

Fitting Instructions

Genuine retrofit reversing camera system

Items supplied:

- 1 x reversing camera -R189-
- 1 x wiring set
- Various fitting material

Special tools, testers, measuring instruments and auxiliary items required:

- Wiring harness repair set -VAS 1978-
- Vehicle diagnostic tester with ODIS service
- Cleaning and insertion aid -VAS 6620-
- Battery charger -VAS 590X-
- Calibration tool VAS 6350 A

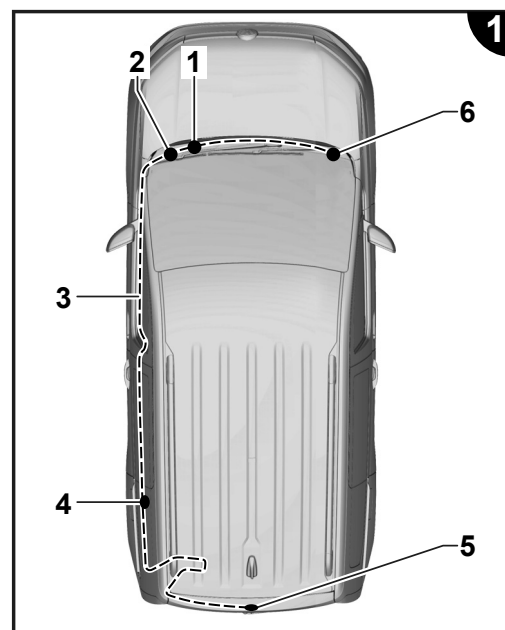
Procedure:

⚠ Note

- The installation of the reversing camera system must be carried out by a specialist workshop. Special tools are required for the installation along with vehicle specific literature. An incorrect installation can cause serious damage to the vehicle and/or the components supplied.
- The work procedures described in the fitting instructions may require revising, for example, due to a model upgrading program. This could mean that the wiring colour coding and/or the fitting location are revised. Therefore always refer to the current wiring diagram and/or the respective workshop manual for the model.
- All the wiring must be secured so that it cannot come into contact with moving components of the vehicle and that it cannot rub against or contact sharp edges.
- The original German version is always the definitive document. No liability is accepted for translation errors. Changes and amendments to technical specifications is reserved.

Assembly overview (Figure 1, Illustration of principle)

- 1 - Gateway control unit-J533- (LHD)**
 - Ethernet connection and CAN connections for supplied wiring set
- 2 - Relay and fuse holder behind dash panel**
 - Voltage supply connection of supplied wiring set
- 3 - Wiring set**
 - Items supplied
- 4 - Coupling point above wheel housing (interior)**
- 5 - Reversing camera -R189-**
 - Items supplied
- 6 - Gateway control unit-J533- (RHD)**
 - Ethernet connection and CAN connections for supplied wiring set



Preparatory work on vehicle

⚠ Note

It must be ensured that the current version of ODIS Service is used on the vehicle diagnostic tester for the change of the vehicle configuration (see "Special tools, testers, measuring instruments and auxiliary items required"), that all control units are of the latest software status and all open field measures regarding data of control units have been carried out.

- With the ignition switched off, connect the vehicle diagnosis tester with ODIS Service to the vehicle diagnostic connection.
- Switch on ignition.
- Carry out online update coding of all relevant control units:
 - 5F Information electronics
 - 76 Parking aid
 - 19 Gateway
- Switch off ignition.
- Disconnect vehicle diagnostic tester.
- Disconnect battery.
- Remove trim panel(s) for rear lid => ELSA; Repair group 70.
- Remove luggage compartment cover from vehicle => ELSA; Repair group 70.
- Lower/open headlining to gain access to cable feed-through in body => ELSA; Repair group 70.
- Remove left D-pillar trim panel(s) => ELSA; Repair group 70.
- Remove left wheel housing panel/trim => ELSA; Repair group 70.
- Remove left entry strips => ELSA; Repair group 70.
- Remove left A-pillar lower trim => ELSA; Repair group 70.
- Remove footwell cover on driver side => ELSA; Repair group 68.
- Lower relay and fuse holder behind dash panel => ELSA; Repair group 97.
 - The relay and fuse holder behind dash panel must only be lowered to connect wiring and there is no requirement to completely remove it. The removal of the dash panel is not necessary.

