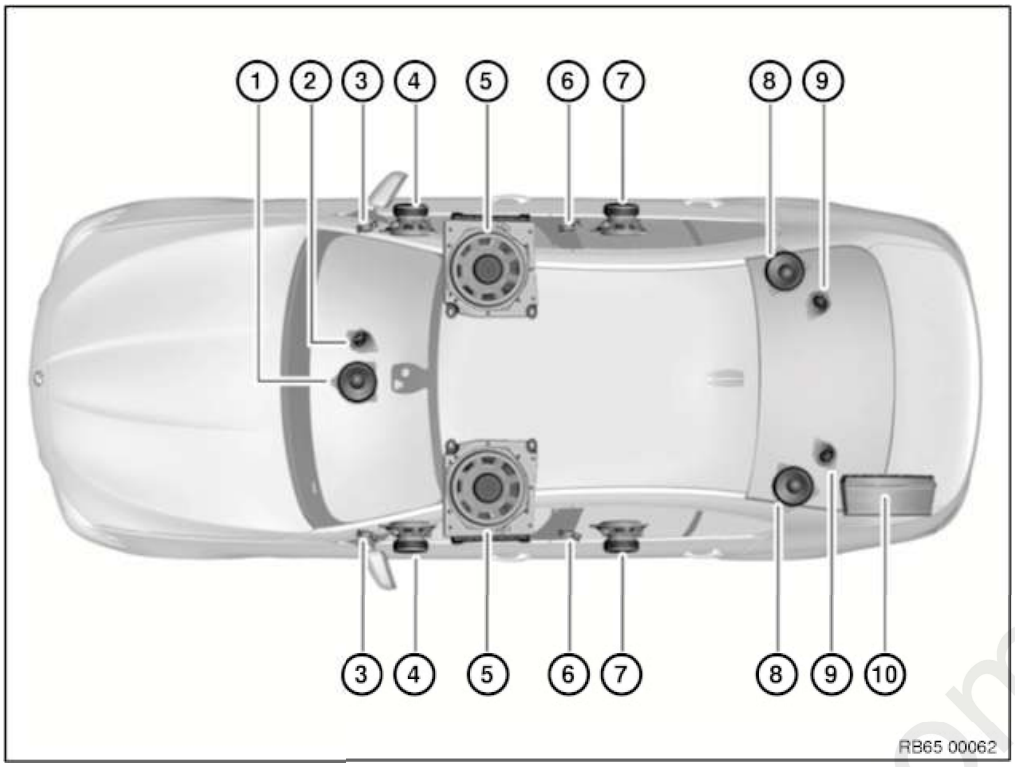
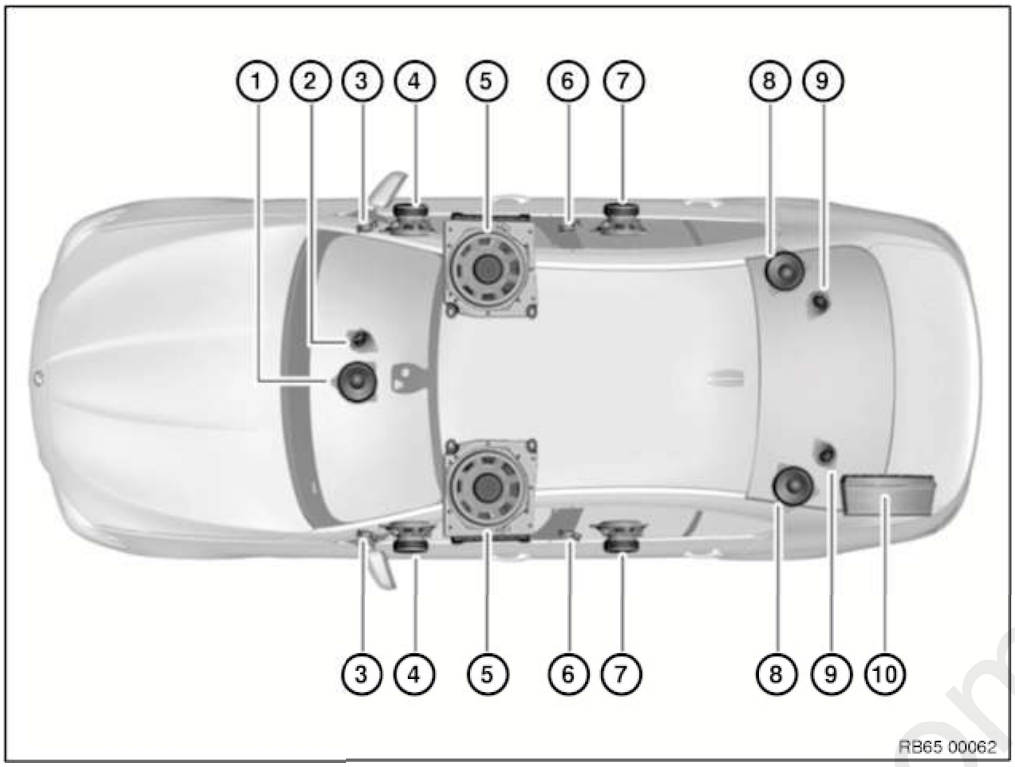
65 00 ... Overview of audio components



1 Mid-range speaker, front (centre)
2 Tweeter, front (centre)
3 Tweeter mirror triangle
4 Mid-range speaker, door, front
5 Bass speaker under front seat
6 Tweeter, door, rear
7 Mid-range speaker, door, rear
8 Mid-range speaker storage shelf
9 Tweeter storage shelf
10 Amplifier

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65 00 ... Overview of audio components



1 Mid-range speaker, front (centre)
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3 Tweeter mirror triangle
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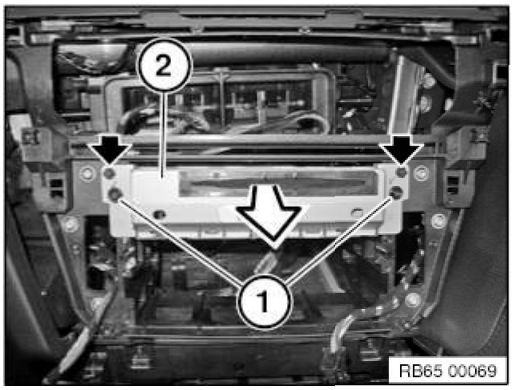
65 12 210 Removing and installing/replacing CHAMP radio receiver (BMW Professional radio)

Important!

Read and comply with notes on protection against electrostatic discharge (ESD protection).

