

65 12 ... Install the correct navigation map (after replacing the head unit as from 07/2015)

Install the correct navigation map depending on the validity of the customer subscription after having replaced the head unit for vehicles with a production date as from 07/2015.

Different cases:

Customer subscription is **still valid**:

- Install the most recent navigation map.

Customer subscription has **expired**:

- Check when the customer subscription expired*.
- Install the navigation map applicable on the expiry date.

The customer subscription has **expired**. **After the expiry** of his/her subscription, the customer **purchased a newer version of the navigation map** ("One Time Update"):

- Check which navigation map was installed most recently*.
- Install this navigation map

* The information required to determine the term of the customer subscription is available in the following path:

Aftersales Information Research (AIR)

- Navigation map

The following table is displayed in the "Navigation map" menu:

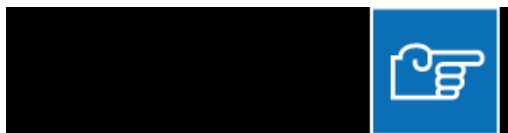
Installed map (Status with date)	Enabling code (Subscription)	Free update	Update subject to a charge
In this field the currently installed map with year specification is displayed. (E.g. navigation map Europe 2015)	Displayed in this field is: • Validity of the subscription (E.g. valid until 31.10.2017) • or an enabling code for "One Time Update"	Displayed in this field is: • During a valid subscription of the current, free enabling code • The last functional, free enabling code is shown if the subscription or "One time update" has expired	Displayed in this field is: • The field is empty during a valid subscription • The next available, most recent enabling code subject to a charge if the subscription or "one time update" has expired

Go to the following path for more information on navigation, such as update variants, new features and compatibility tables:

After-sales Assistance Portal (ASAP)

- Product information bulletin
- 07 Infotainment and communication
- 03 Navigation update

65 12 053 Remove and install/replace the central bass on the passenger's side (under the front seat)



Operation is identical to:

[Removing and installing central bass speaker -driver's side-](#)

**Attention!**

Risk of damage!

There is a hard disk installed in the headunit.

Carry out mechanical work on the headunit and adjacent components with care.

Avoid subjecting the headunit to vibration/shocks.

**Attention!**

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

**Note:**

Comply with notes and notes on [handling optical fibres](#).

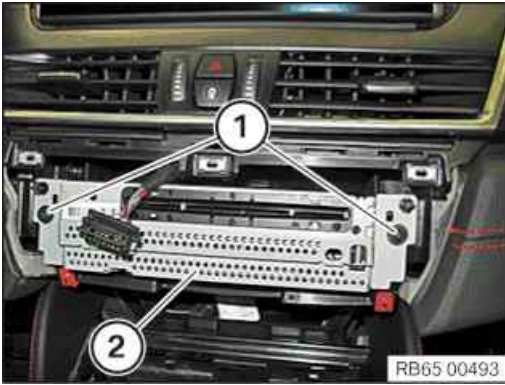
**Necessary preliminary work:**

- Disconnect [battery earth lead](#)
- Remove the [audio operating unit](#)
- Remove [centre console](#).

**REMOVAL:****Note:**

At the factory, the wiring harness (1) is routed so that not enough excess length exists to remove the head unit.

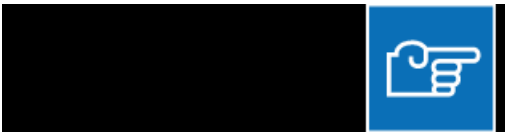
Expose wiring harness (1) as shown.



Release screws (1).
Pull out the headunit (2) a bit.



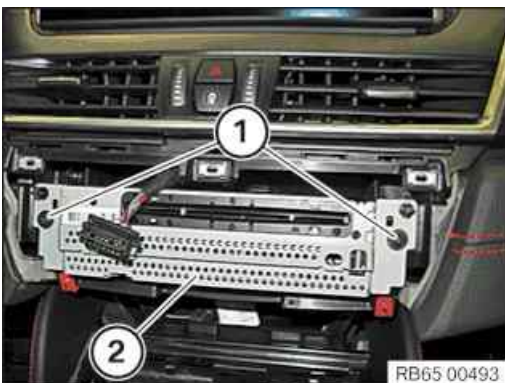
Unlock and disconnect all connectors in the marked area.
Remove headunit (1).



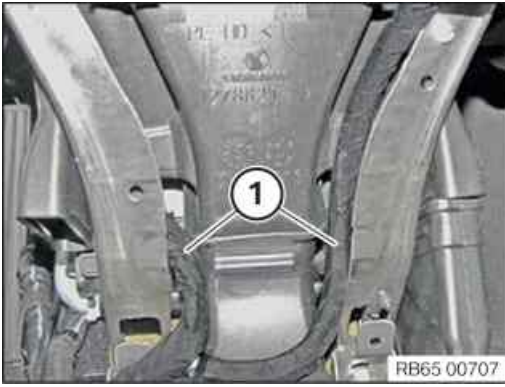
INSTALLATION:



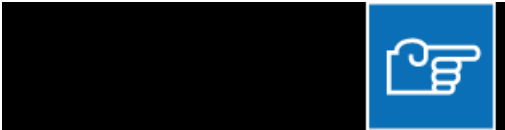
Position headunit (1).
Connect and lock all plug connections in the marked area.



Correctly insert the headunit (2).
Tighten down screws (2).



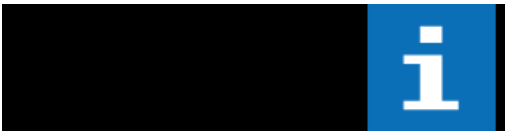
Lay wiring harness (1) as shown.



Only for US models with satellite radio:

Additional work is required when replacing the headunit!

- Refer to document [Replacing satellite tuner, as of 09/2009](#).



Required reworking:

- Install the [audio operating unit](#)
- Connect [battery earth lead](#)
- Install [centre console](#)



Replacement:

Carry out [programming/encoding](#).

[On vehicles with a production date as from 07/2015, install the correct navigation map.](#)

Importing the Service history:

- 05 Maintenance and Pre-Delivery Check
- Service history

**Attention!**

Risk of damage!

There is a hard disk installed in the head unit.

Carry out mechanical work on the head unit and adjacent components with care.

Avoid subjecting the head unit to vibration/shocks.

**Attention!**

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

*Note:*

Comply with notes and notes on [handling optical fibres](#).

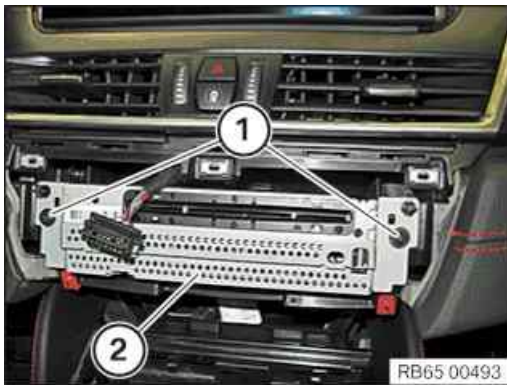
**Necessary preliminary work:**

- Remove the [audio operating unit](#)
- Disconnect [battery earth lead](#)
- Remove [centre console](#)

**REMOVAL:***Note:*

At the factory, the wiring harness (1) is routed so that not enough excess length exists to remove the head unit.

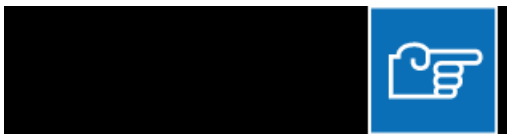
Expose wiring harness (1) as shown.



Release screws (1).
Pull out the head unit (2) a bit.



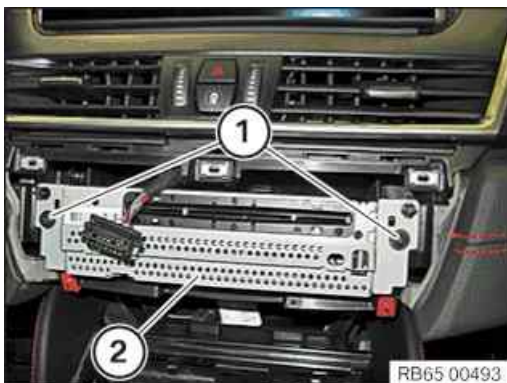
Unlock and disconnect all connectors in the marked area.
Remove head unit (1).



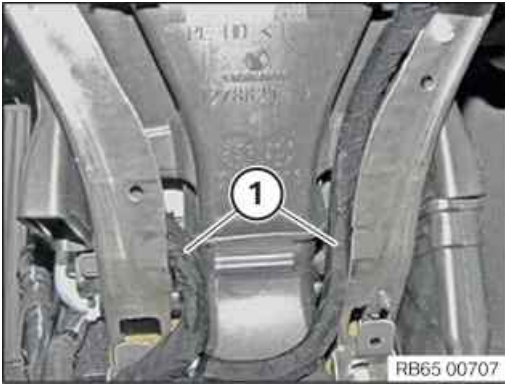
INSTALLATION:



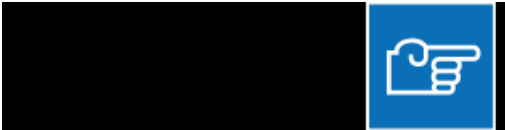
Position head unit (1).
Connect and lock all plug connections in the marked area.



Correctly insert the head unit (2).
Tighten down screws (1).



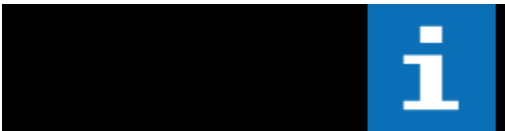
Lay wiring harness (1) as shown.



Only for US models with satellite radio:

Additional work is required when replacing the head unit!

- Refer to document [Replacing satellite tuner, as of 09/2009](#).



Required reworking:

- Install the [audio operating unit](#)
- Connect [battery earth lead](#)
- Install [centre console](#)



Replacement:

Carry out [programming/encoding](#).

[On vehicles with a production date as from 07/2015, install the correct navigation map.](#)

Importing the Service history:

- 05 Maintenance and Pre-Delivery Check
- Service history



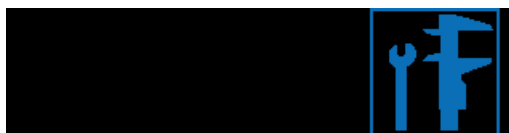
Initialise component protection (F45, F46, F48):

After renewal of the BDC **or** after installation of a **used** head unit, the component protection in the head unit must be initialised once again.

For this purpose, the following steps must be carried out:

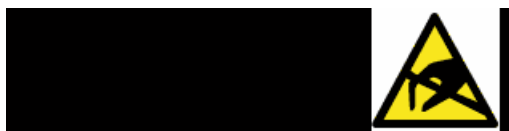
1. Request enabling code from Technical Support.
 2. Apply the following immediate measures to reinitialise component protection using the diagnosis system:
 - Vehicle handling
 - Software update
 - Additional software
 - Initialisation of component protection in the head unit (HU)
- Observe instructions without fail!

65 12 071 Removing and installing or replacing amplifier



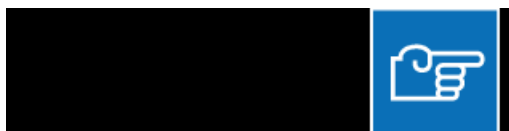
Special tools required:

- [00 9 327](#)



Important!

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



Note:

Comply with notes and notes on [handling optical fibres](#).

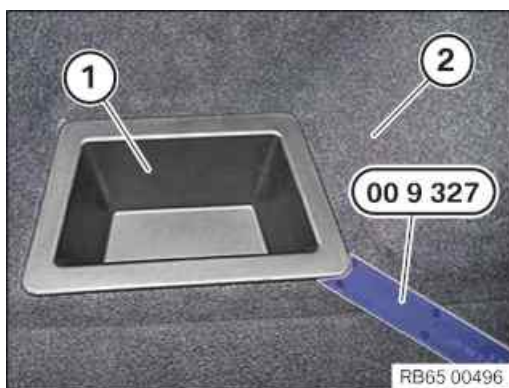


Necessary preliminary tasks:

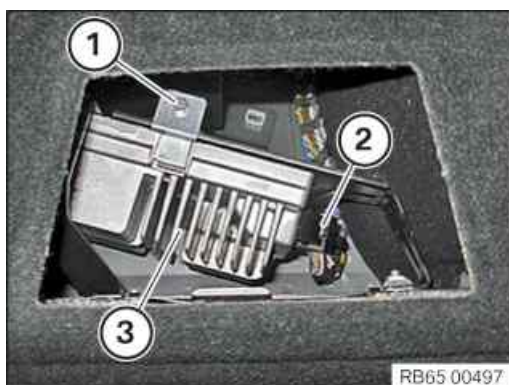
- Disconnect [battery earth lead](#)



REMOVAL:



Remove storage compartment (1) with special tool [00 9 327](#) from luggage compartment of left wheel arch panel (2).



Release screw (1).

Unlock and disconnect connector (2).

Remove amplifier (3) and feed out towards top.

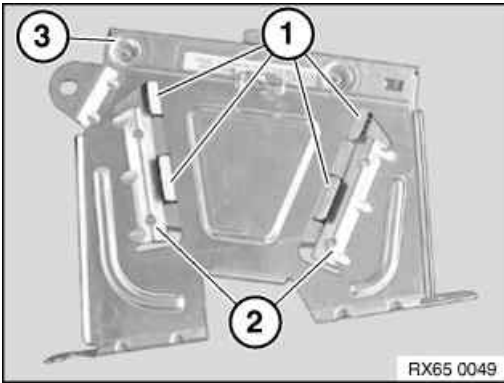


Replacement:

In Harman Kardon version, perform [vehicle programming and encoding](#).



INSTALLATION:



Note:

Lugs (1) must be correctly slid into guide (2).

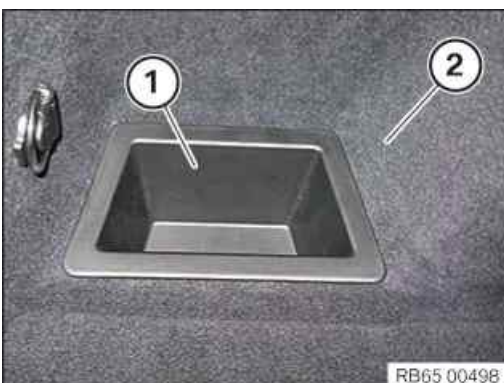
Check that amplifier (3) is securely seated.



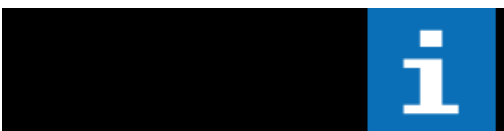
Feed in amplifier (3) and position correctly.

Tighten screw (1).

Connect connector (2) and lock.



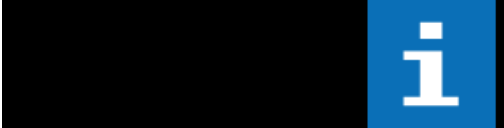
Fit storage compartment (1) correctly in luggage compartment of left-wheel arch panel (2).



Required reworking:

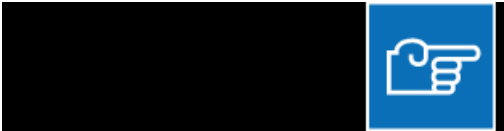
- Connect [battery earth lead](#)

65 12 051 Removing and installing/renewing central bass speaker -driver's side- (under front seat)

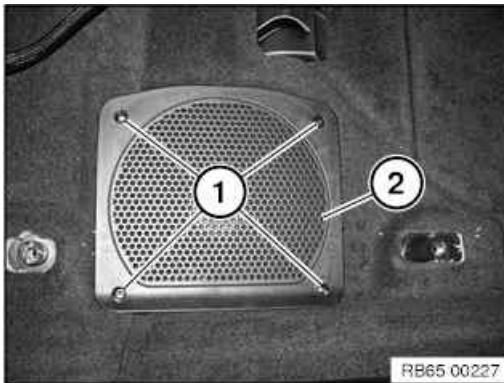


Necessary preliminary tasks:

- Remove [front seat](#)
- Remove [door sill cover strip](#)

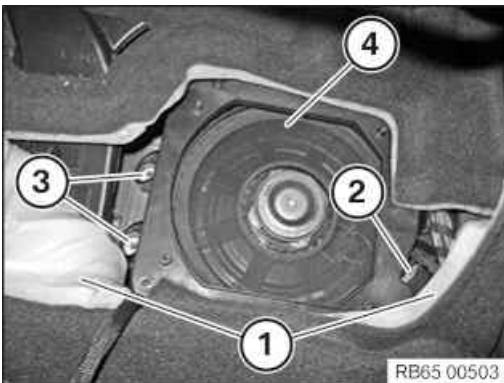


REMOVAL:



Release screws (1).

