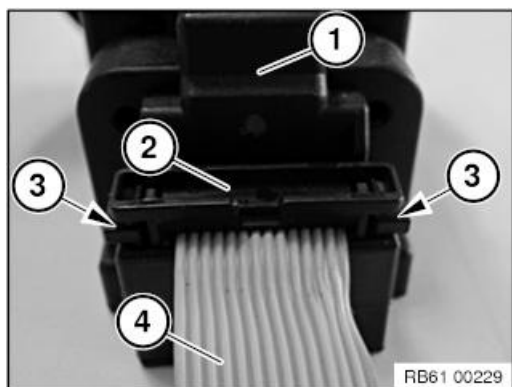




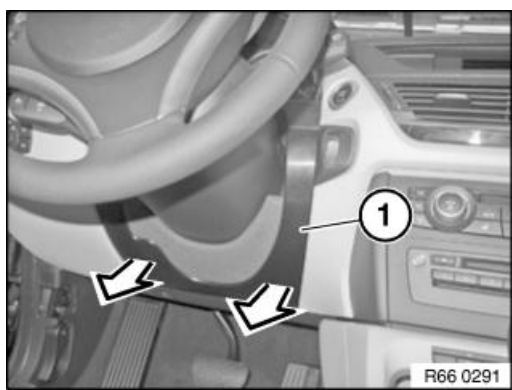
Important!

In the event of complaint "slide-in unit for radio-operated key jams or can not be retained", carry out following checks before replacement:

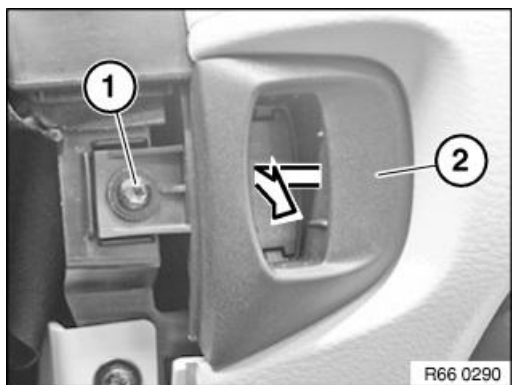
1. Check both sides of plug connection of ribbon cable (2) to slide-in unit for radio-operated key (1) for correct locking (3).
2. Check ribbon cable (4) for damage.

If required, lock plug connection of ribbon cable (2) correctly and carry out function check.

If this rectifies fault pattern, do not replace slide-in unit for radio-operated key.



Remove steering column cover (1) in direction of arrow. *Installation note:* Make sure steering column cover (1) is correctly seated.



Release screw (1).

Remove slide-in unit for radio-operated key (2) with corresponding ribbon cable in direction of arrow.

Important!

Carefully unlock and disconnect associated plug connection for ribbon cable.

Replace the ribbon cable if damaged.

The ribbon cable leads to:

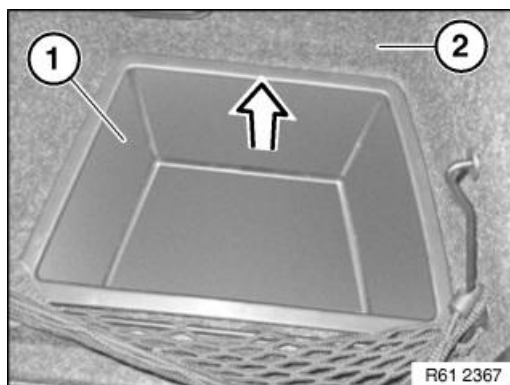
- [Control unit for Car Access System](#)
- [Start/Stop switch](#)

Remove slide-in unit for radio-operated key (2).

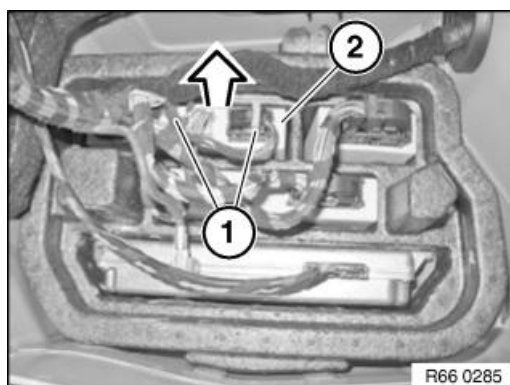


Important!

