
- 2 - Terminal 31
- 3 - USB, +5V
- 4 - Low frequency, right-side
- 5 - Low frequency earth
- 6 - Low frequency, left-side

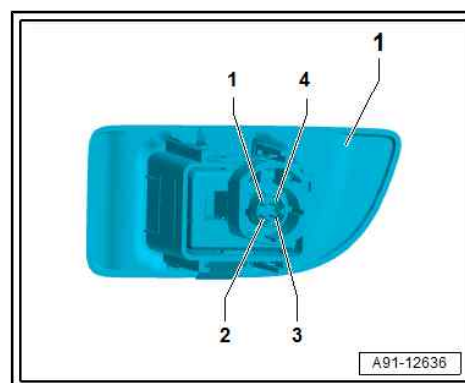


10.2.8 Connectors for USB connection 1 - U41- , from model year 2017 onwards

Connector for USB connection 1 - U41- -1-

All pins are connected to the USB hub - R293- .

- 1 - USB2 data (+)
- 2 - USB1 data (-)
- 3 - USB2 data (-)
- 4 - USB1 data (+)



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10.3 Removing and installing connection for external audio sources - R199-

⇒ ["10.3.1 Removing and installing connection for external audio sources R199 - up to model year 2016", page 224](#)

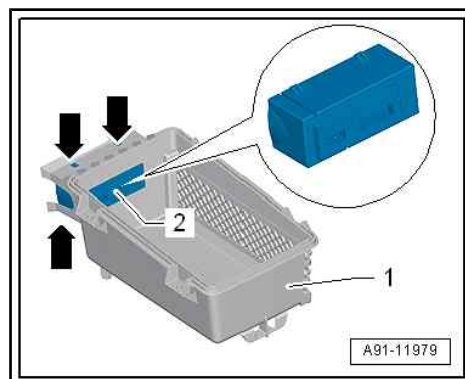
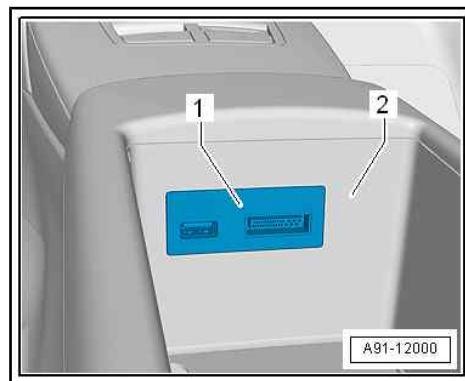
⇒ ["10.3.2 Removing and installing connection for external audio sources R199 - from model year 2017 onwards", page 224](#)

10.3.1 Removing and installing connection for external audio sources - R199- - up to model year 2016

Connection for external audio sources - R199- -1- is located in centre console storage compartment -2- under centre armrest (front).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove centre console storage box (front) ⇒ General body repairs, interior; Rep. gr. 68 ; Centre console; Exploded view - centre console .
- Release and unplug connectors on connection for external audio sources - R199- .
- Press tabs -arrows- on connection for external audio sources - R199- -2- and pull connection for external audio sources - R199- -2- out of storage compartment -1-.

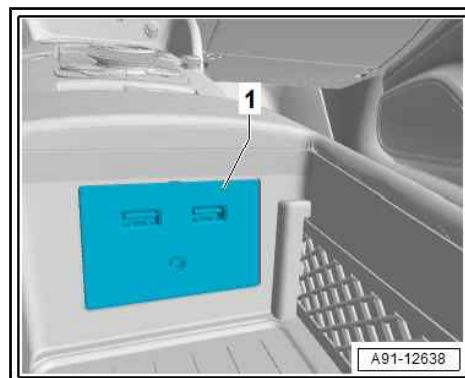


10.3.2 Removing and installing connection for external audio sources - R199- - from model year 2017 onwards

Connection for external multimedia devices -1- is located in centre console storage compartment under centre armrest (front).

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove centre console insert ⇒ General body repairs, interior; Rep. gr. 68 ; Centre console; Removing and installing centre console insert .