Remove cover of bass speaker (2).

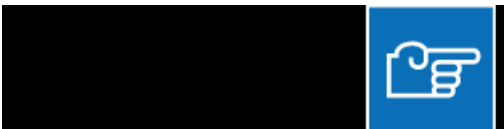


Fold up the carpet (1) as shown.

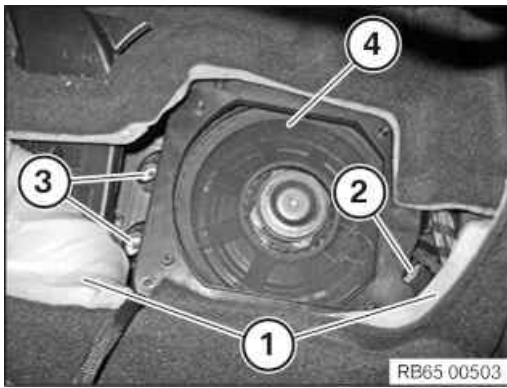
Unlock and disconnect connector (2).

Unscrew nuts (3).

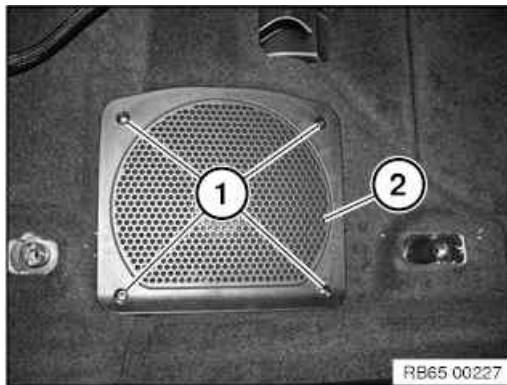
Feed out bass speaker (4).



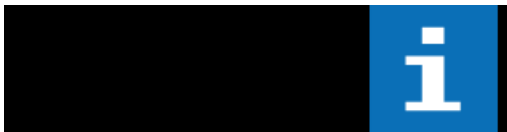
INSTALLATION:



Feed in bass speaker (4).
Tighten down nuts (3).
Join and lock connector (2).
Route carpet (1) correctly.

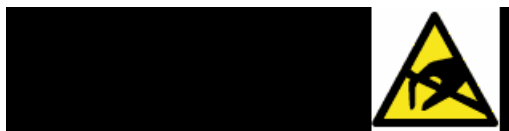


Position bass speaker cover (2).
Tighten down screws (1).



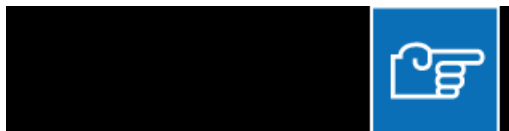
Required reworking:

- Install [front seat](#)
- Install [door sill cover strip](#)



Important!

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



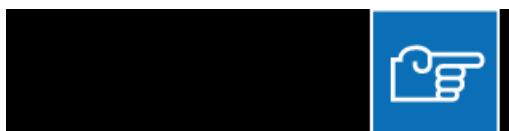
Note:

Comply with notes and notes on [handling optical fibres](#).



Necessary preliminary tasks:

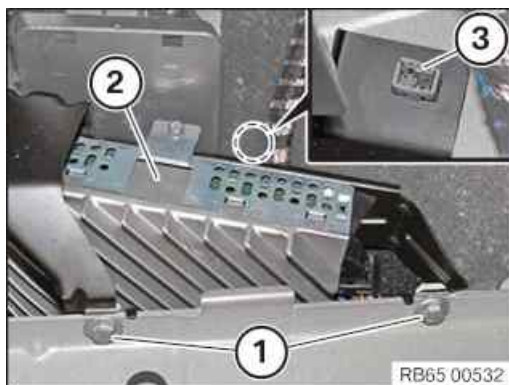
- Disconnect [battery earth lead](#)
- Remove [luggage compartment wheel arch panel on left](#).



Removal:

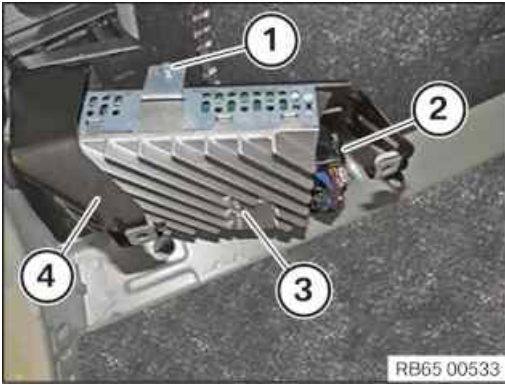


Remove shaped part (1).

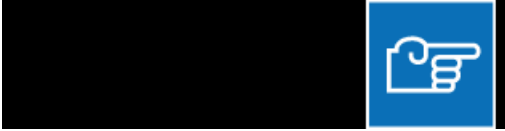


Release screws (1).

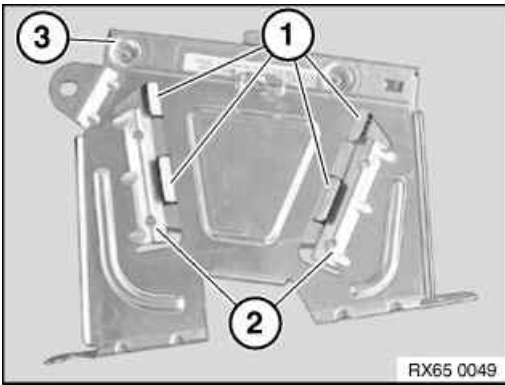
Disengage amplifier with holder (2) out of the Latch mechanism (3) upwards and remove.



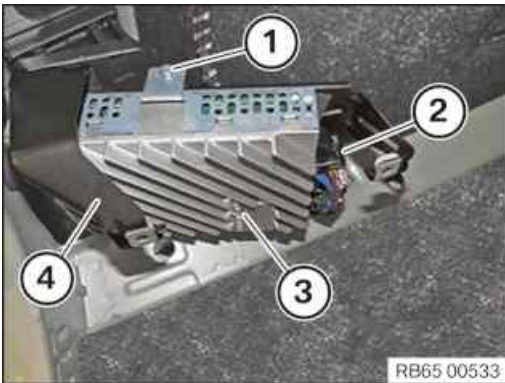
Release screw (1).
Unlock and disconnect connector (2).
Lift out amplifier (3) from holder (4).



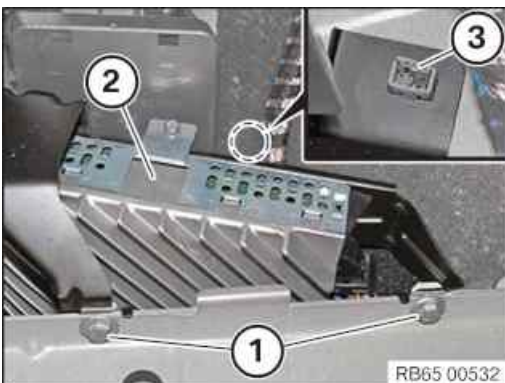
Installation:



Note:
Lugs (1) must be correctly slid into guide (2).
Check that amplifier (3) is securely seated.



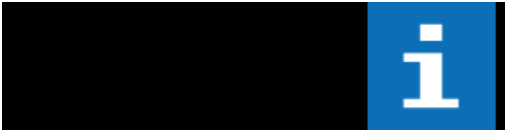
Push amplifier (3) into holder (4) downwards.
Connect connector (2) and lock.
Tighten screw (1).



Push amplifier with holder (2) into latch mechanism (3) downwards.
Tighten down screws (1).



Position shaped part (1) correctly.



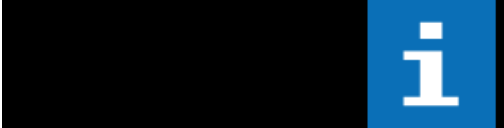
Required reworking:

- Connect [battery earth lead](#)
- Install [luggage compartment wheel arch panel, left](#)



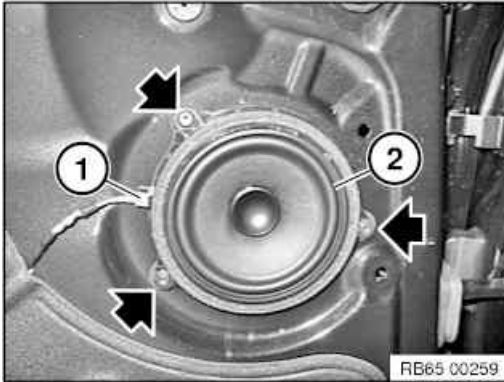
Replacement:

In Harman Kardon version, perform [vehicle programming and encoding](#).



Necessary preliminary tasks:

- Remove [rear door trim panel](#)



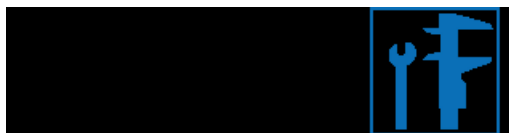
Disconnect plug connection (1).

Release screws at marked points.

Tightening torque [65 13 01AZ](#).

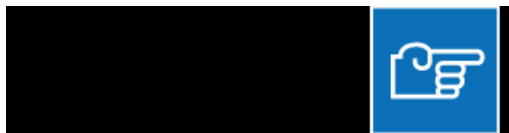
Remove mid-range speaker (2) from inner door panel.

65 13 060 Removing and installing/replacing speaker (mid-range speaker, in instrument panel)

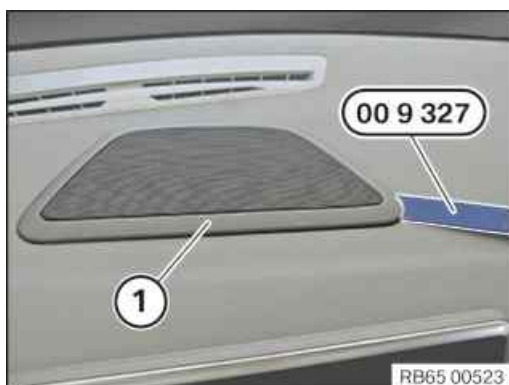


Special tools required:

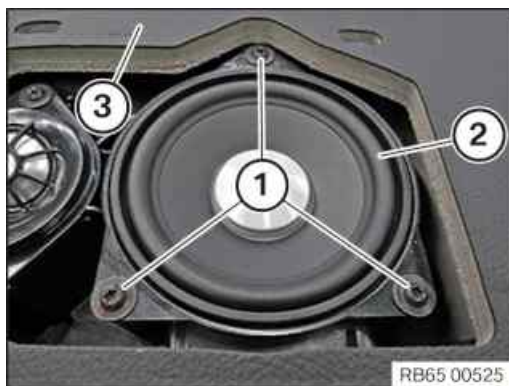
- [00 9 327](#)



REMOVAL:



Unclip and remove cover (1) upwards with special tool [00 9 327](#) .

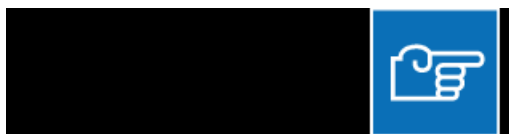


Release screws (1).

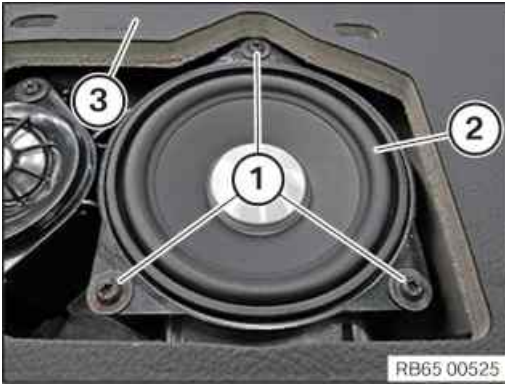
Remove mid-range speaker (2) upwards from dashboard (3).

Disconnect the connector underneath.

Remove mid-range speaker (2).



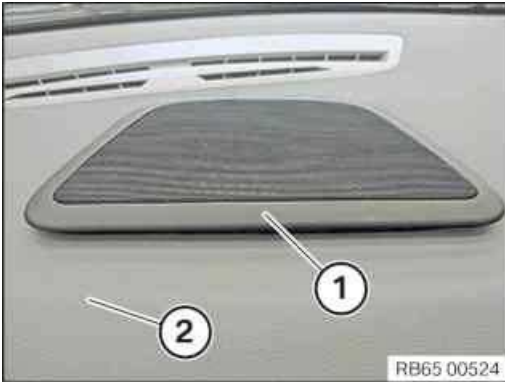
INSTALLATION:



Join connector(s).

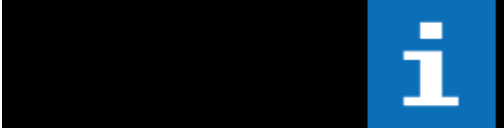
Insert mid-range speaker (2) into instrument panel (3).

Tighten down screws (1).



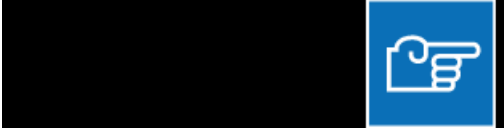
Engage cover (1) correctly in instrument panel (2). *Note:*

Latch mechanisms on cover (1) must not be damaged or missing.

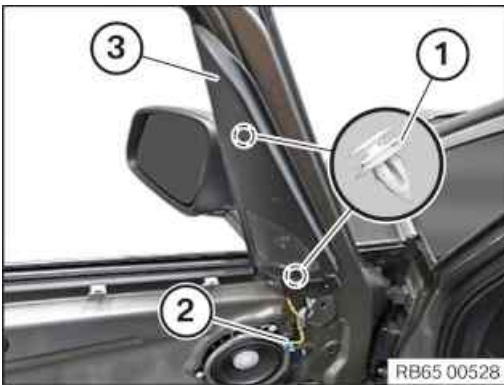


Necessary preliminary tasks:

- [Remove](#) front door trim panel

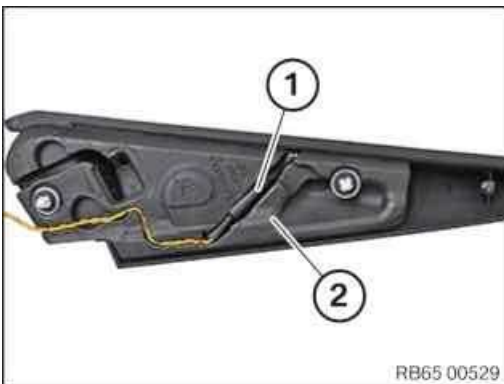


Removal:



Disconnect connector (2).

Undo window frame cover (3) at clips (1) and remove.



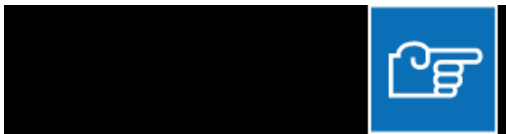
Feed out resistor (1).

Remove upholstery (2).



Unlock latches at marked points.

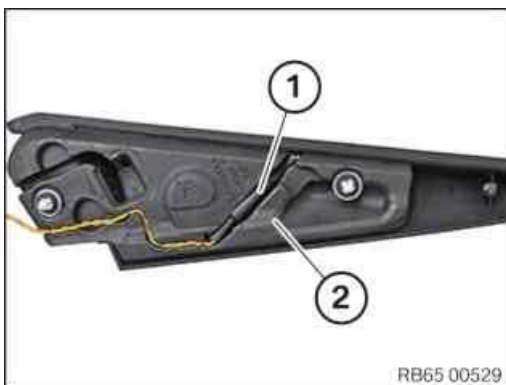
Remove tweeter (1) from window frame cover (2).



