

# Workshop Manual Octavia III 2013 ≻ Octavia III 2014 ≻

Electrical system

Edition 12.2014



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### **Repair Group**

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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.

# ŠKODA

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#### Starter, current supply, CCS 27 –

#### Contact corrosion 1

(SRL000764; Edition 12.2014)

The use of unsuitable connection elements (screws, nuts, washers, ...) causes contact corrosion.

This is why only connection elements with a special surface coatings are fitted.

Therefore, the rubber or plastic parts and the adhesives are made from electrically non-conductive materials.

In case of doubt regarding the re-use of certain parts, the use of new parts is recommended.



### WARNING

- It is recommended to use only original connection material as well as spare parts which are tested and compatible with aluminium, see ⇒ Electronic Catalogue of Original Parts .
- It is recommended to use only Škoda accessories.
- Any damage resulting from contact corrosion is not covered by the terms of the warranty.



- It is possible to use the contact surface cleaning set -VA\$6410- for repair work on contact surfaces which show traces of contact corrosion (oxidation).
- Examples for application of the contact surface cleaning set -VAS6410- can be found in the Workshop Manual "Electrical System – General notes" ⇒ Electrical System – General notes; Ќер. gr. 97.



## 2 Battery

 $\triangle$ 

### WARNING

When working on the battery, wear proper protection and observe safety precautions (see "Electrical System – General notes"  $\Rightarrow$  Electrical System – General notes; Rep. gr. 27).

### ⇒ "2.1 Basics, battery types", page 2

 $\Rightarrow$  "2.2 Warning instructions and safety precautions when working on the battery", page 2

 $\Rightarrow$  "2.3 Work sequence when disconnecting and connecting the battery", page 2

⇒ "2.4 Checking battery", page 4

⇒ "2.5 Charging battery", page 4

⇒ "2.6 Removing and installing battery", page 5

⇒ "2.7 Removing and installing battery tray", page 6

⇒ "2.8 Battery parameterisation", page 7

### 2.1 Basics, battery types

Batteries with a magic eye and plugs covered in adhesive tape are factory-installed in all vehicles (except vehicles with start-stop system).

In vehicles with start/stop system, (depending on types of engines see  $\Rightarrow$  Electronic Catalogue of Original Parts ) a fleece battery (AGM) or a battery with magic eye with EFB technology (Enhanced Flooded Battery) is mounted.

The AGM battery is also mounted in vehicles with auxiliary heating and additional heating.

Description of the function, test and maintenance of the previous batteries see "Electrical System – General notes"  $\Rightarrow$  Electrical System – General notes; Rep. gr. 27.

### 2.2 Warning instructions and safety precautions when working on the battery

All the notes and comments to this chapter can be found in the Workshop Manual "Electrical System – General notes"  $\Rightarrow$  Electrical System – General notes; Rep. gr. 27.

# 2.3 Work sequence when disconnecting and connecting the battery

⇒ "2.3.1 Disconnecting battery", page 2

 $\Rightarrow$  "2.3.2 Work sequence when connecting the battery", page 3

### 2.3.1 Disconnecting battery

- Switch off all electrical components and ignition, take out the ignition key.
- Open the cover of the heat protection sleeve.

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 Open cover -1-, loosen nut -3- and disconnect battery earth strap -2- only.



*If both terminals are disconnected, only then disconnect pole terminal (-) from battery earth.* 



# 2.3.2 Work sequence when connecting the battery



### WARNING

Observe the following additional instructions after working on the airbag system or on the electric belt tighteners or the safety belts:

- Switch on the ignition before connecting the battery.
- Nobody should be in the vehicle when the battery is being connected.
- If the vehicle is equipped with the interface for entry and start system (Kessy), the ignition should only be switched on after connecting the battery using the ⇒ Vehicle diagnostic tester outside the vehicle cockpit (the valid ignition key must be inside the vehicle) for safety reasons. This procedure is part of the tests in the targeted fault finding.

# i Note

- Neither grease nor oil the battery terminals.
- The battery pole terminals must only be fitted by hand without using any force in order to avoid damaging the battery housing.
- Install the battery pole terminals in such a way that the battery poles are flush with the terminals or protrude.
- If both terminals are disconnected, only then disconnect the battery positive pole terminal (+).
- The tightening torque is the same for all shapes of pole terminals (6 Nm).
- After connecting the battery and switching on the ignition, the warning light for the stability programme TCS/ESC and the warning light for the power-assisted steering remain lit. The warning lights go out automatically after driving a few metres forward. Thereby the steering angle sender - G85- is activated again.
- Switch off all electrical components and take out the ignition key.



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#### Vehicles with battery monitoring control unit - J367- (with start/ stop system and auxiliary heating and additional heating)

- Disconnect the plug -2- from the control unit -3- before connecting to the battery.
- Fit pole terminal (-) with control unit onto the "-" pole of the battery, see fig., and tighten the fixing nut -1- (6 Nm).
- Fit the plug -3- again onto the control unit.

Vehicles without battery monitoring control unit - J367-

- Fit battery pole terminal of earth line -2- onto negative terminal of battery and tighten the nut -3- arrow (6 Nm).

### Continued for all vehicles:

When the battery is reconnected, perform the following operations depending on the vehicle equipment:

- Set clock.
- Check the power windows ⇒ Maintenance ; Booklet Octavia III .
- ♦ Connect the ⇒ Vehicle diagnostic tester, interrogate the event memory and delete any event entries.

### 2.4 Checking battery

All the notes and comments to the work sequence for checking the battery can be found in the Workshop Manual "Electrical System – General notes"  $\Rightarrow$  Electrical System – General notes; Rep. gr. 27.

### 2.5 Charging battery

- Open the cover of the heat protection sleeve.
- Open the cover -2- and connect the red charging terminal to the battery plus (+) terminal. -1-.
- On vehicles with a battery monitoring control unit J367- , connect the black terminal of the charger to earthing point -3-.

All other notes and comments to this chapter can be found in the Workshop Manual "Electrical system — General notes "  $\Rightarrow$  Electrical system — General notes; Rep. gr. 27.









## 2.6 Removing and installing battery

### WARNING

Observe the battery handling instructions as well as the warning instructions and safety precautions for lead acid batteries  $\Rightarrow$  "2.2 Warning instructions and safety precautions when working on the battery", page 2.

### Removing

- Switch off all electrical components and ignition, take out the ignition key.
- Open the cover of the heat protection sleeve.
- Open cover -4-, loosen nut -6- and disconnect battery earth strap -5-.
- Open cover -3-, loosen nut -2- and connect positive cable to the battery -1-.

- Pull out heat protection sleeve -4-.
- Unscrew the screw -2- (22 Nm) and remove securing bracket for battery -1-.
- Slide the battery out of the battery tray and remove it upwards.

### Installing

Installation is carried out in the reverse order. When installing, observe the following:





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 Insert battery into the battery tray -1- so that the battery base is resting against the rear and the sides -arrows- up to the stop.

- The nose -arrow- on the securing bracket -1- must enter the recess in the battery base.
- Tighten fixing screw -2- (15 Nm).
- With the ignition and electrical components switched off, connect the positive terminal of the battery -3- and tighten the nut -4- (6 Nm).
- Note the work sequence when connecting the negative terminal and note the measures after reconnecting the battery
   ⇒ "2.3.2 Work sequence when connecting the battery", page 3.



### Caution

There are certain dangers if the battery is incorrectly mounted or mounted loosely:

- Shortened service life due to damage from vibration (danger of explosion)
- Damage of the grid plates of the battery.
- Damage to battery housing by securing bracket (possibility of acid leaking, with high consequential costs)
- Poor crash safety

## 2.7 Removing and installing battery tray

### Removing

- Remove air filter housing in front of the battery (does not apply to 1.2 TSI; 1.4 TSI engine) ⇒ Engine; Rep. gr. 23 diesel engines or ⇒ Engine; Rep. gr. 24 petrol engines.
- Remove the battery  $\Rightarrow$  "2.6 Removing and installing battery", page 5.
- Screw out the screws -arrows- (9 Nm) and remove the battery tray -1-.

### Installing

Installation is carried out in the reverse sequence.









### 2.8 Battery parameterisation

This is performed only on vehicles with a battery monitoring control unit - J367- when replacing the battery with a new one of another type or with higher capacity.

After a new start battery is installed and the battery has been parameterised, the technical data of the new battery are sent to the battery monitoring control unit - J367- .

- → Vehicle diagnostic tester connect and select the operating mode "Targeted fault-finding".
- Select the "Selected Functions/Components" and subsequently the following menu points using the button "Skip":
- Body
- Electrical system
- Diagnostic capable systems
- Checking battery
- Battery monitoring function
- Adaption battery parameterisation



### 3 Starter

### $\Rightarrow$ "3.1 Removing and installing starter", page 8

### 3.1 Removing and installing starter

### Removing

- Disconnect battery earth strap ⇒ "2.3.1 Disconnecting battery", page 2.
- Remove air filter housing in front of the battery (does not apply to 1.2 TSI; 1.4 TSI engine) ⇒ Engine; Rep. gr. 23 diesel engines or ⇒ Engine; Rep. gr. 24 petrol engines.
- Move the protective cover -arrow-.







- Unscrew nut -3- and disconnect positive cable.
- Release and pull off connector -2-.
- When earth strap is connected, unscrew nut -1- and loosen earth strap.

- Then screw out top fixing screw for starter -arrow-.

M12 – 80 Nm

M10 – 40 Nm

Vehicles fitted with a manual gearbox:

Remove the sound dampening system ⇒ Body Work; Rep. gr. 50.

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 Unscrew nut -1- (23 Nm) and lay aside line holder -2- together with line.

### All vehicles:





- Screw out bottom fixing screw -arrow- and remove the starter.
  - M12 80 Nm
  - M10 40 Nm

### Installing

Installation is carried out in the reverse order. When installing, observe the following:



### Caution

The line to terminal B+ must be laid and attached so that it does not come into contact with rotating or moving parts of the assembly (e.g. with the shift mechanism, with rotating parts of the assembly etc.)!

If the line is laid/attached incorrectly to terminal B+, there is a risk of damage to the line and of a short circuit or fire.

## i Note

Use new self-locking nuts -1- and -3- for attaching the earth strap and the positive cable, see ⇒ Electronic Catalogue of Original Parts .

### Tightening torques for positive cable and earth strap:

Battery earth strap, Pos. -1- 20 Nm

Positive cable, Pos. -3-:

- Starter with copper screw 16 Nm
- Starter with steel screw 20 Nm
- Pay attention to the work sequence when connecting the battery
   ⇒ "2.3.2 Work sequence when connecting the battery",

 $\Rightarrow$  "2.3.2 Work sequence when page 3.



### 4 Generator

- ⇒ "4.1 Checking generator", page 10
- ⇒ "4.2 Removing and installing alternator", page 10
- ⇒ "4.3 Fixing the B+ wire to the AC generator", page 12

 $\Rightarrow$  "4.4 Checking the carbon brushes of the AC generator", page 13

 $\Rightarrow$  "4.5 Removing and installing the Bosch voltage regulator", page 13

 $\Rightarrow$  "4.6 Removing and installing the Valeo voltage regulator", page 14

 $\Rightarrow$  "4.7 Removing and installing the V-ribbed belt pulley on the AC generator", page 14

 $\Rightarrow$  "4.8 Removing and installing the V-ribbed belt pulley with free wheel", page 15

### 4.1 Checking generator

The AC generator can be inspected with the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding" point – body / electrical system / 27-starter, voltage supply / electrical components / AC generator - C-.

### 4.2 Removing and installing alternator

### Removing

- Disconnect battery earth strap
   ⇒ "2.3 Work sequence when disconnecting and connecting the battery", page 2
- Remove the V-ribbed belt  $\Rightarrow$  engine; Rep. gr. 13.

### Vehicles with TDI engine

- Remove the fuel filter  $\Rightarrow\,$  Engine; Rep. gr. 20 and lay it to the side (do not detach hoses).

Vehicles with TDI and 1.2/1.4/1.8 TSI engines:

- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50.
- Remove fan shroud with cooling fans  $\Rightarrow$  Engine; Rep. gr. 19.
- Remove AC compressor (do not open the refrigerant circuit) and secure to the side so that the intake hoses are not excessively strained ⇒ Heating, Air Conditioning; Rep. gr. 87.

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- 1.8 TSI engine Loosen hose clamps -2-, unscrew screws -arrows- and remove air flow hose.
- Note

Close open lines with clean plug for example from the blanking plug set -VAS 6122- .

For 1.2 TSI engine remove guide roller, and for 1.4 TSI remove deflection roller  $\Rightarrow$  Engine; Rep. gr. 13.

All vehicles:

- Remove the screen cap from the fixing nut of the B+ cable -1- and unscrew the nut.
- Unplug connector -2-.
- Unscrew the securing nut (3.2 Nm) for line holder -3- or unclip the line (engine-dependent), and lay the line to the side.
- Vehicles with AC generator secured from the front side screw out screws -arrows- (23 Nm).

# Note

- If the AC generator is jammed in the holder, screw the screws back in, then loosen them in two turns.
- Tap the screw heads gently with the flat side of the hammer. This will loosen the bushings that are used for securing the AC generator.







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- Vehicles with AC generator secured from the side screw out screws -arrows- (23 Nm).
- Remove AC generator downwards.

### Installing

Installation is carried out in the reverse order. When installing, observe the following:



Follow the mounting sequence for the V-ribbed belt  $\Rightarrow$  Engine; Rep. gr. 13

Fix the B+ wire correctly to the AC generator  $\Rightarrow$  "4.3 Fixing the B+ wire to the AC generator", page 12.

- Vehicles with AC generator secured from the front side for easier mounting move the threaded bushes -A- approx. 3 mm -arrows-.
- Observe the tightening torque for fastening the B+ wire see  $\Rightarrow$  "4.3 Fixing the B+ wire to the AC generator", page 12.
- Pay attention to the work sequence when connecting the battery
   "2.2 Work sequence when disconnecting and connecting

 $\Rightarrow$  "2.3 Work sequence when disconnecting and connecting the battery", page 2

 After work has been carried out, always start the engine and check that the belt is running correctly.

### 4.3 Fixing the B+ wire to the AC generator



Caution

The screw connection for the B+ cable at the generator is identified with B1+!

If the B+ cable is not tightened to the specified tightening torque, this may result in the following risks:

- The battery will not charge fully.
- Complete failure of vehicle electronics
- Spark formation may cause a fire
- Damage resulting from overvoltage on electronic components and control units

The line to terminal B+ must be laid and attached so that it does not come into contact with rotating or moving parts of the assembly (e.g. with the shift mechanism, with rotating parts of the assembly etc.)!

If the line is laid/attached incorrectly to terminal B+, there is a risk of damage to the line and of a short circuit or fire.





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## i Note

Always use a new self-locking nut for attaching the B+ cable -arrow-, see ⇒ Electronic Catalogue of Original Parts .

The tightening torque for the self-locking nut of the B+ cable -arrow- is 20  $\ensuremath{\mathsf{Nm}}$  .

# 4.4 Checking the carbon brushes of the AC generator

Length of carbon brushes when new = 12 mm

Wear limit = 5 mm

Tolerance of carbon brushes to each other = +1 mm





## 4.5 Removing and installing the Bosch voltage regulator

- Careully prise off the protective cover -1- from the generator.





- Screw out fixing screws -arrows- (2 Nm) of the voltage regulator and remove voltage regulator.
- Installation is carried out in the reverse order.



### 4.6 Removing and installing the Valeo voltage regulator

 Press off screen cap on the rear side of the generator -arrows-.

- Unscrew screws -1- and nut -2-.
- Remove voltage regulator.
- Installation is carried out in the reverse sequence.





# 4.7 Removing and installing the V-ribbed belt pulley on the AC generator

### Special tools and workshop equipment required

- Socket T30032-
- Remove ribbed V-belt and/or generator
   ⇒ "4.2 Removing and installing alternator", page 10.
- Remove the V-ribbed belt pulley using the socket insert -T30032-.

Removal - turn the alternator shaft to the right. Installation - turn the alternator shaft to the left. Tightening torque: 65 Nm





# 4.8 Removing and installing the V-ribbed belt pulley with free wheel

### Special tools and workshop equipment required

- Polygon-head adapter MP 1-309-
- Remove ribbed V-belt and/or generator
   ⇒ "4.2 Removing and installing alternator", page 10.
- Remove the V-ribbed belt pulley using the polygon-head adapter - MP 1-309-.

Removal - turn the alternator shaft to the right. Installation - turn the alternator shaft to the left. Tightening torque: 80 Nm

- Clip the protective cap onto the belt pulley with free wheel.





#### 5 "Start-stop" system

 $\Rightarrow$  "5.1 Safety precautions for vehicles with start-stop system", page 16

 $\Rightarrow$  "5.2 General description", page 16

 $\Rightarrow$  "5.3 Fault recognition and fault display", page 17

⇒ "5.4 Battery recharging or starting by external source on vehicles with battery monitoring control unit J367 ", page 17

⇒ "5.5 Replacing the battery on vehicles with battery monitoring control unit J367 ", page 17

 $\Rightarrow$  "5.6 Battery monitoring control unit J367", page 17

 $\Rightarrow$  "5.7 Button for start-stop system", page 18

#### 5.1 Safety precautions for vehicles with "start-stop" system



Caution

Risk of injury from automatic engine start.

- On vehicles with activated start-stop system (recognizable by a message in the dash panel insert) there is a risk that the engine can start automatically.
- It is therefore necessary to ensure that the start-stop system is deactivated when carrying out work on the vehicle (switch ignition off, if required switch ignition on again).

#### 5.2 General description

The start-stop system is designed to reduce fuel consumption and thus contributes to the reduction of pollutant emissions.

For this purpose the engine automatically switches off during standstill phases of the vehicle and restarts automatically or when operating the clutch pedal.

The system is always automatically activated when the ignition is switched on and can be deactivated with the "start-stop" button in the centre console.

Detailed description of the function as well as conditions for the operation of the start-stop system see:

- ⇒ Self-study programme No. 86 ; Start-stop system in Skoda vehicles
- ⇒ Owner's manual Octavia III

Connection diagram of the start-stop system  $\Rightarrow$  Current flow diagrams, Electrical fault finding and Fitting locations.



## Note

- The components adapted for the start-stop system are not specifically designated and differ only slightly from the usual components (e.g. starter, generator).
- When carrying out repairs, pay attention to the correct designation of the spare parts see > Electronic Catalogue of Original Parts .



### 5.3 Fault recognition and fault display

For fault finding use the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding".

### 5.4 Battery recharging or starting by external source on vehicles with battery monitoring control unit - J367-

# When recharging or starting by external source, pay attention to the following points:

Do not disconnect the earth strap of the battery when recharging.

First of all connect to the positive terminals using the charge or jump leads; then connect to the body mass (do not connect to the negative terminal of the battery).



- The direct charging (starting aid) of the battery at the negative terminal results in the bypass of the battery monitoring control unit - J367- (then the current flow is not monitored by this control unit).
- The values regarding the battery state, which are stored in the data bus diagnostic interface - J 533- (Gateway), would then no longer correspond to the values of the charged battery.
- This can lead to the failure of the start-stop system or the auxiliary heating and additional heating.
- Testing and charging the battery "Electrical System General notes" ⇒ Electrical System – General notes; Rep. gr. 27.

# 5.5 Replacing the battery on vehicles with battery monitoring control unit - J367-

Owing to their greater cycle stability during cold starting, a fleece battery (AGM) or a battery with magic eyes with EFB technology (Enhanced Flooded Battery) is used as a start battery in place of the usual lead-acid batteries.

Description see "Electrical System – General notes"  $\Rightarrow$  Electrical System – General notes; Rep. gr. 27 .



When replacing the battery, only install a fleece battery (AGM) again or a battery with EFB technology with the same capacity.

### 5.6 Battery monitoring control unit - J367-

The control unit is located directly at the negative connection terminal of the battery earth strap.

It transmits information on whether the battery has enough electric power for the operation of the start-stop system or auxiliary/ additional heating.

It is connected to the data bus diagnostic interface - J533- (Gate-way) via the LIN data bus.

In the event of a failure, an entry is made in the event memory. The start/stop system/auxiliary heating and additional heating is switched off.



# i Note

After replacing, adapt (code) the new battery monitoring control unit - J367- with  $\Rightarrow$  Vehicle diagnostic tester.

## 5.7 Button for "start-stop" system

Removing and installing the button for the start-stop system  $\Rightarrow$  "2.3 Removing and installing switches in centre console", page 153.



## 6 Cruise control system (CCS)

The engine control unit controls the function of the CC on vehicles which have a cruise control.

### Fault recognition and fault display

Faults of the CC are transmitted via the engine control unit.

Detailed description of the function  $\Rightarrow~$  Owner's manual Octavia III .

For fault finding use:

- → Vehicle diagnostic tester in the function "Targeted fault find-ing".



7 Automatic distance control (adapted CC) and Front Assist

### $\Rightarrow$ "7.1 General description", page 20

 $\Rightarrow$  "7.2 Overview of the fitting positions: Automatic distance control, Front Assist", page 20

 $\Rightarrow$  "7.3 Removing and installing the clearance control control unit J428 ", page 22

 $\Rightarrow$  "7.4 Removing and installing retaining plate for clearance control unit J428 ", page 22

⇒ "7.5 Calibrate automatic distance control", page 23

### 7.1 General description

- Adaptive CC (ACC) regulates the distance from the vehicle in front based on the pre-set speed and distance.
- Front Assist identifies the critical situations in the distance to the obstacle and helps lower the braking distance (also available as a stand-alone device without ACC)
- Front Assist works independently, even ACC is switched off.

Detailed description of the function of "Automatic distance control" and "Front Assist "  $\Rightarrow$  Owner's manual Octavia III .

### 7.2 Overview of the fitting positions: Automatic distance control, Front Assist

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#### 1 - Dash panel insert

with control unit in dash panel insert - J285-

2 - Switch unit on the steering column

- Equipment variant with adaptive CCS
- Removing and installing ⇒ "8.3 Removing and installing switch unit on the steering column", page 119
- 3 Adaptive CCS switch E45
  - only for vehicles with adaptive CCS
  - Component part of the switch unit on the steering column
  - ➡ \*8.3 Removing and installing switch unit on the steering column", page 119
- 4 Cover
- 5 Connector
- 6 Clearance control control unit J428-
  - □ Removing and installing ⇒ "7.3 Removing and installing the clearance control control unit J428 ", page 22
  - □ Calibration ⇒ "7.5 Calibrate automatic distance control", page 23

### 7 - Holder for clearance control control unit - J428-

- □ On the new part, the pin bolts -Pos. 8- are pre-configured in the base position
- 8 Pin bolt
  - □ Adjustment bolts for clearance control control unit J428-
  - 2 pieces

### 9 - Retaining plate

Removing and installing

\*7.4 Removing and installing retaining plate for clearance control control unit J428 ", page 22

### 10 - Quick-release fitting

- 3 pieces
- Replace after disassembly

#### 11 - Screw

- 2 pieces
- 8 Nm





# 7.3 Removing and installing the clearance control control unit - J428-



When replacing the Clearance control control unit - J428-, connect  $\Rightarrow$  Vehicle diagnostic tester and, in the operating mode "Targeted fault finding" or "Targeted functions", select the function "Replace relevant control unit".