Read and comply with [notes](#) on protection against electrostatic damage (ESD protection).



Remove storage compartment (1) in direction of arrow from wheel arch panel (2).



Unlock and detach plug connections (1 and 2).

Remove the control device (2) and pull from the device bracket in the direction of the arrow.

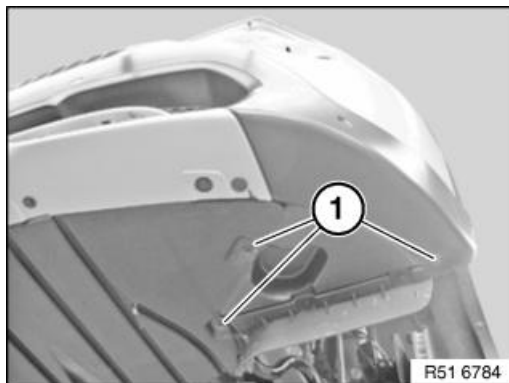


Replacement:

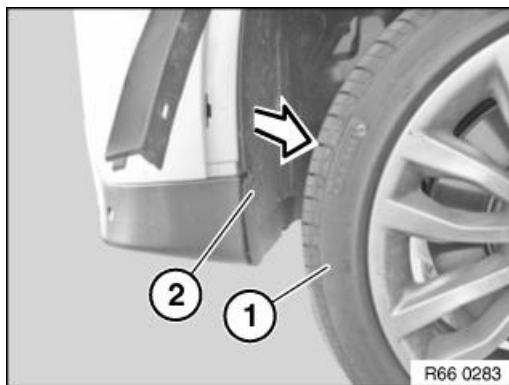
Carry out [programming/encoding](#) .

**Necessary preliminary tasks:**

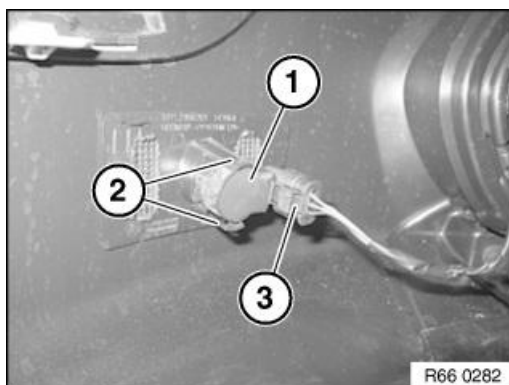
- Partially remove [front wheel arch trim](#)



Release screws (1).



Turn wheel (1) inwards side to provide more space in work area.
Pull wheel arch cover (2) to one side in direction of arrow.



Unclip ultrasonic sensor (1) from retaining tabs (2).

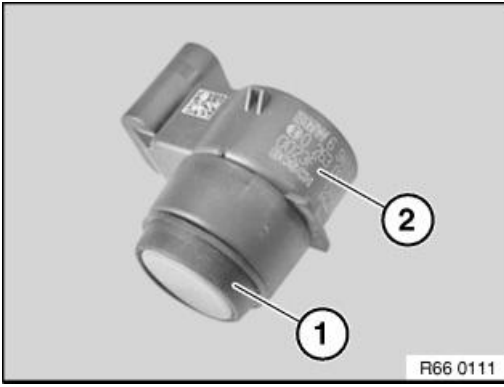
Unfasten plug connection (3) and disconnect.

Installation note:

Clean the plug connection (3) before installing the ultrasonic sensor (1) on the wiring harness!

Retaining tabs (2) must not be damaged!

Make sure ultrasonic sensor is securely seated.



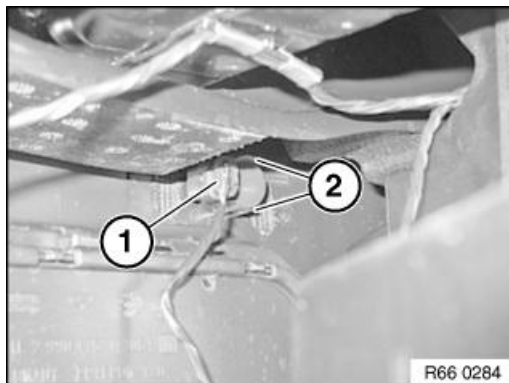
Installation note:

Make sure rubber ring (1) is correctly seated on ultrasonic sensor (2).