Fitting reversing camera -R189-

Figure 2

- Remove sealing plug on model with no reversing camera => ELSA; Repair group 55.
- Engage reversing camera -3- in holder -2- (items supplied) and fit both along with sealing cover -1- in vehicle => ELSA; Repair group 55.

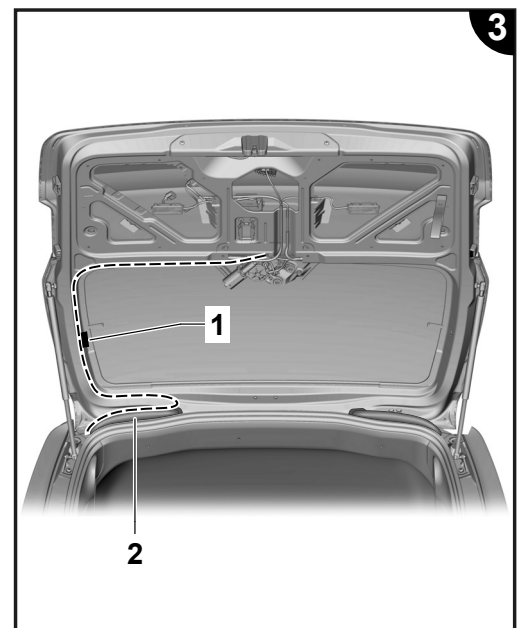
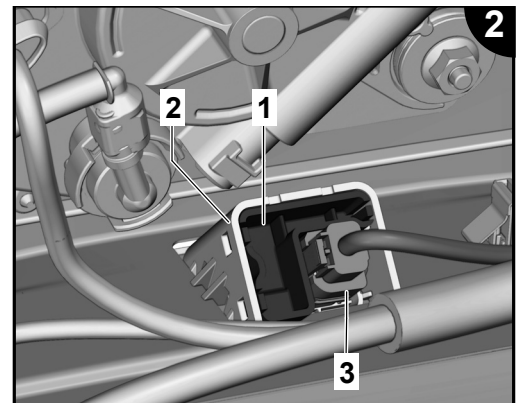
Routing and connecting rear lid wiring set

Figure 3

- Connect wiring set to reversing camera -3- and route through beam/strut (as per existing wiring harness) to left rubber grommet -2-. For easier installation, remove the housing of the rear window heater -1-.
- Pull wiring through the left grommet -2- of the rear lid using the cleaning and insertion aid -VAS 6620-. In order to ease the insertion through the grommet, apply a suitable lubricant (silicone spray etc.).
- Route wiring through wiring channel on vehicle roof along D-pillar to wheel housing coupling point and secure to vehicle housing or vehicle retainers using cable ties from the items supplied.

⚠ Note

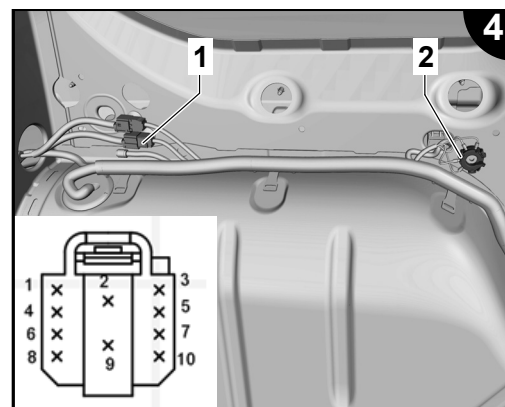
The wiring must be secured so that the wiring is sufficiently protected in the area of the rear lid cable feed-through.



Wheel housing coupling point

Figure 4

- Engage green wire connector contact in chamber 3 of supplied black connector.
- Engage red/yellow wire connector contact in chamber 4.
- Engage white wire connector contact in chamber 5.
- Engage orange/brown wire connector contact in chamber 6.
- Engage brown wire connector contact in chamber 7.
- Engage grey wire connector contact in chamber 8.
- The same pin assignment is carried out with counter connector (mating connector).