### Removing

- Switch off the ignition and all electrical components.
- Remove front bumper  $\Rightarrow$  Body Work; Rep. gr. 63.
- Unscrew screws -3- (8 Nm) and remove control unit -1- with retaining plate.



- Where necessary, remove locking lugs -arrows A-, tilt out control unit -1- -arrow B- and push out from the holder -3-.
- Separate plug connection -2-.

### Install

Installation is performed in the reverse order, pay attention to the following points:

Calibrate automatic distance control
 ⇒ "7.5 Calibrate automatic distance control", page 23.

# 7.4 Removing and installing retaining plate for clearance control control unit - J428-

### Removing

 Removing steering column electronics control unit - J428- ⇒ "7.3 Removing and installing the clearance control control unit J428 ", page 22 .



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- Unlock quick-release fittings -2- by rotating it -arrow-.
- Remove quick-release fittings -2- from the pin bolts -1-.
- Remove retaining plate -3- from the control unit -4-.

#### Install

Installation is performed in the reverse order, pay attention to the following points:

- Replace quick-release fittings -2-.
- Press pin bolts -1- until they lock into the quick-release fittings.
- Calibrate automatic distance control
   ⇒ "7.5 Calibrate automatic distance control", page 23.



### 7.5 Calibrate automatic distance control

Work procedure to calibrate automatic distance control  $\Rightarrow~$  Chassis; Rep. gr. 44 .



#### Gauges, instruments 90 –

## Dash panel insert

### ⇒ "1.1 General description", page 24

- ⇒ "1.2 Adjust/replace dash panel insert", page 24
- ⇒ "1.3 Removing and installing dash panel insert", page 24
- ⇒ "1.4 Warning lights in the dash panel insert", page 26

# $\Rightarrow$ "1.5 The self-diagnostic function of the dash panel insert", page 27

1

#### 1.1 General description

### Technology of the dash panel insert

The dash panel insert is supplied in three versions.

- 1 Basic version with segment display "Basic"
- Without multi-function display ٠
- With multi-function display
- 2 Dash panel insert with information display (TFT) "Medium"

3 - Dash panel insert with colour information display (TFT) "Colour'

All panel operations are visually identical.

### Description of the function and control:

- ⇒ Owner's manual Octavia III
- ⇒ Self-study programme No. 97 ; Škoda Octavia III Vehicle presentation

Contact assignment of plug connection on the dash panel insert ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.

#### 1.2 Adjust/replace dash panel insert

 $\Rightarrow$  Vehicle diagnostic tester connect online.

If the dash panel insert is replaced, the  $\Rightarrow$  Vehicle diagnostic tester must be connected before the removal of the original dash panel insert and must be confirmed in the "replace control unit" Guided Functions. Thereby, the required values are read into the diagnostic unit from the original dash panel insert. If the original dash panel insert is not available or does not communicate with the diagnostic unit, then proceed according to the information in the  $\Rightarrow$  Vehicle diagnostic tester

After fitting the new dash panel insert, adapt all ignition keys.

#### 1.3 Removing and installing dash panel insert



After reading in the information stored in the control unit, the work sequence "adjust/replace dash panel insert" must be carried out before replacing the dash panel insert *⇒ "1.2 Adjust/replace dash panel insert", page 24* 



### Removing

- Switch off the ignition and all electrical components.
- Pull steering wheel out fully and lock it in its lowest position.
- Take hold of the bottom cover of the control panel -1- and unclip it from the catches.

- Unscrew screws -2- and push out the dash panel insert -1- -arrow-.

 Press the catch -1- and disconnect the plug connection by tilting out the clamp -arrow-.

### Installing

- Attach the plug connection and insert the dash panel insert until it locks into the assembly opening -Detail-.
- Screw in screws -2- (1.5 Nm) and install the lower cover.



- For fault finding perform self-diagnosis

   *⇒* "1.5 The self-diagnostic function of the dash panel insert",
   <u>page 27</u>.
- Contact assignment of plug connection ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.











## 1.4 Warning lights in the dash panel insert

# i Note

- ◆ Detailed description of the function of warning lights ⇒ Owner's manual Octavia III .
- The arrangement and number of warning lights depends on the equipment level and type of dash panel insert.

### 1 - Attach the front seatbelt

- 2 Tyre pressure
- 3 Power-assisted steering

# 4 - Microelectronics check (petrol engine)

Diesel engines - glow period





- 5 Exhaust gas control system
- 6 Trailer indicator light

7 - Warning light for stability (ESC)

8 - Antilock braking system (ABS)

- 9 Main beam assist
- 10 Warning signal black ice
- 11 Start/stop system
- 12 Attach the rear seatbelt
- 13 Washer fluid level
- 14 Engine oil
- 15 Generator
- 16 Fog lights
- 17 Rear fog light
- 18 Selector lever lock
- 19 Pad thickness
- 20 Fuel reserve
- 21 not activated
- 22 Follow Lane Assist
- 23 Coolant temperature, coolant amount
- 24 Cruise control system
- 25 Warning/hazard (orange/red)
- 26 Light failure
- 27 Handbrake
- 28 not activated
- 29 Diesel particle filter (diesel engine)
- 30 Brake system
- 31 Main beam
- 32 Switch off control for traction
- 33 Safety system

# 1.5 The self-diagnostic function of the dash panel insert

### Initiating self-diagnosis of the dash panel insert

The dash panel insert is controlled by a microprocessor and features a comprehensive self-diagnosis. If faults occur in the system components, fault codes are stored in the event memory of the dash panel insert.

"Perform self diagnosis" with the vehicle diagnosis, measurement and information system - VAS 5051- in the fault finding function.



1

# 91 – Communication

### Multimedia information system – Infotainment

### ⇒ "1.1 General points", page 28

⇒ "1.2 Installation – Infotainment system", page 29

 $\Rightarrow$  "1.3 Infotainment summary of components – with radio", page 31

# $\Rightarrow$ "1.4 Infotainment summary of components – with navigation", page 32

### ⇒ "1.5 Electronic anti-theft coding", page 33

 $\Rightarrow$  "1.6 Removing and installing the Infotainment display/control unit", page 33

 $\Rightarrow$  "1.7 Infotainment self-diagnosis", page 36

### 1.1 General points

- Infotainment system = Multimedia information system (MIB modular infotainment kit).
- It enables the driver to access the vehicle setting, assistance systems and comfort functions via a single system.
- Even the basic version can fully cover the entertainment, communication and vehicle interaction needs of the vehicle occupants.

### Further information and description of function:

⇒ Owner's manual Octavia III

 $\Rightarrow$  Self-study programme No. 97 ; Škoda Octavia III Vehicle presentation

 $\Rightarrow$  Current flow diagrams, Electrical fault finding and Fitting locations


### 1.2 Installation – Infotainment system

- ⇒ "1.2.1 Basic Infotainment features (entry)", page 29
- ⇒ "1.2.2 Medium Infotainment features (standard)", page 30
- $\Rightarrow$  "1.2.3 High Infotainment features (high)", page 30

### 1.2.1 Basic Infotainment features (entry)

### **Construction Blues, Swing**

### Blues

- Monochrome display
- Media inputs AUX-IN points; USB/MEDIA IN (Mitsumi)
- AM/FM radio
- Vehicle comfort functions displays and settings
- Optional expansions for:
- ♦ 4x speakers rear

### Swing

Function such as Blues, in addition:

- CD drive
- SD card slot
- Optional expansions for:
- ♦ Bluetooth
- Phonebox



1. Multimedia information system – Infotainment 29



### 1.2.2 Medium Infotainment features (standard)

### Bolero, Amundsen installation

- 1 Display unit
- 2 Control unit

### Bolero

- Capacitive colour touch display
- CD drive; SD card slot
- Media inputs AUX-IN points; USB/MEDIA IN (Mitsumi)
- AM/FM radio
- Vehicle comfort functions displays and settings
- Optional expansions for:
- DAB (digital receiver)
- CANTON sound system
- Voice control
- Apple connectivity
- Bluetooth
- Phonebox

### Amundsen

Functions such as Bolero, plus:

- 2 x SD card slot
- Navigation with 2D and 2.5D display (bird's eye view)
- Bluetooth in basic configuration

### 1.2.3 High Infotainment features (high)

### Columbus

- 1 Display unit
- 2 Control unit
- Capacitive colour touch display
- DVD drive; 2 x SD card slot
- Media inputs AUX-IN points; USB/MEDIA IN (Mitsumi)
- AM/FM radio
- Navigation with 2D, 2.5D display (bird's eye view); 3D
- Bluetooth
- Vehicle comfort functions displays and settings

Optional expansions for:

- Dual DAB tuner (digital receiver)
- CANTON sound system
- Phonebox
- Traffic sign recognition







### 1.3 Infotainment summary of components – with radio

The number and the design of the components depend on the vehicle equipment.

### 1 - Front treble speaker

- □ Removing and installing ⇒ "6.2 Removing and installing front treble loudspeakers", page 52
- 2 Multi-functional steering wheel
  - ❑ Description and body work ⇒ "4 Multi-functional steering wheel", page 47

### 3 - Rear treble speaker

□ Removing and installing ⇒ "6.3 Removing and installing the rear treble speaker", page 52

#### 4 - Infotainment display unit (Bolero)/display and control unit (Blues, Swing)

□ Removing and installing ⇒ "1.6 Removing and installing the Infotainment display/control unit", page 33

### 5 - Infotainment control unit (Bolero)

□ Removing and installing ⇒ "1.6.3 Infotainment control unit Bolero, Amundsen and Columbus ", page 35

### 6 - Rear window aerial

- Combi type aerials fitted into the rear side window
- □ Additional information and aerial overview  $\Rightarrow$  "2 Aerial systems", page 37

### 7 - Connections for external audio/video sources

□ Removing and installing ⇒ "7 Connections for audio/video signal MEDIA IN (multimedia socket) external source", page 54

### 8 - Mid-bass speaker rear

- Removing and installing
  - $\Rightarrow$  "6.1 Removing and installing the front and rear mid-bass speaker", page 52

### 9 - Mid-bass speaker front

□ Removing and installing ⇒ "6.1 Removing and installing the front and rear mid-bass speaker", page 52





### 1.4 Infotainment summary of components – with navigation

The number and the design of the components depend on the vehicle equipment.

### 1 - Front treble speaker

□ Removing and installing ⇒ "6.2 Removing and installing front treble loudspeakers", page 52

### 2 - Multi-functional steering wheel

 Description and body work
 <u>\*4 Multi-functional</u>

⇒ "4 Multi-functional steering wheel", page 47

### 3 - Rear treble speaker

□ Removing and installing ⇒ "6.3 Removing and installing the rear treble speaker", page 52

### 4 - Infotainment display unit

□ Removing and installing ⇒ "1.6 Removing and installing the Infotainment display/control unit", page 33

### 5 - Infotainment control unit

□ Removing and installing ⇒ "1.6.3 Infotainment control unit Bolero, Amundsen and Columbus ", page 35

### 6 - Roof aerial

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- □ for GPS signal receipt
- □ Additional information, removing and installing ⇒ "2 Aerial systems", page 37

### 7 - Rear window aerial

- Combi type aerials fitted into the rear side window
- □ Additional information and aerial overview  $\Rightarrow$  "2 Aerial systems", page 37

### 8 - Connections for external audio/video sources

□ Removing and installing ⇒ "7 Connections for audio/video signal MEDIA IN (multimedia socket) external source", page 54

### 9 - Mid-bass speaker rear

□ Removing and installing ⇒ "6.1 Removing and installing the front and rear mid-bass speaker", page 52

### 10 - Mid-bass speaker front

□ Removing and installing ⇒ "6.1 Removing and installing the front and rear mid-bass speaker", page 52





#### 1.5 Electronic anti-theft coding

The Infotainment display/control unit is equipped with an electronic comfort anti-theft coding, which operates in combination with the dash panel insert.

The Infotainment display/control unit must be paired with an appropriate vehicle using the  $\Rightarrow$  Vehicle diagnostic tester. The security code is no longer entered.

The Infotainment display/control unit, which is assembled at the factory, is paired only when it is used for the first time with the corresponding vehicle. If the battery is disconnected and then reconnected or if the Infotainment display/control unit is removed from a vehicle and then re-installed in the same vehicle, pairing with the corresponding vehicle is no longer valid.

If the dash panel insert is replaced, the Infotainment display/control unit must be paired with the relevant vehicle once again.

The user must have a valid authorisation to use a programme for pairing the Infotainment display/control unit.

Additional information  $\Rightarrow$  Infotainment operating manual.

#### 1.6 Removing and installing the Infotainment display/control unit

<u>.6.1 Infotainment display/control unit Blues and Swing ", page</u> <u>⇒ "1</u> 33

⇒ "1.6.2 Infotainment display unit Bolero, Amundsen and Columbus ", page 34

⇒ "1.6.3 Infotainment control unit Bolero, Amundsen and Columbus ", page 35

#### 1.6.1 Infotainment display/control unit "Blues" and "Swing"

### Special tools and workshop equipment required

Release tool - T10057-

The Infotainment display and control forms a single unit.

### Removing

- Remove the data storage device that is still in the unit.
- Switch off the ignition and all electrical components.
- Insert unlocking tools into the openings in the display unit -see fig.- until there is an audible click.
- Remove the display/control unit by pulling on the unlocking tools -arrows-.





- Compress plug catch -arrows-.

- Open catch clamp -arrow- and disconnect plug.
- Release and pull off other plug connections.
- Press back catches from the side and remove the unlocking tools.

### Installing

Installation is carried out in the reverse order. When installing, observe the following:

### Note

When inserting the display and control unit, on no account press on the display or on the operating buttons, otherwise they will be damaged.

When replacing the pairing and the coding of the Infotainment display and control unit, see  $\Rightarrow$  "1.5 Electronic anti-theft coding", page 33.

### 1.6.2 Infotainment display unit "Bolero", "Amundsen" and "Columbus"

### Special tools and workshop equipment required

Release tool - T10057-

### Removing

- Switch off the ignition and all electrical components.
- Insert unlocking tools into the openings in the display unit -see fig.- until there is an audible click.



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- Remove the display unit by pulling on the unlocking tools -arrows-.
- Release and disconnect the plug connections.
- Press back catches from the side and remove the unlocking tools.

### Installing

Installation is carried out in the reverse order. When installing, observe the following:

### Note

When inserting the display unit ,on no account press on the display or on the operating buttons, otherwise they will be damaged.

When replacing the Infotainment display unit pairing see  $\Rightarrow$  "1.5 Electronic anti-theft coding", page 33

#### 1.6.3 Infotainment control unit "Bolero", "Amundsen" and "Columbus"

### Removing

- Remove the data storage device that is still in the Infotainment control unit ⇒ Infotainment operating manual.
- Switch off the ignition and all electrical components.

Vehicles manufactured up to CW 13/2013:

- Remove the glove compartment  $\Rightarrow$  Body Work; Rep. gr. 70.
- Put your hand behind the control unit and loosen the cable ties from the fin on the heating and air conditioning unit.

#### All vehicles:

Insert unlocking tools into the openings in the control unit -see fig.- until there is an audible click.



Mask the lower edge of the assembly opening with commercially available tape that will not scratch the lining when the connectors are removed.

Remove the display unit by pulling on the unlocking tools -arrows-.







- Compress plug catch -arrows-.

- Open catch clamp -arrow- and disconnect plug.
- Release and pull off other plug connections.

### Installing

Installation is carried out in the reverse order. When installing, observe the following:

Vehicles manufactured up to CW 13/2013:



### Caution

After inserting the unit into the assembly opening it is essential to once again secure the wiring loom to the fin on the heating and air conditioning unit.

If the wiring loom is installed incorrectly, there is a risk that the wiring loom will collide with the recirculating air flap for the heating and air conditioning unit.

- Following installation, perform a visual inspection of recirculating air flap operation.

### All vehicles:

When replacing the pairing and the coding of the Infotainment control unit, see  $\Rightarrow$  "1.5 Electronic anti-theft coding", page 33.

### 1.7 Infotainment self-diagnosis

Carry out "self-diagnosis" with the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding".





### 2 Aerial systems

⇒ "2.1 Overview of the aerial systems", page 37

⇒ "2.2 Removing and installing the roof aerial", page 39

 $\Rightarrow$  "2.3 Removing and installing frequency filters for frequency modulation (FM) in the positive cable R179 ", page 40

 $\Rightarrow$  "2.4 Removing and installing frequency filters for frequency modulation (FM) in the positive cable R178 ", page 40

 $\Rightarrow$  "2.5 Removing and installing AM/FM, FM2/DAB aerial module (amplifier)", page 41

⇒ "2.6 Replacing aerial cables", page 42

### 2.1 Overview of the aerial systems

Note

- The number of components of the aerial system depends on the vehicle equipment.
- When equipped with Infotainment "Blues" and "Swing", the display unit -Pos. 3- and the control unit -Pos. 4- form a single unit.
- Further information and description of functions ⇒ Self-study programme No. 97; Škoda Octavia III Vehicle presentation.

### <u>⇒ "2.1.1 Octavia", page 37</u>

⇒ "2.1.2 Octavia Combi", page 39

2.1.1 Octavia



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### 1 - Induction plate

- Forms the GSM signal induction field
- □ Removing and installing ⇒ "3.4 Removing and installing induction plate", page 45

### 2 - Signal amplifier for mobile phones

- □ Removing and installing ⇒ "3.3 Removing and installing the aerial signal reception amplifier (compensor)", page 44
- 3 Infotainment display unit
- 4 Infotainment control unit

#### 5 - Frequency filter for the frequency modulation (FM) in the negative cable - R178-

- Prevents the aerial signals from being shortcircuited to earth
- Removing and installing ⇒ "2.3 Removing and installing frequency filters for frequency modulation (FM) in the positive cable R179 ", page 40

### 6 - Aerial module (amplifier)

- AM/FM reception
- Removing and installing ⇒ "2.5 Removing and in- stalling AM/FM, FM2/ DAB aerial module (amplifier)", page 41

### 7 - Rear window aerial -R130-

### 8 - Aerial module (amplifier)

- □ FM2/DAB reception
- Removing and installing ⇒ "2.5 Removing and installing AM/FM, FM2/DAB aerial module (amplifier)", page 41

### 9 - Frequency filter for the frequency modulation (FM) in the positive cable - R179-

- D Prevents the aerial signals from being short-circuited to earth
- □ Removing and installing ⇒ "2.3 Removing and installing frequency filters for frequency modulation (FM) in the positive cable R179 ", page 40

### 10 - Roof aerial

□ Removing and installing  $\Rightarrow$  "2.2 Removing and installing the roof aerial", page 39

### 11 - Auxiliary heating radio controlled receiver - R64-

□ removing and installing  $\Rightarrow$  Heating, Air Conditioning; Rep. gr. 82



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### 2.1.2 Octavia Combi

### 1 - Induction plate

- Forms the GSM signal induction field
- □ Removing and installing ⇒ "3.4 Removing and installing induction plate", page 45

## 2 - Signal amplifier for mobile phones

- □ Removing and installing ⇒ "3.3 Removing and installing the aerial signal reception amplifier (compensor)", page 44
- 3 Infotainment display unit
- 4 Infotainment control unit

### 5 - Rear right side window aerial

- □ Removing and installing ⇒ Body Work; Rep. gr. 64
- 6 Aerial module (amplifier)
  - □ AM/FM reception
  - □ Removing and installing ⇒ "2.5 Removing and installing AM/FM, FM2/ DAB aerial module (amplifier)", page 41

### 7 - Aerial module (amplifier)

- FM2/DAB reception
- □ Removing and installing ⇒ "2.5 Removing and installing AM/FM, FM2/ DAB aerial module (amplifier)", page 41

### 8 - Rear left side window aerial

 $\square Removing and installing \Rightarrow Body Work; Rep. gr. 64$ 

### 9 - Auxiliary heating radio controlled receiver - R64-

 $\label{eq:constant} \square \ \ \text{removing and installing} \Rightarrow \ \ \text{Heating, Air Conditioning; Rep. gr. \ 82}$ 

### 10 - Roof aerial

□ Removing and installing  $\Rightarrow$  "2.2 Removing and installing the roof aerial", page 39

### 2.2 Removing and installing the roof aerial

### Removing

### For vehicles without panoramic roof:

- Undo the top B pillar trim and top C and D pillar trim (combi)
   ⇒ Body Work; Rep. gr. 70.
- Loosen headlining ⇒ Body Work; Rep. gr. 70 and carefully hang the rear part downward.





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### For vehicles with panoramic roof:

- Unhook headlining  $\Rightarrow$  Body Work ; Rep. gr. 70.

### Continued for all vehicles:

- Release and disconnect plug connections -1- to the aerial cables.
- Unscrew screw -3-.
- Open holding clamp -2- and remove the aerial.

### Installing

- Put aerial in position and press down the holding clamp -2until it clicks into place.
- Tighten the fixing screw (6 Nm).
- Further installation occurs in reverse order.

### 2.3 Removing and installing frequency filters for frequency modulation (FM) in the positive cable - R179-

- Remove tailgate inner lining  $\Rightarrow$  Body Work; Rep. gr. 70.
- Disconnect plug -1- and aerial cable -3-.
- Unscrew screw -arrow A-, move filter -2- -arrow B- and take out.
- Installation is carried out in the reverse sequence.





### 2.4 Removing and installing frequency filters for frequency modulation (FM) in the positive cable - R178-

- Remove tailgate inner lining  $\Rightarrow$  Body Work; Rep. gr. 70.
- Disconnect plug -1- and aerial cable -3-.
- Use a screwdriver to disconnect filter -2- from the catch and remove.
- Installation is carried out in the reverse sequence.





### 2.5 Removing and installing AM/FM, FM2/ DAB aerial module (amplifier)

### i Note

- The work sequence for removing and installing is similar for the two amplifiers.
- Arrangement of the amplifier
   <u>⇒ "2.1 Overview of the aerial systems", page 37</u>.

### Removing

Octavia:

- Remove tailgate inner lining  $\Rightarrow$  Body Work; Rep. gr. 70 .

Octavia Combi:

 Remove top C pillar trim on the side where the aerial module is removed ⇒ Body Work; Rep. gr. 70

All vehicles:

- Unplug -arrows- connector.







- Unscrew -arrow- screw (2 Nm).

- Move aerial module -arrow- and unhook from the bracket.

### Installing

Installation is carried out in the reverse sequence.



### 2.6 Replacing aerial cables

## Note

- Aerial cables must not be repaired, but replaced with a new original part see ⇒ Electronic Catalogue of Original Parts ; Accessories; Part group 35.
- Do not crimp aerial cable or bend excessively! The minimum bending radius must not be less than 50 mm.
- Cut off aerial connection from the defective cable.

The remainder of the defective cable remains in the vehicle.

- Lay new aerial cable close to the original cable and attach.
- Perform a functional test.