Necessary preliminary tasks:

- Remove [front left or right wheel arch cover](#)

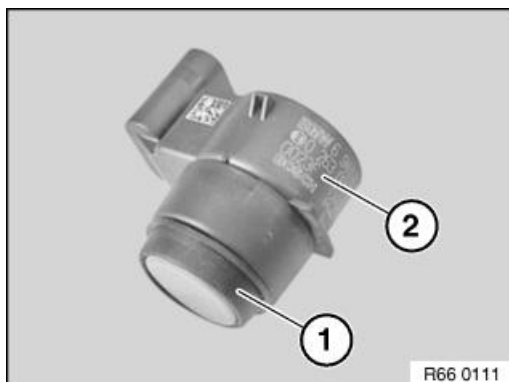


Disconnect plug connection (1) and unclip ultrasonic sensor from retaining tabs (2). *Installation note:*

Clean the plug connection (1) before installing the ultrasonic sensor on the wiring harness!

Retaining tabs (2) must not be damaged!

Make sure ultrasonic sensor is securely seated.



Installation note:

Make sure rubber ring (1) is correctly seated on ultrasonic sensor (2).

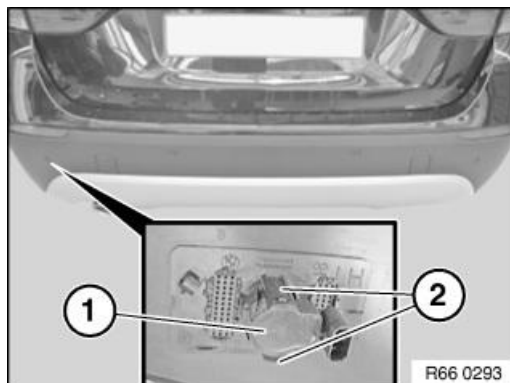
66 20 534 Removing and installing/replacing a rear left ultrasonic transducer (Park Distance Control)



Warning!

Risk of burning!

Work on the exhaust system may only be carried out when it has cooled down!



Note:

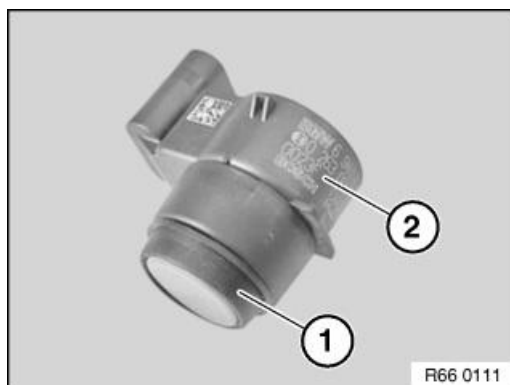
Ultrasonic transducers (1) can be removed without the bumper panel being removed.

Release retaining tabs (2).

Pull ultrasonic sensor (1) out of bracket and unlock and disconnected associated plug connection.

Installation note:

Before installation of ultrasonic sensor (1) on wiring harness, clean plug connection!



Installation note:

Make sure rubber ring (1) is correctly seated on ultrasonic sensor (2).

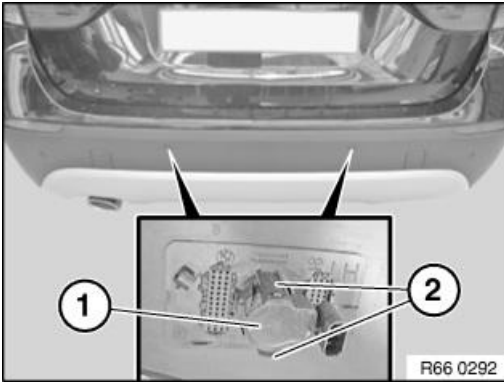
66 20 536 Removing and installing/replacing a rear middle left ultrasonic transducer (Park Distance Control)



Warning!

Risk of burning!

Work on the exhaust system may only be carried out when it has cooled down!



Note:

Ultrasonic transducers (1) can be removed without the bumper panel being removed.

Release retaining tabs (2).