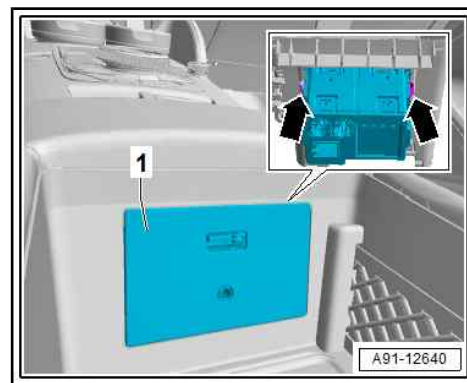
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- Compress retaining clips -arrows- on connection for external multimedia devices -1- through opening in centre console.
- At the same time, push connection for external multimedia devices -1- towards rear out of centre console storage compartment.
- Release and unplug electrical connectors from connection for external multimedia devices -1-.

Installing

- Install in reverse sequence of removal.

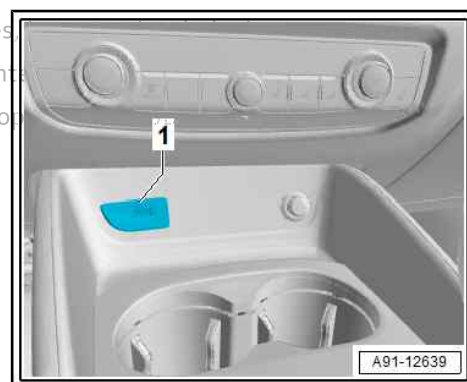


10.4 Removing and installing USB connection 1 - U41-

USB connection 1 - U41- -1- is located in front centre console storage compartment.

Removing

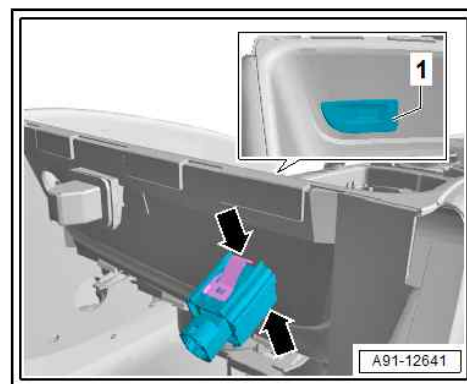
- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove centre console ⇒ General body repairs, interior; Rep. gr. 68 ; Centre console; Removing and installing centre console .



- Compress retaining clips -arrows- on USB connection 1 - U41- -1-.
- At the same time, push USB connection 1 - U41- -1- towards rear out of centre console.

Installing

- Install in reverse sequence of removal.





11 Mobile online services

⇒ [“11.1 General description - mobile online services”, page 226](#)

⇒ [“11.2 Overview of fitting locations - mobile online services”, page 229](#)

⇒ [“11.3 Removing and installing emergency call module control unit and communication unit J949”, page 231](#)

⇒ [“11.4 Emergency assistance call button E276”, page 231](#)

⇒ [“11.5 Loudspeaker for emergency call module R335”, page 232](#)

⇒ [“11.6 Pin assignment”, page 233](#)

11.1 General description - mobile online services

⇒ [“11.1.1 General description - mobile online services, PR number EL1/EL5”, page 226](#)

⇒ [“11.1.2 General description - mobile online services, ERA-GLONASS, PR number NZ3”, page 227](#)

11.1.1 General description - mobile online services, PR number EL1/EL5

The mobile online services (EL1/EL5) are based on the emergency call module control unit and communication unit - J949- (OCU, online connectivity unit).

The emergency call module control unit and communication unit - J949- is installed behind the dash panel insert - KX2- so it is protected in the event of a crash. The emergency call module control unit and communication unit - J949- contains a telephone module and a compass module. A separate SIM card is fitted for the online data transfer function.