Earth connection on rear left wheel housing

- Secure earth connection ring eye to rear left wheel housing (-2-).
- Route wiring set further from wheel housing coupling point along side sill to A-pillar and secure to vehicle wiring or vehicle retainers using cable ties from items supplied.

Ethernet Gateway connection

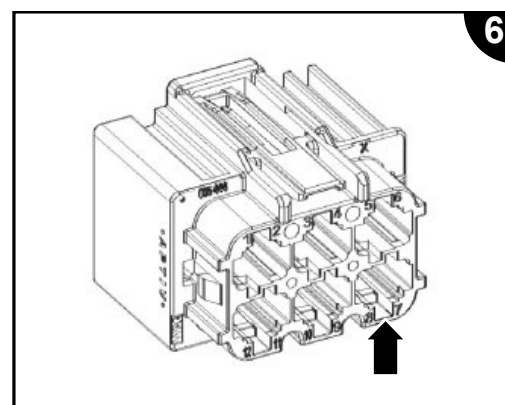
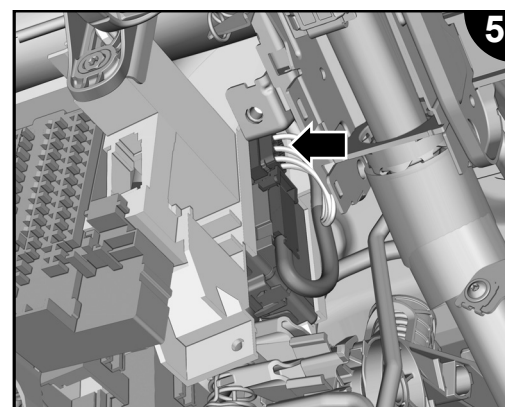
Figures 5 and 6

Connect (pin) individual wires of wiring set into supplied flat contact housing (white, 2-pin) as follows:

ⓘ Note

Always observe the gateway pin assignment in the circuit diagrams valid for the respective vehicle and production date, since these can vary.

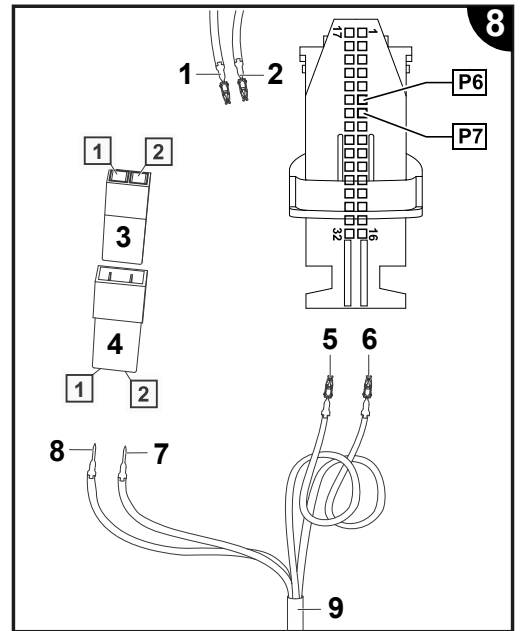
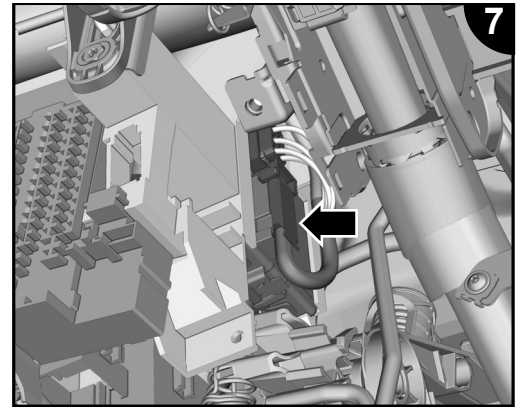
- green = pin 1
- white = pin 2
- Insert flat contact housing (white, 2-pin) in vehicle side connector frame of Gateway connector (black, 12-pin) pin 7/8.