Installation:



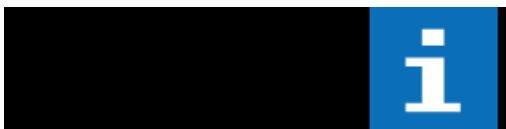
Engage tweeter (1) correctly into the window frame cover (2). *Note:* Latch mechanisms must not be missing or faulty.



Correctly position the upholstery (2).
Feed in resistor (1).

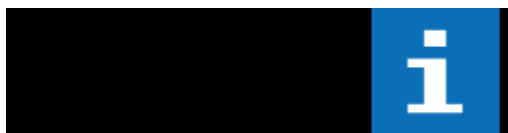


Install window frame cover (3) and clip in at clips (1).
Connect connector (2).

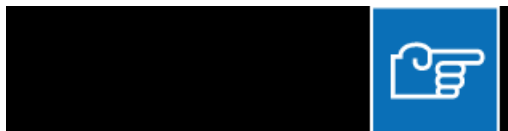
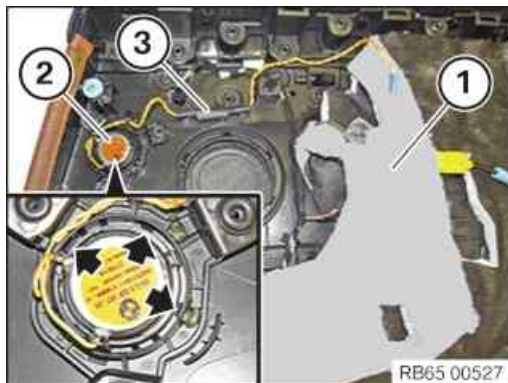


Required reworking:

- Installing [front door trim panel](#)

*Necessary preliminary tasks:*

- Remove [rear door trim panel](#)

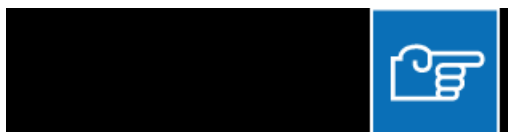
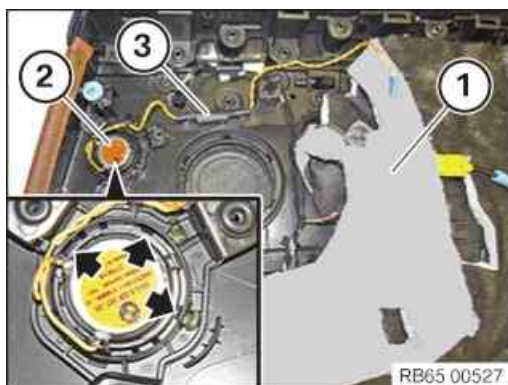
**Removal:**

Lay acoustic insulation (1) to side as shown.

Unlock retaining lugs.

Remove tweeter (2).

Unclip resistor (3).

**Installation:**

Correctly clip in resistor (3).

Position tweeter correctly and latch in.

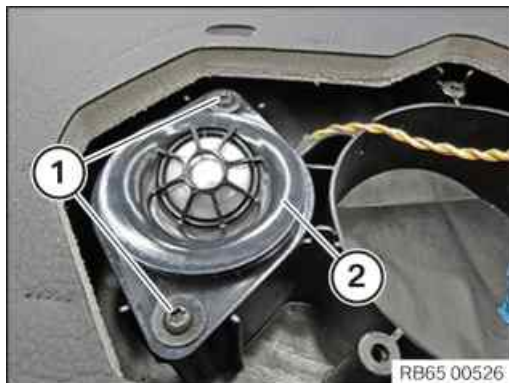
Position sound insulation (1) correctly.

*Required reworking:*

- Mount [rear door trim](#)

**Necessary preliminary tasks:**

- Remove [mid-range speaker](#)

**REMOVAL:**

Release screws (1).
Remove tweeter (2).

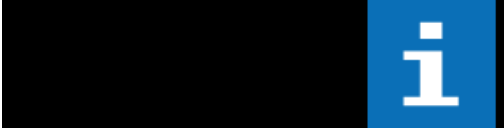
**INSTALLATION:**

Position tweeter (2).
Tighten down screws (1).

**Required reworking:**

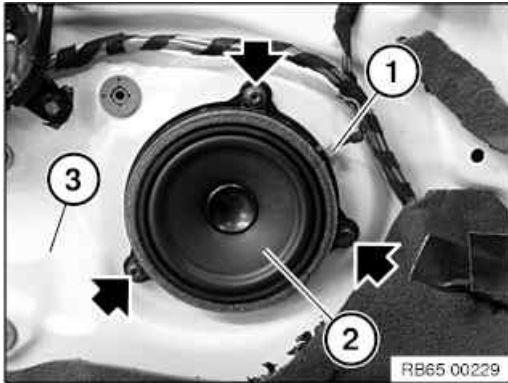
- Install [mid-range speaker](#)

65 13 070 Removing and installing/replacing speakers (mid-range speaker, front door left and right)



Necessary preliminary tasks:

- Remove front [door trim panel](#)

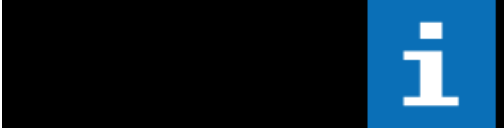


Release screws at marked points.

Tightening torque [65 13 01AZ](#).

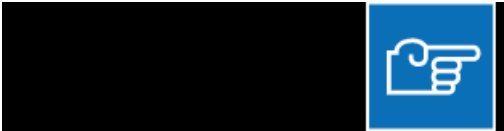
Unfasten plug connection (1) and disconnect.

Remove speaker (2) from inner door panel (3).

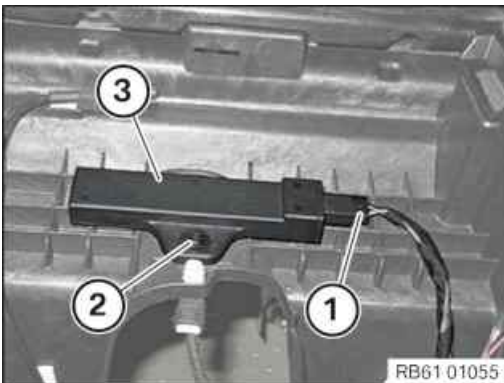


Necessary preliminary tasks:

- Remove [centre console cover](#)



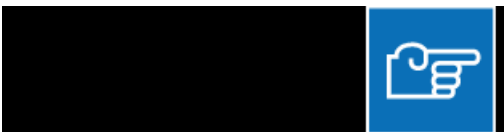
Removal:



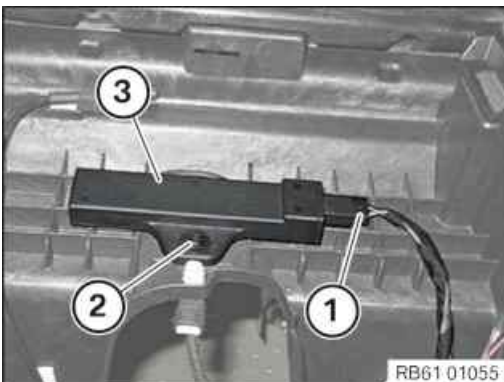
Disconnect the connector (1).

Release screw (2).

Remove the interior aerial for Comfort Access (3).

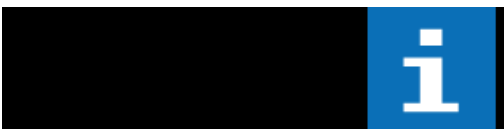


Installation:



Tighten interior aerial for Comfort Access (3) with screw (2).

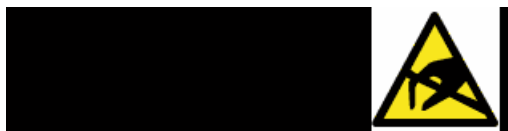
Connect the plug (1).



Required follow-up work:

- Remove [centre console cover](#)

65 20 037 Remove and install/replace roof-mounted aerial with telematics control unit



Attention!

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



Necessary preliminary work:

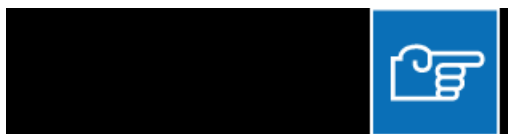
- Detach [empty housing](#) for roof-mounted aerial
- Removing [headlining partially](#)



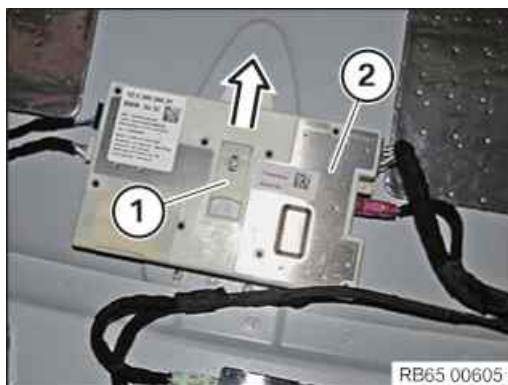
Note:

When replacing the telematics control unit check whether the faulty telematics control unit is equipped with an [emergency battery](#):

- if no, then the new part is installed without an emergency battery!
- If yes, then the new parts is to be equipped with a new emergency battery (separate order, telematics control unit is shipped without an emergency battery!)

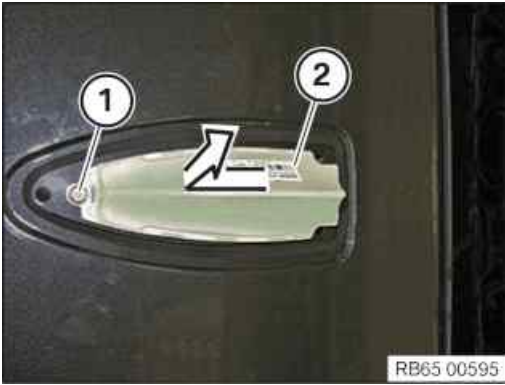


Removal:



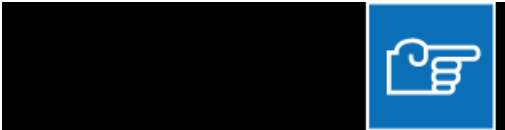
Unlock the lock (1) downwards.

Slide telematics control unit (2) in direction of arrow.

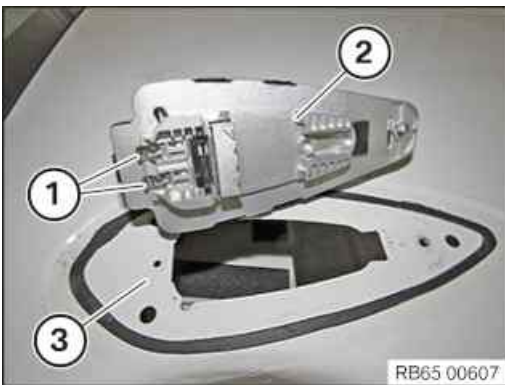


Release screw (1).

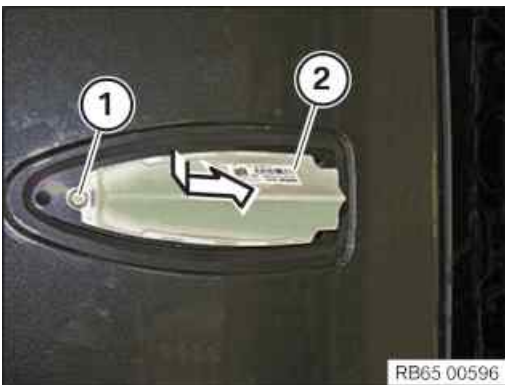
Remove the roof-mounted aerial (2) in the direction of the arrow.



Installation:



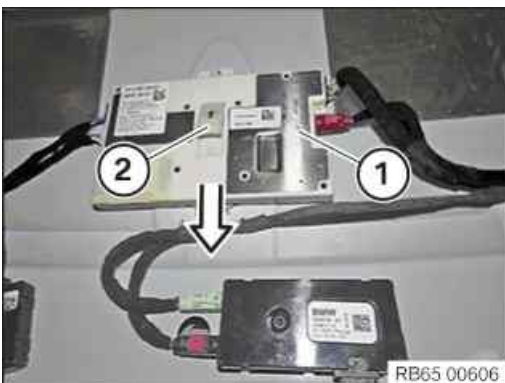
The lock (1) on the roof-mounted aerial (2) must have been inserted correctly underneath the roof (3).



Install the roof-mounted aerial (2) in the direction of the arrow.

Tighten screw (1).

Tightening torque: [65 20 2AZ](#).



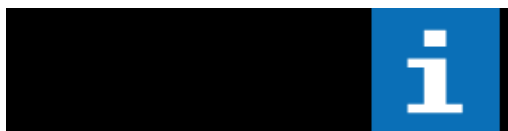
Correctly position the telematics control unit (1) and push it in the direction of the arrow until the lock (2) engages.

**Required reworking:**

- Fit the [headlining](#)
- Installing the [empty housing](#) for the roof-mounted aerial

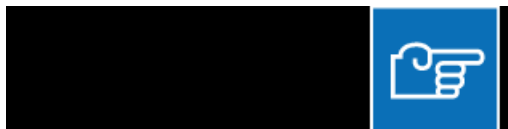
**Replacement:**

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

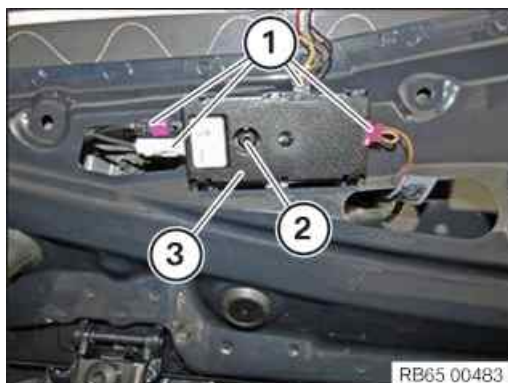


Necessary preliminary tasks:

- Remove [trim for rear window frame, top](#).



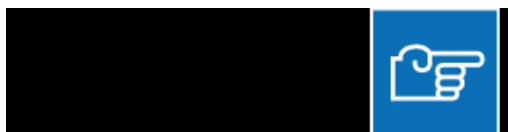
REMOVAL:



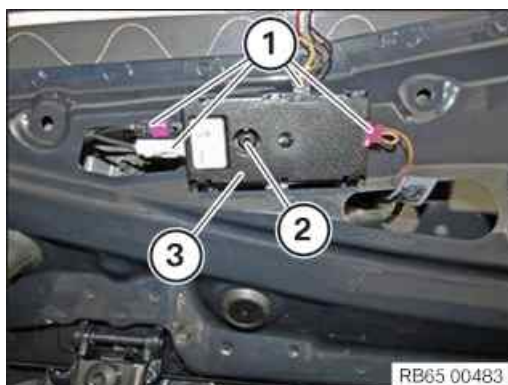
Unlock and disconnect the connector (1).

Release screw (2).

Remove aerial amplifier (3).



INSTALLATION:



Position aerial amplifier (3).

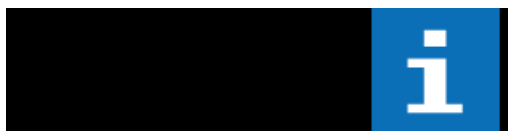
Tighten screw (2).

Attach and lock connector (1).



Required reworking:

- Fit [trim for rear window frame, top](#).

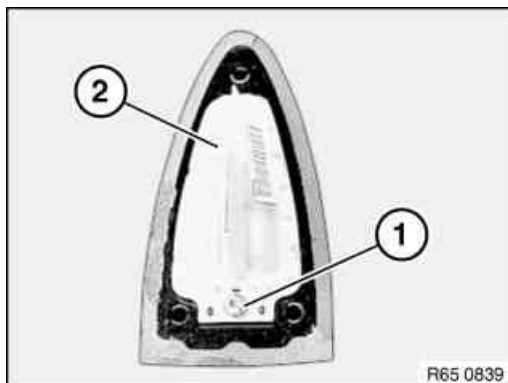
**Necessary preliminary tasks:**

- Detach [empty housing](#) for roof-mounted aerial
- If necessary, remove the [telematics control unit](#)

Note:
Diagram similar.