### 3 Telephone system

- ⇒ "3.1 General Instructions", page 43
- ⇒ "3.2 Summary of components telephone system", page 43

 $\Rightarrow$  "3.3 Removing and installing the aerial signal reception amplifier (compensor)", page 44

⇒ "3.4 Removing and installing induction plate", page 45

⇒ "3.5 Check induction plate", page 45

 $\Rightarrow$  "3.6 Removing and installing the microphone for the telephone R38 ", page 46

### 3.1 General Instructions

Vehicles with a mobile phone pre-installation have an integrated Bluetooth unit in their Infotainment control unit which meets the functions of a mobile phone pre-installation.

The mobile phone is connected via Bluetooth.

Further information and description of function:

- ♦ ⇒ Owner's manual Octavia III
- ♦ ⇒ Infotainment operating manual
- ♦ ⇒ Self-study programme No. 97 ; Škoda Octavia III Vehicle presentation

### 3.2 Summary of components – telephone system

Ĭ Note

The number of components for the telephone system depends on the vehicle equipment.



### 1 - Telephone microphone - R38-

- □ in the front interior light
- □ Removing and installing ⇒ "3.6 Removing and installing the microphone for the telephone R38 ", page 46

### 2 - Infotainment control unit

- With integrated Bluetooth module
- □ Removing and installing ⇒ "1.6.3 Infotainment control unit Bolero, Amundsen and Columbus ", page 35
- 3 Infotainment display unit

### 4 - Induction plate

- Forms the GSM signal induction field
- □ Removing and installing ⇒ "3.4 Removing and installing induction plate", page 45
- □ check ⇒ "3.5 Check induction plate", page 45

### 5 - Roof aerial

□ Removing and installing ⇒ "2.2 Removing and installing the roof aerial", page 39

#### 6 - Aerial signal reception amplifier (compensor)

□ Removing and installing ⇒ "3.3 Removing and installing the aerial signal reception amplifier (compensor)", page 44

## 3.3 Removing and installing the aerial signal reception amplifier (compensor)

The compensor is located under the luggage compartment trim, right side.

- Remove right luggage compartment trim panel ⇒ Body Work; Rep. gr. 70.
- Release screws -arrows- (5 Nm).









### Octavia Combi

- Disconnect plug and remove amplifier -1-.
- Installation is carried out in the reverse order.

### 3.4 Removing and installing induction plate

- Remove storage compartment in the front centre console  $\Rightarrow$  Body Work; Rep. gr. 70 .
- Loosen induction plate -1- from the catches -arrows- and remove it from the storage compartment -2-.
- Installation is carried out in the reverse sequence.



### 3.5 Check induction plate

- Open the storage compartment in the central console and remove the rubber layer onto which the mobile phone is fitted.
- Switch on ignition.





 Measure the resistance between the contacts -arrows- underneath the washer with multimeter.

Measured values:

- 10 kΩ induction plate OK.
- 20 kΩ short circuit in the aerial
- 30 kΩ wire break
- 40 kΩ compensor fault
- 50 k $\Omega$  terminal 30, 15 on the compensor missing

## 3.6 Removing and installing the microphone for the telephone - R38-

### Removing

- Remove front interior light ⇒ "1.1.1 Removing and installing the front interior light", page <u>144</u>.
- Loosen the microphone out of the retaining lugs -arrows- and remove.
- Disconnect plug.

### Installing

Installation is carried out in the reverse sequence.







### 4 Multi-functional steering wheel

⇒ "4.1 General description", page 47

 $\Rightarrow$  "4.2 Removing and installing the Infotainment switch units", page 47

 $\Rightarrow$  "4.3 Removing and installing switch units for gearbox operation in Tiptronic mode (gearbox 02E, 0AM – DSG)", page 48

 $\Rightarrow$  "4.4 Self-diagnosis of the multi-functional steering wheel", page <u>49</u>

### 4.1 General description

The multi-functional steering wheel contains (depending upon equipment) the following components:

- Multifunction buttons in the steering wheel on the left E440and right -E441- for the operation of the Infotainment
- Tiptronic switch in the steering wheel up E438- and down -E439- for the operation of the double clutch gearbox in Tiptronic mode
- Multifunctional steering wheel control unit J453-, integrated in the left front switch unit.

### i Note

When handling a fault, it is absolutely essential to know the function and operation of the multi-functional steering wheel. Additional information and description of function  $\Rightarrow$  Owner's manual Octavia III.

### 4.2 Removing and installing the Infotainment switch units

The assembly work is identical for both switch units.

### Removing

- Remove the airbag unit in the steering wheel  $\Rightarrow$  Body Work; Rep. gr. 69 .
- Prise out the plate with switch units -2- evenly and carefully out of the steering wheel -1- using the disassembly wedge -arrows-.
- Disconnect plug.





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- Remove bolts -3- (0.4 Nm).
- When removing modules -1- and -2-, carefully loosen the connection cable from the bracket -arrows-.
- Vehicles with automatic transmission with column gear shift separate plug connections from switch units.

### Installing

Installation is carried out in the reverse order. When installing, observe the following:

### i Note

- Install connection cable for modules correctly in the line in the plate -arrows-.
- Before the airbag is installed, it must be checked if all the wiring is properly pressed back into the guiding grooves in the steering wheel foam. Wiring which protrudes can be damaged by the backside parts of the airbag.
- Pay attention to the work sequence when connecting the battery
   "2.2 Work approaches when disconnecting and connecting

*⇒ "2.3 Work sequence when disconnecting and connecting the battery", page 2* 

 Perform coding with ⇒ Vehicle diagnostic tester when replacing the switch units.

# 4.3 Removing and installing switch units for gearbox operation in Tiptronic mode (gearbox 02E, 0AM – DSG)

The mounting sequence is identical for both switch units.

### Removing

- Remove the airbag unit in the steering wheel ⇒ Body Work; Rep. gr. 69.
- Prise out the plate with switch units -2- evenly and carefully out of the steering wheel -1- using the disassembly wedge -arrows-.
- Disconnect plug.







 Unscrew screw -arrow A- (1.7 Nm), swivel out switch unit for gearbox operation -1- -arrow B- and remove.

### Installing

Installation is carried out in the reverse order. When installing, observe the following:



- Before the airbag is installed, it must be checked if all the wiring is properly pressed back into the guiding grooves in the steering wheel foam. Wiring which protrudes can be damaged by the backside parts of the airbag.
- When tightening the screw -A- keep the button -1- in the right position (edge of the button -1- on a line with the edge of the steering wheel).
- ◆ Pay attention to the work sequence when connecting the battery
   ⇒ "2.3 Work sequence when disconnecting and connecting the battery", page 2.

## 4.4 Self-diagnosis of the multi-functional steering wheel

The multi-functional steering wheel is capable of conducting a self-diagnosis. Carry out "self-diagnosis" with the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding".





### 5 Canton sound system

 $\Rightarrow$  "5.1 Fitting position overview – sound system components", page 50

 $\Rightarrow$  "5.2 Removing and installing the sound system control unit", page 51

 $\Rightarrow$  "5.3 Self-diagnosis of the equipment Sound system", page 51

Further information and description of functions  $\Rightarrow$  Self-study programme No. 97 ; Škoda Octavia III Vehicle presentation .

### 5.1 Fitting position overview – sound system components

- 1 Front treble speaker
  - □ Removing and installing ⇒ "6.2 Removing and installing front treble loudspeakers", page 52

### 2 - Central speaker

- In the dash panel, centre
- □ Removing and installing ⇒ "6.4 Removing and installing the central speaker", page 52

### 3 - Rear treble speaker

□ Removing and installing ⇒ "6.3 Removing and installing the rear treble speaker", page 52

### 4 - Subwoofer

□ Removing and installing ⇒ "6.5 Removing and installing subwoofer", page 53

### 5 - Mid-bass speaker rear

□ Removing and installing ⇒ "6.1 Removing and installing the front and rear mid-bass speaker", page 52

### 6 - Sound system control unit

□ Removing and installing ⇒ "5.2 Removing and installing the sound system control unit", page 51

### 7 - Mid-bass speaker front

□ Removing and installing ⇒ "6.1 Removing and installing the front and rear mid-bass speaker", page 52



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## 5.2 Removing and installing the sound system control unit

### Removing

- Switch off all electrical components and take out the ignition key.
- Push the left front seat completely towards the rear and the highest point.
- Remove expanding rivets -2- and remove cover -1- towards the front.

- Unscrew screws -4- (1.5 Nm).
- Gently swivel out the control unit -1- and pull it out of the holder.
- Loosen by tilting out the clamp and separate the plug connection -3-.
- Disconnect "MOST bus" data bus -2-.
- Protect socket for MOST-Bus Databus -2- with cover -1-. You can also use another suitable way (e.g. wrap around a clean film and tape up).

### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- When replacing, code the new control unit with the ⇒ Vehicle diagnostic tester.
- If the MOST-Bus data bus is damaged, replace databus with end pieces.

## 5.3 Self-diagnosis of the equipment Sound system

Carry out "self-diagnosis" with the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding".









6 Removing and installing loudspeakers

 $\Rightarrow$  "6.1 Removing and installing the front and rear mid-bass speaker", page 52

 $\Rightarrow$  "6.2 Removing and installing front treble loudspeakers", page 52

 $\Rightarrow$  "6.3 Removing and installing the rear treble speaker", page 52

 $\Rightarrow$  "6.4 Removing and installing the central speaker", page 52

⇒ "6.5 Removing and installing subwoofer", page 53

Loudspeaker types to be installed  $\Rightarrow$  Self-study programme No. 97 ; Škoda Octavia III vehicle positioning .

## 6.1 Removing and installing the front and rear mid-bass speaker

### Removing

- Switch off the ignition and all electrical components.
- Remove the door trim panel from which the loudspeaker is removed  $\Rightarrow$  Body Work; Rep. gr. 70.
- Disconnect socket connector at the loudspeaker.
- Disconnect expanding rivets -arrows- and remove loudspeaker.

### Installing

Installation is carried out in the reverse sequence.



## 6.2 Removing and installing front treble loudspeakers

The loudspeakers are built into the inside of the exterior mirror cover.

In the case of a fault, replace the mirror cover with loudspeaker.

## 6.3 Removing and installing the rear treble speaker

The treble speakers are firmly connected with the rear inner door trim panel.

In the case of a fault, replace the rear inner door trim panel  $\Rightarrow$  Body Work; Rep. gr. 70 .

## 6.4 Removing and installing the central speaker

Only on vehicles with the equipment "Soundsystem"

- Removing the dash panel  $\Rightarrow$  Body Work; Rep. gr. 70.

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- Screw out the screw -arrows- (0.3 Nm) and remove the loud-\_ speaker.
- Installation is carried out in the reverse sequence. \_

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#### 6.5 Removing and installing subwoofer

- Remove right side trim panel in luggage compartment  $\Rightarrow \mbox{ Body Work; Rep. gr. 70}$  .
- Screw out fixing screws -see fig.- (3 Nm) and remove sub-\_ woofer.
- Disconnect plug.
- Installation is carried out in the reverse sequence.





7 Connections for audio/video signal MEDIA IN (multimedia socket) external source

 $\Rightarrow$  "7.1 Removing and installing connections for audio/video signal external source", page 54

## 7.1 Removing and installing connections for audio/video signal external source

Connections for the audio/video signal external source are located below the heating/air conditioning control.

Further information and description of function:

- ♦ ⇒ Owner's manual Octavia III
- ♦ ⇒ Infotainment operating manual
- ♦ ⇒ Self-study programme No. 97 ; Škoda Octavia III Vehicle presentation

### Removing

- Remove heating/air conditioning system  $\Rightarrow$  heating, air conditioning system; Rep. gr. 87 .
- Press out retaining clips -arrows A- one after each other, fold out the bracket -1- -arrow B- and push out the connected cable lengths to each other.

### Connection MEDIA IN (Mitsumi):

- Engage a small screwdriver into the middle of the plug at an angle from below, unlock by pressing together, and remove the plugs -3- one after the other.
- Completely release sensors -2- from the catches -arrows- and take out.

### USB and AUX connections:





- Unlock the plugs from the USB connection -3- from the top and remove.
- Insert a small screwdriver into the middle of the plug at an angle from below, unlock by pressing together, and remove the plugs from the connection for external audio sources Pos. -4-.
- Release from catches -arrows- and remove USB connection -2- and external audio sources connection -5-.

### Installing

Installation is carried out in the reverse sequence.





### 8 SmartGate system

### ⇒ "8.1 General points", page 56

 $\Rightarrow$  "8.2 SmartGate system - check the correct function", page 57

 $\Rightarrow$  "8.3 Remove and install control unit for information electronics 2 J829 (SmartGate)", page 58

⇒ "8.4 Set the parameters for the Wi-Fi connection", page 59

⇒ "8.5 Update firmware", page 60

### 8.1 General points

### SmartGate system

- The SmartGate system offers the possibility to access the driving data via the wireless Wi-Fi connection.
- This is one-way communication of the connected communications of the customer's equipment (e.g., cell phone, tablet, laptop) with the control unit for the SmartGate system.
- The driving data received can then be processed (depending on the application used and installed on the communications equipment).
- The Wi-Fi range is limited to the interior of the vehicle.
- One part of the system is the control unit for information electronics 2 J829- located under the driver's seat.
- ◆ For a detailed description of the functions, operations and connection see ⇒ the Octavia III Owner's Manual.



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### Caution

Correct communication within the scope of the SmartGate system relies on the customer's communications equipment (e.g., cell phone/tablet) functioning correctly, and on the software applications being installed.

Not every cell phone/tablet is compatible within the scope of the SmartGate system.

For details of mobile phone/tablet compatibility, and the available applications, visit the ŠKODA website (www.skodaauto.com).

ŠKODA AUTO a.s. assumes no responsibility for any problems due to incompatibility or improper function of cell phones/tablets or the applications installed on them



## 8.2 SmartGate system - check the correct function

### Caution

Correct communication within the scope of the SmartGate system relies on the customer's communications equipment (e.g., cell phone/tablet) functioning correctly, and on the software applications being installed.

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For details of mobile phone/tablet compatibility, and the available applications, visit the ŠKODA website (www.skodaauto.com).

ŠKODA AUTO a.s. assumes no responsibility for any problems due to incompatibility or improper function of cell phones/tablets or the applications installed on them

For a detailed description of the functions, operations and connection see  $\Rightarrow~$  the Octavia III Owner's Manual .

The correct function of the SmartGate system is verified by the device itself.

For example, the following can be used to verify the correct function:  $\Rightarrow$  Vehicle diagnostic tester, mobile phone, tablet, laptop, referred to as "communication devices" below.

For the connection, ask the customer for the PIN code (password) for the SmartGate system.

### Connecting with a Wi-Fi device

Preconditions:

- Switch on Wi-Fi on the connected communications equipment
- Switch on the ignition

#### Open a connection to SmartGate (login to a Wi-Fi network)

- Search for available Wi-Fi connections on the connected communications equipment – SmartGate identifies the connected communications device as SmartGate\_...
- The last six symbols of the vehicle identification number (VIN code) are displayed at the position....
- Enter the password supplied by the customer, for the initial connection, enter the 17 digits of the vehicle identification number (VIN) (in uppercase).



- If no PIN code (password) is available, then switch off the ignition and, if necessary, disconnect the battery earth strap or the connector on the SmartGate unit for approx. 30 seconds.
- After re-connecting the battery earth strap, switch on the ignition and enter the vehicle identification number (in uppercase) as the PIN code.
- Up to four communications devices can be connected to the SmartGate system at the same time.

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8. SmartGate system 57



### **Connection problems**

If the connection fails, then check the following points.

- Are the conditions for a successful connection fulfilled?
- Does SmartGate show up in the list of available Wi-Fi networks?
- Was password required for validating the connection entered correctly?
- Is the communications equipment to be connected possibly still connected to another Wi-Fi network?

If the above points are okay, and the connection still fails, then check the state of the LED display on the control unit for information electronics 2 - J829- (SmartGate) located under the driver's seat.

### If the LED display -arrow- on the control unit:

- ♦ is unlit or lit red, the device is not OK, check the electrical wiring as per ⇒ Current flow diagrams, Electrical fault finding and Fitting locations; if needed, replace the SmartGate control unit
- red flashing this is a self-test, wait for the test to complete (on initial activation)
- lit green the device is OK, no user is connected
- green flashing the device is OK, at least one user is connected ted and the SmartGate application is active on the connected communication device (if you connect without an active application - the LED display is lit green)
- flashing red and green the device is OK; and still in production mode (indicates production mode, for example in Production, where multiple vehicles with SmartGate exist at one location)
- orange (red and green at the same time) the device is in upgrade mode, wait for this mode to complete

### Disconnecting

The connection to SmartGate can be disconnected in one of the following ways:

- by disconnecting the connection to SmartGate on the connected communications device
- by disabling Wi-Fi on the connected communications device
- by switching off the ignition and removing the ignition key for more than 5 s (for vehicles with an ignition starter switch, by switching off the ignition and opening the driver door)

### 8.3 Remove and install control unit for information electronics 2 - J829- (Smart-Gate)

### Removing

The control unit for information electronics 2 - J829- (SmartGate) is fastened under the driver's seat on the floor covering by means of a Velcro fastener.

- Move the driver's seat as far back and up as possible.



- Remove the perforated floor covering and the control unit -1from the Velcro fastener and, taking the lengths of the connected cables into consideration, remove the unit.
- Unplug connector -2-.

- To pull off the connector, press the latch -1-, and release the connector by tilting out the bar -arrow-.

#### Install

Installation is performed in the reverse order, pay attention to the following points:

- Installation position of the control unit, see figure.
- Do the following when replacing the control unit:
- ◆ Update firmware <u>⇒ "8.5 Update firmware", page 60</u>
- ♦ Check functionality ⇒ "8.2 SmartGate system - check the correct function", page 57

### 8.4 Set the parameters for the Wi-Fi connection

Some properties of the Wi-Fi connection can be changed and configured using the connected communications device (e.g.,  $\Rightarrow$  Vehicle diagnostic tester, cell phone, tablet, laptop).

After fulfilling the conditions for a successful connection, enter the address "HTTP://192.168.123.1/index.html" in the web browser of the connected communications device. You will see a menu for setting the parameters for the SmartGate Wi-Fi connection.

Configuration options:

- SSID
- Channel (1 to 10) manual setting of the connection channel
- Security setting the security level for the connection

Open – unencrypted connection, no password entry required on the device to be connected; the connection is set up automatically

WPA or WPA2 – encrypted connection

- WPA/WPA2 key password input
- Transmitting power in % sets the signal strength in percent
- DHCP (lease time) time for which the IP address remains valid
- Web interface: port web interface

If you change the connection encryption from unsecured (open) to secured WPA or WPA2, you must enter a password on the communications equipment to be connected.

If no PIN code (password) is available, then switch off the ignition and, if necessary, disconnect the battery earth strap or the connector on the SmartGate unit for approx. 30 seconds. The Smart-

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Gate is reset to the factory default settings and transmission encryption is set to WPA2.

After re-connecting the battery earth strap, switch on the ignition and enter the vehicle identification number (in uppercase) as the PIN code.

### 8.5 Update firmware

To update the SmartGate firmware, you can use, e.g.,  $\Rightarrow$  Vehicle diagnostic tester cell phones, tablets, laptops, mobile phones; referred to as communications devices in the following.



Caution

Correct communication within the scope of the SmartGate system relies on the communications device functioning correctly, and on the software applications being installed.

Not every cell phone/tablet is compatible within the scope of the SmartGate system.

For details of mobile phone/tablet compatibility, and the available applications, visit the ŠKODA website (www.skodaauto.com).

The firmware update function is not available in the Internet Explorer web browser version 9 and older.

Update data from the ŠKODA website are needed for the firmware update.

During the entire upgrade process, make sure that the ignition is on, or the engine is running (avoid starting the engine during the upgrade procedure).

### Update procedure:

- Download the update data for SmartGate from the ŠKODA website; save them on the communications device (one file).
- Switch on Wi-Fi on the communications device.
- Switch on the ignition and start the engine.
- Connect the communications device with SmartGate.
- Open the web browser on the communications device, and enter the address "HTTP://192.168.123.1/index.html".
- At the bottom of the SmartGate menu that appears, select the firmware upgrade menu item.
- Select the update data stored on the communications device.
- Pressing "start update" copies the update data to SmartGate (copying takes about 5 min).
- After downloading the data and confirming "perform update", the update starts (the update process takes approx. 2 min).
- After completing firmware update, the SmartGate is restarted.



- i Note
- During the update process, the LED display on the control unit for information electronics 2 - -J829-- lights up orange (red and green at the same time).
- After completing the update, and restarting the SmartGate, the LED display lights up green, see <u>→ page 58</u>.



### 92 – Windscreen wash/wipe system

1 Windscreen and rear window wiper system

 $\Rightarrow$  "1.1 Removing and installing the washer pump and washer fluid reservoir", page 62

⇒ "1.2 Removing and installing the spray nozzles for windscreen washer system", page 63

 $\Rightarrow$  "1.3 Removing and installing the spray nozzle for rear window washer system", page 64

⇒ "1.4 Repairing washer fluid level pipes", page 65

### 1.1 Removing and installing the washer pump and washer fluid reservoir

The function of the windscreen washer system can be checked with the  $\Rightarrow$  Vehicle diagnostic tester via the final control diagnosis of the vehicle voltage control unit - J519- .

### Removing



Depending on the version, the positions of the individual components and the hose connection can differ slightly from the version in the illustrations. The removal occurs in the same way.

- Switch off the ignition and all electrical components.
- Remove the front left wheelhouse liner ⇒ Body Work; Rep. gr. 66.
- Release plug from the washer fluid pumps for windscreen
   -5-, for headlight -2- and from sensor for washer fluid level
   -4-.
- Expose wiring loom -3-.
- To unlock turn the locking clip on the hose connections -7-(black marking – front windscreen washer) and -6- (white marking – rear windscreen washer) and disconnect the connections from the washer fluid pump. Collect the flowing out washer fluid in a suitable vessel.
- Release washer hose for headlight -1- by pressing the locking clip and detach.
- If necessary, push the washer fluid pumps out of the washer fluid vessel upwards out of the rubber bracket.
- Remove front bumper ⇒ Body Work; Rep. gr. 63.
- Remove front left headlight
   ⇒ "1.2 Removing and installing headlight", page 80.



 Remove expansion clip -1- and push filler neck -3- with filler pipe -4- out of the bracket -2-.

Screw out nut -arrow- (8 Nm).

- Screw out nuts -1- and -3- (8 Nm)
- Screw out the vessel -2- from the stud bolt -arrow A- and lower -arrow B-.

### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- Hoses with angled pieces must click audibly into the connections on the washer fluid pumps.
- After completing the assembly work bleed the headlamp cleaning system
   <u>⇒ "2.3 Bleed the headlamp cleaning system", page 67</u>.

### 1.2 Removing and installing the spray nozzles for windscreen washer system

### Removing

Remove windscreen wiper arms
 ⇒ "3.2 Removing and installing the wiper arms with wiper blades and setting their final setting", page 68.