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1 - Sound system

2 - Control unit 1 for information electronics - J794-

3 - Multimedia system operating unit - E380-

4 - CAN bus

5 - Emergency call module control unit and communication unit - J949-

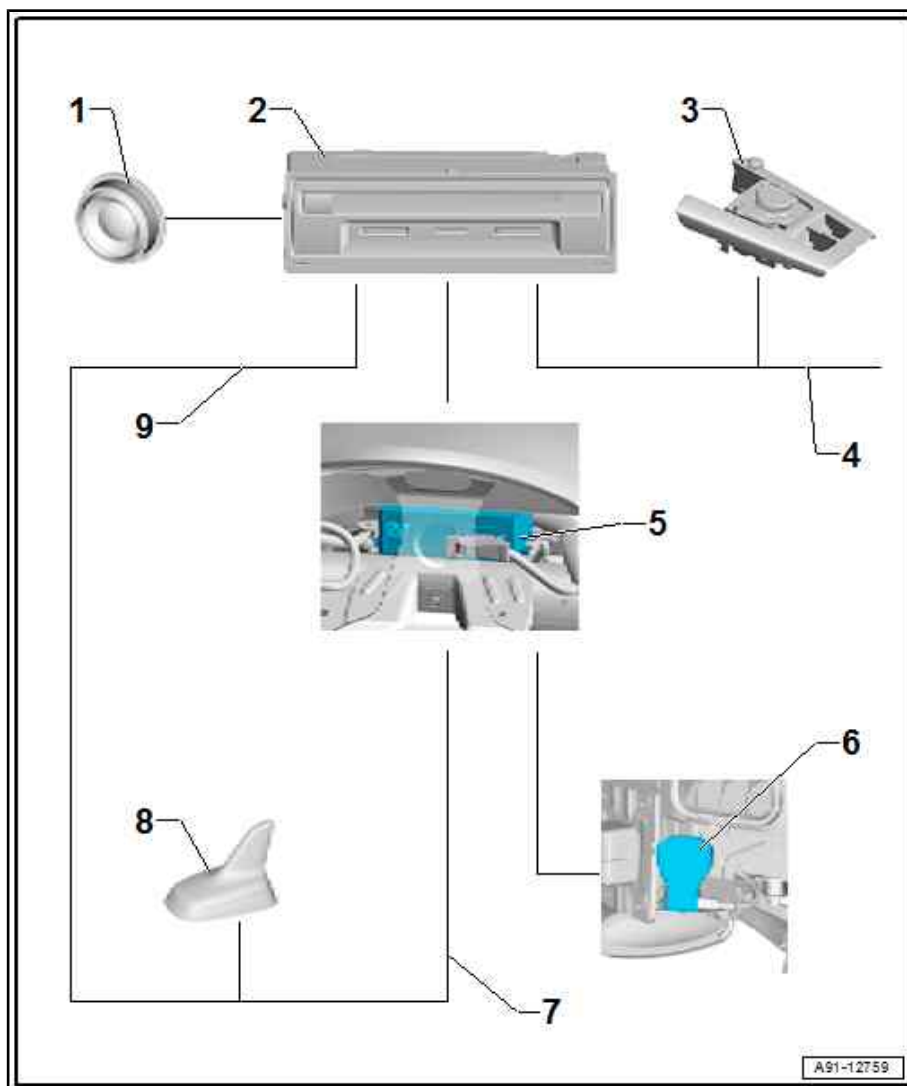
6 - GSM aerial - R205-

7 - Wire for GPS aerial - R50-
□ 7Q0 only

8 - GPS aerial - R50-

□ In roof aerial - R216-

9 - Wire for GPS aerial - R50-
□ 7UF/7UG/7UH only



Fault finding

The mobile online services system also has self-diagnosis capability.

Fault finding is performed via "Guided Fault Finding" ⇒ Vehicle diagnostic tester.

To be able to diagnose and deal with problems, it is essential to be familiar with the functions of the mobile online services.

For additional information, refer to the ⇒ Owner's Manual and ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

11.1.2 General description - mobile online services, ERA-GLONASS, PR number NZ3

The mobile online services (NZ3) are based on the emergency call module control unit and communication unit - J949- (OCU, online connectivity unit).

The emergency call module control unit and communication unit - J949- is installed behind the dash panel insert - KX2- so it is protected in the event of a crash. The emergency call module control unit and communication unit - J949- contains an emer-



gency call module and a compass module. A separate SIM card is fitted for the emergency call function.