Release screw (1).

Remove roof-mounted aerial (2) by manoeuvring upwards.



Disconnect plug connection (1).

Remove aerial (2).

Installation note:

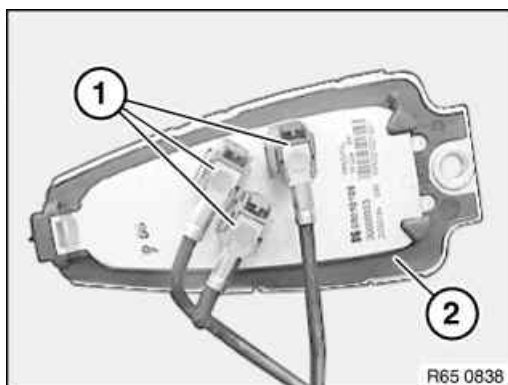
Do not mix up aerial/antenna connections (1).

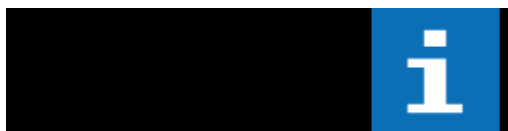
Note:

Replacement:

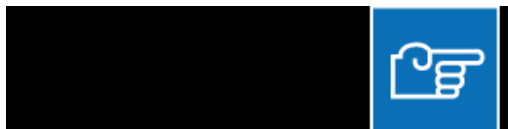
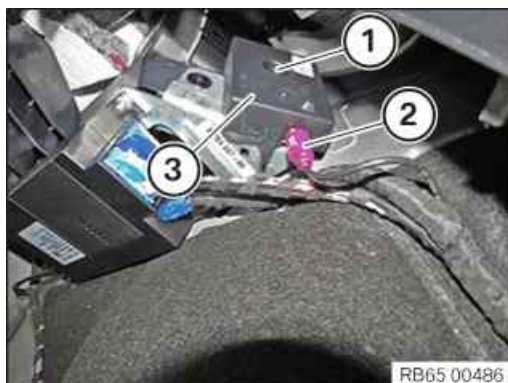
Connection for DAB-L on the roof-mounted aerial omitted (white connector).

If necessary, tie back the remaining cable connection on the side of the vehicle so that rattling noise cannot occur.



*Necessary preliminary tasks:*

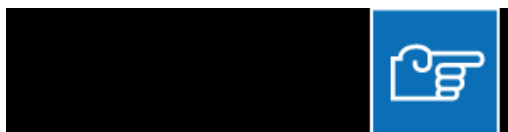
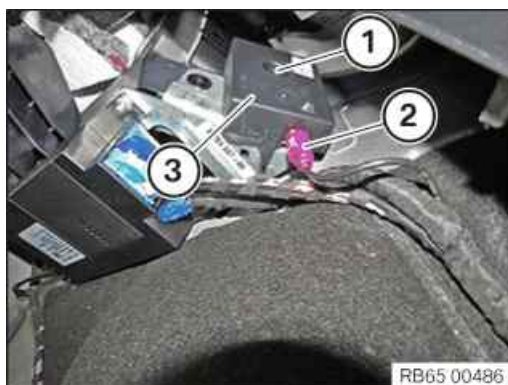
- Remove [luggage compartment wheel arch panel on left](#).

**Removal:**

Release screw (1).

Unlock and disconnect connector (2).

Remove backup aerial (3).

**Installation:**

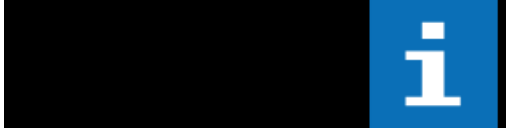
Correctly position backup aerial (3).

Tighten screw (1).

Connect connector (2) and lock.

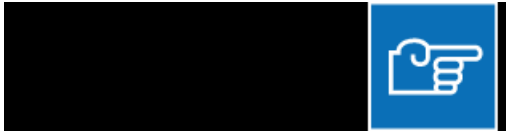
*Required reworking:*

- Install [luggage compartment wheel arch panel, left](#)

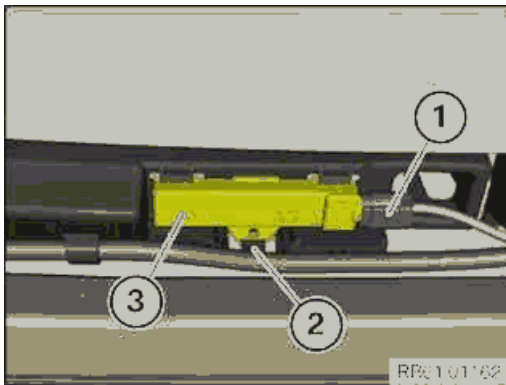


Necessary preliminary tasks:

- Remove [rear bumper trim](#)



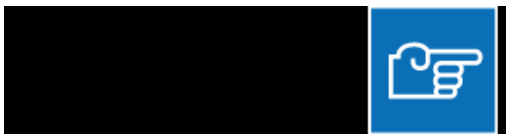
Removal:



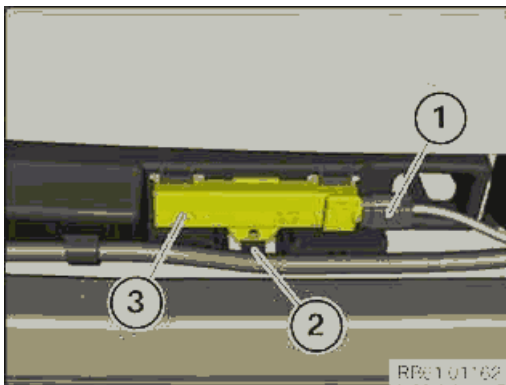
Unlock and disconnect the connector (1).

Unlock catch (2).

Remove bumper aerial (3) from bracket.



Installation:

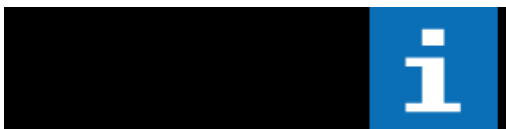


Attach the bumper aerial (3) to the bracket.

Connect the connector (1).

Installation note:

Ensure bumper aerial (3) engages (2) correctly on bracket.



Required follow-up work:

- Install [rear bumper panel](#)

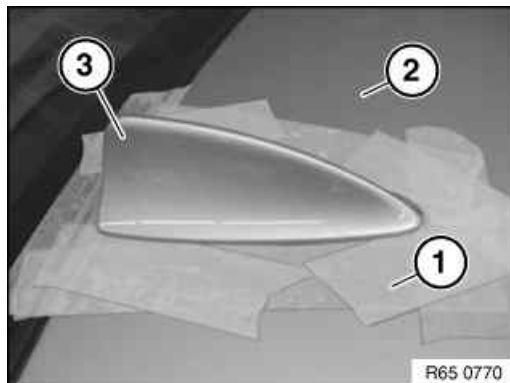
65 20 030 Removing and installing/replacing empty housing for roof-mounted aerial



Important!

Note to customer:

In order to guarantee a permanent connection and adhesive hardening:
After bonding the empty housing for the roof-mounted aerial, wait 24 hours before driving the vehicle through a car wash.



Note:

Clean roof.

Mask roof (2) around empty housing for roof-mounted aerial (3) with yellow plastic adhesive tape (1). To do so, slide plastic adhesive tape under empty housing (3) slightly.

Cut through the adhesive bead (e.g. scalpel) and remove the empty housing for the roof-mounted aerial (3).



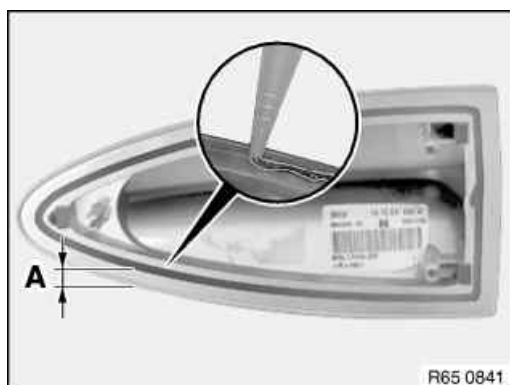
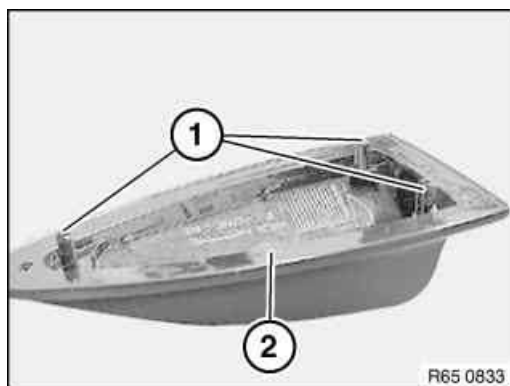
Installation:

Empty housing for roof-mounted aerial is secured with window glass adhesive. All preparatory operations correspond to the [Window bonding notes](#).

Note:

Replace empty housing for roof-mounted aerial if centering pins (1) on empty housing are damaged.

Bonding surface (2) must be clean and free from grease.



Apply trace of adhesive bead all round outer contour as follows.

Distance between adhesive bead and edge of aerial housing:

A. 6.5 mm $\pm$ 1 mm

Start and end of bead trace must have an overlap length of max. 10 mm.

Important!

To prevent the adhesive from leaking, the adhesive bead diameter must not exceed 2.5 mm to 3.5 mm.

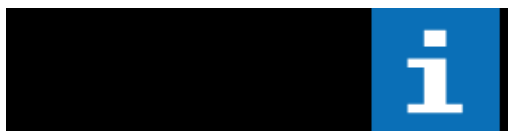


Note:

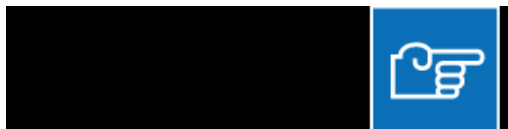
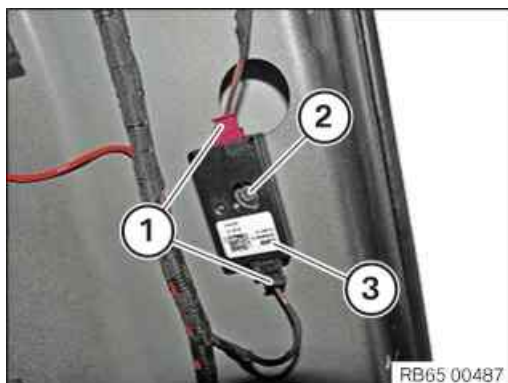
Attach the empty housing coated with adhesive by hand. To spread the adhesive better, move the housing back and forth horizontally slightly when pressing down.

Secure empty housing if necessary with adhesive tape and press down uniformly.

After bonding, leave vehicle to stand for at least 3 hours at room temperature.

*Necessary preliminary tasks:*

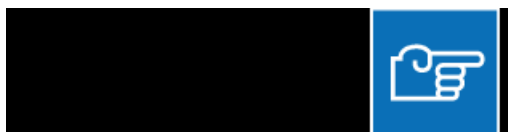
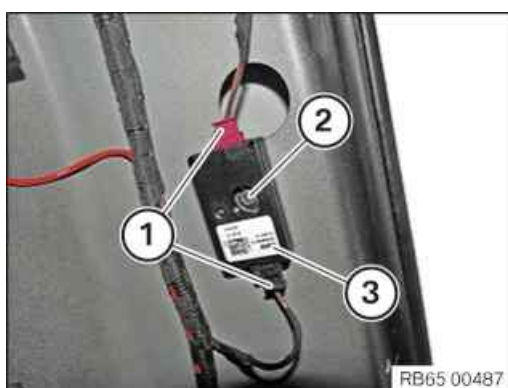
- Remove [right C/D-pillar trim](#)

**Removal:**

Disconnect connector (1).

Release screw (2).

Remove interference suppression filter (3).

**Installation:**

Position interference suppression filter (3) correctly.

Tighten screw (2).

Connect the plug (1).

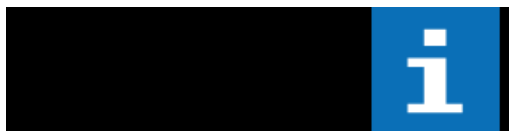
Note:

Position interference suppression filter (3) so that positioning pin on rear side engages in associated bore hole.

*Required reworking:*

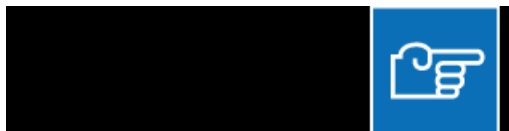
- Install [right C/D-pillar trim](#)

61 35 954 Removing and installing/replacing interior aerial for Comfort Access (rear)



Necessary preliminary tasks:

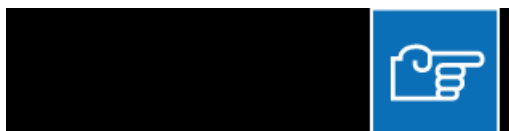
- Removing the [rear centre console trim](#)



Removal:



Undo the latch mechanisms (1) at the holder.
Feed out the interior aerial for Comfort Access (2).



Installation:



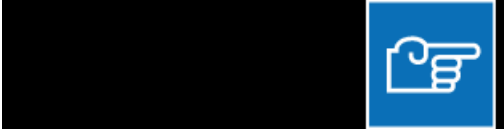
Join interior aerial for Comfort Access (2) in the holder. *Installation note:* Ensure that the interior aerial for Comfort Access (2) engages correctly (1) at the holder.



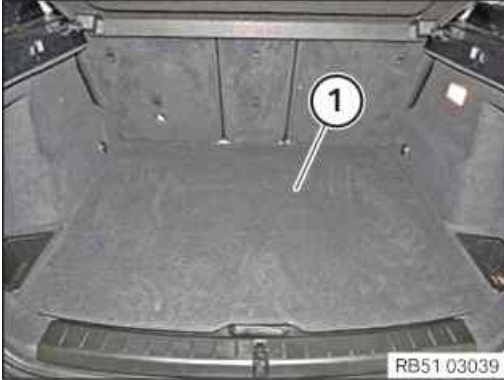
Required follow-up work:

- Installing the [rear centre console trim](#)

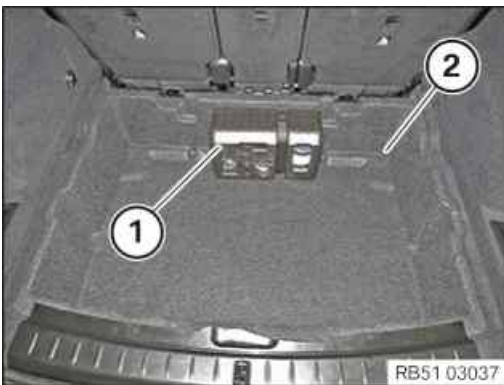
61 35 ... Removing and installing/replacing luggage compartment aerial for Comfort Access (without third seating row)



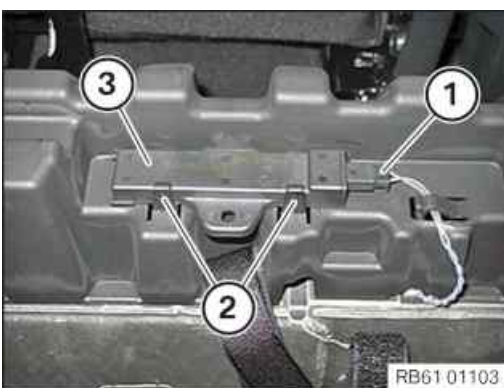
Removal:



Lift and remove luggage compartment floor trim panel (1) at rear.



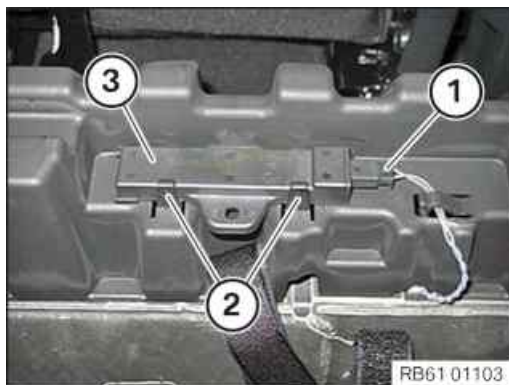
Remove the Mobility Set (1).
Lift and remove the floor tray (2) at front.