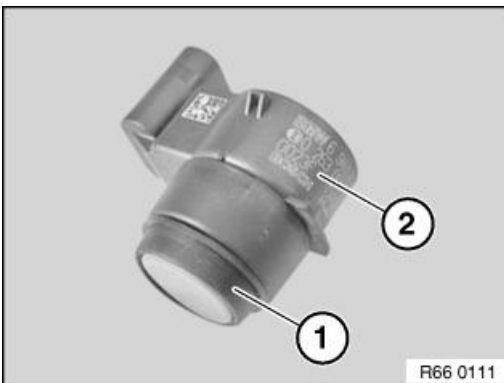
Remove ultrasonic sensor (1) from bracket.

Unlock associated plug connection and disconnect.

Remove ultrasonic sensor (1).

Installation note:

Before installation of ultrasonic sensor (1) on wiring harness, clean plug connection!



Installation note:

Make sure rubber ring (1) is correctly seated on ultrasonic sensor (2).

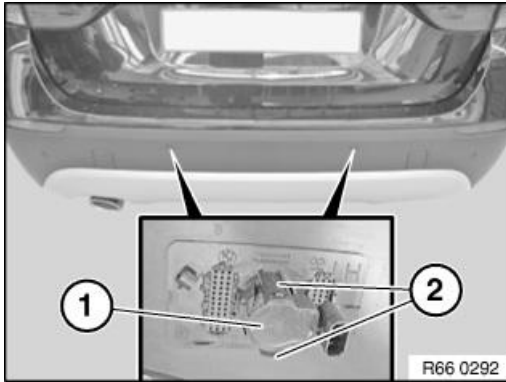
66 20 537 Removing and installing/replacing a rear middle right ultrasonic transducer (Park Distance Control)



Warning!

Risk of burning!

Work on the exhaust system may only be carried out when it has cooled down!



Note:

Ultrasonic transducers (1) can be removed without the bumper panel being removed.

Release retaining tabs (2).

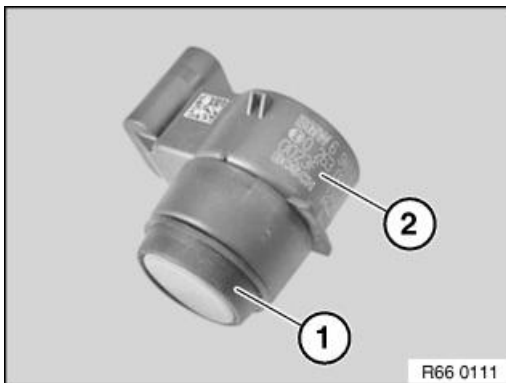
Remove ultrasonic sensor (1) from bracket.

Unlock associated plug connection and disconnect.

Remove ultrasonic sensor (1).

Installation note:

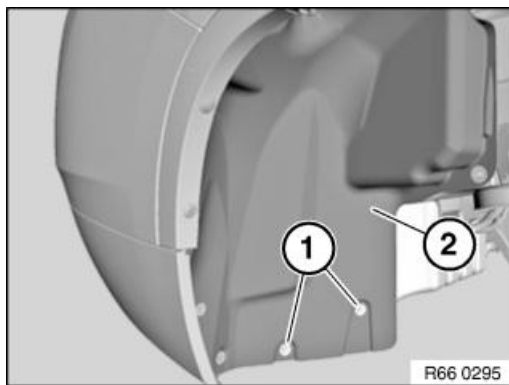
Before installation of ultrasonic sensor (1) on wiring harness, clean plug connection!



Installation note:

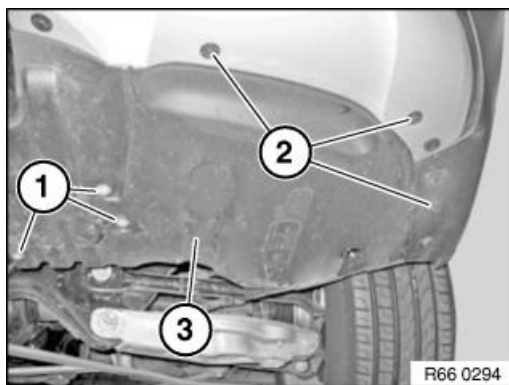
Make sure rubber ring (1) is correctly seated on ultrasonic sensor (2).