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- Remove the cooling water tank cover  $\Rightarrow$  Body Work; Rep. gr. 66.
- Carefully lever the angled pieces off the spray nozzles from below and disconnect the plug connections (of the heated nozzles).
- Unclip the nozzles from the cooling water tank cover.

### Installing

 Perform a functional check or adjust nozzles ⇒ Maintenance ; Booklet Octavia III .



### 1.3 Removing and installing the spray nozzle for rear window washer system

### <u>⇒ "1.3.1 Octavia", page 64</u>

- ⇒ "1.3.2 Octavia Combi", page 64
- ⇒ "1.3.3 Octavia Combi GreenLine", page 65

### 1.3.1 Octavia

### Remove nozzle

- Run wiper until it is in park position.
- Fold down cover cap of rear window wiper -1-.
- Carefully pull out spray nozzle -2- -arrow-.

### Installing

- Run wiper until it is in park position, insert the spray nozzle in the correct position in the wiper motor shaft.
- Perform a functional check or adjust nozzles ⇒ Maintenance ; Booklet Octavia III .



### 1.3.2 Octavia Combi

### Remove nozzle

- Remove lamp for high level brake light
   ⇒ "6.2 Removing and installing the high level brake light Octavia Combi", page 111.
- Unlock the latches -arrows- and remove the spray nozzle -1out of the light towards the rear.

### Install

Installation is carried out in the reverse sequence.

After installation, test function and adjust nozzles  $\Rightarrow$  Maintenance ; Booklet Octavia III .




## 1.3.3 Octavia Combi GreenLine

The nozzle is protected against dirt and is part of the spoiler. The nozzle cannot be used separately.

## 1.4 Repairing washer fluid level pipes

All the notes and comments to this chapter can be found in the Workshop Manual  $\Rightarrow$  Electrical System – General notes  $\Rightarrow$  Electrical System – General notes; Rep. gr. 92.

1. Windscreen and rear window wiper system 65



## 2 Headlamp cleaning system

## ⇒ "2.1 Removing and installing headlight cleaning system pump V11 ", page 66

 $\Rightarrow$  "2.2 Removing and installing the lift cylinder for spray nozzles of headlight", page 66

## $\Rightarrow$ "2.3 Bleed the headlamp cleaning system", page 67

Summary of components – Components of the headlight washing system  $\Rightarrow~$  Electronic Catalogue of Original Parts .

# 2.1 Removing and installing headlight cleaning system pump - V11-

Removing and installing the pump is described in  $\Rightarrow$  "1.1 Removing and installing the washer pump and washer fluid reservoir", page 62.

After installing the pump bleed the headlamp cleaning system  $\Rightarrow$  "2.3 Bleed the headlamp cleaning system", page 67.

# 2.2 Removing and installing the lift cylinder for spray nozzles of headlight

- Remove front bumper  $\Rightarrow$  Body Work; Rep. gr. 63.
- Press out the spray nozzles with the cover from the bumper from the inside so that the cover can be grabbed.
- Remove the cover a little, then grab the spray nozzles and pull out as far as the stop.
- Unclip the cover -1- from the bearing -arrows-.





 Press off the catches -arrows A- using a small screwdriver and push the lift cylinder -1- out of the bumper -arrow B-.

## Installing

Installation is carried out in the reverse order. When installing, observe the following:

- Push the lift cylinder into the brackets in the bumper until it clicks audibly into place.
- Hoses with angled pieces must click audibly into the connections on the lift cylinders for spray nozzles.
- Install bumper.
- After completing the assembly work bleed the headlamp cleaning system
   ⇒ "2.3 Bleed the headlamp cleaning system", page 67.



## 2.3 Bleed the headlamp cleaning system

After installation or when it is first put into service the headlamp cleaning system must be bled, in order to guarantee a perfect operation.

- Top up windscreen and headlight washer reservoir.
- Start engine.
- Switch on headlight.
- Operate headlamp cleaning system several times (3 5 pulses for an operating duration of each 3 s).
- If necessary repeat this bleeding procedure until a perfect functioning of the lift cylinders for headlamp cleaning system and for spray nozzles is achieved.



3 Windscreen wiper and washer system

## ⇒ "3.1 Fault recognition and fault display, coding", page 68

 $\Rightarrow$  "3.2 Removing and installing the wiper arms with wiper blades and setting their final setting", page 68

 $\Rightarrow$  "3.3 Removing and installing wiper motor with linkage", page 70

 $\Rightarrow$  "3.4 Removing and installing Sensor for rain and light detection G397 ", page 71

 $\Rightarrow$  "3.5 Repairing the rain and light detector sensor G397 , Valeo manufacturer", page 73

## 3.1 Fault recognition and fault display, coding

 The wiper motor control unit - J400- and the windscreen wiper motor - V- are installed as one component and cannot be replaced separately.

The vehicle voltage control unit - J519- , which regulates the functions of the windscreen wiper and washer system, is equipped with self-diagnosis which facilitates the fault finding.

Use the  $\Rightarrow$  Vehicle diagnostic tester for troubleshooting and coding.

3.2 Removing and installing the wiper arms with wiper blades and setting their final setting

## i Note

If the wiper motor is switched on during work, the front flap must be closed and the ignition must be switched on, otherwise the voltage supply of the wiper motor is interrupted.

## Special tools and workshop equipment required

Extractor for wiper arms - T10369/1-

## Removing

- Switch off the ignition and all electrical components.
- Lever off caps -3- using screwdriver.

- Unscrew the nuts -2- by a few turns.



- 3 T10369/1 2 1 A92-10125
- Push the extractor for wiper arms -T10369/1- , as shown, onto the arm.

## | Note

To release the wiper arm, always use the thrust piece -2- in order to avoid damage to the thread of the wiper motor shaft.

- Release the wiper arm -1- from the shaft by turning the pressure screw -3-.
- Unscrew nuts and remove arms.

#### Installing

## i Note

- When switching off for the second time, the wiper motor overruns in the offset final setting so that the wiper blade lip is controlled in the other direction.
- The wiper motor runs downwards and then again a little upwards. This offset final setting cannot be used to compensate for the windscreen wiper crank.
- The final setting must be used in which the wiper motor runs directly and without overrun in the lower final setting. If the wiper motor runs in the offset final setting, wiping must be switched on again.
- Function of the offset final setting is active only after 100 wiper cycles as of coding or installation of a new wiper motor. If this function is already activated, it can be determined by switching on and off the wiper motor repeatedly.
- Switch wiper motor on and off and run until it is in park position for setting the windscreen wiper arms.





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- Insert windscreen wiper arms with wiper blades and align wiper blades to the markings in the windscreen -1-.
- Slightly tighten fixing nuts.
- Operate the flick wipe and check again or correct the setting of the wiper arms.
- Tighten securing nuts (21 Nm).



The tolerance between wiper blade and marking -1- is ± 2 mm.

# 3.3 Removing and installing wiper motor with linkage

### Removing

- Switch off the ignition and all electrical components.
- Remove wiper arms with wiper blades
   ⇒ "3.2 Removing and installing the wiper arms with wiper blades and setting their final setting", page 68
- Remove the cooling water tank cover ⇒ Body Work; Rep. gr.
   66.
- Unscrew screws -1-, -3- and -5-.
- Insert wiper motor with linkage -2-into the plenum chamber.
- Unplug connector -4-.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- First, slightly tighten screws by hand in the -1 -, -2- and -3order.
- Then tighten in the same order to 8 Nm.







# ŠKODA

# 3.4 Removing and installing Sensor for rain and light detection - G397-

## Caution

If the sensor for rain and light detection - G397- is removed from the retaining plate on the windscreen (e.g. when changing the windscreen), it can be subsequently installed again. Store the removed sensor dust-free until it is installed again and make sure that the silicone coupling cushion does not get dirty.

## Removing



To facilitate removal, turn the mirror as necessary.

- Switch off the ignition and all electrical components.
- Remove covers from the Sensor for rain and light detection G397-  $\Rightarrow\,$  Body Work; Rep. gr. 68 .
- Release retaining clip -1- -arrow-.



Observe a waiting time of at least 1 minute after releasing the retaining clip. This allows the silicone layer to expand so that it will not be damaged while it is being removed.





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- Carefully lever the sensor for rain and light detection G397-Pos. -2- out of the retaining frame from above starting from the front windscreen.
- Release connector -1- and pull off.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:



Caution

- Thoroughly clean the windscreen inside the retaining plate with e.g. isopropyl (technical alcohol).
- The surface (coupling cushion) of the sensor must not get dirty or damaged when installing. A sensor with a damaged coupling cushion must be replaced.
- ◆ There are several variants of sensors (depending on equipment). Ensure that the correct component is used for replacement, see ⇒ Electronic Catalogue of Original Parts.

## Note

If the surface (coupling cushion) of the sensor is dirty, it can be cleaned, if necessary, by sticking on one or several adhesive tapes and then pulling them off again.

- If a new sensor is installed, press the grips in
   -direction of arrow A- and remove the protective cap -1- in
   -direction of arrow B-.
- Mount plug.
- Insert the sensor into the retaining frame on the windscreen.





 Press retaining clip -1- on until the catches -arrow- audibly click into place.



- Even after correct installation of the sensor, smaller air bubbles can be present initially between the windscreen and the coupling cushion. After approx. 10 min, the contact surface must be free of bubbles.
- If the contact surface is not free of bubbles after 10 minutes, the rain sensor must be removed and re-installed.
- Air bubbles between the windscreen and the coupling cushion cause sensor malfunctions.
- When replacing, the new sensor must be coded with the ⇒ Vehicle diagnostic tester.



# ŠKODA

#### 3.5 Repairing the rain and light detector sensor - G397-, Valeo manufacturer

## Note

- There are various bushings for the Rain and light detector sensor - G397- from different manufacturers.
- Sensor bushing with optical unit is also supplied with retaining clips as a spare part. These must be removed for vehicles that do not require retaining clips.

## Work procedure

- Remove the sensor ⇒ "3.4 Removing and installing Sensor for rain and light detection G397 ", page 71 .
- Carefully remove the silicone cushion -2- or the residues from the sensor -1-.



The surface of the sensor must be completely free of foil residues.

- Clean the sensor surface with cleaning solution.
- Remove the silicone paper -3- from the cushion -2-.
- Transparent protective foil -1- stays on the cushion -2- to begin with as assembly film.

Attach the cushion -2- with the protective foil -1- to the sensor -3-.











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- Press the cushion onto the sensor -2- through the transparent foil -1-, so that there are no bubbles between the foil and sensor.
- Carefully pull the transparent protective foil -1- off the cushion -2-.
- Install the Rain and light detector sensor G397 ⇒ "3.4 Removing and installing Sensor for rain and light detection G397 ", page 71 .





## 4 Rear window wiper system

 $\Rightarrow$  "4.1 Removing and installing the wiper arm with wiper blade and setting its final setting", page 75

 $\Rightarrow$  "4.2 Removing and installing rear window wiper motor", page 76

4.1 Removing and installing the wiper arm with wiper blade and setting its final setting

### Removing

- Move wiper to park position.
- Unclip the cap -1- from the catch pegs and fold down.
- Carefully slide out the nozzle -2- -arrow- (does not apply to Octavia Combi).







- ProCarManuals.com
- Screw out the nuts -arrow- a few turns so that it is in a line with the upper edge of the shaft.

- Using a standard commercially available small two-arm extractor -1-, undo the wiper arm from the shaft.
- Remove nut -2- and remove the wiper arm -3-.

## Installing

- When the ignition is switched on, switch wiper motor on and off and run until it is in park position.
- Position wiper arm and loosely secure with nut.



- Set final position of wiper arm in accordance with the figure.

The value -a- is:

- Octavia 52±2 mm
- Octavia Combi 45±2
- Tighten fixing nut (12 Nm).
- Install nozzle (not valid for Octavia Combi).
- Perform a functional and setting check.

# 4.2 Removing and installing rear window wiper motor

- Switch off the ignition and all electrical components.
- Remove the bottom tailgate trim panel  $\Rightarrow$  Body Work; Rep. gr. 70.
- Unplug connector -3-.
- To unlock turn the locking clip on the hose connections and pull off the hose -2-.
- Unscrew nuts -arrows- (7 Nm) and remove wiper motor -1-.

Installation is carried out in the reverse order. When installing, observe the following:

- Take fitting position of implementation into account:

Octavia:

 Recess in the rear window implementation -arrow- is located at the bottom, from the inside, see Fig.

Octavia Combi:









- Octavia III 2013 ➤ , Octavia III 2014 ➤ Electrical system - Edition 12.2014
- Recess in the rear window implementation -arrow- is located at the top, from the outside, see Fig.





## 94 – Lights, bulbs, switches - exterior

1	Headlights -	halogen	headlights
	0		

- ⇒ "1.1 Summary of components of headlight", page 78
- ⇒ "1.2 Removing and installing headlight", page 80
- ⇒ "1.3 Adjusting headlights", page 80
- ⇒ "1.4 Replacing light bulbs in headlights", page 81
- ⇒ "1.5 Replace headlight fixing brackets", page 83

 $\Rightarrow$  "1.6 Change headlight for right-hand and/or left-hand traffic", page 84

 $\Rightarrow$  "1.7 Removing and installing headlight range control motor", page 85

## 1.1 Summary of components of headlight

## Description of function and types of headlights to be fitted:

⇒ Owner's manual Octavia III

 $\Rightarrow$  Self-study programme No. 97 ; Škoda Octavia III Vehicle presentation

 $\Rightarrow$  Current flow diagrams, Electrical fault finding and Fitting locations

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#### 1 - Headlight housing

- □ Removing and installing ⇒ "1.2 Removing and installing headlight", page 80
- □ adjust ⇒ "1.3 Adjusting headlights", page 80

#### 2 - Bulb for main beam light, daytime running light and side light

- □ 12 V, 55 W (H15)
- □ Renew ⇒ "1.4 Replacing light bulbs in headlights", page 81.
- 3 Cover

#### 4 - Headlight range control motor

- □ Removing and installing ⇒ "1.7 Removing and installing headlight range control motor", page 85
- 5 Bulb for low beam light
  - □ 12 V, 55 W (H7)
  - ❑ Renew ⇒ "1.4 Replacing light <u>bulbs in headlights",</u> page 81.

#### 6 - Cover

- 7 Bolts
  - 🗅 1.5 Nm
- 8 Cover
- 9 O-ring

## 10 - Light bulb for the turn signal light

- D PWY24W
- □ Renew  $\Rightarrow$  "1.4.3 Replacing bulb PYW24Y for the turn signal light", page 82.



The headlight wiring loom spare part is only used as a source for spare parts (e.g. connector, fitting etc.). It therefore cannot be replaced completely in the headlight.





## 1.2 Removing and installing headlight

## Removing



The removal and installation will be demonstrated using the example of the left-hand headlight. The removal and installation of the right headlight follows the same principle.

- Switch off the ignition and all electrical components.
- Remove front bumper  $\Rightarrow$  Body Work; Rep. gr. 63.
- Remove bolts -arrows-.
- Carefully push the headlight -1- towards the front, for this step disconnect the plug.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- Align the headlight according to the contours of the vehicle body (maintain the gap size ⇒ Body Repairs; Rep. gr. 00) and loosely tighten with screws.
- Install bumper.
- By turning -arrow- the setting elements -4-, the headlight is moved and thereby fitted to the surrounding body parts.
- Then tighten securing bolts in sequence -1-, -2- and -3- (3.5 Nm).

## i Note

The setting element is aligned automatically when tightening the screw -1-.

- Set up the headlight  $\Rightarrow$  "1.3 Adjusting headlights", page 80.

## 1.3 Adjusting headlights

Use a headlight beam setting device for setting the headlight beam. Specified values, setting elements, conditions and measurement  $\Rightarrow$  Maintenance ; Booklet Octavia III .





#### 1.4 Replacing light bulbs in headlights

## ⇒ "1.4.1 Replacing H7 bulb for low beam light", page 81

⇒ "1.4.2 Replacing the multifunctional bulb H15 (for main beam light, daytime running light, side light)", page 82

⇒ "1.4.3 Replacing bulb PYW24Y for the turn signal light", page 82

#### 1.4.1 Replacing H7 bulb for low beam light



The H7 light bulb is pressurized and can burst when changing the bulb. It is recommended to wear gloves and safety glasses when changing bulbs.

Note

- Do not touch the glass when installing the light bulb. Your fingers will leave traces of grease on the glass which then evaporate when the bulb is switched on causing it to cloud.
- Pay attention to the correct fitting and undamaged seals on the plastic covers. Water ingress will destroy the headlight.
- Switch off the ignition and all electrical components.
- Remove cover -1-.

- Release and remove the bulb -2- from the catches by pendular movement and pulling force -arrows-.
- Unplug connector -1-.
- Installation is carried out in the reverse sequence.







1.4.2 Replacing the multifunctional bulb H15 (for main beam light, daytime running light, side light)



## WARNING

The H15 light bulb is pressurized and can burst when changing the bulb. It is recommended to wear gloves and safety glasses when changing bulbs.



## Note

- Do not touch the glass when installing the light bulb. Your fingers will leave traces of grease on the glass which then evaporate when the bulb is switched on causing it to cloud.
- ٠ Pay attention to the correct fitting and undamaged seals on the plastic covers. Water ingress will destroy the headlight.
- Switch off the ignition and all electrical components. \_
- Remove cover -2-.



- S94-0387
- Turn the bulb -1- to the left -arrow- and remove from the head-\_ light housing.
- Installation is carried out in the reverse sequence.

#### 1.4.3 Replacing bulb PYW24Y for the turn signal light



- For changing the bulb of the turn signal light, a repair kit is supplied – light bulb, O-ring, cap and fixing screws.
- Do not touch the glass when installing the light bulb. Your fingers will leave traces of grease on the glass which then evaporate when the bulb is switched on causing it to cloud.



- Switch off the ignition and all electrical components.
- Remove the headlight with the defective light bulb  $\Rightarrow$  "1.2 Removing and installing headlight", page 80.
- Lever off lens for signal bulb -1- using a screwdriver. Proceed carefully so that the remainders of the cover do not grip into the headlight housing.
- Turn bulb socket -arrow- and remove from the headlight.
- Disconnect the plug -2- and replace the defective light bulb.
- After installing the new light bulb -4- attach the cap -2- with the O-ring -3- with screws -1- (1.5 Nm).
- Further installation occurs in reverse order.





## 1.5 Replace headlight fixing brackets

If the headlight fixing brackets are broken or damaged, they can be replaced by installing the repair kit. The complete headlight must not be replaced.

## i Note

- Before repairs check if the headlight has no other damage, as the repair would be senseless.
- ♦ The replacement brackets can be ordered separately see ⇒ Electronic Catalogue of Original parts . There are no fixing screws in the repair kit.
- ♦ Before repairs the headlight must be removed ⇒ "1.2 Removing and installing headlight", page 80.
- After installing the headlight, adjust the headlight ⇒ "1.3 Adjusting headlights", page 80.
- Detach the remainder of the original bracket.
- Change the contact surface (grind off, remove by file) to allow a new bracket to be inserted properly.



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Insert a new bracket true to form -arrows-.



The attachment brackets as spare parts do not have openings for fixing screws.

 Insert the fixing screws directly into the bracket and tighten (1.5 Nm). The screws cut a new thread into the bracket.

# 1.6 Change headlight for right-hand and/or left-hand traffic

The halogen headlights should have self-adhesive foil glued over them when driving in countries which drive on the right or the left thereby preventing blinding of the drivers travelling in the opposite direction.

## i Note

- The change of the headlights is not suitable for the permanent mode, rather only as a brief "touristic" solution during a temporary journey abroad.
- Both headlights must always be changed.
- The lenses must be cleared of dirt and de-greased, e.g. with degreased white spirit solution, before sticking the foil.
- When cleaning and gluing foils, the lens must remain cold for safety reasons.
- The instructions "right" and/or "left" on the protective foils always refer to the front visibility towards the outside.
- Ensure that the correct protective foil is chosen, see ⇒ Electronic Catalogue of Original Parts.
- Remove the rear protective foil.
- Place the foil on the headlight in such a way that the lower and outer vertical edge of the auxiliary part of the foil is offset with the bottom edge of the lens and the vertical auxiliary contour on the headlight panes, see Fig.
- 1 The headlight on the right
- 2 The headlight on the left

Left-hand drive:





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**Right-hand drive:** 

- Forcefully press on the middle area of the foil -B-.
- Carefully pull off the auxiliary part of the foil -A- from the headlight.

Only a part of the protective foil remains on the lens -B-.



Inform the customer about the corresponding notes for removing the residual glue after pulling off the protective foil, e.g. textiles soaked in isopropyl alcohol (do not use any aggressive solvent, which can damage the polycarbonate lenses).

#### 1.7 Removing and installing headlight range control motor

#### Removing

- Remove the headlight from which the control motor is removed  $\Rightarrow$  "1.2 Removing and installing headlight", page 80
- Remove cover -2-.

The headlight on the left:





S94-10048



- Carefully knock out and remove the plug -2-.
- Release securing bolts underneath the plugs.



Note

The bolts beneath the plugs are not exactly in the opening axle for this reason, the control motor -1- needs to be swivelled out a little -arrow-.

The headlight on the right:

- Carefully knock out and remove the plug -3-.
- Undo the screw underneath the plug and the bolt -2-.



The bolt beneath the plug are not exactly in the opening axle - for this reason, the control motor -1- needs to be swivelled out a little -arrow-. To release the bolt -2- use a flexible approach, using a smaller Torx where necessary.

Both headlights:





 Move the control motor -1- in the direction of arrow -A-, undo the pressure element from the groove, and remove in the direction of arrow -B-.

#### Install

Installation is performed in the reverse order, pay attention to the following points:

- Broken-out plugs -2- must be replaced by new plugs, see  $\Rightarrow$  Electronic Catalogue of Original Parts .
- After installing the control motor, check the function is correct.





## 2 Headlights – Bi-xenon headlights

⇒ "2.1 General description", page 87

⇒ "2.2 Assembly overview - Bi-xenon headlights", page 88

 $\Rightarrow$  "2.3 Summary of components – Bi-xenon headlights with LED module", page 90

⇒ "2.4 Removing and installing headlight", page 91

 $\Rightarrow$  "2.5 Replacing light bulbs and gas discharge lamps", page 91

 $\Rightarrow$  "2.6 Change headlight for right-hand / left-hand traffic", page 94

⇒ "2.7 Fault recognition and fault display", page 94

⇒ "2.8 Replace headlight fixing brackets", page 94

 $\Rightarrow$  "2.9 Removing and installing control unit for gas discharge lamp J343 left or J344 right", page 94

 $\Rightarrow$  "2.10 Remove and install performance module for the headlight J667 left or J668 right", page 95

 $\Rightarrow$  "2.11 Removing and installing Control unit for daylight driving light and side light J860 (LED module) left and J861 right", page 95

 $\Rightarrow$  "2.12 Removing and installing the cornering light and headlight range control unit J745 ", page 95

 $\Rightarrow$  "2.13 Vehicle level sensor G78 front left or G76 rear left ", page <u>97</u>

 $\Rightarrow$  "2.14 Removing and installing headlight range control motor", page 97

## 2.1 General description

## WARNING

Mortal high voltage, risk of injury and risk of pollution.