Disconnect the connector (1).
Release the latch mechanisms (2) on the holder and feed out the luggage compartment aerial for Comfort Access (3).



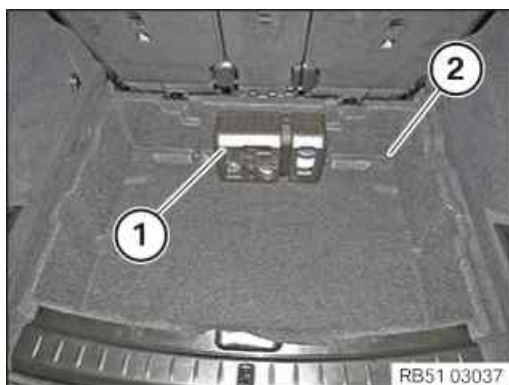
Installation:



Fitting the luggage compartment aerial for Comfort Access (3) to the holder.
Connect the plug (1).

Installation note:

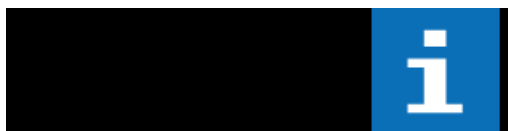
Make sure the luggage compartment aerial for Comfort Access (3) engages correctly (2) in the holder.



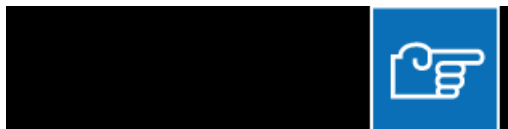
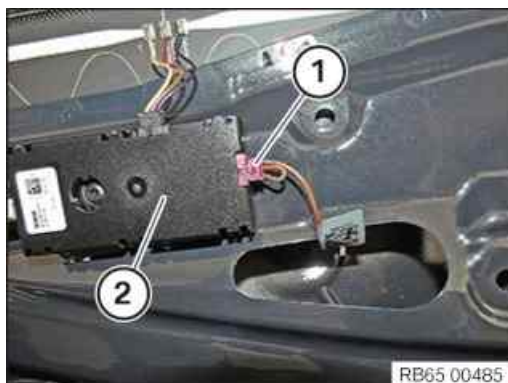
Install the floor tray (2) and the Mobility Set (1).



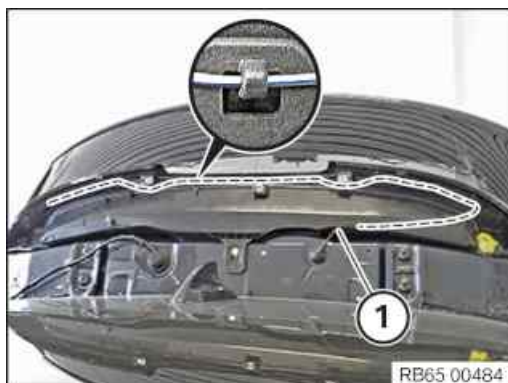
Attach the luggage compartment floor trim panel (1) to the hooks at the front and set down at the rear.

**Necessary preliminary tasks:**

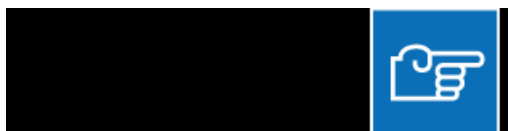
- Remove [auxiliary brake light](#)

**Removal:**

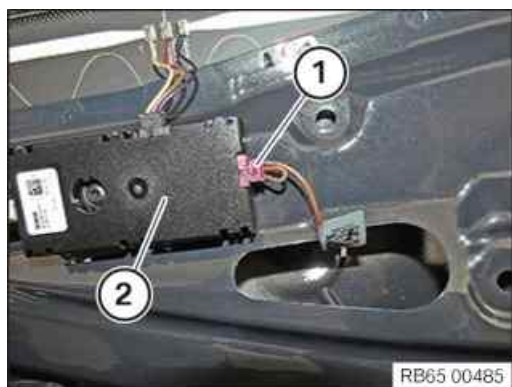
Disconnect connector (1) from aerial amplifier (2).



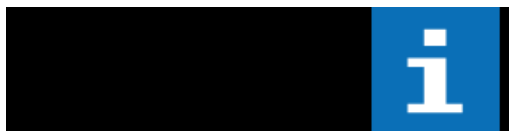
Detach aerial (1) at all mountings in marked area and remove.

**Installation:**

Attach aerial (1) at all mountings in marked area.

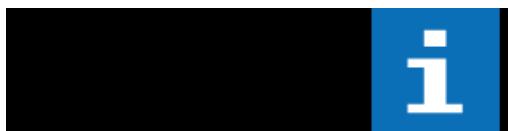


Connect connector (1) to aerial amplifier (2).

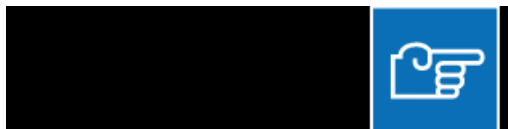
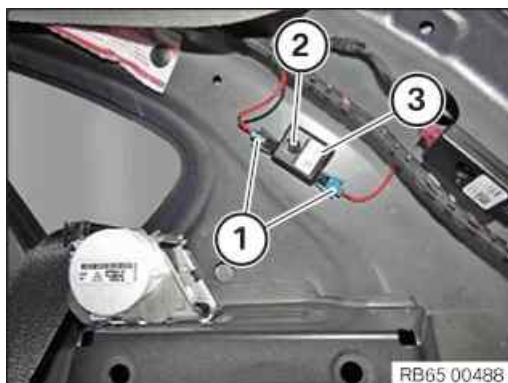


Required reworking:

- Mount [additional brake light](#)

**Necessary preliminary tasks:**

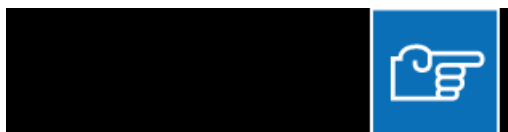
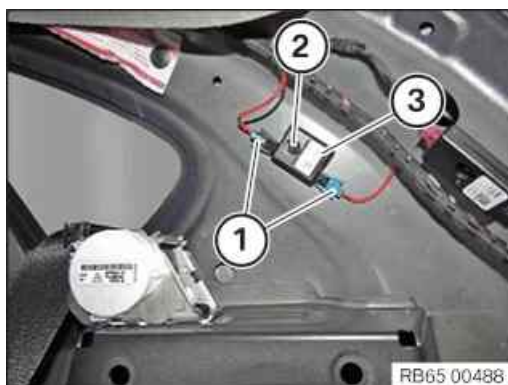
- Remove [right C/D-pillar trim](#)

**Removal:**

Unlock and disconnect the connector (1).

Release screw (2).

Remove wave trap (3).

**Installation:**

Position wave trap (3) correctly.

Tighten screw (2).

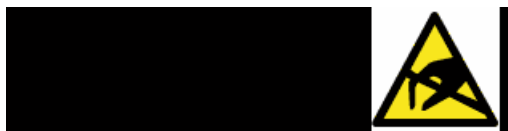
Connect the plug (1).

Note:

Ensure rejector circuit (3) is fitted correctly.

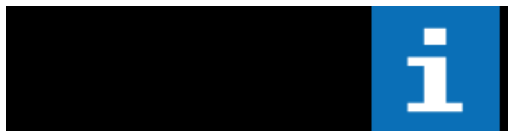
**Required reworking:**

- Install [right C/D-pillar trim](#)



Attention!

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

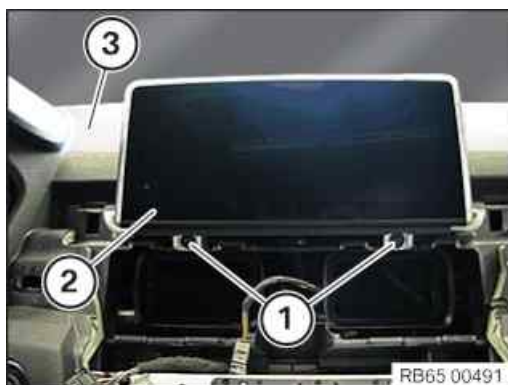


Necessary preliminary work:

- Remove [decorative strip on dashboard on right](#)

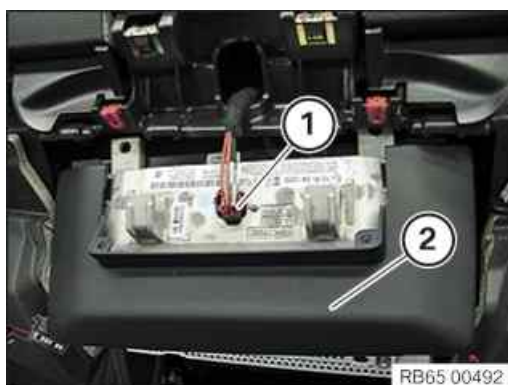


Removal:



Release screws (1).

Remove the CID (2) upwards out of the instrument panel (3).

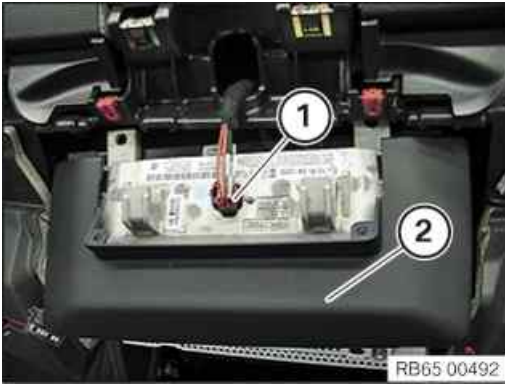


Unlock and disconnect the connector (1).

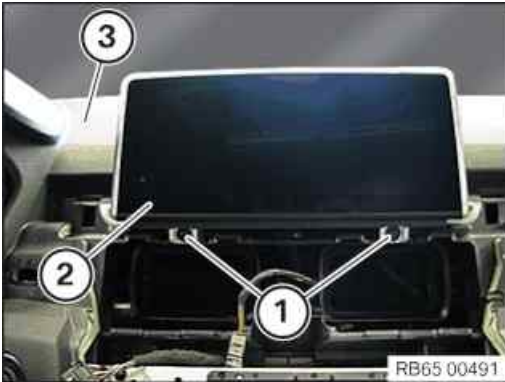
Remove CID (2).



Installation:



Plug in the connector (1) to the CID (2).

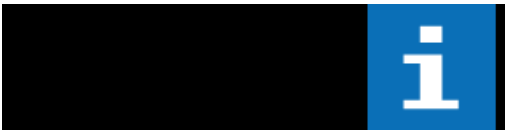


Feed in the CID (2) downwards into the instrument panel (3).

Make sure that the CID (2) is correctly seated.

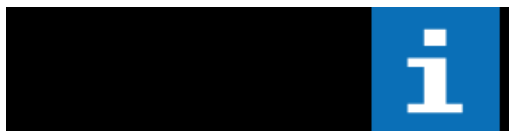
Tighten down screws (1).

Tightening torque [65 50 1AZ](#).



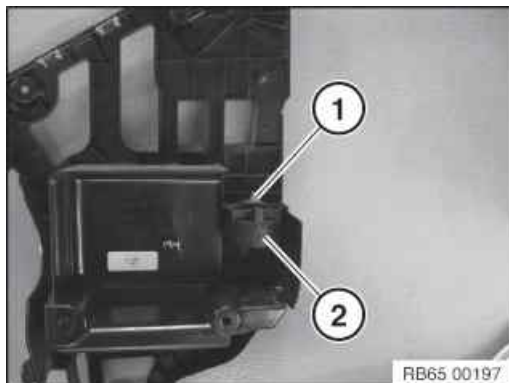
Required reworking:

- Install the [decorative strip on the right side of the instrument panel](#)



Necessary preliminary tasks:

- Remove [guide for rear right bumper](#)



Slacken nut (1).

Remove emergency power siren with tilt sensor (2).



Replacement:

Carry out [vehicle programming/encoding](#).

65 76 629 Removing and installing (replacing) pedestrian protection sensor (impact absorber)



Warning!

Observe [safety instructions](#) for handling gas generators.

Incorrect handling can activate pedestrian protection and cause injury.



Attention!

- [AFGS \(active pedestrian protection\) procedure after accident](#)



After accident:

Optical fibre must always be replaced.



Necessary preliminary tasks:

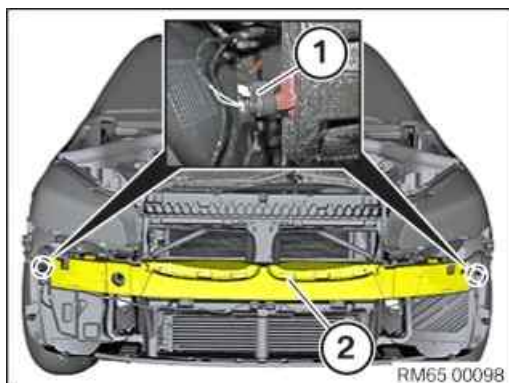
- Disconnect [battery earth lead](#)
- Remove [front bumper panel](#)



The impact absorber must not be reused.

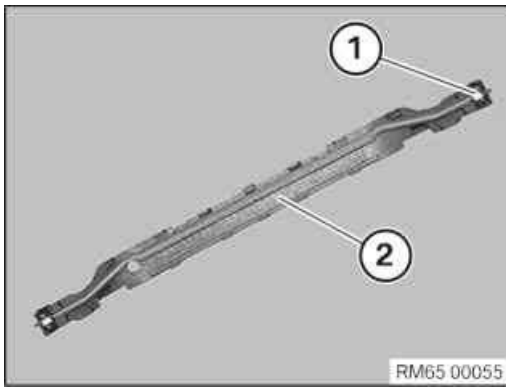


Removal:



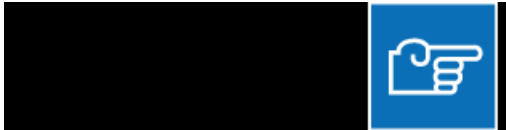
Unlock and disconnect the connector (1).

Remove impact absorber (2).

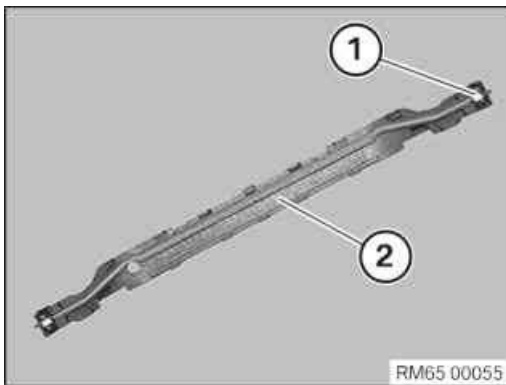


Remove optical fibre sensor (1) from impact absorber (2).

Dispose of the impact absorber (2). The impact absorber (2) must not be reused.



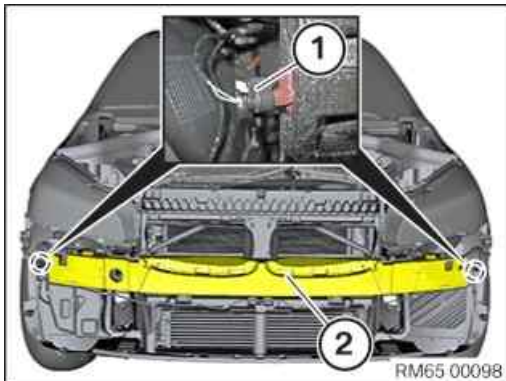
Installation:



Attention!

Check the new impact absorber (2) for damage to the retaining lugs.

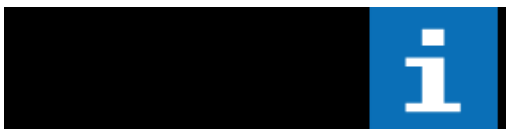
Insert optical fibre sensor (1) in impact absorber (2) and make sure it is correctly laid.



Note:

First attach impact absorber (2) at the bottom and then press on at the top.

Attach and lock connector (1).