1 - Control unit 1 for information electronics - J794- in glove box

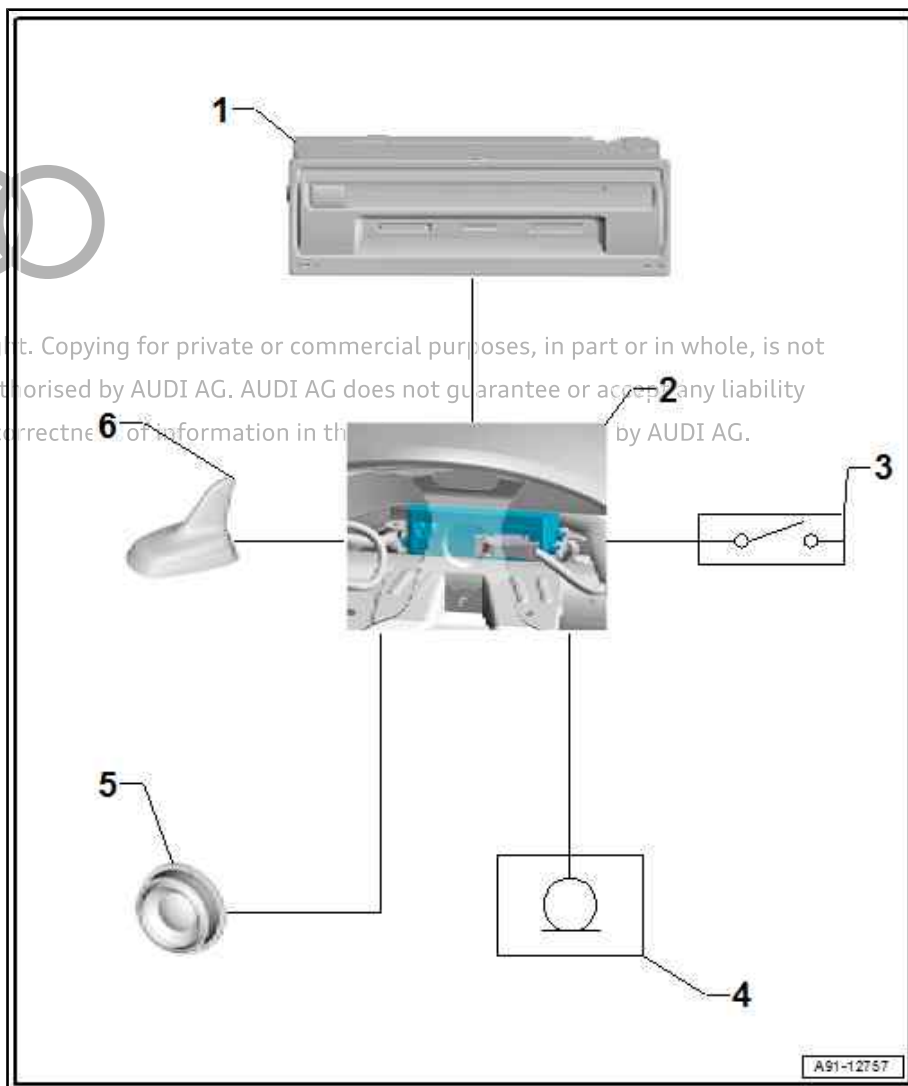
2 - Emergency call module control unit and communication unit - J949- behind dash panel insert - KX2-

3 - Emergency assistance call button - E276- in front interior light - W1-

4 - Telephone microphone - R38- in front interior light - W1-

5 - Loudspeaker for emergency call module - R335- in front passenger footwell on air conditioning unit

6 - GPS aerial - R50- / emergency call module aerial - R263- in roof aerial - R216-



Fault finding

The mobile online services system also has self-diagnosis capability.

Fault finding is performed via "Guided Fault Finding" ⇒ Vehicle diagnostic tester.

To be able to diagnose and deal with problems, it is essential to be familiar with the functions of the mobile online services.

For additional information, refer to the ⇒ Owner's Manual and ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.



11.2 Overview of fitting locations - mobile on-line services

⇒ ["11.2.1 Overview of fitting locations - mobile online services, PR number EL1/EL5", page 229](#)

⇒ ["11.2.2 Overview of fitting locations - mobile online services, ERA-GLONASS, PR number NZ3", page 230](#)

11.2.1 Overview of fitting locations - mobile online services, PR number EL1/EL5

1 - Control unit 1 for information electronics - J794-

- ☐ Fitted in glove box
- ☐ Pin assignment
⇒ [page 102](#)
- ☐ Removing and installing
⇒ [page 6](#)

2 - GPS aerial - R50-

- ☐ In roof aerial - R216-
- ☐ Removing and installing
⇒ [page 82](#)