Observe the use and safety instructions for the gas discharge lamps in the Workshop Manual "Electrical System - general notes" ⇒ Electrical System - general notes; Rep. gr. 94.

## i Note

When handling a fault it is absolutely essential to know the function and operation of the headlights.

The headlights with Xenon discharge lamps are Bi-Xenon lamps (AFS – Adaptive Frontlighting System) and have automatic head-light range control.

The cornering light and headlight range control unit - J745- evaluates the following entry information:

- Steering wheel angle and direction
- Vehicle speed
- Reversing lights on
- Switching on the headlight (low beam light or main beam light)

# 1 - 3740- Eval-





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- Signals of vehicle level sensors on front and rear axle
- individual wheel speeds
- Position of the light switch

On the basis of this information, it controls the rotary and inclination movement of the headlights.

- ⇒ "2.12 Removing and installing the cornering light and headlight range control unit J745 ", page 95.
- Removing and installing

   ⇒ "2.13 Vehicle level sensor G78 front left or G76 rear left ", page 97.

## Further information, description of function and types of head-lights to be fitted:

⇒ Owner's manual Octavia III

 $\Rightarrow$  Self-study programme No. 97 ; Škoda Octavia III Vehicle presentation

 $\Rightarrow$  Current flow diagrams, Electrical fault finding and Fitting locations

## 2.2 Assembly overview - Bi-xenon headlights

## 1 - Control unit for gas discharge lamp - J343- left or -

- J344- right
  - □ Removing and installing ⇒ "2.9 Removing and installing control unit for gas discharge lamp J343 left or J344 right", page 94

## 2 - Headlight housing

- □ Removing and installing is the same as for the halogen headlight ⇒ "1.2 Removing and installing headlight", page 80
- □ adjust ⇒ "1.3 Adjusting headlights", page 80

#### 3 - Bulb for side light and daytime running light

- 12 V, 21/5 W (P21/5W)
- ❑ Renew ⇒ "2.5.2 Replacing bulbs for side light and daytime running light P21/5W", page 92.

4 - Cover

#### 5 - Headlight range control motor

□ Removing and installing ⇒ "2.14 Removing and installing headlight range control motor", page 97



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## 6 - Gas discharge lamp with integrated ignition coil

- □ 42V, 35 W (type D3S)
- □ Renew  $\Rightarrow$  "2.5.4 Replacing the gas discharge lamp ", page 93 .
- 7 Cover
- 8 Bolts
  - 1.5 Nm
- 9 Lens for signal bulb
- 10 O-ring
- 11 Light bulb for the turn signal light
  - D PWY24W
  - □ Renew  $\Rightarrow$  "1.4.3 Replacing bulb PYW24Y for the turn signal light", page 82.

## 12 - Performance module for the headlight - J667- left or -J668- right

□ Removing and installing ⇒ "2.10 Remove and install performance module for the headlight J667 left or J668 right", page 95



## 2.3 Summary of components – Bi-xenon headlights with LED module

## i Note

- LED module is defined for side light and daytime running light.
- The LED module is integrated into the headlight housing and cannot be changed separately.

#### 1 - Control unit for gas discharge lamp - J343- left or -J344- right

□ Removing and installing ⇒ "2.9 Removing and installing control unit for gas discharge lamp J343 left or J344 right", page 94

### 2 - Headlight housing

- □ Removing and installing is the same as for the halogen headlight ⇒ "1.2 Removing and installing headlight", page 80
- □ adjust ⇒ "1.3 Adjusting headlights", page 80
- 3 Light bulb for additional side light
  - 12V, 5W (W5W BL)
  - □ Renew ⇒ "2.5.1 Replacing light bulb for additional side

light", page 91.

## 4 - Cover

- 5 Headlight range control motor
  - □ Removing and installing ⇒ "2.14 Removing and installing headlight range control motor", page 97

#### 6 - Gas discharge lamp with integrated ignition coil

- □ 42V, 35 W (type D3S)
- $\square \quad \text{Renew} \Rightarrow "2.5.4 \text{ Replacing the gas discharge lamp ", page 93} \ .$
- 7 Cover
- 8 Bolts
  - □ 1.5 Nm
- 9 Lens for signal bulb
- 10 O-ring
- 11 Light bulb for the turn signal light
  - D PWY24W
  - □ Renew  $\Rightarrow$  "1.4.3 Replacing bulb PYW24Y for the turn signal light", page 82.





## 12 - Control unit for daylight driving light and side light - J860- (LED module) left or -J861- right

- □ Removing and installing ⇒ "2.11 Removing and installing Control unit for daylight driving light and side light J860 (LED module) left and J861 right", page 95
- 13 Performance module for the headlight J667- left or -J668- right
  - □ Removing and installing ⇒ "2.10 Remove and install performance module for the headlight J667 left or J668 right", page 95

## 2.4 Removing and installing headlight

Removal and installation is done in the same was as for the halogen headlight, see  $\Rightarrow$  "1.2 Removing and installing headlight", page 80.

 $\Rightarrow$  "1.2 Removing and installing headlight", page 80 .

## 2.5 Replacing light bulbs and gas discharge lamps

⇒ "2.5.1 Replacing light bulb for additional side light", page 91

 $\Rightarrow$  "2.5.2 Replacing bulbs for side light and daytime running light P21/5W", page 92

 $\Rightarrow$  "2.5.3 Replacing bulb PYW24Y for the turn signal light", page 93

 $\Rightarrow$  "2.5.4 Replacing the gas discharge lamp ", page 93

The LED module is integrated into the headlight housing and cannot be changed separately. Replace headlight if there is a module fault.

# 2.5.1 Replacing light bulb for additional side light

## i Note

- Do not touch the glass when installing the light bulb. Your fingers will leave traces of grease on the glass which then evaporate when the bulb is switched on causing it to cloud.
- Pay attention to the correct fitting and undamaged seals on the plastic covers as well as the correct positioning of the cover. Water ingress will destroy the headlight.

Headlights with LED module.

- Switch off the ignition and all electrical components.
- Remove cover -2-.



b for additional side



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 Take hold of bulb socket -1- and remove it while observing the connected cable lengths -arrow-.



- Remove bulb -2- from holder -1-.
- After replacing the bulb, press socket and bulb fully into the headlight and install cover.



## 2.5.2 Replacing bulbs for side light and daytime running light P21/5W

## i Note

- Do not touch the glass when installing the light bulb. Your fingers will leave traces of grease on the glass which then evaporate when the bulb is switched on causing it to cloud.
- Pay attention to the correct fitting and undamaged seals on the plastic covers as well as the correct positioning of the cover. Water ingress will destroy the headlight.

Headlights without LED module.

- Switch off the ignition and all electrical components.
- Remove cover -2-.



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- Turn socket with bulb -1- -arrow- and remove.
- Replace defective light bulb.
- Installation is carried out in the reverse sequence.



#### 2.5.3 Replacing bulb PYW24Y for the turn signal light

The work sequence is the same as when changing the halogen headlight

 $\Rightarrow$  "1.4.3 Replacing bulb PYW24Y for the turn signal light", <u>page 82</u>.

#### 2.5.4 Replacing the gas discharge lamp

## WARNING

Mortal high voltage, risk of injury and risk of pollution.

Observe the use and safety instructions for the gas discharge lamps in the Workshop Manual "Electrical System - general notes" ⇒ Electrical System - general notes; Rep. gr. 94.

## Note

- Do not touch the glass bulb when installing. Your fingers will leave traces of grease on the glass bulb, which then evaporate when the gas discharge lamp is switched on causing the glass bulb to cloud.
- Pay attention to the correct fitting and undamaged seals on the plastic covers as well as the correct positioning of the cover. Water ingress will destroy the headlight.

## Removing

- Switch off the ignition and all electrical components.
- Unplug the connector from the headlight.
- Remove cover -1-.







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- Press the peg at the plug for unlocking and remove the plug -2- towards the bottom.
- Turn gas discharge lamp by approx. 45° -arrow- and remove from the headlight housing.

### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- Inspecting the headlight beam setting ⇒ Maintenance ; Booklet Octavia III .
- Undertake the basic setting for beam range regulation  $\Rightarrow$  Vehicle diagnostic tester.

#### 2.6 Change headlight for right-hand / lefthand traffic

The position of the ray of light should be adjusted when driving in countries which drive on the right or the left thereby preventing blinding of the drivers travelling in the opposite direction.

Headlights with Xenon discharge lamps are repositioned in the information display selection list, see ⇒ Infotainment operating manual , Chapter "Setting vehicle systems" (CAR button).

#### 2.7 Fault recognition and fault display

The automatic headlight range control, cornering light and the onboard supply control unit are equipped with the self-diagnosis that facilitates the fault finding of the headlights.

For fault finding use the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding".

#### Replace headlight fixing brackets 2.8

The work sequence is the same as when changing the halogen headlight  $\Rightarrow$  "1.5 Replace headlight fixing brackets", page 83.

#### Removing and installing control unit for 2.9 gas discharge lamp - J343- left or -J344right

## Removing

- Remove headlight "1.2 Removing and installing headlight", page 80.  $\Rightarrow$
- Screw out the screws -arrows- (1.4 Nm) and remove the control unit -1-.
- Release and disconnect the plug connections.

#### Install

Installation is performed in the reverse order, pay attention to the following points:



## Note

Correctly install the seal when installing the unit. Water ingress will destroy the headlight.





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#### 2.10 Remove and install performance module for the headlight - J667- left or -J668right

## Removing

- Remove headlight  $\Rightarrow$  "1.2 Removing and installing headlight", page 80
- Unscrew screws -2- (1.4 Nm) and remove the control unit -1-.
- Release connector and pull it off.

### Installing

Installation is carried out in the reverse order. When installing, observe the following:



Correctly install the seal when installing the unit. Water ingress will destroy the headlight.

If the performance module was replaced, then the coding must be carried out with  $\Rightarrow$  Vehicle diagnostic tester and the headlights need adjusting <u>⇒ page 80</u>.

#### 2.11 Removing and installing Control unit for daylight driving light and side light -J860- (LED module) left and -J861- right

## Removing

- Left side- remove headlight  $\Rightarrow$  "1.2 Removing and installing headlight", page 80.
- Right side- remove the front right wheelhouse liner  $\Rightarrow$  Body Work; Rep. gr. 66.
- Unscrew screws -3- (1.4 Nm) and remove the control unit -4-.

## Installing

Installation is carried out in the reverse order. When installing, observe the following:



## Note

Correctly install the seal when installing the unit. Water ingress will destroy the headlight.

#### 2.12 Removing and installing the cornering light and headlight range control unit -J745-

## ⇒ "2.12.1 Left-hand drive", page 95

⇒ "2.12.2 Right-hand drive", page 96

#### 2.12.1 Left-hand drive

The control unit is located above the brake pedal.







## Note

If the control unit is replaced, ⇒ Vehicle diagnostic tester connect and, in the operating mode "Targeted fault finding", select the "Replace control unit" function of the relevant control unit.

## Removing

- Switch off the ignition and all electrical components. \_
- Remove the knee airbag  $\Rightarrow$  Body Work; Rep. gr. 69.
- Removing the left footwell vent on the driver side  $\Rightarrow$  Heating, Air Conditioning; Rep. gr. 80.
- Remove the bearing bracket for the brake pedal  $\Rightarrow$  Suspension; Rep. gr. 46.
- Push out bolt and remove expansion clips -3-.
- Lower unit -1-, unlock and disconnect plug connection -2-.

## Installing

Installation is carried out in the reverse sequence.



#### 2.12.2 **Right-hand drive**

The control unit is located above the brake pedal.



## Note

If the control unit is replaced, ⇒ Vehicle diagnostic tester connect and, in the operating mode "Targeted fault finding", select the "Replace control unit" function of the relevant control unit.

## Removing

- Switch off the ignition and all electrical components.
- Remove the storage compartment in the dash panel on the front passenger side⇒ Body Work; Rep. gr. 70.

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- Unplug connector -3-. \_
- Remove expanding rivets -2- and remove unit -1-. \_

### Install

Installation is carried out in the reverse order.



#### Vehicle level sensor - G78- front left or -2.13 G76- rear left

The vehicle level senders are an integral part of the headlight range.

The assembly work is described in the Workshop Manual ⇒ Chassis .

- Install front left vehicle level sensor G78-  $\Rightarrow$  Chassis; Rep. ٠ gr. 40
- Install rear left vehicle level sensor G76- ⇒ Chassis; Rep. ٠ gr. 42

#### Removing and installing headlight range 2.14 control motor

## Removing

- Remove the headlight from which the control motor is removed ⇒ "1.2 Removing and installing headlight", page 80
- Remove cover -1-.







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- To access the fixing screw, carefully knock out and remove the plug -arrow-.
- To be able to see the headlight range control motor better, remove the Control unit for daylight driving light and side light
   J860- (LED module -1 ⇒ "2.11 Removing and installing Control unit for daylight driving light and side light J860 (LED module) left and J861 right", page 95.
- Remove the gas discharge lamp
   ⇒ "2.5.4 Replacing the gas discharge lamp ", page 93 .
- Unscrew fixing screws -1-.
- Unhook the control of the control motor out of the bearing -arrow-.
- Take out the control motor -2- taking connected wiring lengths into consideration and disconnect the connector.

#### Install

Installation is performed in the reverse order, pay attention to the following points:

- The knocked-out plug -arrow- must be replaced by a new plug, see ⇒ Electronic Catalogue of Original Parts .
- After installing the control motor, check the function is correct.









## 3 Lights in the exterior mirror

## $\Rightarrow$ "3.1 Side turn signal lights", page 99

## ⇒ "3.2 Door entry lighting", page 100

## 3.1 Side turn signal lights

## Removing

- Switch off the ignition and all electrical components.
- Remove mirror glass  $\Rightarrow$  Body Work; Rep. gr. 66.
- Press off the catches -arrows A- and push out the cover -1--arrow B-.



- Unscrew screws -arrows A-.
- Press off the catches -arrow B- and remove cover -1-.





Remove socket with bulb -1-.





- Press off the catches -arrow A- and slightly lower the cover -1-.
- Loosen bottom cover -1- by pushing it out of the catch -arrow B-.
- Disconnect plug.



Press off the catch -arrow- and loosen the side turn signal lights -1- from the bottom cover -2-.

### Installing

\_

Installation is carried out in the reverse order. When installing, observe the following:

- Performing functional tests of all functions.



## 3.2 Door entry lighting

## Remove light bulb and housing of the door entry lighting

- Switch off the ignition and all electrical components.
- Remove mirror glass ⇒ Body Work; Rep. gr. 66.
- Press off the catches -arrows A- and push out the cover -1--arrow B-.




- Unscrew screws -arrows A-.
- Press off the catches -arrow B- and remove cover -1-. \_

- Remove socket with bulb -1-. \_
- Replace defective light bulb (W5W) if necessary.

- Press off the catches -arrow A- and slightly lower the cover -1-.
- Loosen bottom cover -1- by pushing it out of the catch -arrow B-.
- Disconnect plug. \_

Screw out screw -arrow- (0.5 Nm) and remove the lighting housing -1-.

#### Installing

Installation is carried out in the reverse sequence.











### 4 Tail lights

- ⇒ "4.1 Removing and installing tail light", page 102
- ⇒ "4.2 Replacing the light bulbs of the tail light", page 103

### 4.1 Removing and installing tail light

- Special tools and workshop equipment required
- Assembly tool T10389-
- Further information and description of function:
- ⇒ Owner's manual Octavia III

 $\Rightarrow$  Self-study programme No. 97 ; Škoda Octavia III Vehicle presentation

#### Removing

- Switch off the ignition and all electrical components.
- Insert the mounting tools or a hook into the opening of the cover -1- in order to remove the wheel trim caps (tool kit) -T10389-, unclip the cover -arrow- from the catches -2- in sequence and remove.



- Unscrew screws -3- (2.5 Nm).
- Take hold of the light -1- and release it carefully from the assembly opening in the installed axle by moving it laterally -arrow-.
- Unplug connector -2-.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:



. . .

Pay attention to the correct fitting and undamaged seals.



#### Caution

When inserting the tail lights into the assembly opening, ensure that the connection wiring loom is inserted into the vehicle cockpit.

Crushed cables between the body and lights causes significant leakage of rainwater and tail light malfunctions.





### 4.2 Replacing the light bulbs of the tail light

- ⇒ "4.2.1 Tail light Octavia", page 103
- ⇒ "4.2.2 Tail light with LED diodes Octavia", page 103
- ⇒ "4.2.3 Tail light Octavia Combi", page 104
- ⇒ "4.2.4 Tail light with LED diodes Octavia Combi", page 105



Bulbs for fog light on driver side only.

### 4.2.1 Tail light - Octavia

Remove tail light
 ⇒ "4.1 Removing and installing tail light", page 102.

i	Note
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The bulb holder is not removed when the side light (-Pos.4-) bulbs are being replaced. To remove the bulb socket, turn to the left and remove.

- Remove bolts -arrows-.
- Disconnect plug -1- and remove bulb holder.

Summary of components of light bulbs:

- 1 Light bulb for the reversing light P21W (12V, 21W)
- Light bulb for the brake light and side light P21W (12 V, 21 W)
- 3 Light bulb for the turn signal light PY21W (12 V, 21 W)
- 4 Light bulbs for the side light W5W (12V, 5W)
- 5 Light bulb for the fog light and side light H21W (12V, 21W)

Installation is carried out in the reverse order. When installing, observe the following:



Check that the bulb holder seals are undamaged.

## 4.2.2 Tail light with LED diodes - Octavia

Remove tail light
 ⇒ "4.1 Removing and installing tail light", page 102.







i Note

The LED module is integrated into the lamp and cannot be changed separately.

- Remove bolts -arrows-.
- Remove bulb carrier.

Summary of components of light bulbs:

- 1 Light bulb for the reversing light P21W (12 V, 21 W)
- 2 Light bulb for the turn signal light PY21W (12 V, 21 W)
- 3 Light bulb for the fog light H21W (12V, 21W)
- Module with LED diodes brake light and side light.

Installation is carried out in the reverse order. When installing, observe the following:

## i Note

- Check seal for damage.
- When installing the bulb carrier, insert the cable into the module with LED diodes so that it does not become crushed between the bulb carrier and the lamp housing.
- The module with LED diodes is integrated into the lamp and cannot be changed separately.

## 4.2.3 Tail light - Octavia Combi

- Remove tail light
   ⇒ "4.1 Removing and installing tail light", page 102.
- To remove, turn to the left and remove the carrier with light bulb.

Summary of components of light bulbs:

- 1 Light bulb for the brake light and side light P21W (12 V, 21 W)
- 2 Light bulbs for the side light W5W (12V, 5W)
- 3 Light bulb for the turn signal light PY21W (12 V, 21 W)
- 4 Light bulb for the fog light and side light P21W (12V, 21W)
- 5 Light bulb for the reversing light P21W (12V, 21W)









## 4.2.4 Tail light with LED diodes - Octavia Combi

Remove tail light
 ⇒ "4.1 Removing and installing tail light", page 102.



The LED module is integrated into the lamp and cannot be changed separately.

 To remove, turn to the left and remove the carrier with light bulb.

Summary of components of light bulbs:

- 1 Light bulb for the turn signal light PY21W (12 V, 21 W)
- 2 Light bulb for the fog light H21W (12V, 21W)
- 3 Light bulb for the reversing light P21W (12 V, 21 W)





- 5 Fog lights, fog lights with the "Corner" function
- $\Rightarrow$  "5.1 General description, fault recognition and fault display", page 106
- ⇒ "5.2 Removing and installing fog light", page 107
- ⇒ "5.3 Adjusting fog lights", page 108
- $\Rightarrow$  "5.4 Replacing bulb for the fog light", page 108

### 5.1 General description, fault recognition and fault display

#### General description

Two fog light variants are installed (except for Octavia RS) with functions:

- Fog lights
- the fog lights with the static cornering light (Corner function)

in two design variants (black or silver frame)

Octavia RS - with functions:

- Fog light both bulbs are lit
- Fog lights and cornering light only the bulb on the outer side of the headlight lights up to form the cornering light

Fog lights with the "Corner" function ensure that the surrounding area of the vehicle is better illuminated when turning, parking etc. and are controlled by the onboard supply control unit - J519-.

#### Further information and description of function

⇒ Owner's manual Octavia III

 $\Rightarrow$  Self-study programme No. 97 ; Škoda Octavia III Vehicle presentation

 $\Rightarrow$  Current flow diagrams, Electrical fault finding and Fitting locations

#### Fault recognition and fault display

The onboard supply control unit - J 519- features self-diagnosis to facilitate fault finding.

Use the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding" for checking and fault finding of the fog lights with the "Corner" function.



### 5.2 Removing and installing fog light

#### Removing (except for Octavia RS and Scout)

 Octavia - For example, insert a hook into the opening in the grid -top arrow- in order to remove the wheel trim cap (tool kit) and unclip the grid -1- from the catches in sequence and take out.







#### Caution

When using the lever tool, mask points where the lever tool is applied using commercially available adhesive tape.

- Loosen the catch -arrow A- with a screwdriver and remove the headlight -arrow B-.
- Disconnect plug.

#### Remove - Octavia RS

- Remove headlight left front bumper ⇒ Body Work; Rep. gr.
   63.
- Remove headlight right vehicles with auxiliary heating front bumper ⇒ Body Work; Rep. gr. 63, without auxiliary heating - remove front right wheelhouse liner ⇒ Body Work; Rep. gr. 66.
- Release screws -arrows-.
- Disconnect connectors -2- and remove headlamp -1-.

#### Removing - Octavia Scout





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- Unclip the cover -1- over the fog light.
- Screw out the screws -arrows- (1.5 Nm) and remove the fog light -2-.
- Disconnect plug.

#### Install

Installation is carried out in the reverse order.



### 5.3 Adjusting fog lights

#### Note

Ī

Use a headlight beam setting device for setting the headlight beam. The nominal values and the adjustment procedure can be found in the Manual ⇒ Maintenance ; Booklet Octavia III .

5.4 Replacing bulb for the fog light

### WARNING

H8 and H16 bulbs are pressurised and can burst when changing the bulb - risk of injury! Wear gloves and safety spectacles when changing the lamps.

## i Note

Do not touch the glass when installing the light bulb. Your fingers will leave traces of grease on the glass which then evaporate when the bulb is switched on causing it to cloud.

- Switch off the ignition and all electrical components.

All vehicles except for Octavia RS:

Remove the fog light with the defective light bulb
 ⇒ "5.2 Removing and installing fog light", page 107.

Octavia RS:

- Remove headlight left front bumper ⇒ Body Work; Rep. gr.
   63.
- Right headlight- remove the front right wheelhouse liner ⇒ Body Work; Rep. gr. 66.



Using a small screwdriver, carefully unlock the catch \_ -arrow A- and remove the lens -1- -arrow B-.

All vehicles:

- Turn socket with lamp in -direction of arrow- and remove. \_
- Replace defective light bulb: —

All vehicles except for Octavia RS - H8 light bulb

Octavia RS - with H16 light bulb:

- Installation is carried out in the reverse order.