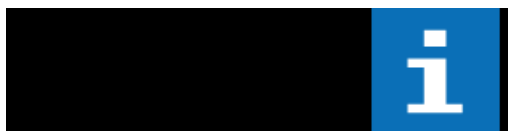


Required reworking:

- Install [front bumper panel](#)
- Connect [battery earth lead](#)

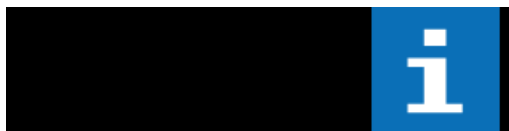
65 77 745

Remove and install (replace) the sensor for the right front door



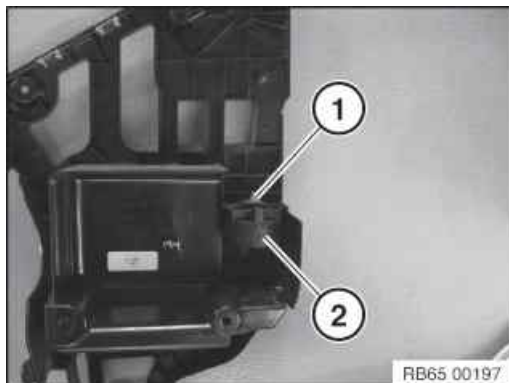
This operation is described in:

[Remove and install \(replace\) the sensor for the left front door](#)



Necessary preliminary tasks:

- Remove [guide for rear right bumper](#)



Slacken nut (1).

Remove emergency power siren with tilt sensor (2).



Replacement:

Carry out [vehicle programming/encoding](#).

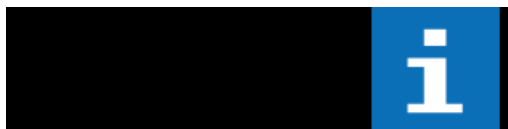
**Attention!**

Read and comply with notes on [protection against electrostatic discharge \(ESD protection\)](#)!

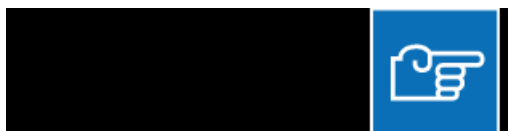
**Warning!**

Observe [airbag safety regulations](#)!

Incorrect handling can activate airbag and cause injury.

**Necessary preliminary tasks:**

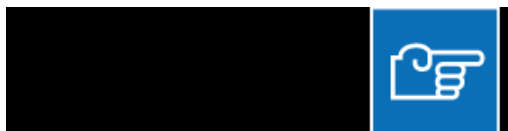
- [Disconnect negative battery lead](#) and cover
- Remove [trim panel for door post](#) (bottom)

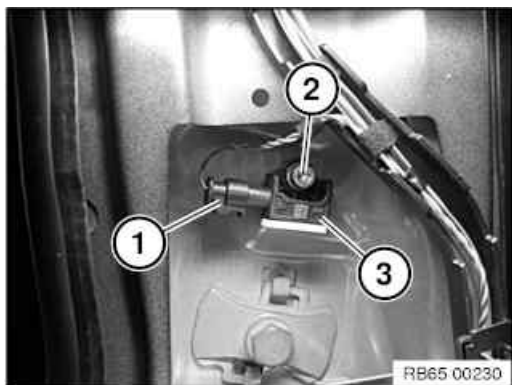
**Removal:**

Unfasten plug connection (1) and disconnect.

Release screw (2).

Remove sensor (3).

**Installation:**

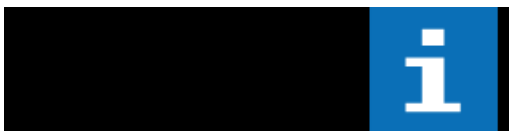


Mount the sensor (3).

Tighten screw (2).

Tightening torque [65 77 3AZ](#).

Connect and lock plug connection (1).



Required reworking:

- [Connect battery earth lead](#)
- Install [trim panel for door post \(bottom\)](#)

65 76 629 Removing and installing (replacing) pedestrian protection sensor (impact absorber)



Warning!

Observe [safety instructions](#) for handling gas generators.

Incorrect handling can activate pedestrian protection and cause injury.



Attention!

- [AFGS \(active pedestrian protection\) procedure after accident](#)



After accident:

Optical fibre must always be replaced.



Necessary preliminary tasks:

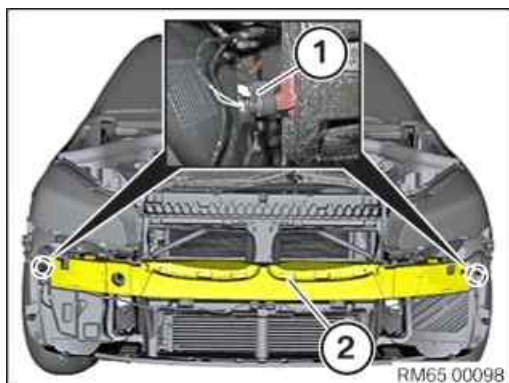
- Disconnect [battery earth lead](#)
- Remove [front bumper panel](#)



The impact absorber must not be reused.

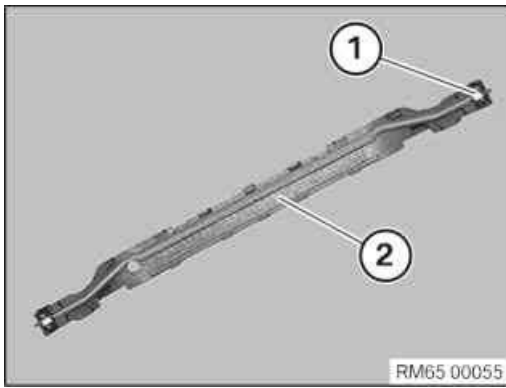


Removal:



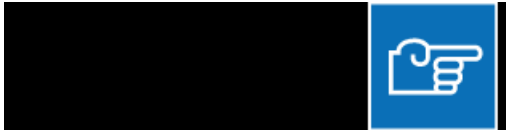
Unlock and disconnect the connector (1).

Remove impact absorber (2).

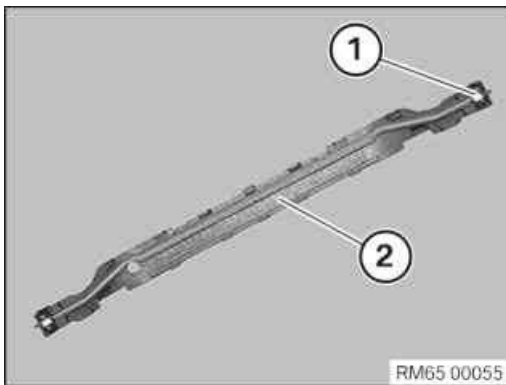


Remove optical fibre sensor (1) from impact absorber (2).

Dispose of the impact absorber (2). The impact absorber (2) must not be reused.



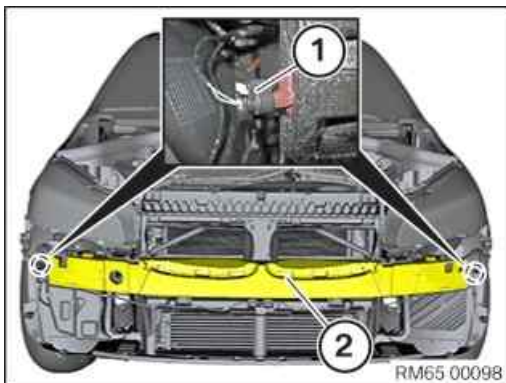
Installation:



Attention!

Check the new impact absorber (2) for damage to the retaining lugs.

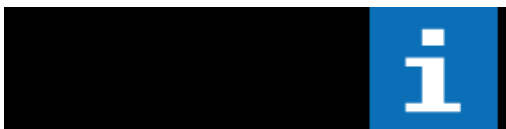
Insert optical fibre sensor (1) in impact absorber (2) and make sure it is correctly laid.



Note:

First attach impact absorber (2) at the bottom and then press on at the top.

Attach and lock connector (1).



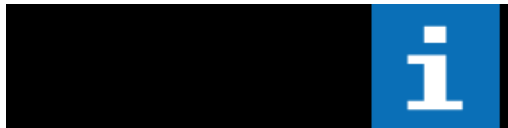
Required reworking:

- Install [front bumper panel](#)
- Connect [battery earth lead](#)

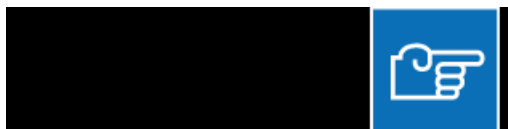
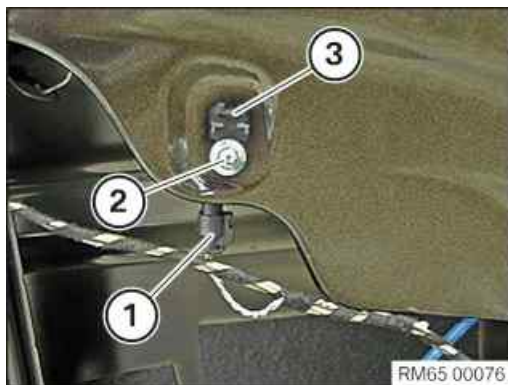
**Warning!**

Observe [airbag safety regulations!](#)

Incorrect handling can activate airbag and cause injury.

**Necessary preliminary tasks:**

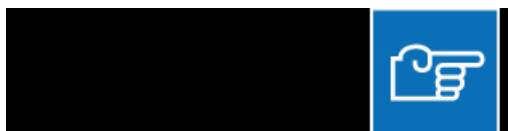
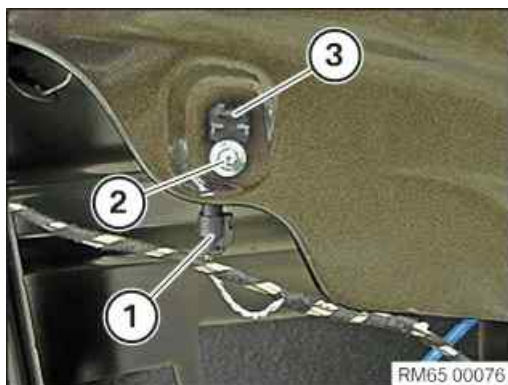
- Partially remove the [sound insulation from the front door](#)

**Removal:**

Unfasten plug connection (1) and disconnect.

Slacken nut (2).

Remove sensor (3) downwards.

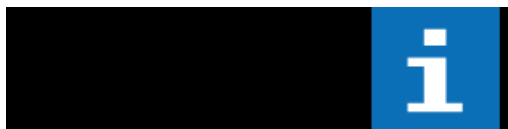
**Installation:**

Position sensor (3) correctly.

Tighten nut (2).

Tightening torque [65 77 4AZ](#).

Join and lock plug connection (1).

**Required reworking:**

- Attach [sound insulation at front door](#)

**Warning!**

[Note airbag safety regulations!](#)

Incorrect handling can activate airbag and cause injury.

**Attention!**

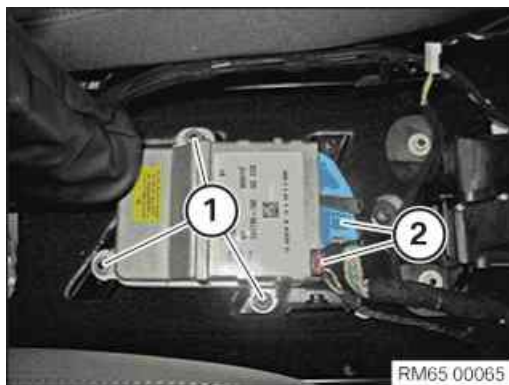
Read and comply with [notes](#) on protection against electrostatic damage (ESD protection).

**Necessary preliminary tasks:**

- Disconnect [battery earth lead](#)
- Remove [centre console](#).

On version with air duct:

- [Remove the air duct](#)

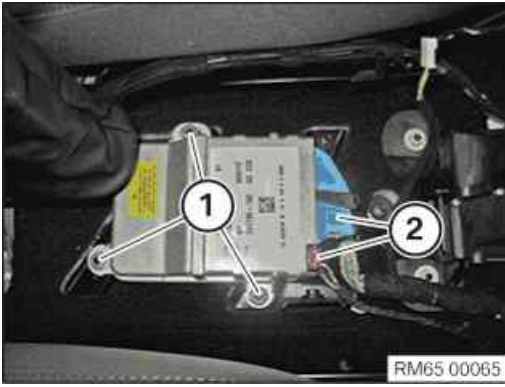
**Removal:**

Unscrew nuts (1).

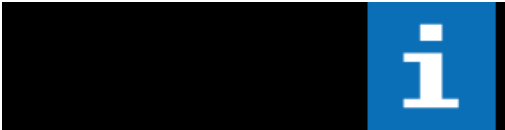
Unlock plug connections (2) and disconnect.

Remove airbag control unit (3).

**Installation:**



Position airbag control unit (3).
Tighten down nuts (1).
Join and lock plug connections (2).



Required reworking:

- Install [centre console](#)
- Connect [battery earth lead](#)

On version with air duct:

- [Install air duct](#)
- Run the service function to adjust the sensors for the driving dynamics as follows:
 - Chassis and suspension
 - Traction control system
 - Adjustment of the driving dynamics sensors

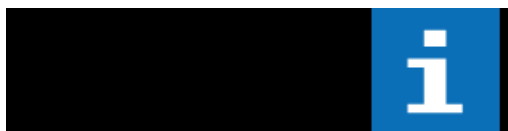


Replacement:

Carry out [programming/encoding](#).

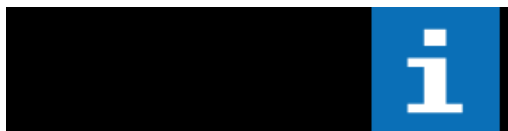
65 77 725

Removing and installing/replacing right B-pillar sensor



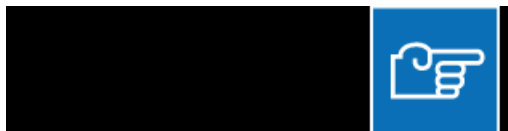
Operation is identical to:

[Removing and installing left B-pillar sensor](#)

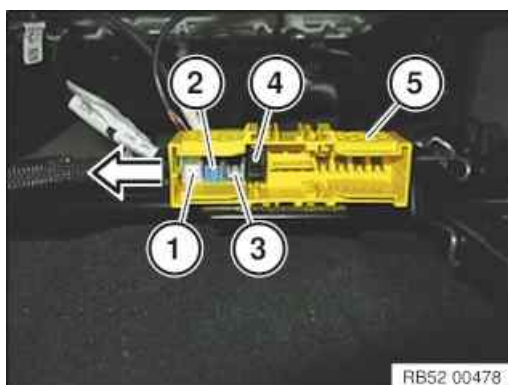


Necessary preliminary tasks:

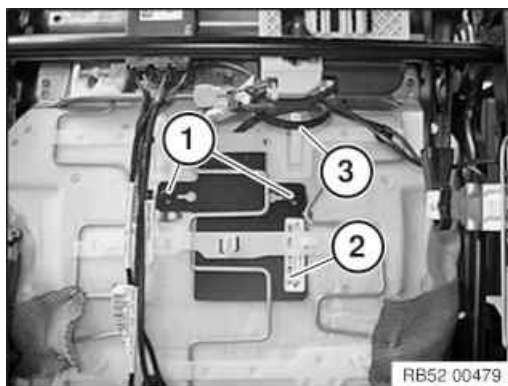
- Remove [front passenger seat](#)



Removal:

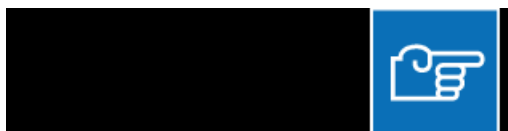


Unlock connector housing (1 to 4) and pull out of connector housing (5) in direction of arrow.

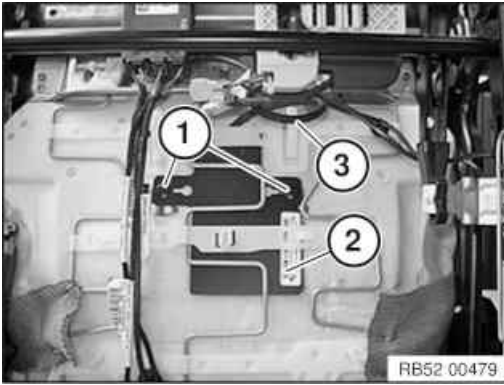


Release clips (1).