3 - GSM aerial - R205-

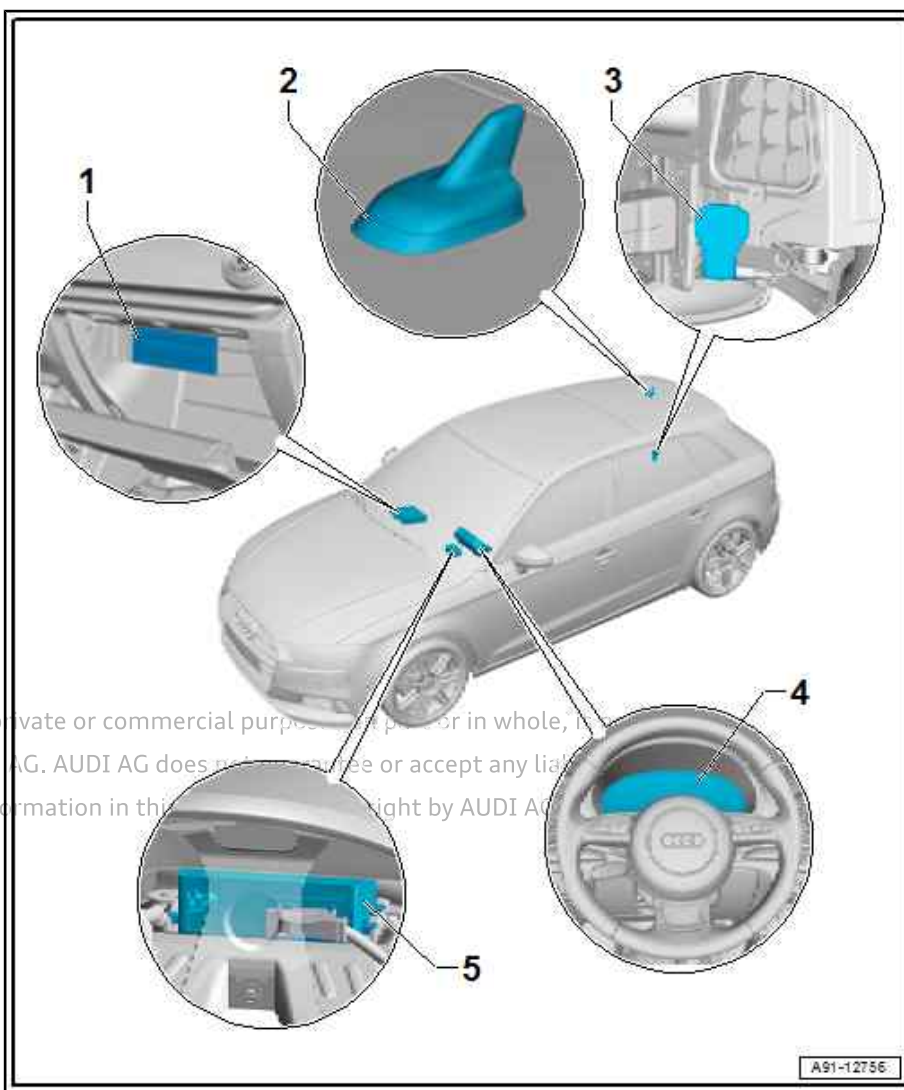
- ☐ From week 45/2016 onwards
- ☐ Under rear bumper cover (right-side)
- ☐ Removing and installing
⇒ [page 86](#)

4 - Dash panel insert - KX2-

- ☐ Removing and installing
⇒ Electrical system;
Rep. gr. 90; Dash panel
insert; Removing and installing
dash panel insert - KX2-

5 - Emergency call module control unit and communication unit - J949-

- ☐ Behind dash panel insert - KX2-
- ☐ Pin assignment
⇒ [page 233](#)
- ☐ Removing and installing
⇒ [page 231](#)





11.2.2 Overview of fitting locations - mobile online services, ERA-GLONASS, PR number NZ3



Note

The fitting locations are shown on a 5-door model as an example; they are identical on other vehicle types.

1 - Display unit for front information display and operating unit control unit - J685-

- ❑ Pin assignment [⇒ page 20](#)
- ❑ Removing and installing [⇒ page 4](#)

2 - Emergency assistance call button - E276-

- ❑ In front interior light - W1-
- ❑ Removing and installing [⇒ page 231](#)

3 - GPS aerial - R50- / emergency call module aerial - R263-

- ❑ In roof aerial - R216-
- ❑ Removing and installing [⇒ page 82](#)