66 20 535 Removing and installing/replacing a rear right ultrasonic sensor (Park Distance Control)

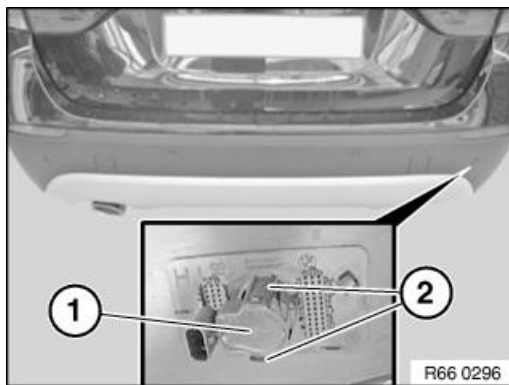


Note:
Graphic shows rear wheel removed.

Release screws (1) on rear right wheel arch panel (2).

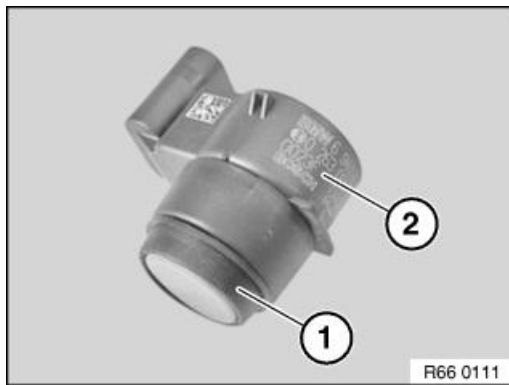


Release screws (1) and (2).
Remove underbody panelling (3).



Release retaining tabs (2).
Pull ultrasonic sensor (1) out of bracket and unlock and disconnected associated plug connection.

Installation note:
Before installation of ultrasonic sensor (1) on wiring harness, clean plug connection!



Installation note:
Make sure rubber ring (1) is correctly seated on ultrasonic sensor (2).

*Note:*

Calibration of reversing camera must be carried out after the following work:

- Removal and installation/replacement of reversing camera
- Body repair work at rear end of vehicle
- Adjusting work at tailgate

**Important!**

Follow instructions and specifications in procedure.

To obtain an optimum result, always adhere to the following conditions:

- Vehicle standing level on headlight aiming station
- Correct tyre pressure (see label on car).
- Vehicle is free of load
- Rear seat bench is unoccupied
- Do not swap seats during calibration
- Steering wheel in straight-ahead position
- Do not move steering wheel

*Note:*

Also switch on reversing camera by means of PDC button.

Calibration can only be carried out with the BMW diagnosis system.

Use of a special tool is no longer required from 03/2011!

Service functions:

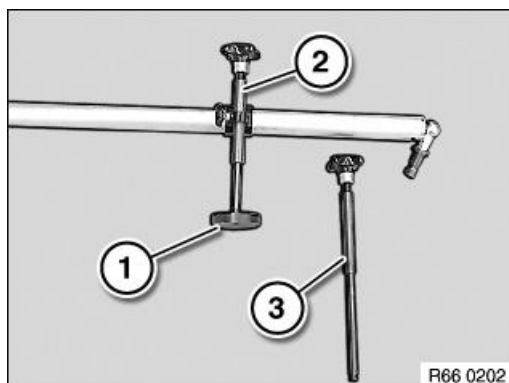
- Complete vehicle
- Body
- Camera systems

66 53 ... Instructions for adapting adjustment unit for reversing camera (CORGHI KDS quick-action clamp)



The following operations should only be carried out when using the tool kit for calibrating the reversing camera for the first time.

See Service Information 205 07 349 for ordering conversion kit.



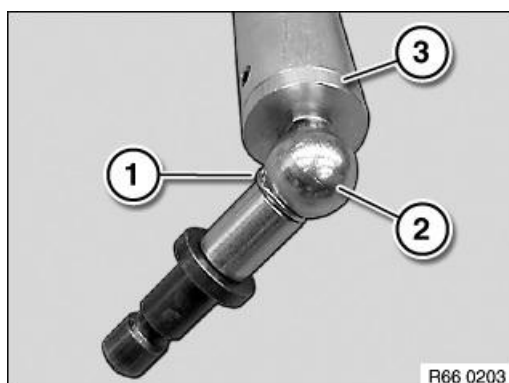
Note:

The operation is described for the left-hand side; proceed in the same way for the right-hand side.