Necessary preliminary tasks:

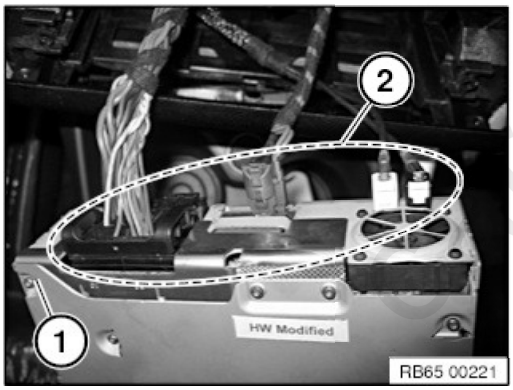
- Disconnect battery negative cable
- Remove radio and IHKA controls



Release screws (1).

Pull out the CHAMP (2) to the front.

Installation note:
Make sure CHAMP (2) is correctly seated on retaining lugs at the marked points.



Unlock plug connections (2) and disconnect.

Remove CHAMP (1).

Replacement:

Carry out vehicle programming/encoding.

For vehicles with Teleservices optional equipment:

- Update services via menu in the central information display.

Load service history:

- 05 Maintenance and Pre-Delivery Check
- Service history

65 11 075 Removing and installing/replacing DVD changer

Special tools required:

- 00 9 325

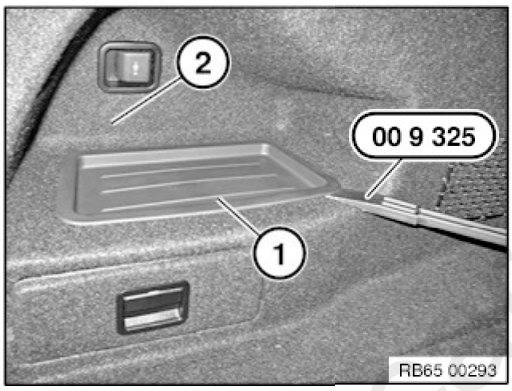
Important!

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

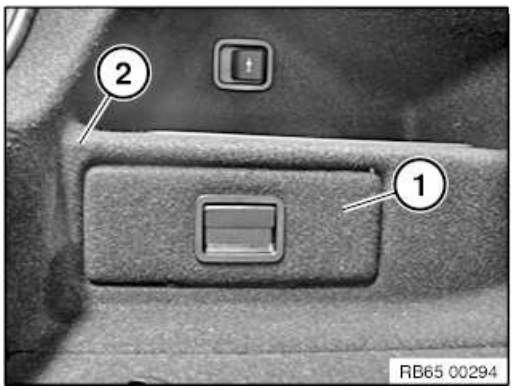
Note:
Comply with notes and notes on handling optical fibres.

Necessary preliminary tasks:

- Disconnect battery earth lead

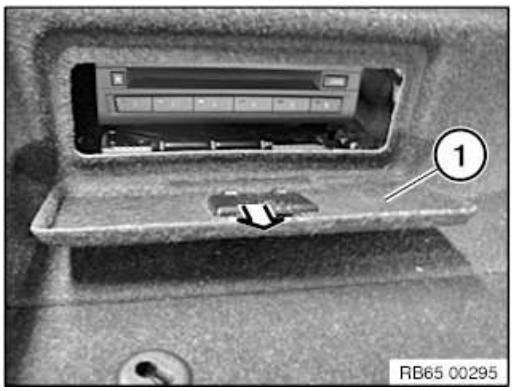


Use special tool 00 9 325 to remove luggage compartment floor storage tub (1) from left luggage compartment wheel arch panel (2).

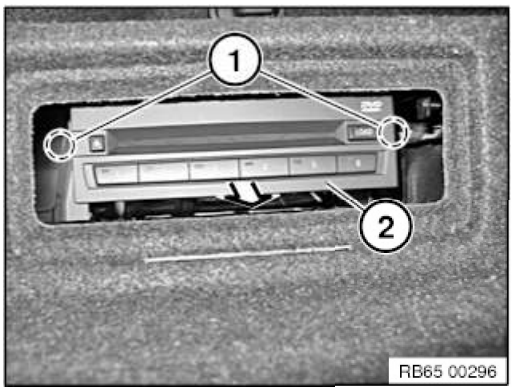


Open flap (1) of luggage compartment wheel arch panel (2).

carsdiagn.com



Remove flap (1) in direction of arrow.

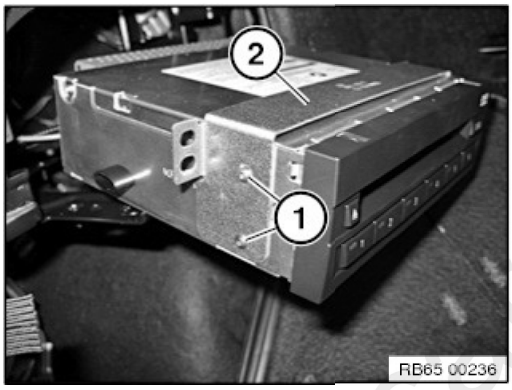


Note:
Secure screws (1) against falling out.

Release screws (1).

Slightly pull out DVD changer (2) and unlock and disconnect related plug connection.

Remove DVD changer (2).



<u>Replacement:</u>

Release left and right screws (1).

Remove retaining bracket (2) from DVD changer.



<u>Replacement:</u>

Carry out vehicle programming/coding.

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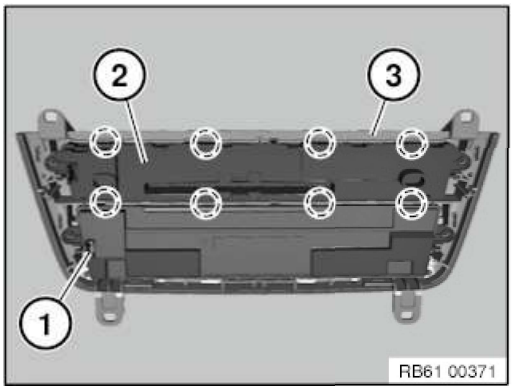
61 31 823 Replace ACP (for vehicles equipped with CID)

Important!

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

Necessary preliminary tasks:

- Remove radio and IHKA controls



Disconnect plug connection (1).

Unclip audio operating unit (2) at the marked points using a suitable tool (such as a screwdriver - 3 mm blade).

Remove the audio operating unit (2) from the cover (3) toward the rear.

Installation note:
Audio control unit (2) must noticeably and audibly snap into cover (3).