### 6 Additional brake light

## $\Rightarrow$ "6.1 Removing and installing the high level brake light - Octavia", page 110

 $\Rightarrow$  "6.2 Removing and installing the high level brake light - Octavia Combi", page 111

 $\Rightarrow$  "6.3 Removing and installing the high level brake light - Octavia Combi GreenLine", page 112

## 6.1 Removing and installing the high level brake light - Octavia

#### Removing

- Switch off the ignition and all electrical components.
- Remove the tailgate trim panel  $\Rightarrow$  Body Work; Rep. gr. 70.
- Unscrew screws -2- (0.8 Nm).
- Release pre-assembly latches -arrows-.





### Note

To facilitate releasing the latches, a welding wire  $\emptyset$  4 mm must be used, which is reworked and used as shown.

- a = 8 mm
- b = 115 mm
- c = 120 mm
- Unplug connector -1-.
- Remove high level brake light.

#### Installing

Installation is carried out in the reverse sequence.



The high level brake light is fitted with LEDs which cannot be replaced individually.



## 6.2 Removing and installing the high level brake light - Octavia Combi



The high level brake light is fitted with LEDs which cannot be replaced individually.

#### Removing

- Switch off the ignition and all electrical components.
- Remove the tailgate trim panel  $\Rightarrow$  Body Work; Rep. gr. 70.
- Move strips -1- in direction of arrow -A- and take out of the brake light in direction of arrow -B-.



- Prise out the clips -1- with a screwdriver -arrows- and remove.



- Surrounding light seal is attached to the body (for a perfect seal).
- Press out the light with force from the edge, and slowly and carefully remove it from the assembly opening.
- Press the brake light -3- out of the assembly opening from the rear -arrows-.
- Separate plug connection -1-.
- Unlock and remove the connection of the windscreen washer system -2- by rotating the retaining clip.

#### Install

 If the original light is installed, remove the gasket, clean the contact surface and glue a new gasket onto the light ⇒ Electronic Catalogue of Original Parts.



*The new gasket must be glued before inserting the metal claps Pos. -2-.* 







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Connect the metal clamps -2- back onto the brake light.



## Note

The metal clamps -2- must be fitted in such a way that the pegs grip on the ends of the clamps below the edge of the glass of the brake light (if the clamps are correctly fitted, they bounce when pressed together in direction of arrow -C-).

Position the locking strips -1- on the light in direction of arrow -A- secure by sliding up to the stop in direction of arrow -B-.

## Note

- Do not forget to remove the protective film before installing the new seal.
- The assembly opening must be clean and free of all adhesive residues.
- Fit the connector -1- and connection of the windscreen washer system -2-.
- Clip in the assembled brake light -3- back into the assembly opening in the tailgate -arrows-.
- Perform a functional and tightness test on the brake light.





#### 6.3 Removing and installing the high level brake light - Octavia Combi GreenLine

Summary of components





- 2 Bolts
- 2.5 ± 0.5 Nm
- 3 Spoiler
- 4 Connector with foam rubber cap
- 5 Rubber grommet
- 6 Brake lights



### Removing

- Switch off the ignition and all electrical components.
- Remove the tailgate trim panel  $\Rightarrow$  Body Work; Rep. gr. 70.



## Note

- Three seal variants are possible.
- Self-adhesive foil or a plastic cap -2- is used in some vehicles instead of the plastic caps -3-.

By seal type:

#### Variant 1:

Remove caps -3- and pierce them if necessary. \_

#### Variant 2:

Pierce foil (the foil is perforated at the point where it is to be \_ pierced).

#### Variants 1 and 2:

- \_ Insert key -1- (Torx key 20, key length 160-180 mm) through the guide tube -4-.
- Unscrew screws -6- for securing the light -7- in the spoiler \_ -5-.

#### i Note

The screws remain in the guide tube after they are unscrewed -4-.

#### Variant 3 (installed as of CW 41/14):

- Remove the plug -2- from the cap -1-.
- Insert key (Torx key 20, key length 160-180 mm) through the guide tube -3-.
- Screw out the fixing screws -5- of the light -6- in the spoiler -4-.



#### Note

The screws remain in the guide tube after they are unscrewed -3-.

#### All variants:





 Tilt out the brake light -2- slightly in the direction of arrow -Aand remove from the spoiler in direction of arrow -B-, taking connected wiring lengths into consideration.

## i Note

After removing the light, the wiring must be cut (if there is no connector directly on the light) and the wiring must be reconnected with the "auxiliary measuring set" when the original/new light is installed.

#### Install

Install in the reverse order of removal. When doing this, note the following:

- Check gasket for light for damage.
- If the wiring was cut when the light was removed, reconnect the wiring using the "auxiliary measuring set".
- Observe the tightening torque of the screws (see  $\Rightarrow$  page 112).
- Variant 2 Seal the pierced foil/caps with a piece of standard impermeable adhesive tape.
- Perform a functional test.



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## 7 Registration number lighting

 $\Rightarrow$  "7.1 Removing and installing registration number lighting", page 116

 $\Rightarrow$  "7.2 Replacing bulb for the number plate light", page 116

## 7.1 Removing and installing registration number lighting

#### Removing

- Switch off the ignition and all electrical components.
- Use a suitable screwdriver -arrow- to lever the light -1- out of the tailgate.



- Disconnect the plug -1- from the light -2-.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- The plug -1- is located on the right vehicle side.
- Perform a functional test.



## 7.2 Replacing bulb for the number plate light

- Switch off the ignition and all electrical components.
- Remove number plate light
   ⇒ "7.1 Removing and installing registration number lighting",
   page 116
- Replace the defective light bulb -1- (W5W).
- After installing, perform functional test.





### 8 Steering column switch

 $\Rightarrow$  "8.1 Summary of components of steering column switch with mechanical ignition/starter switch", page 117

 $\Rightarrow$  "8.2 Summary of components of steering column switch with control unit for electronic steering column lock J764 ", page 118

 $\Rightarrow$  "8.3 Removing and installing switch unit on the steering column", page 119

 $\Rightarrow$  "8.4 Removing and installing steering column electronics control unit J527 ", page 120

 $\Rightarrow$  "8.5 Setting the correct installation position of the restoring ring with coil spring", page 121

 $\Rightarrow$  "8.6 Contact assignment on the steering column electronics control unit J527 ", page 122

⇒ "8.7 Self-diagnosis and fault indication", page 122

- 8.1 Summary of components of steering column switch with mechanical ignition/starter switch
- 1 Steering column

#### 2 - Shear bolt

- □ 2 pieces
- 3 Lock cylinder
  - □ Removing and installing ⇒ "9.1 Removing and installing lock cylinder", page 123
- 4 Ignition key

## 5 - Steering column electronics control unit - J527-

- with coil spring for airbag and restoring ring with collector ring -F138-
- □ Removing and installing ⇒ "8.4 Removing and installing steering column electronics control unit J527 ", page 120



The restoring ring and slip ring must not be rotated against each other while they are dismantled.

- 6 Transport security
- 7 Screw
  - 🗅 1.1 Nm





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#### 8 - Switch unit on the steering column

- □ with turn signal light switch E2- and wiper switch for intermittent operation E22-
- □ Equipment variant with cruise control system: with CCS switch E45-
- □ Removing and installing ⇒ "8.3 Removing and installing switch unit on the steering column", page 119

#### 9 - Steering lock housing

□ Removing and installing ⇒ "9.2 Removing and installing steering lock housing", page 124

#### 10 - Screw

1.1 Nm

#### 11 - Ignition/starter switch - D-

□ Removing and installing <u>⇒ "9.4 Removing and installing ignition/starter switch", page 126</u>

#### 12 - Magnet for ignition key anti-removal lock - N376-

□ Removing and installing ⇒ "9.5 Removing and installing ignition key anti-removal lock solenoid N376 ", page 126

## 8.2 Summary of components of steering column switch with control unit for electronic steering column lock - J764-

#### 1 - Steering column

2 - Shear bolt

#### 2 pieces

3 - Immobilizer reading coil -D2-

#### 4 - Ignition key

#### 5 - Access and start authorisation button - E408-

□ Removing and installing ⇒ "10.6 Removing and installing start/stop button and immobiliser reader coil for emergency start", page 132

## 6 - Steering column electronics control unit - J527-

- with coil spring for airbag and restoring ring with collector ring -F138-
- □ Removing and installing ⇒ "8.4 Removing and installing steering column electronics control unit J527 ", page 120



Risk of damaging the restoring ring.

Caution

The restoring ring and slip ring must not be rotated against each other while they are dismantled.



#### 7 - Transport security

- 8 Screw
  - 🗅 1.1 Nm
- 9 Switch unit on the steering column
  - □ with turn signal light switch E2- and wiper switch for intermittent operation E22-
  - □ Equipment variant with cruise control system: with CCS switch E45-
  - □ Removing and installing ⇒ "8.3 Removing and installing switch unit on the steering column", page 119

#### 10 - Screw

- 🗅 1.1 Nm
- 11 Lock with control unit for ELV J764-
  - □ Removing and installing ⇒ "9.3 Removing and installing the ELV J764 ", page 125

## 8.3 Removing and installing switch unit on the steering column

#### Removing

- Remove steering wheel ⇒ Body Work; Rep. gr. 69. Before the steering wheel is removed from the steering column, the wheels must be in the straight ahead position.
- Removing top and bottom steering column trim ⇒ Body Work; Rep. gr. 70.
- Pull out plug fuse -4-, push unlocking down and disconnect plug connection -3-.

## WARNING

Risk of destruction of electronic components by static discharge.

Prior to disconnecting the electrical plug connection the mechanic must discharge electrostatic, for example by briefly touching the door closure strut.

- Pull fuse -1- out downwards and press down and disconnect plug connection -2-.
- Disconnect plug connection with wires to the ignition/starter switch.







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 Screw out the screw -2- (1.1 Nm) and push the switch unit -1- out of the bracket on the steering lock.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- Before pushing the switch unit onto the steering column the correct installation position of the ring rotor must be checked:
- The arrows -1- must be facing each other
- The coil spring -2- must be visible in the window between the arrows -4-
- Set the correct position if necessary  $\Rightarrow$  "8.5 Setting the correct installation position of the restoring ring with coil spring", page 121.
- Make sure that all the retaining lugs and plug connections lock in place correctly.

8.4 Removing and installing steering column electronics control unit - J527-

## i Note

- The airbag coil spring and restoring ring with slip ring F138are integrated into the steering column electronics unit -J527-.
- If the control unit is replaced, select the "replace control unit" function of the respective control unit⇒ Vehicle diagnostic tester.

#### Removing

- Remove steering wheel ⇒ Body Work; Rep. gr. 69. Before the steering wheel is removed from the steering column, the wheels must be in the straight ahead position.
- Removing top and bottom steering column trim ⇒ Body Work; Rep. gr. 70.







- Pull out plug fuse -4-, push unlocking down and disconnect plug connection -3-.



#### WARNING

Risk of destruction of electronic components by static discharge.

Prior to disconnecting the electrical plug connection the mechanic must discharge electrostatic, for example by briefly touching the door closure strut.

- Pull fuse -1- out downwards and press down and disconnect plug connection -2-.
- Unlock and disconnect plug connections -1, 3, 4 and 8-, as shown in the illustration. Use a screwdriver -6- to loosen the plug connections -8- carefully out of the catch -7-.
- Unscrew screw -5-.
- Unlock retention clutches -2- -arrow- and steering column electronics control unit - J527- from the switch unit on the steering column.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- Before pushing out the control unit on the switch unit the indicator lever must be in the 0 position and the ring rotor -3- must be inserted in the correct installation position:
- · The arrows -1- must be facing each other
- The coil spring -2- must be visible in the window between the arrows -4-

Set the correct position if necessary  $\Rightarrow$  "8.5 Setting the correct installation position of the restoring ring with coil spring", page 121.

 Make sure that all the retaining lugs and plug connections lock in place correctly.

## 8.5 Setting the correct installation position of the restoring ring with coil spring

It is only carried out if there is a doubt about the correct setting of the installation position for the restoring ring rotor.

#### Work procedure

Put the front wheels in straight ahead position.







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- Slowly turn the ring rotor -3- manually to the left up to the stop.
- Turn ring rotor clockwise manually by approximately 3.5 revolutions so that:
- The arrows -1- are facing each other
- The coil spring -2- must be visible in the window between the arrows -4-
- Install steering wheel ⇒ Body Work; Rep. gr. 69, if necessary lock ring rotor with transport security or adhesive tape.

### 8.6 Contact assignment on the steering column electronics control unit - J527-

You can find the exact contact assignment in  $\Rightarrow$  Current flow diagrams, Electrical fault finding and Fitting locations.

### 8.7 Self-diagnosis and fault indication

The steering column electronics control unit - J527- is equipped with self-diagnosis, which facilitates the fault finding.

For fault finding use the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding".





#### 9 Steering lock with ignition starter switch and lock cylinder

⇒ "9.1 Removing and installing lock cylinder", page 123

 $\Rightarrow$  "9.2 Removing and installing steering lock housing", page 124

⇒ "9.3 Removing and installing the ELV J764 ", page 125

⇒ "9.4 Removing and installing ignition/starter switch", page 126

⇒ "9.5 Removing and installing ignition key anti-removal lock solenoid N376 ", page 126

#### 9.1 Removing and installing lock cylinder

WARNING

The steering lock must not be moved without the lock cylinder, otherwise it would block completely. The blocked steering lock must be replaced

#### Removing



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Note

The steering wheel must not be removed. For installing the fixing screws of the bottom trim panel for steering column, turn the steering wheel to the left by 90° and subsequently turn it to the right.

- Removing top and bottom steering column trim  $\Rightarrow$  Body Work; Rep. gr. 70.
- Place the ignition key in the lock cylinder and turn to position "Ignition on". The recess in the opening -arrow- of the drilled hole in the ignition lock acts as a cover .







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- Lead steel cable -2- (about 1.2 mm in diameter) through the hole in the ignition key -arrow-.
- This unlocks the fuse -3- and the lock cylinder -1- can be pulled out of the steering lock.
- When pulling out the lock cylinder, carefully loosen the immobiliser reader coil cable.
- Separate plug connection for immobiliser -1-.

## i Note

The reading coil for the vehicle immobiliser is fixed to the lock cylinder and cannot be replaced separately.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- Place the ignition key in the lock cylinder and turn to position "Ignition on".
- Put unlocking wire -2- into the front drilled hole -arrow-.
- Push lock cylinder with reader coil into the steering lock housing.
- Pull out the wire and lock cylinder until there is an audible click.
- Fit the plug connection together on the reading coil.

## Note

Pay attention to the correct position of the cable to the reading coil of the vehicle immobiliser when inserting the lock cylinder.

## 9.2 Removing and installing steering lock housing

#### Removing

- Remove steering wheel ⇒ Body Work; Rep. gr. 69, bottom and top steering column trim panel ⇒ Body Work; Rep. gr. 70.
- Remove the switch unit on the steering column
   <u>⇒ "8.3 Removing and installing switch unit on the steering column", page 119</u>.
- Disconnect plug connections -1- and -3-.
- Drill off screws -arrows- with angle drill with a drill bit of Ø 8.5 mm.
- Remove steering lock housing -2- with ignition/starter switch and lock cylinder.
- Remove lock cylinder
   ⇒ <u>"9.1 Removing and installing lock cylinder", page 123</u> and ignition/starter switch if necessary
   ⇒ <u>"9.4 Removing and installing ignition/starter switch", page 126</u>.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:





Tighten new screws -arrows- until the screw heads have been broken off.



#### 9.3 Removing and installing the ELV - J764-



If the control unit is replaced, select the "replace control unit" function of the respective control unit > Vehicle diagnostic tester.

#### Removing

- Remove steering wheel  $\Rightarrow$  Body Work; Rep. gr. 69, bottom \_ and top steering column trim panel  $\Rightarrow$  Body Work; Rep. gr. 70.
- Remove the switch unit on the steering column \*8.3 Removing and installing switch unit on the steering col-<u>umn", page 119</u>.
- Unlock and disconnect plug connection -1-.
- Drill off screws -arrows- with angle drill with a drill bit of  $\emptyset$  8.5 mm.
- Remove control unit -2-.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

Tighten new screws -arrows- until the screw heads have been broken off.





9. Steering lock with ignition starter switch and lock cylinder



## 9.4 Removing and installing ignition/starter switch

#### Removing



The steering wheel must not be removed. For installing the fixing screws of the bottom trim panel for steering column, turn the steering wheel to the left by 90° and subsequently turn it to the right.

- Removing top and bottom steering column trim ⇒ Body Work; Rep. gr. 70.
- Separate electrical plug connection -1-.
- On the cavities -arrows- in the steering lock housing -4-, unlock the holding clamps -2- and -3- by inserting watchmaker's screwdriver.

If this method is not possible for space reasons, make the auxiliary tool from 2 wire hooks as described below.





- At one end of a  $\oslash$  1 mm welding wire, bend a loop and cut off a length -a-.
- Dimension -a- = approx. 50 mm
- File the end of the wire hook into a point.
- Dimension -b- = 5 mm.
- Pull the ignition/starter switch out of the steering lock housing
   the watchmaker's screwdriver/wire hook must remain inserted while the housing is being removed.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

 Slide the ignition/starter switch into the steering lock housing until there is an audible click.

#### 9.5 Removing and installing ignition key anti-removal lock solenoid - N376-

Only on vehicles equipped with automatic gearbox.



#### Removing



The steering wheel must not be removed. For installing the fixing screws of the bottom trim panel for steering column, turn the steering wheel to the left by 90° and subsequently turn it to the right.

- Removing top and bottom steering column trim  $\Rightarrow\,$  Body Work; Rep. gr. 70 .
- Unlock locking device -arrow A- and pull off magnet for ignition key anti-removal lock -2- -arrow B-.
- To do so unplug the connector simultaneously.

#### Installing

Installation is carried out in the reverse sequence.





- 10 Keyless unlocking of the vehicle/the steering, keyless start/stop KESSY system
- ⇒ "10.1 General description", page 128

⇒ "10.2 Fault recognition and fault display", page 128

 $\Rightarrow$  "10.3 Overview of components of the KESSY system", page 128

 $\Rightarrow$  "10.4 Access and start authorisation control unit J965 ", page 130

⇒ "10.5 Aerials of the KESSY system", page 130

 $\Rightarrow$  "10.6 Removing and installing start/stop button and immobiliser reader coil for emergency start", page 132

 $\Rightarrow$  "10.7 Lock with control unit for ELV J764 ", page 133

#### 10.1 General description

The KESSY system (Keyless Entry, Start and Exit System – a keyless access and start authorisation system) enables the keyless unlocking and locking of the vehicle, as well as a keyless engine start and switch-off. It is sufficient to carry the key with you. The lock with the control unit for ELV - J764-, which is a component of this system, replaces the mechanical steering lock.

The lock with the control unit for ELV - J764- generates the commands for switching on/off the S-contact, switching on/off the ignition (terminal 15) and the engine start/stop. These commands are transferred as signals to other vehicle components by the onboard supply control unit - J519- .

Overview of components  $\Rightarrow$  "10.3 Overview of components of the KESSY system", page 128.

When handling a fault, it is essential to know the functions and the operation of the complete KESSY system.

Detailed description of the function and operation of the KESSY system:

◆ ⇒ Owner's manual Octavia III

### 10.2 Fault recognition and fault display

The KESSY system is equipped with self-diagnosis.

For fault recognition and fault finding use the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding".

### 10.3 Overview of components of the KESSY system





□ Removing and installing  $\Rightarrow$  "10.4 Access and start authorisation control unit J965", page 130

#### 6 - Start/stop button

Removing and installing 

"10.6 Removing and installing start/stop button and immobiliser reader coil for emergency start", page 132

#### 7 - Immobiliser reader coil for emergency start

Removing and installing

 $\Rightarrow$  "10.6 Removing and installing start/stop button and immobiliser reader coil for emergency start", page 132

#### 8 - Aerial

- under the centre console in the centre
- Removing and installing  $\Rightarrow$  "10.5.1 Removing and installing the aerial under the centre console", page 130

#### 9 - Aerial and sensors

- □ in the outer door handle on the front passenger side
- not replaceable individually
- $\Box$  in the case of a fault, replace the complete outer door handle  $\Rightarrow$  Body Work; Rep. gr. 57

#### 10 - Aerial

- under the right side trim panel in luggage compartment
- □ Removing and installing  $\Rightarrow$  "10.5.3 Removing and installing rear left aerial", page 131



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## Other components with which the KESSY system communicates via the CAN bus

- Vehicle voltage control unit J519-
- Data bus diagnostic interface Gateway J533-
- Dash panel insert
- Selector lever of the automatic gearbox (vehicles with automatic gearbox)
- Engine control unit
- Control unit for ABS/ESC

## 10.4 Access and start authorisation control unit - J965-

On vehicles with left-hand and right hand drive, the control unit is located in the driver side heating and air conditioning unit.

#### Removing

- Remove dash panel insert
   ⇒ "1.3 Removing and installing dash panel insert", page 24.
- Press off the catch peg -arrow A- and push out the diagnostic interface -1- from the bracket -2- -arrows B-.
- Disconnect the plug connections -3- by unlocking and tilting out the clamp.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- If the control unit was replaced, it must be coded with the
   ⇒ Vehicle diagnostic tester. The ⇒ Vehicle diagnostic tester
   must be connected on-line.
- Test the complete system for proper operation.



#### 10.5 Aerials of the KESSY system

 $\Rightarrow$  "10.5.1 Removing and installing the aerial under the centre console", page 130

 $\Rightarrow$  "10.5.2 Removing and installing aerials and sensors in the front outer door handles", page 131

 $\Rightarrow$  "10.5.3 Removing and installing rear left aerial", page 131

⇒ "10.5.4 Removing and installing rear right aerial", page 131

 $\Rightarrow$  "10.5.5 Removing and installing the rear aerial in the middle", page 132

## 10.5.1 Removing and installing the aerial under the centre console

The aerial is located in the holder in front of the control lever.

#### Removing

- Switch off the ignition and all electrical components.



- Remove the centre console  $\Rightarrow$  Body Work; Rep. gr. 68.
- Using the disassembly tool (e.g. -MP8-602/1-) lever the aerial
   -1- out of the holder -2- and disconnect the plug connection.

#### Installing

- Connect plug connection and press the aerial into the holder.

Further installation occurs in reverse order.



## 10.5.2 Removing and installing aerials and sensors in the front outer door handles

Not replaceable individually.

In the case of a fault, replace the complete outer door handle  $\Rightarrow$  Body Work; Rep. gr. 57 .

### 10.5.3 Removing and installing rear left aerial

#### Removing

- Switch off the ignition and all electrical components.
- Remove left side trim panel in luggage compartment ⇒ Body Work; Rep. gr. 70.
- Remove the noise insulation from the wheelhouse to reach the aerial -2-.
- Take off aerial -2- from wheelhouse and disconnect plug -1-.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

 If the aerial which was taken off is reused, a new double-sided adhesive tape must be used and the aerial must be fixed again according to the fig.