4 - Control unit 1 for information electronics - J794-

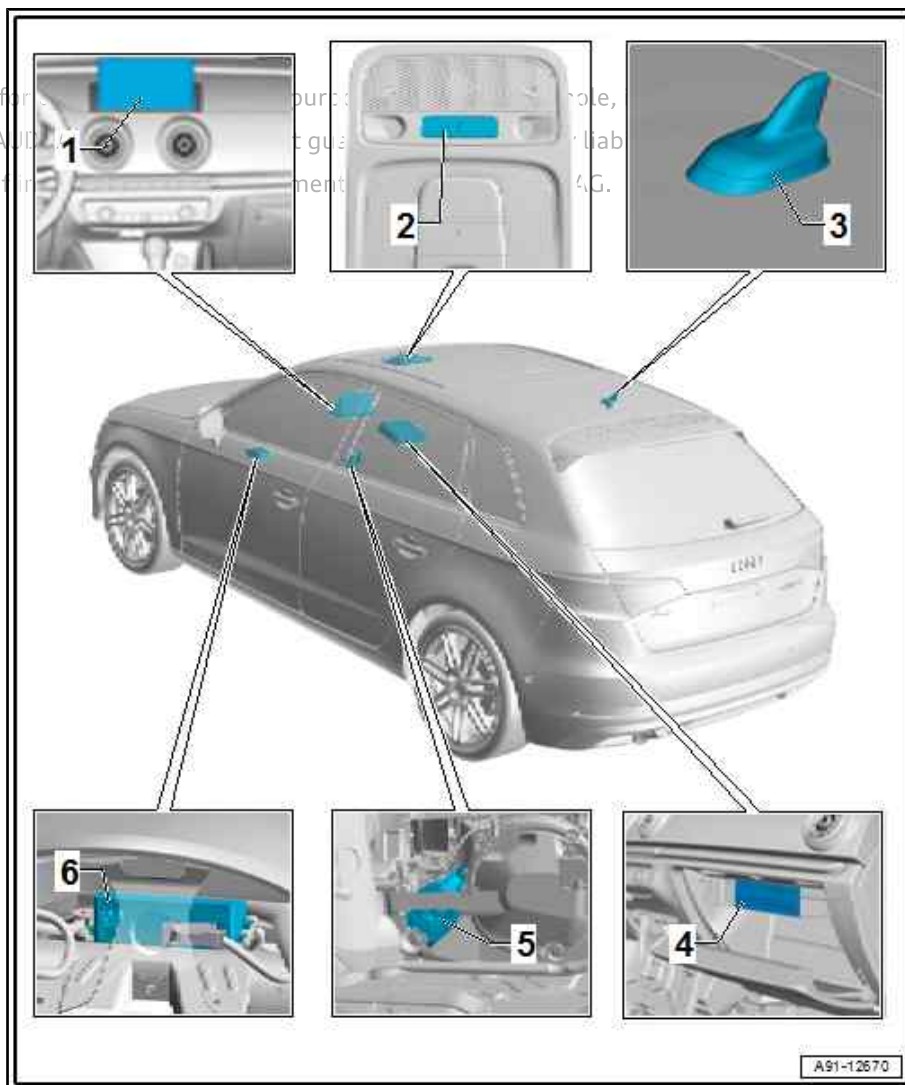
- ❑ Fitted in glove box
- ❑ Pin assignment [⇒ page 102](#)
- ❑ Removing and installing [⇒ page 6](#)

5 - Loudspeaker for emergency call module - R335-

- ❑ In front passenger footwell on air conditioning unit
- ❑ Removing and installing [⇒ page 232](#)

6 - Emergency call module control unit and communication unit - J949-

- ❑ Behind dash panel insert - KX2-
- ❑ Removing and installing [⇒ page 231](#)
- ❑ Pin assignment [⇒ page 233](#)



Not illustrated

- ◆ Telephone microphone - R38- , removing and installing [⇒ page 136](#)



11.3 Removing and installing emergency call module control unit and communication unit - J949-

The emergency call module control unit and communication unit - J949- is located behind the dash panel insert - KX2- .



Note

If renewing the control unit, select the "Replace control unit" function for the appropriate control unit ⇒ Vehicle diagnostic tester.

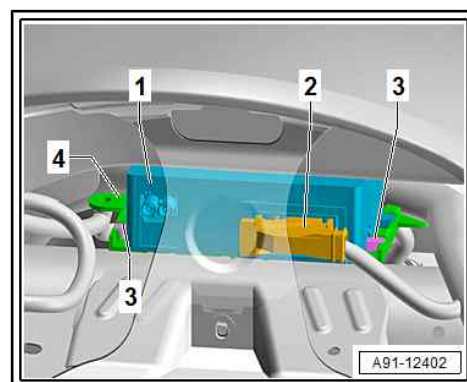
ERA-GLONASS (NZ3) only: initial start-up ⇒ Maintenance ; Booklet 821 ; Starting up .