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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

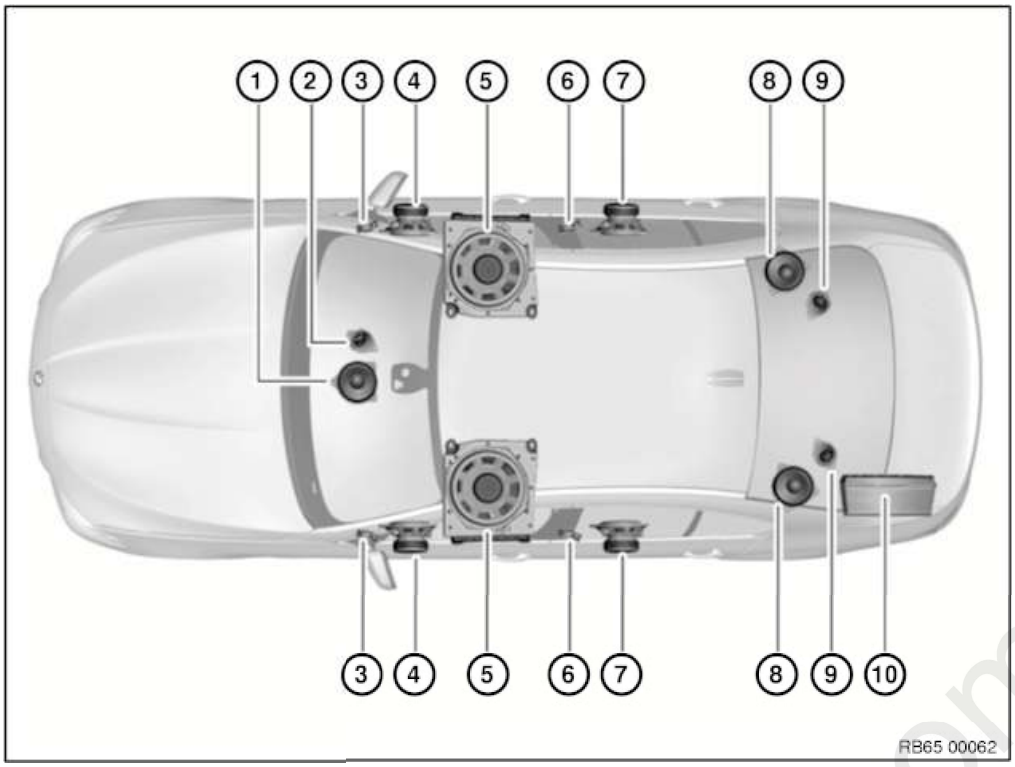
Go to the following path for more information on navigation, such as update variants, new features and compatibility tables:

After-sales Assistance Portal (ASAP)

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

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65 00 ... Overview of audio components



1 Mid-range speaker, front (centre)
2 Tweeter, front (centre)
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4 Mid-range speaker, door, front
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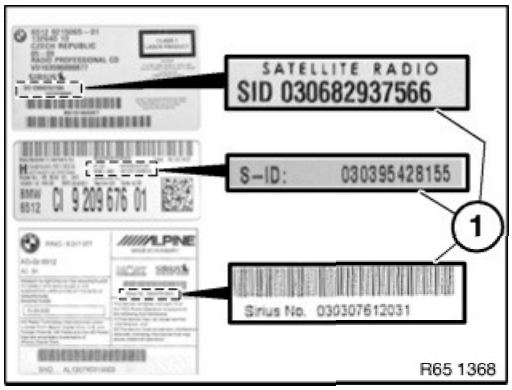
65 12 220 Remove and install (replace) the satellite radio (SDARS), (US version from 09/2009 only)

Necessary preliminary tasks:

- Remove Car Information Computer (CIC)

For equipment specification with head unit:

- Remove headunit



When replacing, please observe:

Note SID number (1) of the removed device.

Note:
The SID number (1) can be found on the label of the housing. Location may be different, depending on the equipment manufacturer.

Note SID number (1) of the new device in the same way.

Input the enabling code from the Aftersales Assistance Portal (ASAP).

Replacement:

Carry out programming/encoding.

Note:
Please contact Sirius. Use the SID number to cancel current device and register new one.

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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-

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65 12 320 Removing and installing (replacing) Headunit Basis

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.

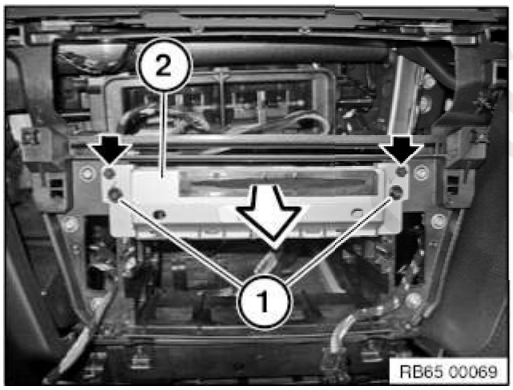
Avoid subjecting the headunit to vibration/shocks.

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 tasks:

- Remove radio and IHKA control panel
- Disconnect battery earth lead (F03: Disconnect both battery earth leads).

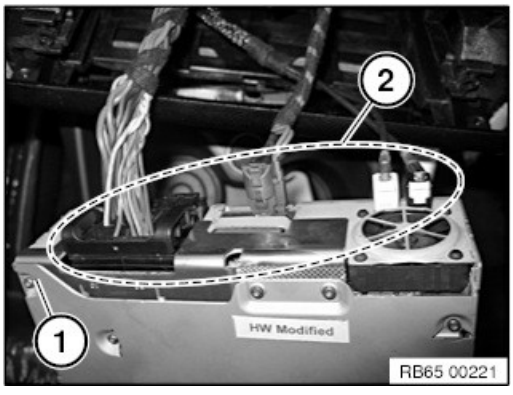


Note:
Picture for example purposes only!

Release screws (1).

Pull head unit (2) forward.

Installation note:
Check head unit (2) is correctly seated on retaining lug at marked points.



Unlock and disconnect all plug connections (2) in the marked area.

Remove headunit (1).

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.



Replacement:

Carry out programming/encoding.

Install correct navigation map in vehicles with production date starting from 07/2015.

Additionally load service history for the following vehicles:

- 1 series and 2 series F2x, 3 series and 4 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

Importing the Service history:

- 05 Maintenance and Pre-Delivery Check
- Service history

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65 12 315 Removing and installing (replacing) HU-H)

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.

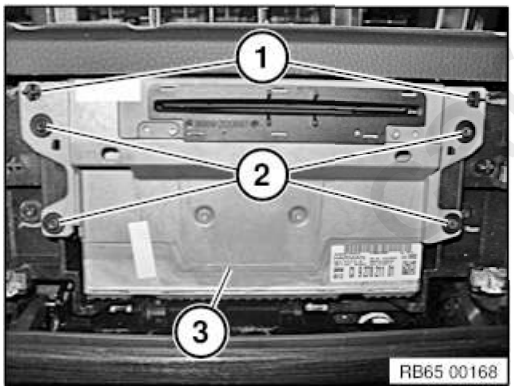
Avoid subjecting the head unit to vibration/shocks.

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 radio and A/C control panel
- Disconnect battery earth lead (F03: Disconnect both battery earth leads).