## 10.5.4 Removing and installing rear right aerial

#### Removing

- Switch off the ignition and all electrical components.
- Remove right side trim panel in luggage compartment ⇒ Body Work; Rep. gr. 70.







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- Remove the noise insulation from the wheelhouse to reach the aerial -1-.
- Take off aerial -1- from wheelhouse and disconnect plug -2-.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

 If the aerial which was taken off is reused, a new double-sided adhesive tape must be used and the aerial must be fixed again according to the fig.

## 10.5.5 Removing and installing the rear aerial in the middle

#### Removing

- Switch off the ignition and all electrical components.
- Remove rear bumper ⇒ Body Work; Rep. gr. 63.
- Press off catch pegs -arrows-, tilt aerial -1- up and push it out.
- Disconnect plug.

#### Installing

Installation is carried out in the reverse sequence.





### 10.6 Removing and installing start/stop button and immobiliser reader coil for emergency start

#### Removing



The steering wheel must not be removed. For installing the fixing screws of the bottom trim panel for steering column, turn the steering wheel to the left by 90° and subsequently turn it to the right.

− First of all remove the top and then the bottom steering column trim panel  $\Rightarrow$  Body Work; Rep. gr. 70.



- Disconnect the plug from the button -1- and from the reader coil -2-.
- Insert two small cross-head screwdrivers (e.g. watch-andclock screwdrivers) into the openings -arrows- and press the sheet pegs.
- Grip the bottom part of the button -1- and press it towards the outside from the bottom trim panel for steering column.
- When removing the reader coil -2- first of all remove the button, then carefully unclip the reader coil using the disassembly wedge - 3409-.

#### Installing

- If removed, first of all insert the immobiliser reader coil -2- and lock in place.
- Then insert the button -1- into the bottom trim panel and press until the interlocking lugs lock into place.
- Mount plug and install the bottom and top steering column trim panel.

### 10.7 Lock with control unit for ELV - J764-

#### ⇒ "10.7.1 Fault recognition and fault display", page 133

 $\Rightarrow$  "9.3 Removing and installing the ELV J764 ", page 125 .

### 10.7.1 Fault recognition and fault display

The lock with the control unit for ELV - J764- is equipped with self-diagnosis, which facilitates the fault finding.

For fault finding use the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding".





### 11 Parking aid and park steering assistant

#### ⇒ "11.1 Summary of components", page 134

 $\Rightarrow$  "11.2 Remove and install parking aid control unit J446 or parking aid and park steering assistant control unit J791 ", page 136

 $\Rightarrow$  "11.3 Remove and install the front parking aid warning buzzer H22 ", page 136

 $\Rightarrow$  "11.4 Removing and installing the rear parking aid warning buzzer H15 ", page 137

 $\Rightarrow$  "11.5 Removing and installing parking aid senders and park steering assistant", page 138

 $\Rightarrow$  "11.6 Parking aid sender holder – making holes, assignment, fitting location, gluing procedure", page 139

 $\Rightarrow$  "11.7 Self-diagnosis of the parking aid", page 140

#### 11.1 Summary of components

## i Note

- When handling a fault it is absolutely essential to know the function of the parking aid.
- Description of system and function ⇒ Owner's manual Octavia III.
- Contact assignment on the control unit as well as connection of components of parking aid can be found in the ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.
- Summary of details for the components ⇒ Electronic Catalogue of Original Parts .

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## 1 - Front right sender for park steering assistant

□ Removing and installing ⇒ "11.5 Removing and installing parking aid senders and park steering assistant", page 138

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#### 2 - Front parking aid sender

□ Removing and installing ⇒ "11.5 Removing and installing parking aid senders and park steering assistant", page 138

## 3 - Front left sender for park steering assistant

□ Removing and installing ⇒ "11.5 Removing and installing parking aid senders and park steering assistant", page 138

#### 4 - Parking aid control unit -J446- or parking aid and park steering assistant control unit -J791-

- Left-hand drive on the relay and fuse holder
- Right-hand drive on the bearing bracket/ brake pedal right
- 5 The warning buzzer for the front parking aid H22-
  - □ Removing and installing ⇒ "11.3 Remove and install the front parking aid warning buzzer H22 ", page 136

#### 6 - Park steering assistant button - E581-

□ Removing and installing ⇒ "2.3 Removing and installing switches in centre console", page 153

#### 7 - Button for parking aid - E266-

□ Removing and installing ⇒ "2.3 Removing and installing switches in centre console", page 153

#### 8 - Front left sender for park steering assistant

□ Removing and installing ⇒ "11.5 Removing and installing parking aid senders and park steering assistant", page 138

#### 9 - Rear parking aid sender

- Octavia RS has attached the senders in the painted surfaces of the bumper
- Removing and installing
  - ⇒ "11.5 Removing and installing parking aid senders and park steering assistant", page 138

#### 10 - Rear right sender for park steering assistant

□ Removing and installing ⇒ "11.5 Removing and installing parking aid senders and park steering assistant", page 138



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#### 11 - Rear parking aid warning buzzer - H15-

□ Removing and installing  $\Rightarrow$  "11.4 Removing and installing the rear parking aid warning buzzer H15 ", page 137

### 11.2 Remove and install parking aid control unit - J446- or parking aid and park steering assistant control unit - J791-

#### Removing

- Switch off the ignition and all electrical components.
- Remove any protective cladding below the driver side dash panel.

Left-hand drive- the control unit is found on the relay and fuse holder:

- Unlock the connectors -1- and -2- and remove by tilting out the clamp.
- Press of catch peg -arrow- and pull the control unit -3- out of the holder.

Right-hand drive - the control unit is at the bearing bracket/brake pedal right:

- Remove the storage compartment in the dash panel on the front passenger side⇒ Body Work; Rep. gr. 70.
- Remove expanding rivets -2- and remove unit -1-.
- Unlock the connectors -3- and -4- and remove by tilting out the clamp.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

If the control unit for the parking aid - J446- is replaced:

Code the control unit ⇒ Vehicle diagnostic tester





## 11.3 Remove and install the front parking aid warning buzzer - H22-

#### Removing

- Switch off the ignition and all electrical components.

#### Left-hand drive:

The warning buzzer -1- is located to the side of the fuse holder.

- Remove knee airbag ⇒ Body Work; Rep. gr. 68 .
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- Use a small screwdriver to push the warning buzzer -1- out of the support -2-.
- Disconnect plug.

Right-hand drive:

Warning buzzer -1- is located above the fuse holder.

− Remove the glovebox and glovebox frame from the dash panel on the front passenger side  $\Rightarrow$  Body Work; Rep. gr. 70.

- Using a small screwdriver, press out the warning buzzer -1from the bearing bracket at the fuse holder -arrow A-.
- Disconnect plug.

#### Install

Installation is carried out in the reverse order.





## 11.4 Removing and installing the rear parking aid warning buzzer - H15-

- Switch off all electrical components and take out the ignition key.
- Undo the top B pillar trim panels and remove the top C and D pillar trim panels (Combi) ⇒ Body Work; Rep. gr. 70.



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- Loosen headlining ⇒ Body Work; Rep. gr. 70 and carefully hang the rear part downward.
- Loosen and remove expanding rivets -arrows-.
- Disconnect plug -1- and remove warning buzzer -2-.

#### Installing

Installation is carried out in the reverse sequence.



## 11.5 Removing and installing parking aid senders and park steering assistant



- Senders fitted in painted areas the visible area of a new sender must be painted in the colour of the bumper before installing.
- The parking aid senders must only be painted with a max. 100 µm thick layer of paint. Before painting the sender, the rear part of the sender (terminal connection) must be affixed.
- Only the upper part (visible part) of the sender membrane is painted.
- To make it easier to remove the catches -arrow A- you can use a larger Seeger pliers with bent jaws.
- Switch off the ignition and all electrical components.

#### Removing front sender

- Remove parking aid front bumper sender  $\Rightarrow$  Body Work; Rep. gr. 63 .
- Remove parking aid wheelhouse liner front sender ⇒ Body Work; Rep. gr. 66.
- Remove the mounting lugs -arrows A-.
- Press out the sender -1- on the outer side of the shock absorber inwards.
- Unplug connector -2-.

#### Remove rear sender

- Loosen sender for parking aid bumper bottom part and lever it downwards slightly⇒ Body Work; Rep. gr. 63.
- Remove Octavia RS parking aid rear bumper sender ⇒ Body Work; Rep. gr. 63.
- Remove parking aid wheelhouse liner rear sender ⇒ Body Work; Rep. gr. 66.





- Remove the mounting lugs -arrows A-.
- Press out the sender -1- on the outer side of the shock absorber inwards.
- Unplug connector -2-.

#### Installing

Installation is carried out in the reverse sequence.



### 11.6 Parking aid sender holder – making holes, assignment, fitting location, gluing procedure

If the bumper is replaced, new sender holders must be affixed to the new bumper.

Make holes in the new bumper see  $\Rightarrow$  Body Work; Rep. gr. 63 .

 $\Rightarrow$  "11.6.1 Assignment of the sender holder", page 139

⇒ "11.6.2 Fitting position of the sender holders", page 139

 $\Rightarrow$  "11.6.3 Gluing procedure of the sender holders", page 140

#### 11.6.1 Assignment of the sender holder

The sender holders are different in shape and must be assigned to the relevant fitting location. Assignment of the sender holder  $\Rightarrow$  Electronic Catalogue of Original Parts .

#### 11.6.2 Fitting position of the sender holders

The fitting position is determined by the peg on the holder -2- and the contour of the holder on the bumper -1-.





#### 11.6.3 Gluing procedure of the sender holders



- Park steering assistant sender holders have a countersink collar. Its visible area -1- must be painted the same colour as the bumper.
- The parking aid sender holder does not have a countersink collar -1-. Therefore a centring pin must be used for precisely centring the holder in the bumper or gluing the holder with inserted parking aid sender on which the decoupling ring (black silicone ring) is placed.
- The temperature of the bumper and the sender holder must be between 15 °C and 30 °C during the glueing procedure.
- Clean and thoroughly degrease the marked adhesive area -1- with isopropyl (technical alcohol).
- Evenly apply activator 3M"Plastprimer 4298UV", or, if necessary, "Glass/paint primer K 520" in the marked adhesive area -1-.
- Let the activator dry off for approx. 5 min.

### i Note

- Pay attention to the fitting position
   *⇒* "11.6.2 Fitting position of the sender holders", page 139 and
   the assignment of the sender holders
   *⇒* "11.6.1 Assignment of the sender holder", page 139.
- The application force and the application time determine the durability of the bonding!
- Remove the protective foils from both sides of the adhesive tape and press the sender holder -2- into the front bumper for approx. 10 seconds while applying high force.

#### 11.7 Self-diagnosis of the parking aid

The parking aid system is equipped with self-diagnosis. Carry out "self-diagnosis" with the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding".







## 12 Optical parking assistant (rear view camera)

#### ⇒ "12.1 General description", page 141

 $\Rightarrow$  "12.2 Summary of components: Rear view camera system", page 141

 $\Rightarrow$  "12.3 Removing and installing rear view camera system", page 142

#### 12.1 General description

The rear view camera helps the driver during the rear view driving. This works by showing the driver an image of the traffic situation behind the vehicle in the radio navigation system monitor.

When the ignition is switched on or the engine is running, the system will switch on by putting the gear into reverse when the radio navigation system is switched off.

### i Note

- When handling a fault it is absolutely essential to know the function and operation of the rear view camera.
- Additional information and description of function ⇒ Owner's manual Octavia III.
- Calibration of the rear view camera is not necessary.
- The rear view camera image does not appear on the radio navigation system until after a full system start. Like a computer, the radio navigation system needs a few seconds for the system to start after being switched on.

The rear view camera consists of the following parts:

- the rear view camera R189-
- the control unit with display for radio and navigation J503-

#### Fault recognition and fault display

The rear view camera is equipped with self-diagnosis.

Use the  $\Rightarrow$  Vehicle diagnostic tester for troubleshooting.

#### 12.2 Summary of components: Rear view camera system





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### 1 - Control unit with display for radio and navigation - J503-

□ Removing and installing ⇒ "1.6 Removing and installing the Infotainment display/control unit", page 33

### 2 - Rear view camera system - R189-

- firmly connected with the grip strip
- □ Removing and installing ⇒ "12.3 Removing and installing rear view camera system", page 142



## 12.3 Removing and installing rear view camera system

Rear view camera - R189- is installed in the grip strip of the luggage compartment and firmly connected with the grip strip.

The grip strip must be replaced when replacing the rear view camera.

- Switch off the ignition and all electrical components.
- Remove the bottom tailgate trim panel  $\Rightarrow$  Body Work; Rep. gr. 70 .
- Disconnect the connectors on the tailgate and release the cables leading to the rear view camera.



- Release the grip with the camera -1- from the catches -arrows- step by step and remove.
- Unlock and disconnect the connector of the rear view camera.

#### Install

Installation is performed in the reverse order, pay attention to the following points:

- Press the grip with the camera on the concealed frame step by step (starting from the left side and left rear tab) into the assembly opening until the catch pegs click audibly into place.
- Perform a functional test.





#### Lights, bulbs, switches - interior 96 –

#### Interior Lights 1

 $\Rightarrow$  "1.1 Lights in the roof lining", page 144

⇒ "1.2 Removing and installing the rear interior light on the left and right, replace", page 147

 $\Rightarrow$  "1.3 Removing and installing glove box light", page 147

front centre console", page 148

⇒ "1.5 Removing and installing door warning lamp", page 148

front passenger", page 149

⇒ "1.7 Removing and installing rear footwell lighting", page 150

⇒ "1.8 Removing and installing luggage compartment light", page 151

#### 1.1 Lights in the roof lining

 $\Rightarrow$  "1.1.1 Removing and installing the front interior light", page 144

⇒ "1.1.2 Replace light bulbs for front interior light", page 145

⇒ "1.1.3 Removing and installing the sliding roof switch", page 145

⇒ "1.1.4 Removing and installing the rear interior light in the middle, replace", page 146

#### Removing and installing the front interior 1.1.1 light

#### Caution

When using the lever tool, mask points where the lever tool is applied using commercially available adhesive tape.



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#### Note

The shape and control of the lighting can be designed differently (depending upon equipment), the assembly work is identical.

Switch off the ignition and all electrical components.

3

2

1

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- Octavia III 2013 ➤ , Octavia III 2014 ➤ Electrical system Edition 12.2014
- Loosen the cover -2- out of the catches using the removal wedge - 3409- and tilt out towards the bottom.
- Unscrew screws -arrows- (2 Nm) and tilt out the interior light
   -1- and suspend it from the installation frame -3-.
- Disconnect plug.

(W5W).

Installation is carried out in the reverse sequence.

#### 1.1.2 Replace light bulbs for front interior light

- Remove front interior light (it is not necessary to disconnect the plug connection)

   <sup>⇒</sup> "1.1.1 Removing and installing the front interior light", page
- Turn the socket with the light bulb -arrow- and remove.



п



## 1.1.3 Removing and installing the sliding roof switch

Carefully remove the light bulb from the socket and replace

Installation is carried out in the reverse sequence.

- Remove front interior light
   ⇒ "1.1.1 Removing and installing the front interior light", page 144
- Unlock plug connection and remove from the switch in the light.





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 Unlock the catches -arrows- and remove the sliding roof switch from the trim panel.

Installation is carried out in the reverse sequence.



## 1.1.4 Removing and installing the rear interior light in the middle, replace

#### Special tools and workshop equipment required

Removal wedge - 3409-

roof cover.

Disconnect plug.

- Switch off the ignition and all electrical components.
- Loosen the cover with the lens out of the interior light using the removal wedge-arrows- and remove.

Unlock the stops -arrows- and take the interior light out of the







 Pull the defective light bulb (W5W) out of the socket and replace.

Installation is carried out in the reverse order.

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## 1.2 Removing and installing the rear interior light on the left and right, replace

#### Removing

- Carefully release the catch -arrow- with a small cross-head screwdriver, tilt out the interior light and remove.
- Disconnect plug.





- Push out lens -arrow- and replace bulb (C5W).

#### Install

Installation is carried out in the reverse order.



For vehicles with panoramic roof and head airbags: Fitting position of the interior light - the light connector points to the tail end of the vehicle.

### 1.3 Removing and installing glove box light



When using the lever tool, mask points where the lever tool is applied using commercially available adhesive tape.

- Switch off the ignition and all electrical components.
- Place a cross-head screwdriver under the lens and carefully lever out the light.







- Push out the defective light bulb (W5W) and replace it.
- If necessary disconnect the plug and remove the light.

#### Installing

Installation is carried out in the reverse sequence.



#### 1.4 Removing and installing glove compartment light in the front centre console

#### Removing

- Remove storage compartment in the front centre console  $\Rightarrow$  Body Work; Rep. gr. 70 .
- Loosen lights -1- and plug connection -2- from the catch pegs -arrows-.

#### Install

- Installation is carried out in the reverse sequence.

### i Note

Ensure the electric installation is fitted correctly to avoid damage.

## 1.5 Removing and installing door warning lamp

Caution

When using the lever tool, mask points where the lever tool is applied using commercially available adhesive tape.

- Switch off the ignition and all electrical components.
- Use a cross-head screwdriver to grasp behind the lens and carefully lever out lamp.





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- Tilt out the cover of the light -arrow-.



 Carefully pull the light bulb (W5W) out of the socket and mount a new one.

#### Installing

Installation is carried out in the reverse sequence.



i Note
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When removing and installing the footwell lighting on the front passenger side, the work procedure is identical to the one on the driver side.

- Place a cross-head screwdriver under the cover on the side of the cover recess -arrow- and carefully lever out the light.
- Disconnect the plug connection.

#### Replace light bulb



1. Interior Lights 149



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- Tilt out the cover of the light -arrow-.



 Carefully pull the light bulb (W5W) out of the socket and mount a new one.

Installation is carried out in the reverse sequence.



## 1.7 Removing and installing rear footwell lighting

- Switch off all electrical components and take out the ignition key.
- Place a cross-head screwdriver under the cover -arrow- and carefully lever out the lamp.
- Disconnect the plug connection.

Replace light bulb





- Tilt out the cover of the light -arrow-.

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 Carefully pull the light bulb (W5W) out of the socket and mount a new one.

Installation is carried out in the reverse sequence.



#### 1.8 Removing and installing luggage compartment light

- Switch off all electrical components and take out the ignition key.
- Lever out the light at the recess point using the removal wedge
   3409- or a small screwdriver and remove it from the trim panel.



- Push out the defective light bulb (W5W) and replace it.
- If necessary disconnect the plug and remove the light.
   Installation is carried out in the reverse sequence.





#### 2 Interior switches, in the dash panel, the centre console and the doors

#### ⇒ "2.1 Removing and installing light switch", page 152

 $\Rightarrow$  "2.2 Removing and installing headlight range control regulator", page 152

 $\Rightarrow$  "2.3 Removing and installing switches in centre console", page 153

 $\Rightarrow$  "2.4 Removing and installing warning light switch and indicator light of the front passenger airbag deactivation", page 153

 $\Rightarrow$  "2.5 Removing and installing the switch for the power window lifter", page 154

 $\Rightarrow$  "2.6 Removing and installing the passenger side glove box light switch", page 156

 $\Rightarrow$  "2.7 Removing and installing interior monitoring deactivation switch E 267 and deactivation button for vehicle inclination sender E 360 ", page 157

 $\Rightarrow$  "2.8 Removing and installing the rear seat heating switch", page 157

#### 2.1 Removing and installing light switch

#### Removing

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- Switch off the ignition and all electrical components.
- Turn the turning handle of the light switch to position "0".
- Press in the turning handle of the light switch firmly -arrow 1and slightly turn it to the right -arrow 2-.
- Hold the turning handle in this position and pull the light switch housing out to the -front arrow 3-.
- Disconnect plug connection at switch.

#### Installing

- Mount plug.
- Carefully push the light switch into the opening until the switch audibly locks into place.

## 2.2 Removing and installing headlight range control regulator

- Switch off the ignition and all electrical components.
- Remove dash panel insert
   ⇒ "1.3 Removing and installing dash panel insert", page 24.





- Press together the lateral securing tabs on the adjuster for the headlamp range control -arrows-.
- Pull the adjuster for headlamp range control -A- to the rear out of the mounting frame in the dash panel casing.



The adjuster for headlamp range control and instrument lighting rheostat form a single unit.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- Insert the adjuster for headlamp range control into the mounting frame and press in place.
- Push the securing tabs outwards until they interlock with the catch pegs.

## 2.3 Removing and installing switches in centre console

#### Removing

- Switch off the ignition and all electrical components.
- Unclip gearshift cover -2- ⇒ Transmission; Rep. gr. 34 .
- Push switch -1- from below -arrow- out of the cover -2-.
- Disconnect the plug connections.

- Use a small screwdriver to push off the catch pegs -arrows A-.
- Disconnect switch units -1- and -2- from each other -arrows B-.

#### Install

Installation is performed in the reverse order, pay attention to the following points:

 Carefully push the connected switch units into the assembly opening until the catches click into place audibly.

# 2.4 Removing and installing warning light switch and indicator light of the front passenger airbag deactivation

#### Removing

Switch off the ignition and all electrical components.







electrical components Transmission; Rep. gr arrow- out of the cover ons.





- Remove the display unit for Infotainment, do not disconnect the cables  $\Rightarrow$  "1.6 Removing and installing the Infotainment display/control unit", page 33 .
- Push switch and indicator light -1- out of the central air outlets from the rear -arrow-.
- Disconnect plug. \_

#### Install

Installation is carried out in the reverse order.



#### 2.5 Removing and installing the switch for the power window lifter

- ⇒ "2.5.1 Switch on driver side", page 154
- ⇒ "2.5.2 Switch on passenger side and rear", page 155

⇒ "2.5.3 Removing and installing mirror adjuster switch", page 156



#### Switch on driver side 2.5.1



The work sequence of assembly work is identical for all types of switches for power windows.



#### Caution

When using the lever tool, mask points where the lever tool is applied using commercially available adhesive tape.

- Switch off the ignition and all electrical components.
- Use the removal wedge 3409- to lever out the switch -1--arrow A-, tilt out -arrow B- and remove.
- Disconnect plug.



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Slacken the control element out of the catch pegs -arrows- and remove.

Installation is carried out in the reverse sequence.



#### 2.5.2 Switch on passenger side and rear

#### Removing

- Remove top cover of the tightening handle -1- -arrow-.





- Unclip switch -1- -arrows- and take it out of the cover -2-.
- Release and pull off connector -1-.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:



While pressing the switch in, hold the trim panel -2- in which the switch is located firmly from above.

 Press the switch into the trim panel until the catches click audibly.



#### 2.5.3Removing and installing mirror adjuster switch

#### Removing

Remove top cover of the tightening handle -1- -arrow-. \_

- Unclip switch -21- -arrows- and take it out of the cover -1-.
- \_ Disconnect plug.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

### Note

While pressing the switch in, hold the trim panel -1- in which the switch is located firmly from above.

Press the switch into the trim panel until the catches click audibly.