Carefully feed the sensor mat (2) and the cable (3) out of the seat mechanism.



Installation:

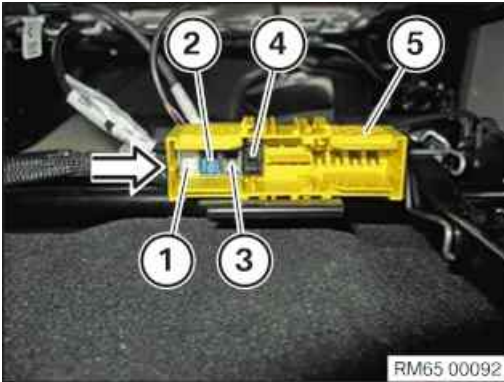


Attention!

Do not kink the sensor mat (2) and insert it correctly into the recess of the seat cushion.

Carefully insert the sensor mat (2) and the cable (3) into the seat cushion recess.

Secure the sensor mat (2) with the clips (1).

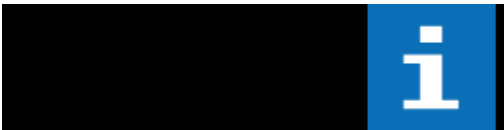


Insert the connector housing (1 to 4) into connector housing (5) in the direction of the arrow.

Note:

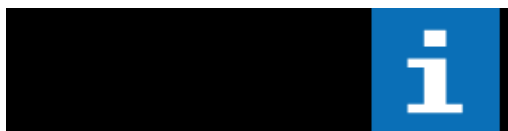
Connectors are encoded against incorrect assembly.

Ensure that connectors (1 to 4) are installed in the right sequence.

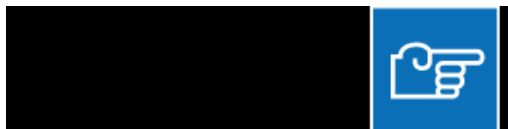
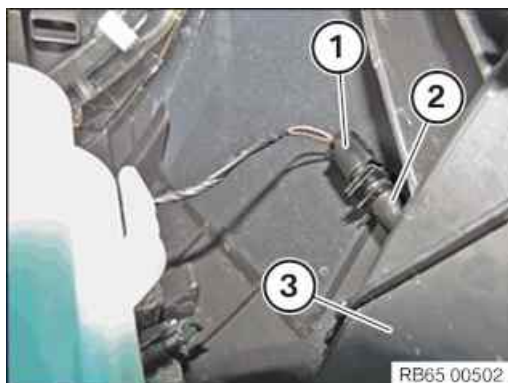


Required reworking:

- Install [front passenger seat](#)

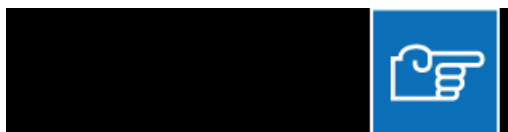
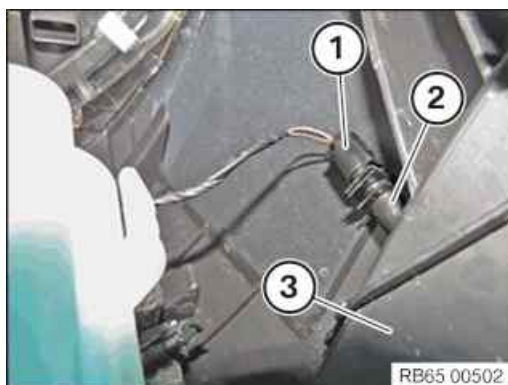
**Necessary preliminary tasks:**

- Partly detach [wheel arch cover at front right](#)

**Removal:**

Unfasten plug connection (1) and disconnect.

Pull out the outside temperature sensor (2) from the bumper panel (3).

**Installation:**

Properly position the outside temperature sensor (2) and slide it into the bumper panel (3).

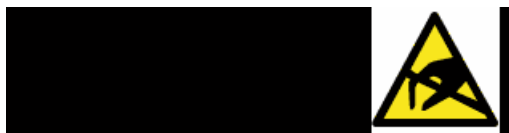
Connect plug connection (1).

Note:

Make sure the outside temperature sensor (2) is correctly fitted in the bumper panel (3).

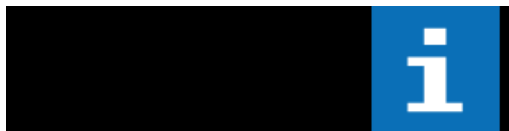
**Required reworking:**

- Install [front right wheel arch cover](#)



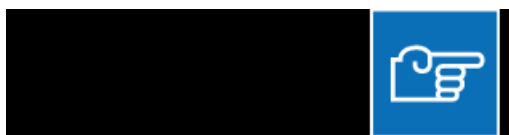
Important!

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

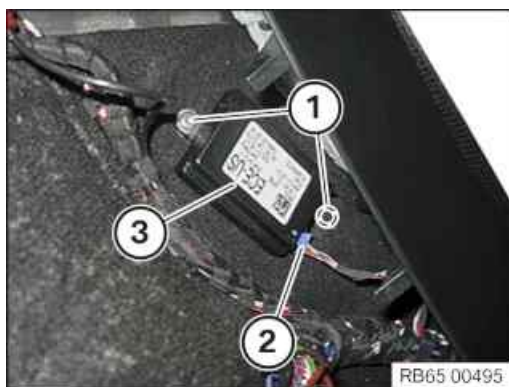


Necessary preliminary tasks:

- Remove [luggage compartment wheel arch panel on left](#).



REMOVAL:



Release screws (1).

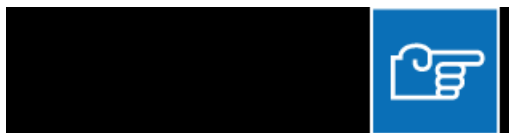
Disconnect connector (2).

Remove control unit (3).

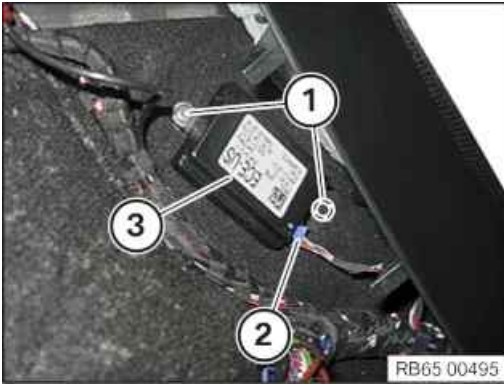


Replacement:

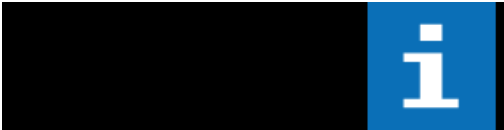
Carry out [vehicle programming and encoding](#).



INSTALLATION:



Position control unit (3).
Tighten down screws (1).
Connect connector (2).



Required reworking:

- Install [left luggage compartment wheel arch panel](#)



Important!

Risk of damage!

A hard disk is installed in the Car Information Computer (CIC).
Carry out mechanical work on the CIC and adjacent components with care.
Avoid subjecting the CIC to vibration / shocks.



Important!

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



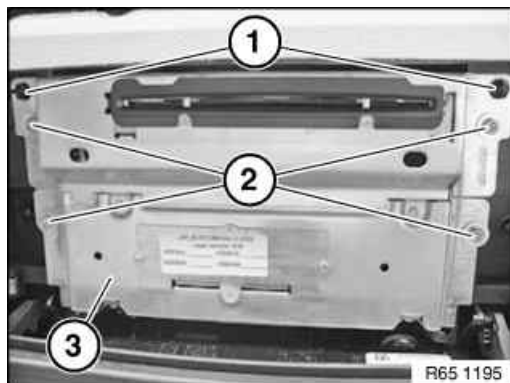
Note:

Comply with notes and notes on [handling optical fibres](#).



Necessary preliminary tasks:

- Disconnect [battery earth lead](#) (F03: Disconnect both battery earth leads).
- Remove [radio and IHKA controls](#)



Note:

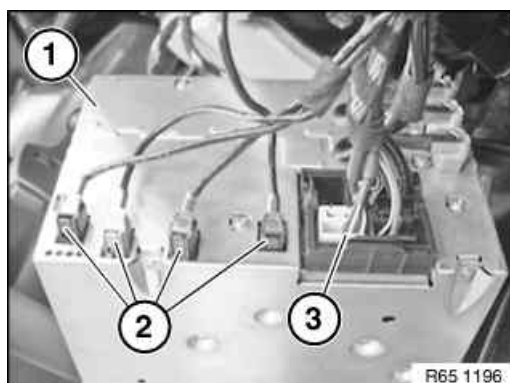
Picture for example purposes only!

Unfasten screws (2).

Pull CIC (3) out of guide.

Installation note:

Make sure CIC (3) is correctly seated in guide lugs (1).



Unlock plug connections (2) and (3) and disconnect.
Remove CIC (1).



Only for US models with satellite radio:

When replacing the CIC unit, additional work is required!

- Refer to document [Replacing satellite tuner, as of 09/2009](#).



Replacement:

Carry out [vehicle programming/encoding](#).

For vehicles with Teleservices optional equipment:

- Update services via menu in the central information display.

Load additionally for following vehicles' service history:

- 1-Series F2x, 3-Series F3x from series introduction
- F01, F02, F03, F07, F10, F11 with production date from 07/2013
- F06, F12, F13 with production date from 03/2014
- F15, F16 from volume production launch
- F18 with production date from 09/2013
- F25 with production date from 04/2014
- F26 as of series introduction

Load service history:

- 05 Maintenance and Pre-Delivery Check
- Service history

**Attention!**

Risk of damage!

There is a hard disk installed in the headunit.

Carry out mechanical work on the headunit and adjacent components with care.

Avoid subjecting the headunit to vibration/shocks.

**Attention!**

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

*Note:*

Comply with notes and notes on [handling optical fibres](#).

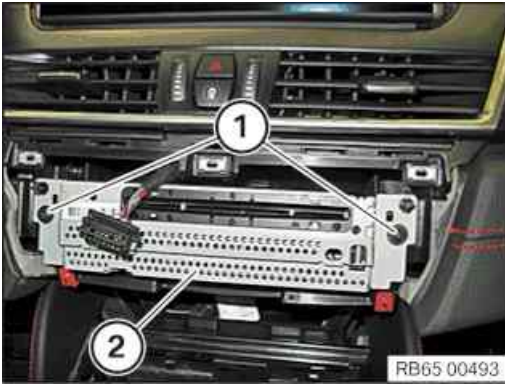
**Necessary preliminary work:**

- Disconnect [battery earth lead](#)
- Remove the [audio operating unit](#)
- Remove [centre console](#).

**REMOVAL:***Note:*

At the factory, the wiring harness (1) is routed so that not enough excess length exists to remove the head unit.

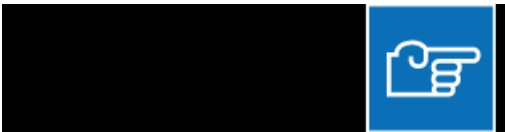
Expose wiring harness (1) as shown.



Release screws (1).
Pull out the headunit (2) a bit.



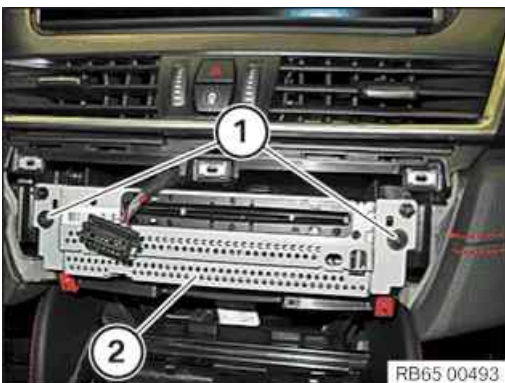
Unlock and disconnect all connectors in the marked area.
Remove headunit (1).



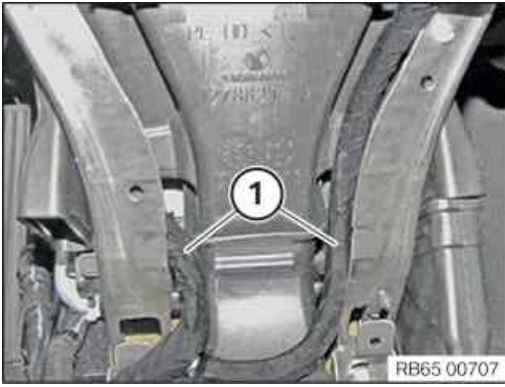
INSTALLATION:



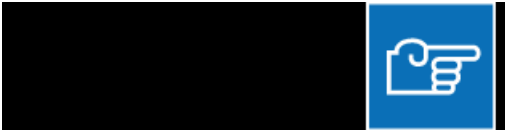
Position headunit (1).
Connect and lock all plug connections in the marked area.



Correctly insert the headunit (2).
Tighten down screws (2).



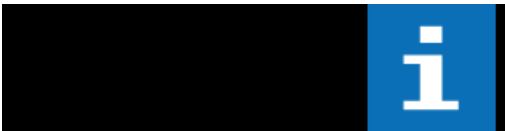
Lay wiring harness (1) as shown.



Only for US models with satellite radio:

Additional work is required when replacing the headunit!

- Refer to document [Replacing satellite tuner, as of 09/2009](#).



Required reworking:

- Install the [audio operating unit](#)
- Connect [battery earth lead](#)
- Install [centre console](#)



Replacement:

Carry out [programming/encoding](#).

[On vehicles with a production date as from 07/2015, install the correct navigation map.](#)

Importing the Service history:

- 05 Maintenance and Pre-Delivery Check
- Service history

**Attention!**

Risk of damage!

There is a hard disk installed in the head unit.

Carry out mechanical work on the head unit and adjacent components with care.

Avoid subjecting the head unit to vibration/shocks.

**Attention!**

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

*Note:*

Comply with notes and notes on [handling optical fibres](#).

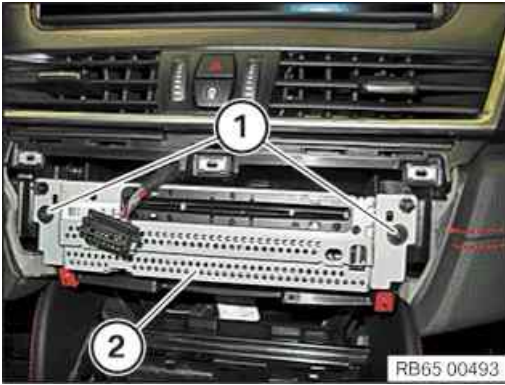
**Necessary preliminary work:**

- Remove the [audio operating unit](#)
- Disconnect [battery earth lead](#)
- Remove [centre console](#)

**REMOVAL:***Note:*

At the factory, the wiring harness (1) is routed so that not enough excess length exists to remove the head unit.

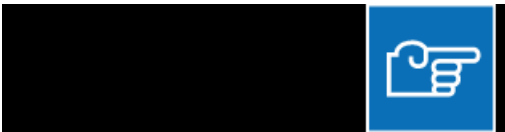
Expose wiring harness (1) as shown.



Release screws (1).
Pull out the head unit (2) a bit.



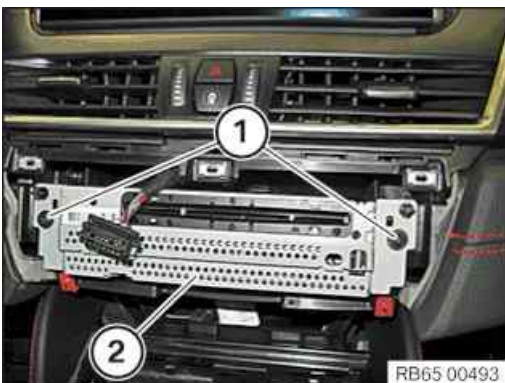
Unlock and disconnect all connectors in the marked area.
Remove head unit (1).