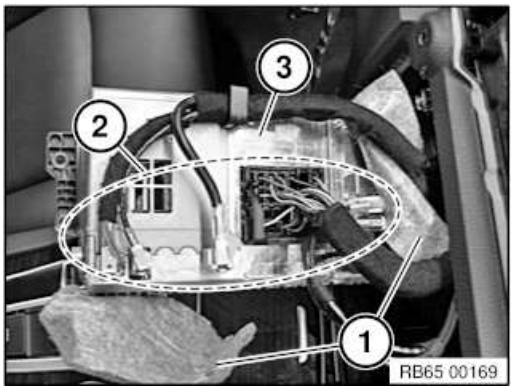
Note:
Picture for example purposes only!

Unfasten screws (2).

Tightening torque 65 12 3AZ.

Pull headunit (3) out of guide.

Installation note:
Make sure head unit (3) is *correctly seated* in guide lugs (1).



Set the protective nonwoven material (1) aside as shown.

Unlock plug connections·(2) and disconnect.

Remove headunit (3).

diag.com

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.



Replacement:

Carry out programming/encoding.

Install correct navigation map in vehicles with production date starting from 07/2015.

Additionally load service history for the following vehicles:

- 1 series and 2 series F2x, 3 series and 4 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

Importing the Service history:

- 05 Maintenance and Pre-Delivery Check
- Service history



Initialise component protection (only F15, F16, F85, F86):

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!

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65 12 315 Removing and installing (replacing) HU-H)

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.

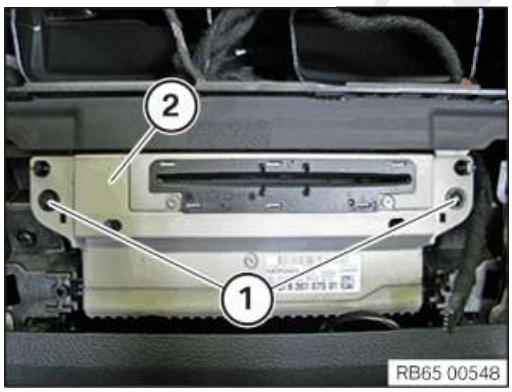
Attention!
Read and comply with notes on protection against electrostatic damage (ESD protection).

Note:
Comply with notes and notes on handling optical fibres.

Necessary preliminary tasks:

- Remove radio and IHKA control panel
- Disconnect battery earth lead

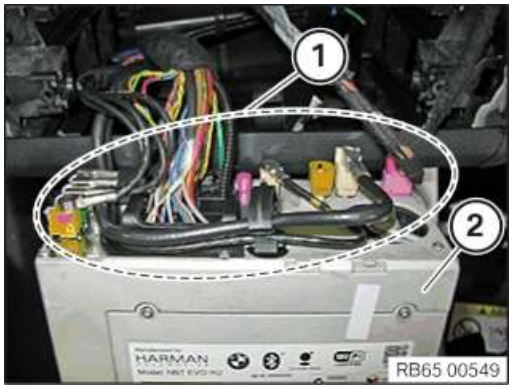
Removal:



Release screws (1).

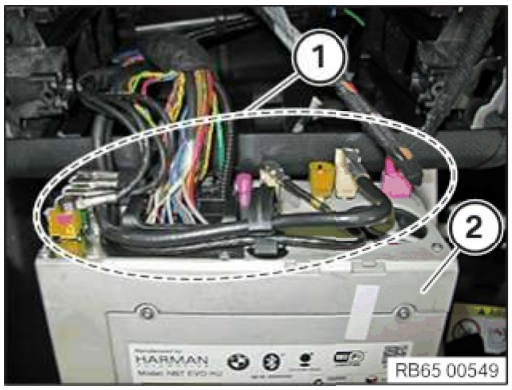
Pull the HU-H (2) out forward.

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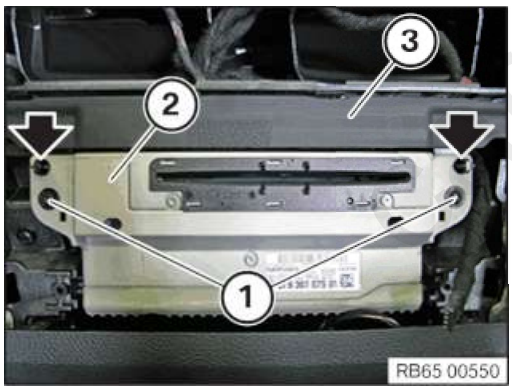


Unlock and disconnect all connectors (1) in marked area.
Remove HU-H (2).

Installation:



Position HU-H (2).
Connect and lock all the connectors (1) in the marked area.



Slide the HU-H (2) toward the back into the instrument panel (3).
Tighten down screws (1).

Note:
Make sure the HU-H (2) is correctly seated on the retaining lugs at the marked points.

Required reworking:

- Install the radio and IHKA control panel
- Connect battery earth lead

<u>Only for US models with satellite radio:</u>

Additional work is required when replacing the headunit!

- Refer to document Replacing satellite tuner, as of 09/2009.



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

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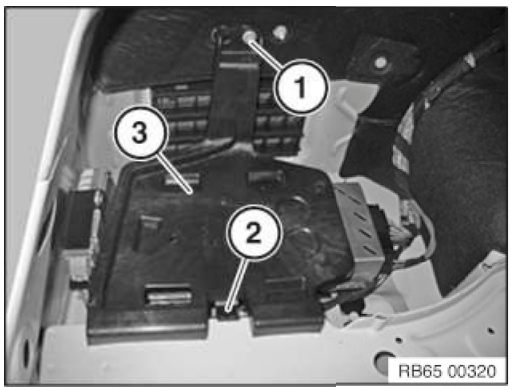
65 12 072 Removing and installing or replacing amplifier

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
- Partially remove luggage compartment wheel arch panel on left

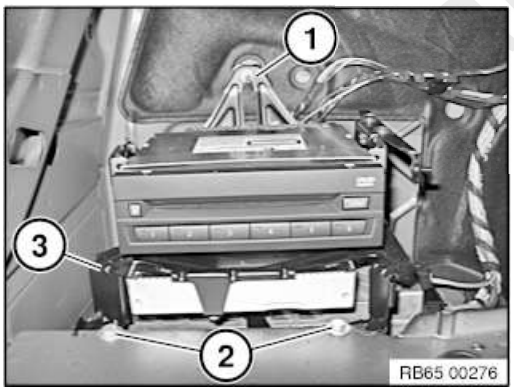


Slacken nut (1).

Unlock catch (2).

Remove cover (3).

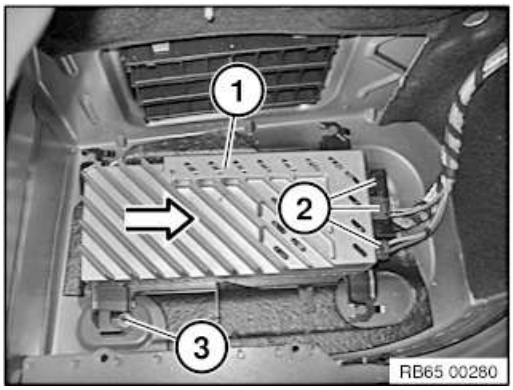
Installation note:
Make sure cover (3) is correctly seated.