#### 2.6 Removing and installing the passenger side glove box light switch

#### Removing



Note

The switch on right-hand drive vehicles is found on a different side, the work flow for removing and installing is the identical.

- Remove the storage compartment in the dash panel on the front passenger side  $\Rightarrow$  Body Work; Rep. gr. 70.
- Unclip switch -2- from the catch pegs -arrows- and remove.
- Unplug connector -1-. \_

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- Press the switch into the installation location until there is an audible click.
- Check it is functioning correctly (to check, remove the side cover on the dash panel).









2.7 Removing and installing interior monitoring deactivation switch -E 267- and deactivation button for vehicle inclination sender -E 360-

#### Removing

- Switch off the ignition and all electrical components.
- Loosen the top part of the B-column trim panel at the bottom
   -1- on the driver side⇒ Body Work; Rep. gr. 70 and tilt slightly.
- Push switch -2- out of the trim panel -1-.
- Disconnect plug.

#### Installing

Installation is carried out in the reverse sequence.



## 2.8 Removing and installing the rear seat heating switch



#### Caution

When using the lever tool, mask points where the lever tool is applied using commercially available adhesive tape.

- Switch off the ignition and all electrical components.
- Lever off the cover -2- using the removal wedge 3409--arrow-.
- Unplug connector -1-.

- Push switch -1- from behind -arrow- out of the cover -2-.
- Installation is carried out in the reverse sequence.







3 Components in the luggage compartment and tailgate

 $\Rightarrow$  "3.1 Removing and installing the switch for the luggage compartment lighting", page 158

 $\Rightarrow$  "3.2 Removing and installing the tailgate release switch", page 158

## 3.1 Removing and installing the switch for the luggage compartment lighting

The switch for the luggage compartment lighting is located in the tailgate lock and cannot be replaced individually.

⇒ Body Work; Rep. gr. 55

#### 3.2 Removing and installing the tailgate release switch

 $\Rightarrow$  Body Work; Rep. gr. 55



## 4 Front camera for diver assistance systems - R242-

- ⇒ "4.1 Removing and installing front camera", page 159
- ⇒ "4.2 Removing windscreen heating plate", page 160

#### Further information and description of function:

⇒ Owner's manual Octavia III

 $\Rightarrow$  Self-study programme No. 97 ; Škoda Octavia III Vehicle presentation

#### 4.1 Removing and installing front camera

#### Removing



To facilitate removal, turn the mirror as necessary.

- Switch off the ignition and all electrical components.
- Put e.g. the unlocking tool T30098- or the 0.8 mm feeler gauge -Pos. 2- into the gap, see fig., and unlock the catch peg -arrow A-.
- Tilt the right side of the cover -1- downward slightly -arrow B-.

- Take hold of the cover -2- on the right side and pull it moderately -arrow- to make a space to insert the unlocking tool -1on the left side.
- By inserting the unlocking tool into the gap -see fig.- unlock the catch peg and the left side and remove the cover -2- downwards.









- Push the cover -1- forward -arrow A- then downward -arrow B-.



- Unclip the front camera -2- from the holding clamps -1--arrow A-.
- Pull front camera -2- out of the holder -arrow B- and disconnect the plug connection -3-.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

Calibrate front camera for driver assistance systems - R242 ⇒ Chassis; Rep. gr. 44 .

#### 4.2 Removing windscreen heating plate

#### Removing

- Remove front camera for driver assistance systems R242-⇒ "4.1 Removing and installing front camera", page 159.
- Press out catch pegs -arrows A-, tilt out plate -1- -arrow B- and remove.
- Disconnect plug.

#### Installing

Installation is carried out in the reverse sequence.





#### 5 Horn

#### ⇒ "5.1 Removing and installing horn", page 161

#### 5.1 Removing and installing horn

Caution

The tone pitch of the horn is set at the factory. It is prohibited to change this setting or to adjust the control screw!

If it is noticed that a screw is adjusted, the guarantee is no longer valid.

#### Removing

- Switch off the ignition and all electrical components.
- Remove front bumper  $\Rightarrow$  Body Work; Rep. gr. 63.
- Screw out the fixing screws -1- (16 Nm).
- Disconnect plug.
- If necessary unscrew nut (12 Nm) and remove holder from horn.

#### Installing

Installation is carried out in the reverse sequence.





#### 6 Anti-theft warning system

#### ⇒ "6.1 General points", page 162

#### ⇒ "6.2 Removing and installing the horn H12 ", page 162

 $\Rightarrow$  "6.3 Removing and installing interior monitoring sensor G273 and vehicle inclination sender G384 ", page 163

 $\Rightarrow$  "6.4 Removing and installing interior monitoring deactivation switch E267 and deactivation button for vehicle inclination sender E360 ", page 163

#### 6.1 General points

The functions of the anti-theft warning system are integrated in the onboard supply control unit - J519- .

After replacing the Convenience system central control unit - J393- or the vehicle voltage control unit - J519- , the anti-theft warning system must be adapted with the  $\Rightarrow$  Vehicle diagnostic tester.

Further information and description of function:

♦ ⇒ Owner's manual Octavia III

#### Fault recognition and fault display

The anti-theft warning system is equipped with self-diagnosis, which facilitates the troubleshooting.

For fault finding use the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding".

### i Note

- After triggering the anti-theft warning system, the alarm source which is stored in the vehicle voltage control unit - J519- is output.
- ◆ For determining the alarm source, use the ⇒ Vehicle diagnostic tester in the function "Targeted functions" – "measured value blocks".
- Before assembly, the vehicle must be unlocked with the release button of the radio control receiver.

#### 6.2 Removing and installing the horn - H12-



The horn - H12- has an emergency battery which cannot be replaced as a separate item.

- Switch off the ignition and all electrical components. The vehicle must not be locked via the radio control receiver of the central locking.
- Remove the cooling water tank cover ⇒ Body Work; Rep. gr.
   66.





- Unscrew nuts -2- and remove alarm horn with holder -1-.
- Disconnect plug.

#### Installing

Installation is carried out in the reverse sequence.



#### 6.3 Removing and installing interior monitoring sensor - G273- and vehicle inclination sender - G384-

### i Note

The sensors for interior monitoring - G273- and the vehicle inclination sender - G384- form a building unit and cannot be replaced separately.

#### Removing

- Switch off the ignition and all electrical components.
- Remove the interior light in the front roof cover  $\Rightarrow$  "1.1.1 Removing and installing the front interior light", page <u>144</u>.
- Release the sensors for interior monitoring -2- out of the bottom catches and release from the bracket by slightly tilting out -arrows B-.
- Press off the catches -arrows A- and remove the vehicle inclination sender -1- with sensors for interior monitoring -2- out of the interior light.

#### Installing

Installation is performed in the reverse order, pay attention to the following points:

- After replacing the sender, you must carry out an online adjustment (parameterisation) with ⇒ Vehicle diagnostic tester.
- 6.4 Removing and installing interior monitoring deactivation switch -E267- and deactivation button for vehicle inclination sender -E360-

Removing and installing interior monitoring deactivation switch - E267- and deactivation button for vehicle inclination sender - E360-

⇒ "2.7 Removing and installing interior monitoring deactivation switch E 267 and deactivation button for vehicle inclination sender E 360 ", page 157 .



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#### 7 Sockets, cigarette lighter

### $\Rightarrow$ "7.1 Removing and installing the 12 V power socket/cigarette lighter in the centre console", page 164

 $\Rightarrow$  "7.2 Removing and installing the luggage compartment 12 V power socket", page 164

#### $\Rightarrow$ "7.3 Inverter with socket, 12 V / 230 V", page 164

7.1 Removing and installing the 12 V power socket/cigarette lighter in the centre console

All the notes and comments to this chapter can be found in the Workshop Manual  $\Rightarrow$  Electrical System - General notes  $\Rightarrow$  Electrical System - General notes; Rep. gr. 96.

## 7.2 Removing and installing the luggage compartment 12 V power socket

#### Removing

- Remove left side trim panel in luggage compartment ⇒ Body Work; Rep. gr. 70.
- Separate electrical plug connection -1-.
- Remove nut -5-.
- Pull power socket -2- with socket -3- out of the trim panel -4-.

#### Installing

Installation is carried out in the reverse sequence.



#### 7.3 Inverter with socket, 12 V / 230 V

### i Note

Before working on the power socket it is essential to be familiar with the description of function, basic safety rules and potential uses of the power socket ⇒ Owner's manual Octavia III.



#### WARNING

- There are capacitors in the inverter housing with 12 V / 230 V power socket that could still have a residual voltage charge.
- There is a risk of accidents caused by electric shock.
- Inverter housing with 12 V / 230 V power socket must not be opened in any circumstances.
- The plug, cables and 230 V power socket must not be repaired.
- In the case of a fault on the plug, cable or power socket the entire unit must be replaced.



#### Further information and description of function:

- ♦ ⇒ Owner's manual Octavia III
- ♦ ⇒ Self-study programme No. 97 ; Škoda Octavia III Vehicle presentation

#### Special tools and workshop equipment required

Removal wedge - 3409-



#### Caution

When using the lever tool, mask points where the lever tool is applied using commercially available adhesive tape.

- With the disassembly wedge 3409- remove the trim panel
   -2- from the notches -arrow-.
- If present, remove plug from seat heating switch -1-.



- Remove retaining spring -3-.
- Press off the catch pegs -arrow A- and push out the socket outlet -1- from the bracket -2- -arrow B-.









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 If required, separate from the latching mechanism -arrow- and remove socket outlet bracket -2- from the trim -1-.

- Screw out screws -2-, slightly lift inverter with socket -1- and push it out of the centre console.
- Release connector and pull it off.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

- Before inserting the trim with the socket outlet into the centre console, clip the wiring harness into the clip -arrow-.









#### 8 Immobiliser

The model Octavia III features the immobiliser of the fifth generation with on-line connection and Download. The main component of the fifth generation immobiliser is a central database, in which all of the theft-relevant data from the participating control units is stored. It is not possible to adapt the immobiliser control units without online connection to this database.

- A PIN code request of the immobiliser components by fax or temporary activation of the components is not possible.
- All the components of the immobiliser must be initialised online.
- All even re-ordered ignition keys are already precoded at the factory for a specific vehicle and can only be initialised for this vehicle.
- When re-ordering ignition keys, the relevant vehicle identification number must be provided.
- In Škoda vehicles it is not possible to adapt the components of other corporate brands.

#### Immobiliser components:

- ⇒ "8.1 Immobiliser control unit J362", page 167
- ⇒ "8.2 Ignition key", page 168
- Engine control unit J623- diesel engines ⇒ Engine; Rep. gr.
   23, or petrol engines ⇒ Engine; Rep. gr. 24

### $\Rightarrow$ "8.3 New identity when changing all the components", page 168

#### ⇒ "8.4 System test result (online connection)", page 169

Further information and description of the individual components  $\Rightarrow$  Self-study programme No. 87 ; Immobilisers in Škoda vehicles .

#### Immobiliser control unit functions - J362- :

- Communication between all the immobiliser components
- Encryption of data between the control units involved

#### Fault recognition and fault display

The immobiliser is equipped with self-diagnosis, which makes fault finding easier.

For fault finding, use the  $\Rightarrow$  Vehicle diagnostic tester in the mode "Targeted fault finding".

#### 8.1 Immobiliser control unit - J362-

The immobiliser control unit - J362- is integrated in the dash panel insert. In the event of control unit failure, the complete dash panel insert must be renewed.

#### Adapt immobiliser control unit - J362-

- Connect  $\Rightarrow$  Vehicle diagnostic tester.
- Select the operating mode "Targeted fault-finding" in the ⇒ Vehicle diagnostic tester.
- Select the "Selected Functions/Components" and subsequently the following menu points using the button "Skip":
- Body
- Electrical system



- 01 Self-diagnosable systems
- Immobiliser
- Operation
- Adjust dash panel insert

#### 8.2 Ignition key

All – even re-ordered – ignition keys are already precoded at the factory for a specific vehicle and can only be adapted to this vehicle. When re-ordering ignition keys, the relevant vehicle identification number must be provided and subsequently the new keys must be adapted to the immobiliser control unit - J362-

### i Note

Before replacing the lock set or the control units, the function "New identity when changing all the components" must be retrieved.

 $\Rightarrow$  "8.2.1 Adapting and checking the ignition key", page 168

#### 8.2.1 Adapting and checking the ignition key

### i Note

*If new or additional ignition keys are required, they must be adapted to the immobiliser control unit.* 

Adapt the ignition key to the immobiliser control unit - J362- or check:

- Connect ⇒ Vehicle diagnostic tester.
- Select the operating mode "Targeted fault-finding" in the ⇒ Vehicle diagnostic tester.
- Select the "Selected Functions/Components" and subsequently the following menu points using the button "Skip":
- Body
- Electrical system
- 01 Self-diagnosable systems
- Immobiliser
- Operation
- Adapt and check the ignition key

## 8.3 New identity when changing all the components

All necessary steps required for the new installation of all the immobiliser components are carried out with this programme.

- Connect  $\Rightarrow$  Vehicle diagnostic tester.
- Select the operating mode "Targeted fault-finding" in the ⇒ Vehicle diagnostic tester.
- Select the "Selected Functions/Components" and subsequently the following menu points using the button "Skip":
- Body



- Electrical system
- 01 Self-diagnosable systems
- Immobiliser
- Operation
- New identity

#### 8.4 System test result (online connection)

The following processes are performed with this test program:

- System test for the online connection
- Check of user authorisation
- Test of the correct cable connection to the Škoda database

The precondition for this is the online connection (network connection) of the tester.

- Connect  $\Rightarrow$  Vehicle diagnostic tester.
- Select the operating mode "Targeted fault-finding" in the ⇒ Vehicle diagnostic tester.
- Select the "Selected Functions/Components" and subsequently the following menu points using the button "Skip":
- Body
- Electrical system
- 01 Self-diagnosable systems
- Immobiliser
- Operation
- Online system test



### 97 – Wiring

#### 1 Fuse holder and relay carrier

 $\Rightarrow$  "1.1 Removing and installing relay holder and fuse holder behind dash panel", page 170

 $\Rightarrow$  "1.2 Removing and installing relays and fuse holder in the engine compartment and E-Box (relays and fuse holder in the engine compartment)", page 171

## 1.1 Removing and installing relay holder and fuse holder behind dash panel



### Note

You will find the exact assignment of electric cables and the arrangement of fuses and relays in  $\Rightarrow$  Current flow diagrams, Electrical fault finding and Fitting locations.

#### Removing

Disconnect battery earth strap
 ⇒ "2.3.1 Disconnecting battery", page 2

Left-hand drive:

- Loosen dash panel so that the bottom part can be tilted towards you slightly ⇒ Body Work; Rep. gr. 70.
- Unlock catches -2- and -4- -arrows A-.
- Push out fuse holder and relays -3- towards you -arrow B- and hang them downward.
- Expose electric cables.





Upon removal of the central tube for the dashboard, remove the relay and fuse holder -3- and then screw out screws -1and -2- (3 Nm).

Right-hand drive:

- Remove the glovebox and glovebox frame from the dash panel on the front passenger side  $\Rightarrow$  Body Work; Rep. gr. 70.
- Press the catch -5- on both sides, and remove -arrow C-.
- Remove connector -4- -arrow C-.
- Unlatch the retainers -1, 2, 3- -arrows A, B, C-.
- Push out relay and fuse holder from the mounting bracket -arrow D-.
- Expose electric cables.

Upon removal of the central tube for the dashboard, remove the relay and fuse holder -3- and then screw out screws -1and -2- (3 Nm).

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

Pay attention to the work sequence when connecting the battery  $\Rightarrow$  "2.3 Work sequence when disconnecting and connecting the battery", page 2

1.2 Removing and installing relays and fuse holder in the engine compartment and E-Box (relays and fuse holder in the engine compartment)



#### Note

You will find the exact assignment of electric cables and the arrangement of fuses and relays in  $\Rightarrow$  Current flow diagrams, Electrical fault finding and Fitting locations.









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- Disconnect battery earth strap
   ⇒ "2.3.1 Disconnecting battery", page 2
- Remove engine control unit and lay it to the side with connected cables:
- Diesel engine ⇒ Engine; Rep. gr. 23
- Petrol engine  $\Rightarrow$  Engine; Rep. gr. 24
- Press catches -arrows- and remove lid of E-box -1-.







- Use a screwdriver to unlock the catch -2- and push out the front cover -1- upwards -arrow-.
- Loosen wiring loom to the E-Box.

- Unlock catches -1-, -2- and -4- -arrow-.
- Remove fuse holder and relay -3- and lay them aside.


If the fuse holder and relay holder are fully removed, loosen nuts -1, 2, 4, 5, 6- and screw out screw -3- and loosen electrical cables -arrow-.



Mark screw connections for re-installation of the electric cables.

- Unscrew the nuts -arrows- (9 Nm) and remove control unit holder -1-.
- Loosen E-Box housing -2- from the catch -3- and remove it upwards from the threaded bolts.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:

Tightening torques for connection cables:

- M6 tightening torque 6 Nm
- M5 tightening torque 4.5 Nm ٠
- Pay attention to the work sequence when connecting the bat-\_ terý ⇒ "2 3 Work sequence when disconnecting and connecting

the battery", page 2.







# 2 Control units

### <u>⇒ "2.1 Vehicle voltage control unit J519 ", page 174</u>

⇒ "2.2 Data bus diagnostic interface Gateway", page 178

# 2.1 Vehicle voltage control unit - J519-

#### General description

The vehicle voltage control unit - J519- communicates with other control units via the data buses CAN bus, its own data buses LIN bus and data interface GATEWAY.

It controls the convenience functions of the vehicle.

If the vehicle voltage control unit - J519- is replaced, the new control unit must be coded  $\Rightarrow$  Vehicle diagnostic tester.

#### Fault recognition and fault display

The onboard supply control unit - J519- features self-diagnosis to facilitate fault finding.

For fault finding use the  $\Rightarrow$  Vehicle diagnostic tester in the function "Targeted fault finding".

⇒ "2.1.1 Summary of components - Left-hand drive", page 174

 $\Rightarrow$  "2.1.2 Summary of components - Right-hand drive", page 176

 $\Rightarrow$  "2.1.3 Removing and installing the vehicle voltage control unit J519 ", page 176

# 2.1.1 Summary of components - Left-hand drive





2 - Control unit holder Pos. 1.

page 136

and park steering assistant control unit J791 ",

3 - Vehicle voltage control unit holder - J519-

4 - Vehicle voltage control unit - J519-

 ⇒ "2.1.3 Removing and installing the vehicle voltage control unit J519 ", page 176

5 - Guide for connection of central electric plug





# 2.1.2 Summary of components - Right-hand drive



# 2.1.3 Removing and installing the vehicle voltage control unit - J519-

# Removing

- Disconnect battery earth strap

   ⇒ "2.3 Work sequence when disconnecting and connecting the battery", page 2.
- Remove any protective cladding below the left dash panelwhere installed.
- Remove A" pillar trim, bottom left "Body Work $\Rightarrow$ ; Rep. gr. 70 .

Right-hand drive:

- Remove the glovebox and glovebox frame from the dash panel on the front passenger side  $\Rightarrow$  Body Work; Rep. gr. 70.

All vehicles:



- Disconnect plug connections -1, 2, and 3-.

Ĭ Note

After unlocking from the guide -6- push the middle plug connection downwards (if installed).







 For unplugging the plugs, successively press together the catches on the plug connections -1- and remove the plugs on the control unit by swivelling out the clamp -arrow-.

 To make removal easier, grab the guide -2- (where installed) with a pair of pliers, press the latches together -arrows A- and by pulling it downwards -arrow B- slide the guide out of the control unit -1-.



Unlock catches -arrow-, tilt control unit -4- out of the holder
 -5- and remove downwards and towards you.

#### Installing

Installation is carried out in the reverse order. When installing, observe the following:



If the vehicle voltage control unit - J519- is replaced, the new control unit must be coded ⇒ Vehicle diagnostic tester.



# 2.2 Data bus diagnostic interface Gateway

⇒ "2.2.1 Summary of components", page 178

⇒ "2.2.2 Remove and install data bus diagnostic interface Gateway J533 .", page 179

# 2.2.1 Summary of components



#### 1 - Connector

❑ Exact contact assignment⇒ Current flow diagrams, Electrical fault finding and Fitting locations

#### 2 - Data bus diagnostic interface Gateway - J533-

- 3 Screw
  - 🖵 20 Nm
- 4 Crash bar
- 5 Dash panel central pipe



# 2.2.2 Remove and install data bus diagnostic interface Gateway - J533- .



- If the data bus diagnostic interface Gateway J533- is replaced, select the "replace control unit" function of the respective control unit in operating mode "Targeted fault finding" or "Guided Functions" ⇒ Vehicle diagnostic tester.
- The assembly work is identical on right-hand drive vehicles.

#### Removing

- Remove the knee airbag  $\Rightarrow$  Body Work; Rep. gr. 69.
- Removing the left footwell vent on the driver side ⇒ Heating, Air Conditioning; Rep. gr. 80.



- Press safety catch and disconnect plug connection -1-.
- Press catches -arrows- and pull control unit downwards -3- out of the holder-2-.

#### Installing

Installation is carried out in the reverse sequence.





# 3 Vehicle diagnosis, measurement and information systems, diagnostic connection

Following descriptions see Workshop Manual "Electrical System – General notes"  $\Rightarrow$  Electrical System – General notes; Rep. gr. 27.

- Use and safety instructions
- ◆ Connect ⇒ Vehicle diagnostic tester

#### Fitting location and removal of the diagnostic connection

 To remove the diagnostic connection, press the catches -arrows- together, and push out the diagnosis connection from the assembly opening.





# 4 Wiring loom and plug repair, contact surface cleaning

All the notes and comments to the following chapters can be found in the Workshop Manual "Electrical System – General notes"  $\Rightarrow$  Electrical System – General notes; Rep. gr. 97.

- General instructions for the repair on the vehicle electrics
- General instructions for wiring loom and plug repair
- Repair of airbag and belt tensioner cables
- Repair of CAN bus lines
- Use contact surface cleaning set VAS 6410-



# 5 Vehicle diagnosis, testing and information systems

The following descriptions can be found in the Workshop Manual "Electrical System – General notes"  $\Rightarrow$  Electrical System – General notes; Rep. gr. 97.

- Use and safety instructions
- ◆ Connect ⇒ Vehicle diagnostic tester



# 6 Wiring loom and plug repair

All the notes and comments to the following chapters can be found in the Workshop Manual "Electrical System – General notes"  $\Rightarrow$  Electrical System – General notes; Rep. gr. 97.

- General instructions for the repair on the vehicle electrics
- General instructions for wiring loom and plug repair
- Repair of airbag and belt tensioner cables
- Repair of CAN bus lines



# 7 Use contact surface cleaning set -VAS 6410-

All the notes and comments to the following chapters can be found in the Workshop Manual "Electrical System – General notes"  $\Rightarrow$  Electrical System – General notes; Rep. gr. 97.

- Repairing the cable eyes
- Repairing screwed connections
- Cleaning the battery pole terminals and battery poles
- Preserving