Remove support plate (1) from spindle (2).

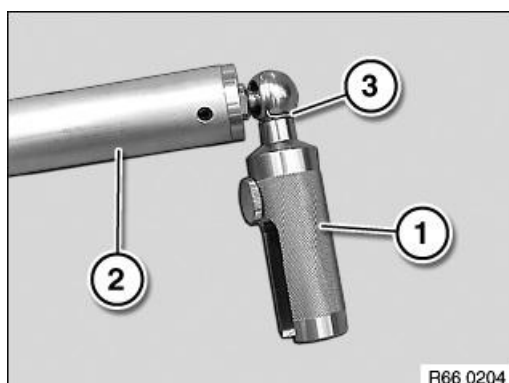
Replace spindle (2) by spindle (3).

Press support plate (1) on to spindle (3).



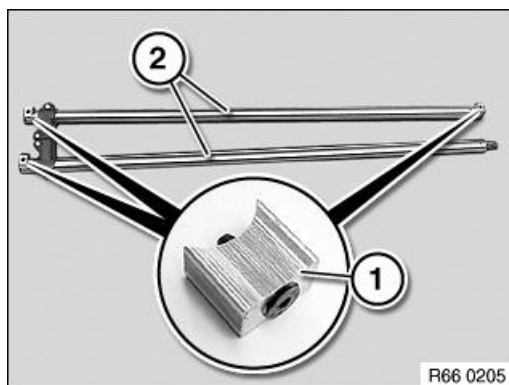
Release retaining clip (1).

Remove ball pin (2) from rod (3).



Fit new ball pin (1) on rod (2) and secure with retaining clip (3).

Fit ball pin (1) on CORGHI KDS quick-release clamp and secure.



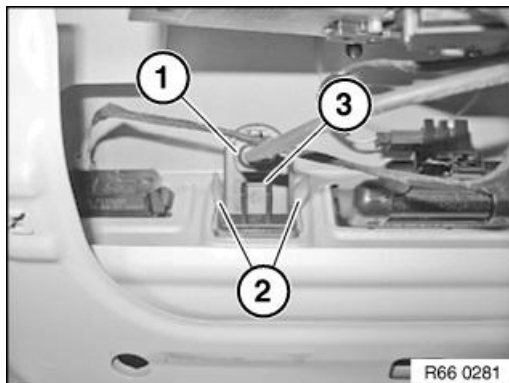
Remove all spacers (1) on cross bar (2). *Note:*
Follow the same procedure for calibrating the reversing camera.

**Important!**

Read and comply with [notes](#) on protection against electrostatic damage (ESD protection).

**Necessary preliminary tasks:**

- Remove [tailgate upper section trim panel](#)



Unfasten plug connection (1) and disconnect.

Unclip reversing camera holder at points (2).

Remove reversing camera (3).

Replacement:

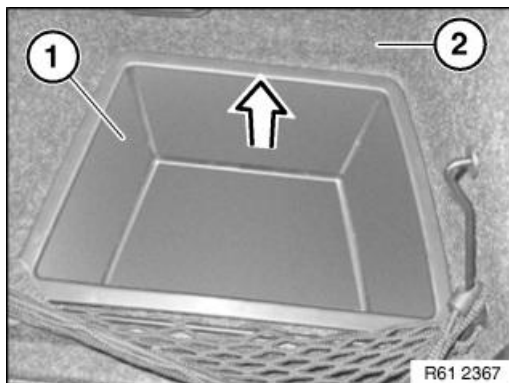
Remove protective film from lens of camera.

**After installation:**

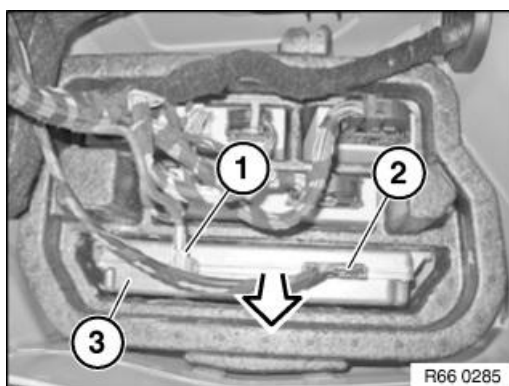
- Calibrate [reversing camera](#)

**Important!**

Read and comply with notes on protection against electrostatic damage ([ESD protection](#)).