<u>Version with TV module or DVD changer:</u>

Unscrew nut (1) and bolts (2).

Take off holder (3).

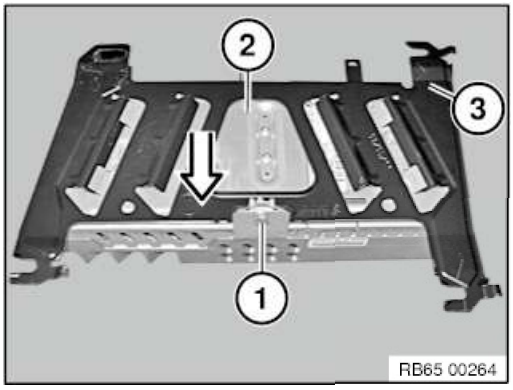


Unscrew nut (3).

Unlock plug connections (2) and disconnect.

Remove amplifier (1) with holder in direction of arrow.

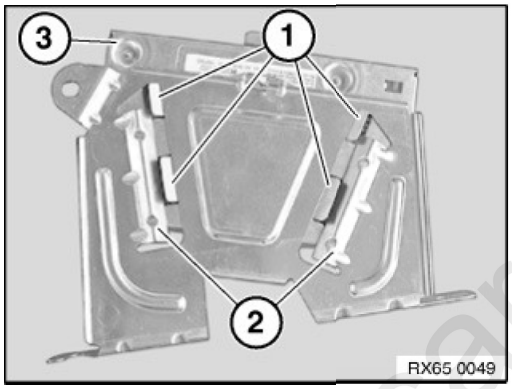
Installation note:
Make sure amplifier (1) is correctly seated.



Replacement:

Release screw (1).

Pull amplifier (2) out of holder (3) in direction of arrow.



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

Check that amplifier (3) is securely seated.

Replacement:

In Harman Kardon version, perform vehicle programming and encoding.

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61 31 321 Removing and installing radio and A/C control panel

Special tools required:

- 00 9 340

Attention!
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.

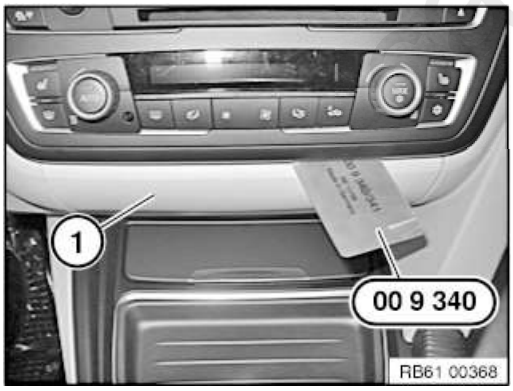
Attention!
Read and comply with notes on protection against electrostatic damage (ESD protection).

Attention!
Carry out installation in a dust-free workshop area only.

To avoid damage, do not touch or dirty the display area.

Necessary preliminary tasks:

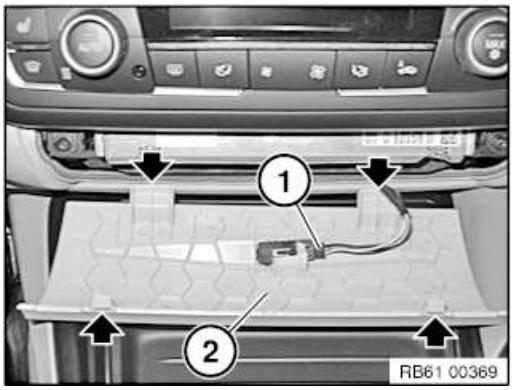
- Remove decorative strip on dashboard in middle



Insert special tool 00 9 340 as illustrated.

Carefully lever out trim (1) towards front and unclip.

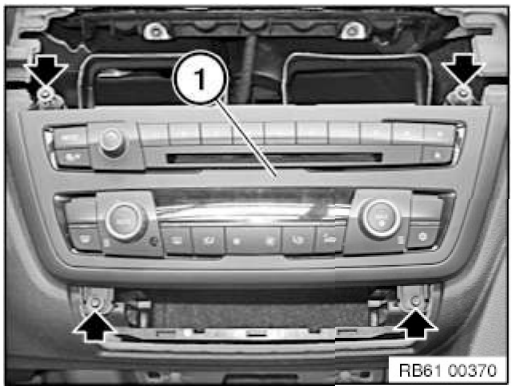
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Unfasten plug connection (1) and disconnect.

Remove cover (2).

Installation note:
Retaining lugs and guides must not be missing or damaged.



Release all screws (arrow).

Pull control panel (1) forwards slightly.

Unlock associated plug connections and disconnect.

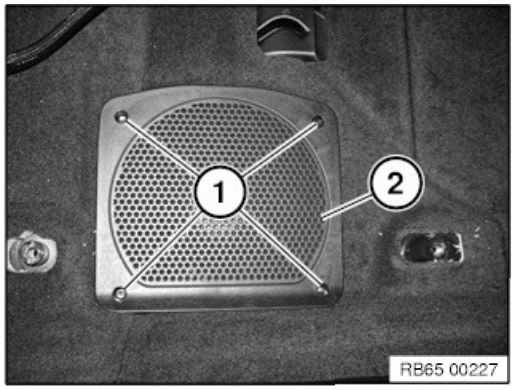
Remove the control panel (1).

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

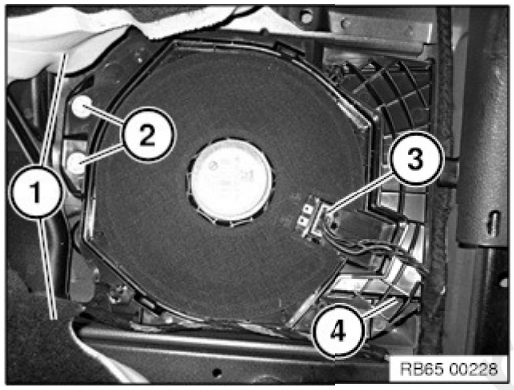
Necessary preliminary tasks:

- Remove front seat
- Remove door sill cover strip



Release screws (1).

Remove cover of bass speaker (2).



Fold up the carpet (1) as shown.

Unfasten plug connection (3) and disconnect.

Unfasten screws (2).

Feed out central bass speaker support (4).