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove dash panel insert - KX2- ⇒ Electrical system; Rep. gr. 90 ; Dash panel insert; Removing and installing dash panel insert - KX2- .
- Release and unplug connector -2- at emergency call module control unit and communication unit - J949- -1-.
- If fitted, also release and unplug connectors at aerial connections.
- To release catches -3- at emergency call module control unit and communication unit - J949- -1-, pull them up slightly.
- At the same time, pull emergency call module control unit and communication unit - J949- towards rear out of bracket -4- and remove it.

Installing

- Install in reverse sequence of removal.



11.4 Emergency assistance call button - E276-

Emergency assistance call button - E276- is fitted in interior light (front) - W1- .

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove front interior light - W1- ⇒ Electrical system; Rep. gr. 96 ; Controls; Overview of fitting locations - controls in roof trim .

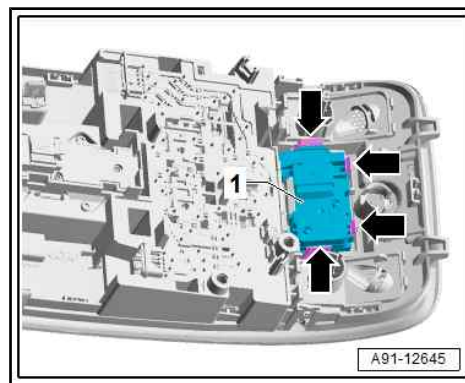




- Release retaining tabs -arrows- at front interior light - W1- .
- At the same time, pivot emergency assistance call button - E276- -1- out of front interior light - W1- .

Installing

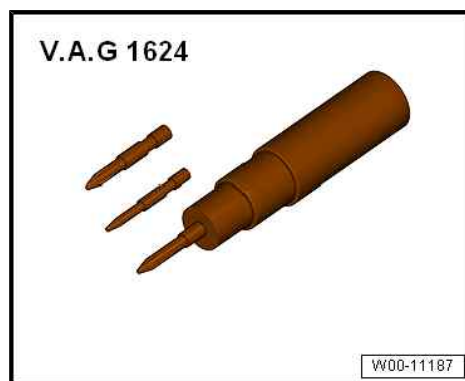
- Install in reverse sequence of removal.



11.5 Loudspeaker for emergency call module - R335-

Special tools and workshop equipment required

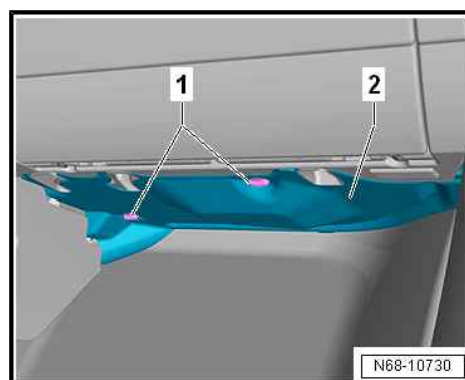
- ◆ Torque screwdriver - V.A.G 1624-



Loudspeaker for emergency call module - R335- is located in front passenger footwell on air conditioning unit.

Removing

- Switch off ignition and all electrical equipment, and remove ignition key.
- Remove clips -1-.
- Detach cover -2- from air conditioning unit in front passenger footwell.



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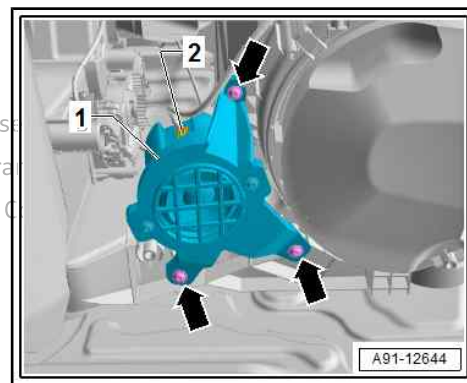
- Release and unplug electrical connector -2-.
- Remove bolts -arrows-.
- Detach loudspeaker for emergency call module - R335- -1- downwards from air conditioning unit.

Installing

- Install in reverse sequence of removal.