Remove storage compartment (1) in direction of arrow from wheel arch panel (2) in luggage compartment.



Unlock and detach plug connections (1 and 2).

Remove control unit (3) in direction of arrow from equipment holder.

**Replacement:**

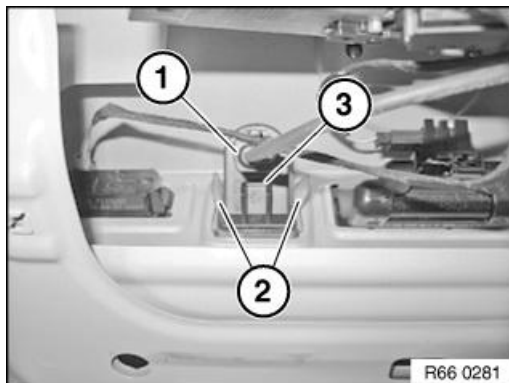
- Carry out [programming/encoding](#).
- [Calibrate reversing camera](#)

**Important!**

Read and comply with [notes](#) on protection against electrostatic damage (ESD protection).

**Necessary preliminary tasks:**

- Remove [tailgate upper section trim panel](#)



Unfasten plug connection (1) and disconnect.

Unclip reversing camera holder at points (2).

Remove reversing camera (3).

Replacement:

Remove protective film from lens of camera.

**After installation:**

- Calibrate [reversing camera](#)

00 Safety information for working on vehicles with automatic engine start-stop function (MSA)



Warning!

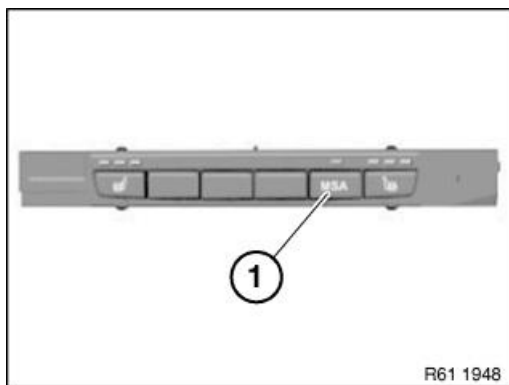
If the engine hood/bonnet contact is pulled upwards (workshop mode), the information "switch closed" is output. The automatic engine start-stop function is active.

An automatic engine start is possible.

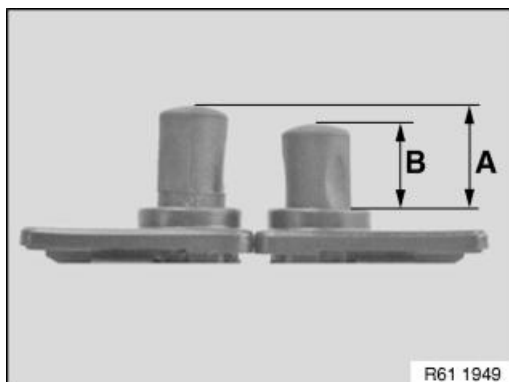
Observe safety precautions when working on MSA vehicles.

Before carrying out practical work on the engine, always ensure that the MSA functionality is deactivated so as to prevent automatic engine starting while work is being carried out in the engine compartment.

MSA function is deactivated by:



- Deactivate MSA by means of button (1) in passenger compartment
- Open seat belt buckle and driver's door



- Open engine bonnet/hood and ensure that engine hood/bonnet contact is not in workshop mode
 - Workshop mode
 $A = 10 \text{ mm}$
 - Basic setting (engine hood/bonnet open)
 $B = 7 \text{ mm}$

To make sure that the engine hood/bonnet contact is at the basic setting, if necessary press the hood/bonnet contact up to the limit position before starting work and slowly release.



When working with diagnosis tools:

- Observe instructions in diagnosis tool



Note:

For further information on automatic engine start-stop function (MSA):

- Refer to the Service Information (bulletin) (for manual transmissions) [Service Information \(bulletin\) 61 01 07 335](#)
- Refer to the Service Information (bulletin) (for automatic transmissions or twin-clutch gearboxes) [Service Information \(bulletin\) 61 01 10 629](#)