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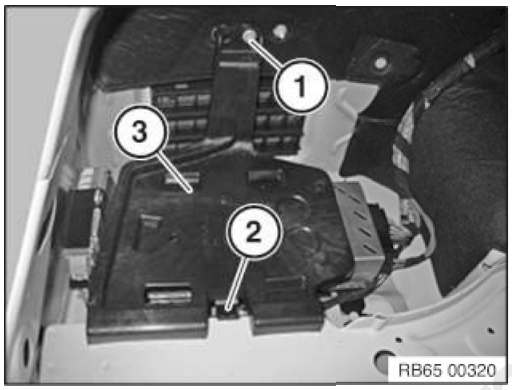
65 12 072 Removing and installing/replacing amplifier (hi-fi system/Harman Kardon)

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
- Partially remove luggage compartment wheel arch panel on left

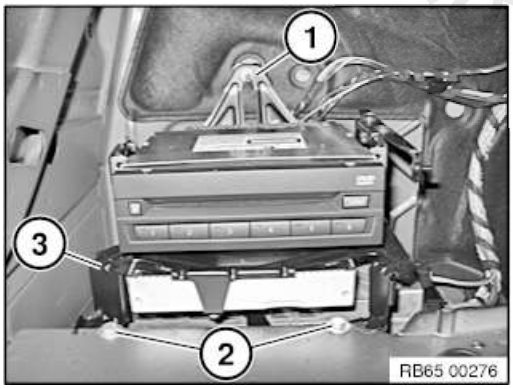


Slacken nut (1).

Unlock catch (2).

Remove cover (3).

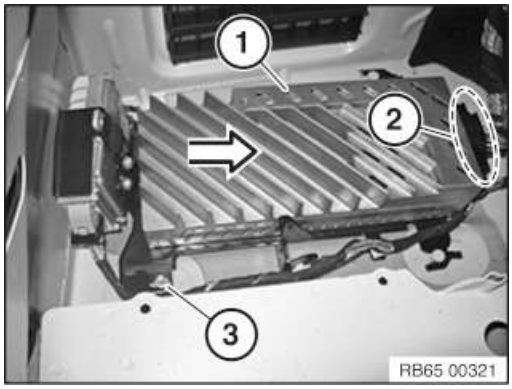
Installation note:
Make sure cover (3) is correctly seated.



<u>Version with TV module or DVD changer:</u>

Unscrew nut (1) and bolts (2).

Take off holder (3).

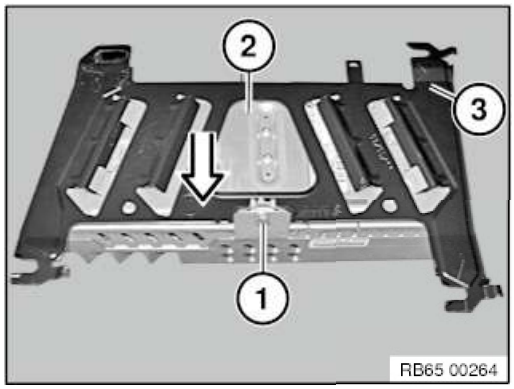


Unscrew nut (3).

Unlock plug connections (2) and disconnect.

Remove amplifier (1) with holder in direction of arrow.

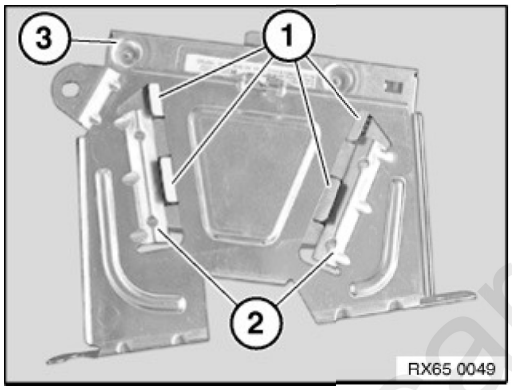
Installation note:
Make sure amplifier (1) is correctly seated.



Replacement:

Release screw (1).

Pull amplifier (2) out of holder (3) in direction of arrow.



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

Check that amplifier (3) is securely seated.

Replacement:

In Harman Kardon version, perform vehicle programming and encoding.

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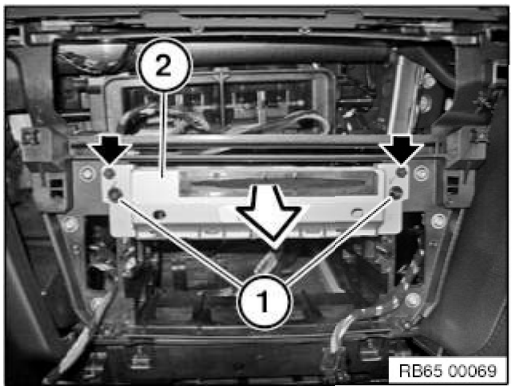
65 12 210 Removing and installing/replacing CHAMP radio receiver (BMW Professional radio)

Important!

Read and comply with notes on protection against electrostatic discharge (ESD protection).

Necessary preliminary tasks:

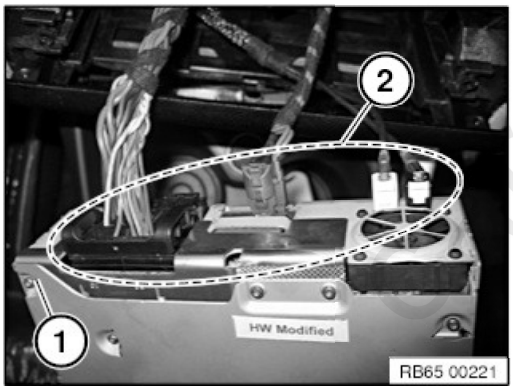
- Disconnect battery negative cable
- Remove radio and IHKA controls



Release screws (1).

Pull out the CHAMP (2) to the front.

Installation note:
Make sure CHAMP (2) is correctly seated on retaining lugs at the marked points.



Unlock plug connections (2) and disconnect.

Remove CHAMP (1).

Replacement:

Carry out vehicle programming/encoding.

For vehicles with Teleservices optional equipment:

- Update services via menu in the central information display.

Load service history:

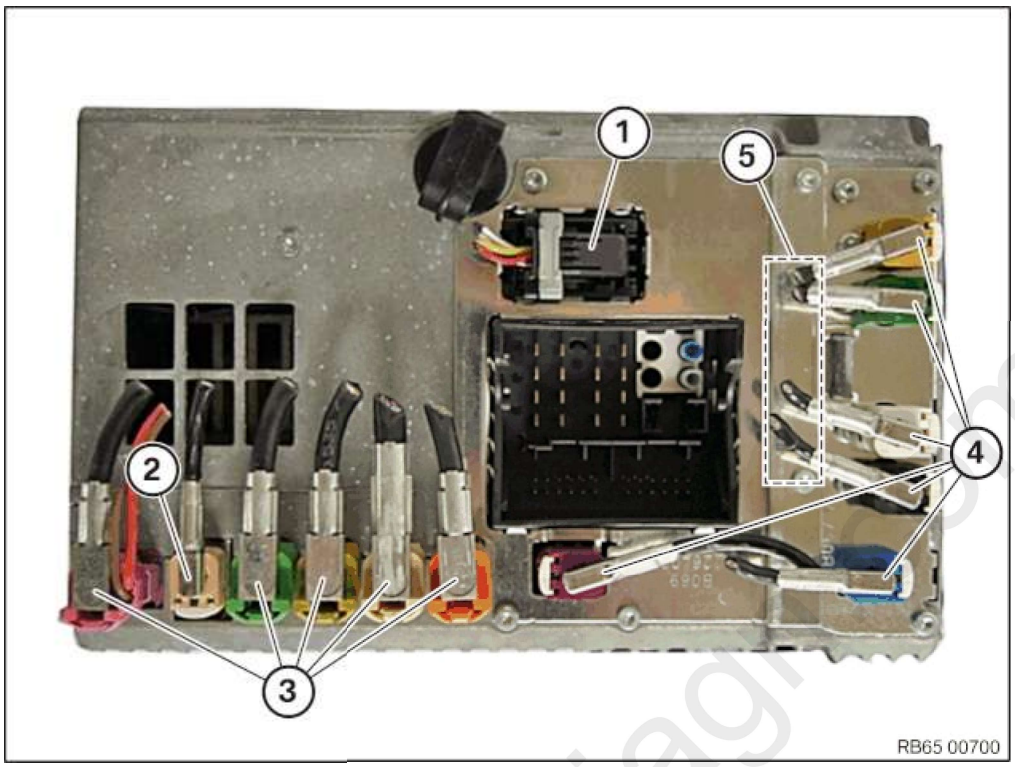
- 05 Maintenance and Pre-Delivery Check
- Service history

65 12 ... Repair instructions after theft of head unit

Attention!

If **lines are disconnected** in the vehicle interior during a theft of electronic components, the disconnected lines **are to be individually repaired or replaced**.

Replacement **of the complete audio wiring harness** is **not permitted**.



The figure shows a stolen head unit with connectors and disconnected line parts. Disconnected lines without a connector remain in the vehicle.

The number and arrangement of lines can vary according to the equipment.

All parts necessary for repair are available in the Electronics Parts Catalogue.

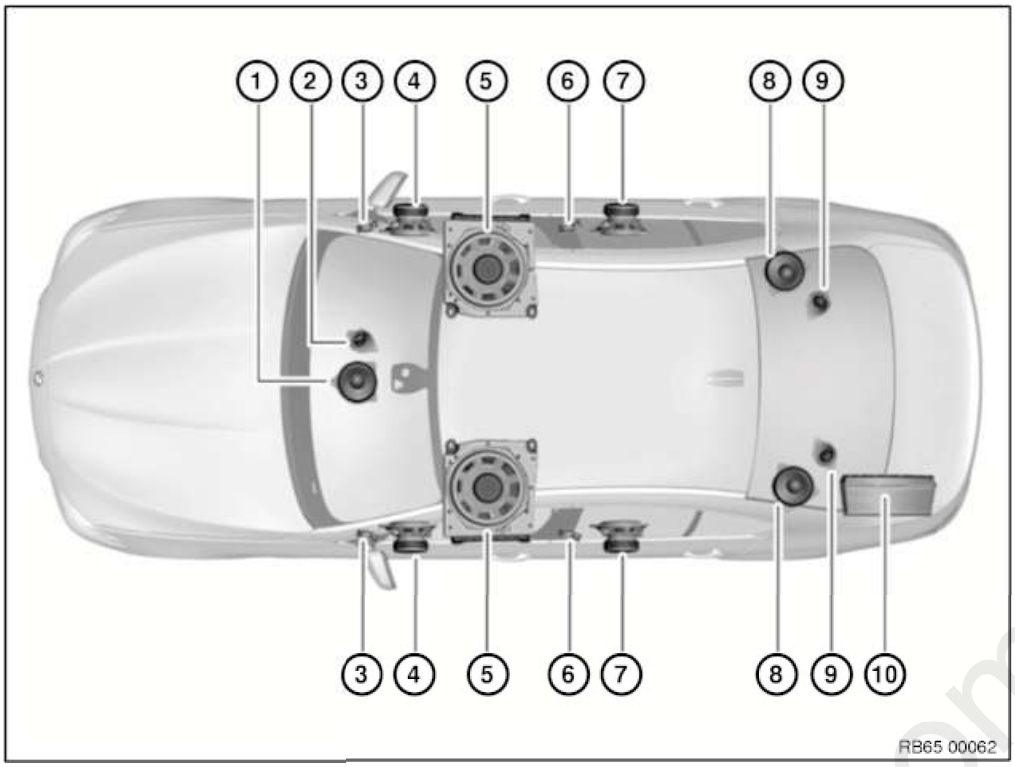
1. Repair connector with lines with the "TV module" repair kit.

2./4. If the (5) coaxial lines (aerial lines) are cut close to the connector, attach a new connector. Otherwise, completely replace coaxial lines (aerial lines) (line extension not possible).

Exception: The connector cannot be repaired on **RG174** lines.

3. Completely replace HSD lines (repair not possible).

65 00 ... Overview of audio components



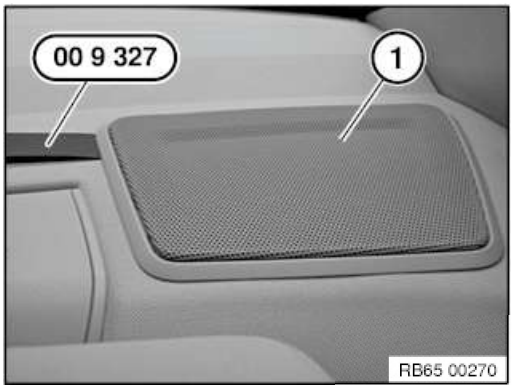
1 Mid-range speaker, front (centre)
2 Tweeter, front (centre)
3 Tweeter mirror triangle
4 Mid-range speaker, door, front
5 Bass speaker under front seat
6 Tweeter, door, rear
7 Mid-range speaker, door, rear
8 Mid-range speaker storage shelf
9 Tweeter storage shelf
10 Amplifier

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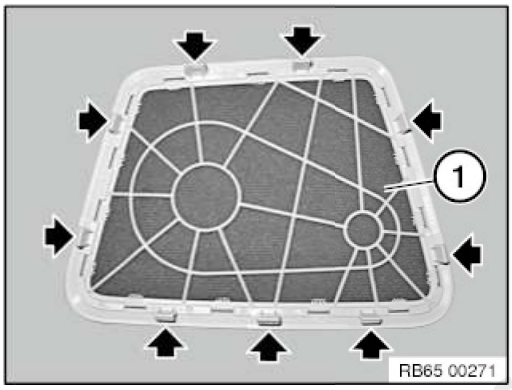
65 13 188 Removing and installing/replacing rear mid-range speaker (in storage shelf)

Special tools required:

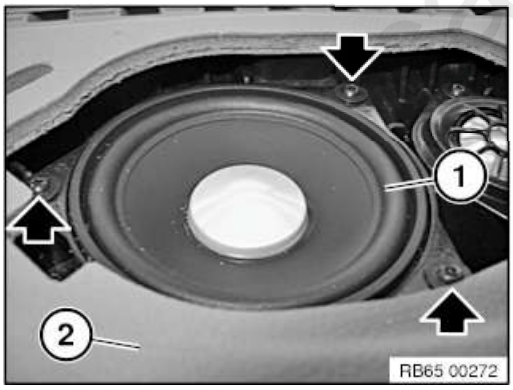
- 00 9 327



Lever out speaker cover (1) with special tool 00 9 327 .