Tightening torques

Component	Tightening torque
Loudspeaker for emergency call module - R335- to air conditioning unit	4.5 Nm



11.6 Pin assignment

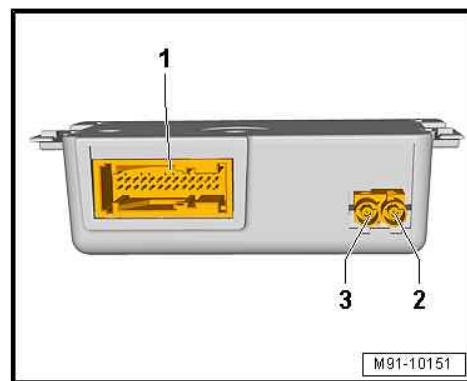
⇒ [“11.6.1 Pin assignment, PR number EL1/EL5”, page 233](#)

⇒ [“11.6.2 Pin assignment for ERA-GLONASS, PR number NZ3”, page 233](#)

11.6.1 Pin assignment, PR number EL1/EL5

Emergency call module control unit and communication unit - J949-

- 1 - 26-pin connector - T26e-
- 2 - GPS connection, GPS aerial - R50- (assignment depends on equipment version)
- 3 - GSM connection, GSM aerial - R205- (not assigned until week 45/2016)



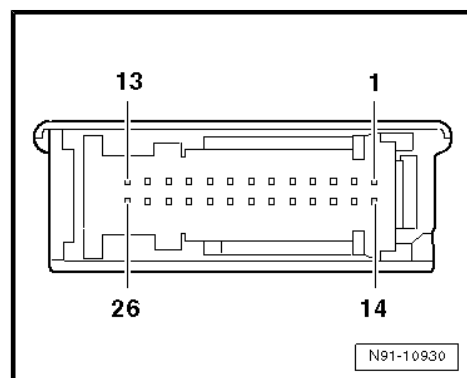
1 - 26-pin connector - T26e-



Note

Contacts which are not listed are not used.

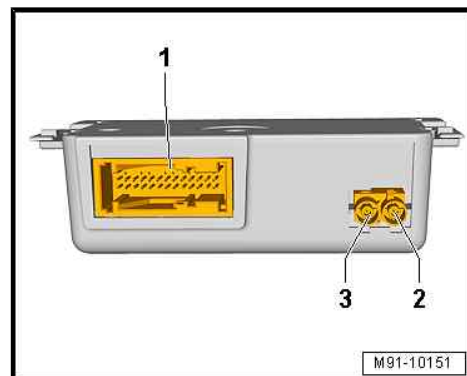
- 1 - Terminal 30
- 2 - CAN bus Low, convenience
- 14 - CAN bus High, convenience
- 26 - Terminal 31



11.6.2 Pin assignment for ERA-GLONASS, PR number NZ3

Emergency call module control unit and communication unit - J949-

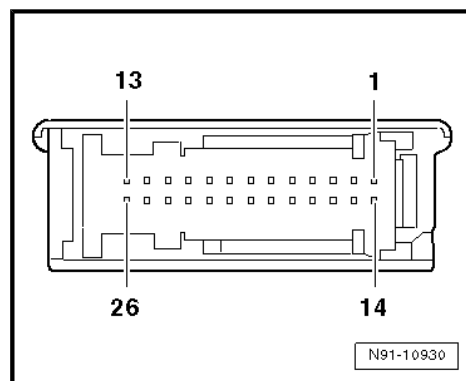
- 1 - 26-pin connector - T26-
- 2 - GPS connection, GPS aerial - R50-
- 3 - GSM connection, emergency call module aerial - R263-





1 - 26-pin connector - T26-

- 1 - Terminal 30
- 2 - CAN bus Low, convenience
- 3 - Crash signal from airbag control unit - J234-
- 4 - Microphone input (+) from telephone microphone - R38-
- 5 - Not used
- 6 - Output to emergency assistance call button - E276-
- 7 - Green indicator lamp for emergency assistance call button - E276-
- 8 - Mute signal to control unit 1 for information electronics - J794-
- 9 - Loudspeaker for emergency call module - R335- (+)
- 10 - NF (low frequency) output (+) to control unit 1 for information electronics - J794-
- 11 - NF (low frequency) output (-) to control unit 1 for information electronics - J794-
- 12 - Not used
- 13 - Illumination of emergency assistance call button - E276-
- 14 - CAN bus High, convenience
- 15 - Not used
- 16 - Not used
- 17 - Microphone input (-) from telephone microphone - R38-
- 18 - Not used
- 19 - Neutral supply to emergency assistance call button - E276-
- 20 - Red indicator lamp for emergency assistance call button - E276-
- 21 - Loudspeaker for emergency call module - R335- (-)
- 22 - Not used
- 23 - Not used
- 24 - Not used
- 25 - Not used
- 26 - Terminal 31



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