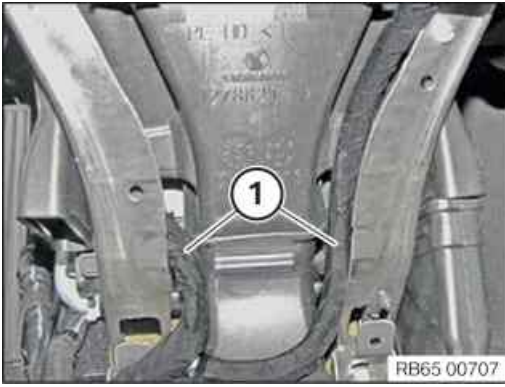
INSTALLATION:



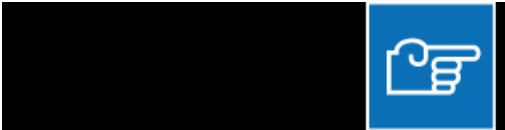
Position head unit (1).
Connect and lock all plug connections in the marked area.



Correctly insert the head unit (2).
Tighten down screws (1).



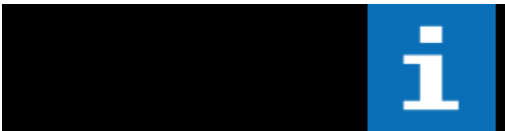
Lay wiring harness (1) as shown.



Only for US models with satellite radio:

Additional work is required when replacing the head unit!

- Refer to document [Replacing satellite tuner, as of 09/2009](#).



Required reworking:

- Install the [audio operating unit](#)
- Connect [battery earth lead](#)
- Install [centre console](#)



Replacement:

Carry out [programming/encoding](#).

[On vehicles with a production date as from 07/2015, install the correct navigation map.](#)

Importing the Service history:

- 05 Maintenance and Pre-Delivery Check
- Service history

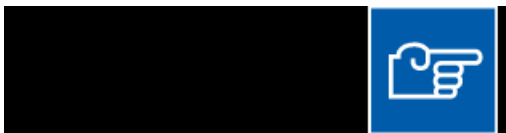


Initialise component protection (F45, F46, F48):

After renewal of the BDC **or** after installation of a **used** head unit, the component protection in the head unit must be initialised once again.

For this purpose, the following steps must be carried out:

1. Request enabling code from Technical Support.
 2. Apply the following immediate measures to reinitialise component protection using the diagnosis system:
 - Vehicle handling
 - Software update
 - Additional software
 - Initialisation of component protection in the head unit (HU)
- Observe instructions without fail!

**The following applies in general:**

To avoid damage, observe the following instructions:

- Avoid compressive and tensile loads
- To ensure professional repairs, perform repair work only with BMW-approved or recommended special tools and spare parts
- Make sure cables are laid without kinks or abrasions
- Ensure non-contacting routing at sharp-edged body parts; use edge protection if necessary
- Secure additionally laid cables/leads with cable ties

The following additionally applies:Shielded lines

Interference radiation and interference resistance can lead to neutral zones at contact points in the shielding. Consequently, distinctions have to be drawn between the following types:

Coaxial lines

- Shielded coaxial cables RTK031 may only be repaired with a special [crimping tool](#).
- For aerial lines only the bushing contact may be repaired.
- RG174 Lines and the bushing contact may not be repaired.

CVBS lines

- CVBS cables may not be repaired.
- CVBS cables must be replaced in their entirety.

HSD lines

- HSD cables may not be repaired.
- HSD cables must be replaced in their entirety.

Optical fibre cable:*Note:*

Fibre-optic cables are coloured differently as follows:

- Green = **MOST** (**M**edia **O**riented **S**ystems **T**ransport) optical fibres
- Yellow = **ISIS** (**I**ntelligent **S**afety and **I**ntegration **S**ystem) optical fibres
- Orange=repair fibre-optic cables

Attention!

- Optical fibres are permitted to show only one junction point (bridge). Replace optical fibres if necessary
- Smallest permissible bending radius is 25 mm
- Avoid effects of heat $\geq 85^{\circ}$

[Treating cables and fibre-optic cables](#)FlexRay (twisted cables):

It is possible to repair the FlexRay. In the event of damage, the cables can be joined with conventional [butt connectors and heat-shrink tubing](#).

Note:

- FlexRay lines may only reveal one separation point (bride); renew complete line if necessary.
- If possible, maintain twisted cable after repair.
- After repairs, twist cables as close as possible to the connector/separation point.
- Twisting must be as symmetrical as possible.

Airbag lines:

[Repairing airbag cables](#)

Ribbon cables:

[Repairing ribbon cables](#)

Replacing wiring harnesses

Repair wiring harnesses mainly cover the full equipment of the vehicle. If certain optional equipment is not installed in the vehicle, note the following:

- If necessary, secure the remaining connectors.
- If necessary, seal the remaining connectors outside the vehicle interior, for example, with butyl tape in such a way that moisture ingress can be eliminated permanently.
- [If necessary, repin the connector of the repair wiring harness.](#)

Note:

Repair wiring harnesses can be equipped with an **additional socket housing** (30-pin, for example), **which was not provided on the previous vehicle-side wiring harness**. This socket housing also cannot be found in the wiring diagram.

Procedure

The separation point between the vehicle-side wiring harness and the repair wiring harness is located **in the vehicle interior** (in the footwell, for example):

- Cut the additional socket housing and connect the lines to the vehicle-side wiring harness using a butt connector.
- Alternatively, a suitable pin housing can be fitted on the vehicle-side wiring harness and connected to the additional socket housing.

However, this is permitted only if the following conditions are met:

- Carpets must not protrude visibly or become deformed due to the installation of the additional plug connection.
- It must be possible to install the adjacent components (for example, trims, trim panels, etc.) correctly after installing the additional plug connection.
- All the attachment points of the adjacent components (for example, trims, trim panels, etc.) must engage correctly.
- There must be no rattling noise due to the installation of the additional plug connection.
- The additional plug connection must not damage the adjacent components/wiring harnesses, etc..

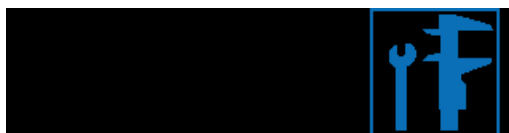
The separation point between the vehicle-side wiring harness and the repair wiring harness is located **outside the vehicle interior** (in the wheel arch, for example):

- Cut the additional socket housing and connect the lines to the vehicle-

side wiring harness using a butt connector.

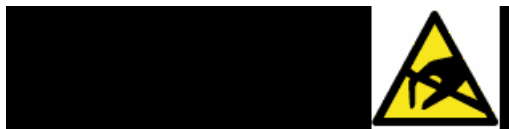
- **Using the additional socket housing is not permitted with a separation point outside the vehicle interior.**

65 12 071 Removing and installing or replacing amplifier



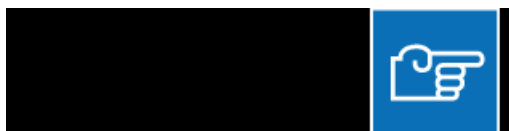
Special tools required:

- [00 9 327](#)



Important!

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



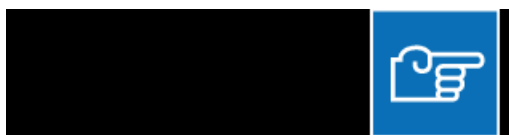
Note:

Comply with notes and notes on [handling optical fibres](#).

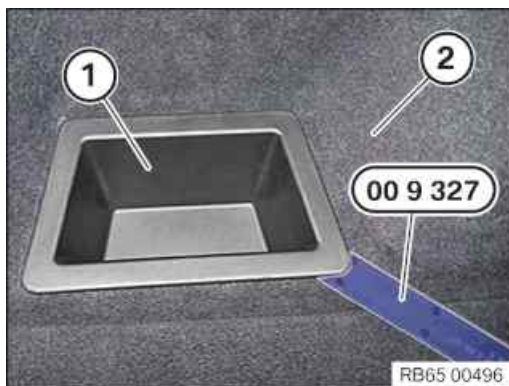


Necessary preliminary tasks:

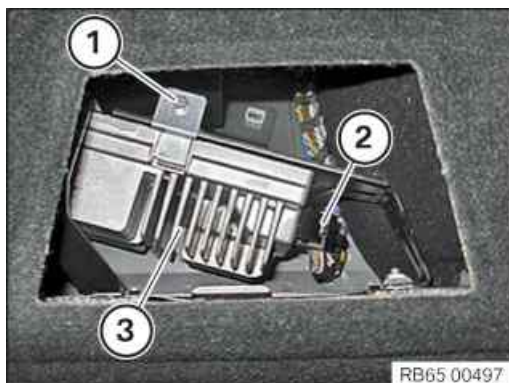
- Disconnect [battery earth lead](#)



REMOVAL:



Remove storage compartment (1) with special tool [00 9 327](#) from luggage compartment of left wheel arch panel (2).



Release screw (1).

Unlock and disconnect connector (2).

Remove amplifier (3) and feed out towards top.

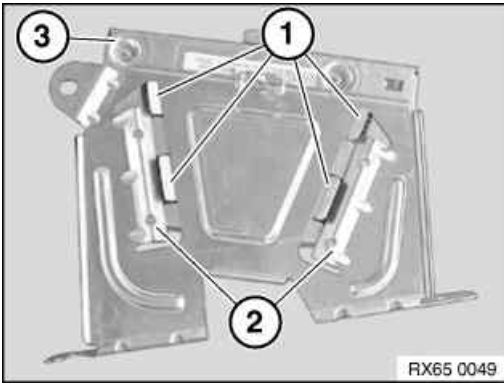


Replacement:

In Harman Kardon version, perform [vehicle programming and encoding](#).



INSTALLATION:



Note:

Lugs (1) must be correctly slid into guide (2).

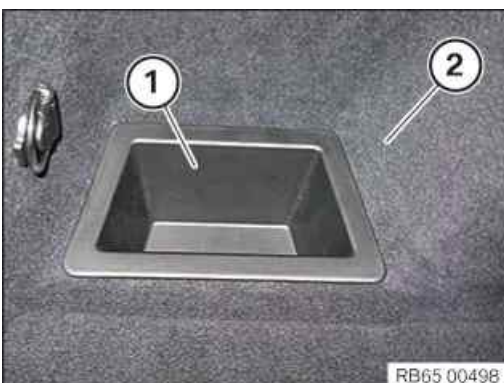
Check that amplifier (3) is securely seated.



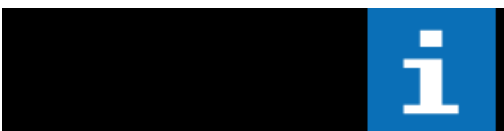
Feed in amplifier (3) and position correctly.

Tighten screw (1).

Connect connector (2) and lock.

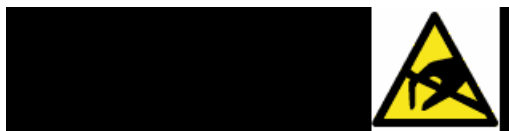


Fit storage compartment (1) correctly in luggage compartment of left-wheel arch panel (2).



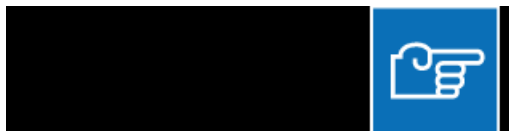
Required reworking:

- Connect [battery earth lead](#)



Important!

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



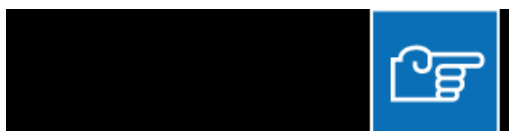
Note:

Comply with notes and notes on [handling optical fibres](#).



Necessary preliminary tasks:

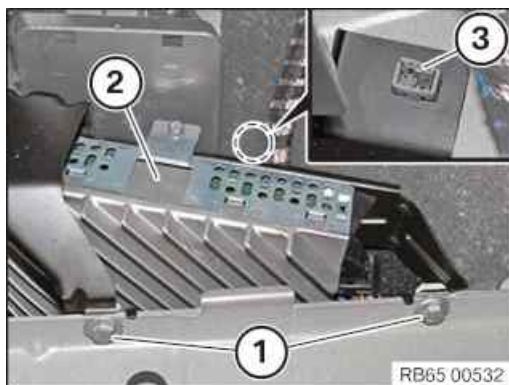
- Disconnect [battery earth lead](#)
- Remove [luggage compartment wheel arch panel on left](#).



Removal:

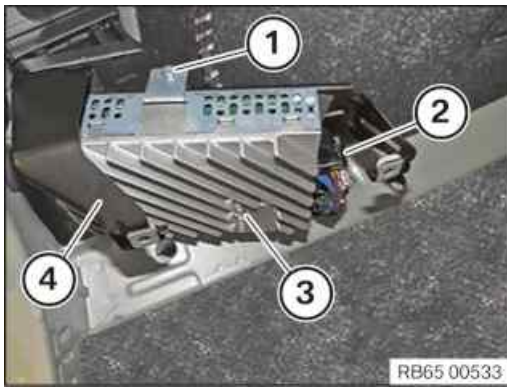


Remove shaped part (1).

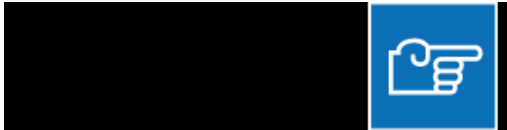


Release screws (1).

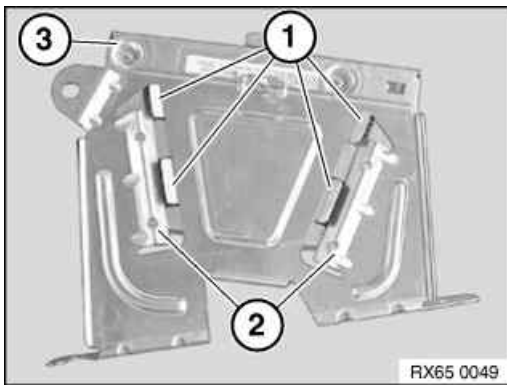
Disengage amplifier with holder (2) out of the Latch mechanism (3) upwards and remove.



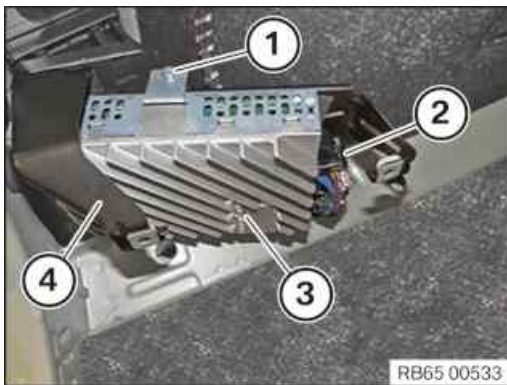
Release screw (1).
Unlock and disconnect connector (2).
Lift out amplifier (3) from holder (4).



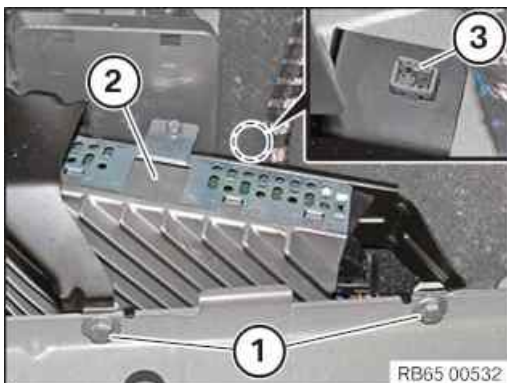
Installation:



Note:
Lugs (1) must be correctly slid into guide (2).
Check that amplifier (3) is securely seated.



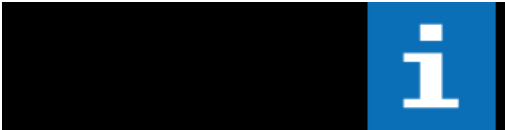
Push amplifier (3) into holder (4) downwards.
Connect connector (2) and lock.
Tighten screw (1).



Push amplifier with holder (2) into latch mechanism (3) downwards.
Tighten down screws (1).



Position shaped part (1) correctly.



Required reworking:

- Connect [battery earth lead](#)
- Install [luggage compartment wheel arch panel, left](#)



Replacement:

In Harman Kardon version, perform [vehicle programming and encoding](#).