CAN-Bus Gateway connection

Figures 7 and 8

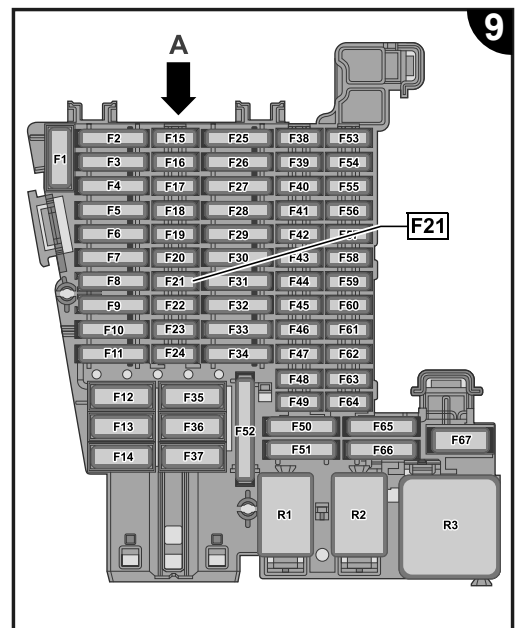
- Engage crimp connector -8- of shorter orange/brown wire 9 in chamber 1 of supplied connector -4-.
- Engage crimp connector -7- of shorter grey wire in chamber 2 of supplied connector -4-.
- Release 32-pin connector on Gateway (figure 7 -arrow-), pull out and open.
- Push crimp connector -1- of orange/brown individual wire out of chamber P6 of connector and engage it in chamber 1 of supplied connector -3-.
- Engage crimp connector -6- of orange/brown individual wire in chamber P6 of connector.
- Push crimp connector -2- of longer grey individual wire out of chamber P7 of connector and engage it in chamber 2 of supplied connector -3-.
- Engage crimp connector -5- of longer grey individual wire in chamber P7 of connector.
- Connect 32-pin connector to Gateway and lock.
- Connect connectors -3- and -4- together.



Camera voltage supply connection

Figure 9

- Check if fuse position F21 is already occupied.
- If already occupied, voltage supply is sourced using a suitable heat shrink crimp connector connected to individual wire from position F21 (red/yellow wire). The respective box contact on the supplied cable set must be removed beforehand for this purpose.
- If the fuse position F21 is not occupied, pull lock -A- out of the relay and fuse carrier behind the dash panel.
- Insert and engage individual red/yellow wire with box contact (camera voltage supply) of wiring set into fuse position F21.
- Push coloured locking device -A- in relay and fuse carrier inwards.
- Insert fuse, from items supplied, into fuse position "F21".



Finalising work and activating reversing camera

Reinstall all vehicle components in reverse order of removal => ELSA.

⚠ Note

- Before testing it is essential to ensure that the current version of ODIS Service is used on the vehicle diagnostic tester and that the vehicle battery no load voltage is at least 12.5 volt. Connect a battery charger -VAS 590X- to maintain the onboard power supply during the process.
 - The task code can only be entered once. Multiple call-ups without the respective request cause fault messages and have no consequences reference the configuration.
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- With the ignition switched off, connect the vehicle diagnosis tester with ODIS Service to the vehicle diagnostic connection.
 - Switch on ignition.
 - Start vehicle diagnosis tester and select operating mode "Diagnostics". Then identify the vehicle.
 - After reading the control units, carry out the following steps:
Select new control unit (reversing camera DA 006C) and identify (control unit must be listed in Installation list before carrying out Task code!).
 - Selecting menu options:
 - Special functions
 - Adapting software
 - -3- for "Carry out conversion/retrofit"
 - Enter 5-character task code **36FB9** and "Accept".

An online connection is created after entering the task code and a software adaption is carried out.

- After a successful activation of Infotainment system again
Start - to restart depress the On/Off switch for longer than 10 seconds or await the Bus to idle.
- Control units unlocked by the Task code are to be blocked again via "Control unit self-diagnosis" in the menu item "Access authorization".
- Exit diagnosis. All events in event memory will be deleted.
- Check function of reversing camera, => vehicle Owner's Manual.

Carry out calibration of camera with VAS 6350-A via ODIS.