Installation note:
Retaining lugs on speaker cover (1) must not be damaged.



Release screws.

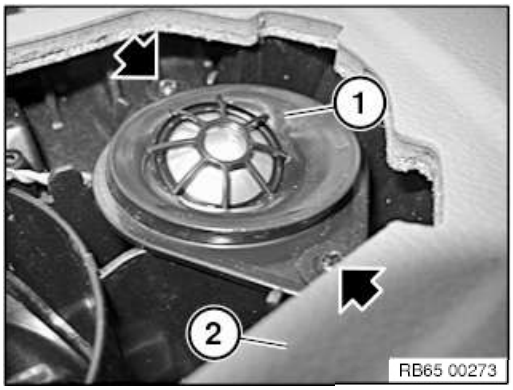
Remove mid-range speaker (1) from storage shelf (2) and disconnected associated plug connections.

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65 13 195 Removing and installing/replacing rear tweeter (in storage shelf)

Installation note:

- Remove rear mid-range speaker



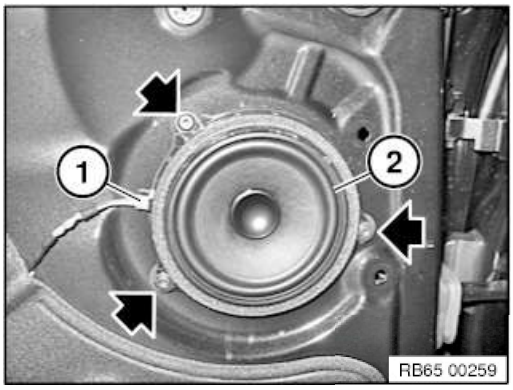
Release screws.
Remove tweeter (1) from storage shelf (2).
Feed out associated plug connection.

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65 13 090 Removing and installing/replacing speaker (mid-range speaker in rear door)

Necessary preliminary tasks:

- Remove rear door trim panel



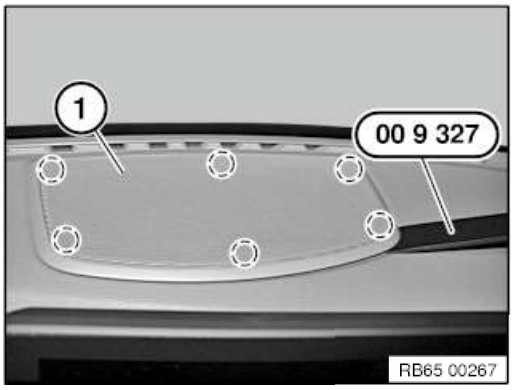
Disconnect plug connectionÂ (1).
Release screws at marked points.
Tightening torque 65 13 01AZ.
Remove mid-range speaker (2) from inner door panel.

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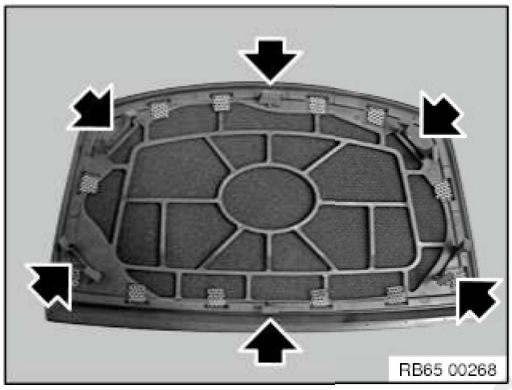
65 13 060 Removing and installing/replacing speaker (mid-range speaker, in instrument panel)

Special tools required:

- 00 9 327

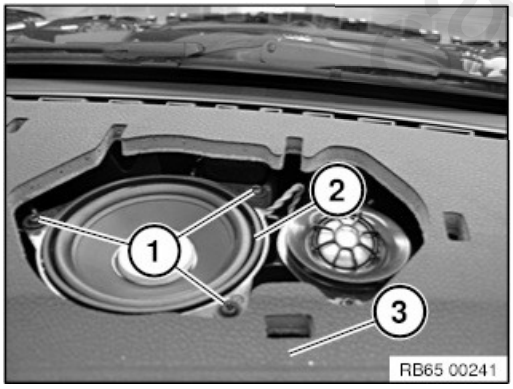


Unclip trim (1) with special tool 00 9 327 from latch mechanisms and remove upwards.



Installation note:

Retaining lugs and clamps at marked points must not be damaged.



Release screws (1).

Tightening torque 65 13 05AZ.

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

Disconnect plug connections underneath.

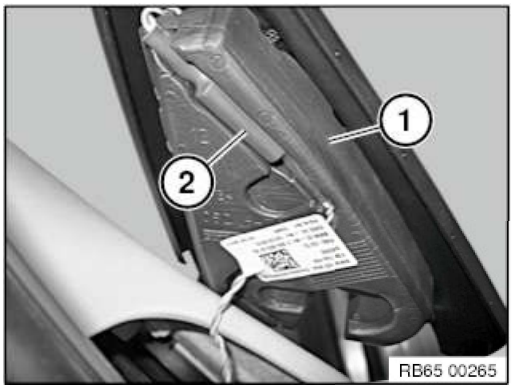
Remove mid-range speaker (2).

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65 13 050 Removing and installing/replacing speaker (tweeter in mirror triangle)

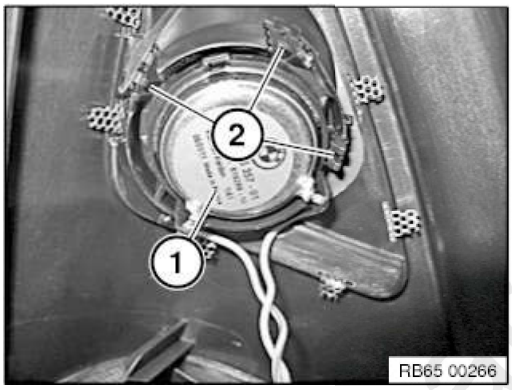
Necessary preliminary tasks:

- Remove cover on door handle
- Partially remove front door trim panel
- Detach cover on door window frame in front area.



Feed out resistor (2) with cable.

Remove foam wedge (1).



Unclip speakers (1) from latch mechanisms (2).

Remove associated plug connection and remove speaker (1).

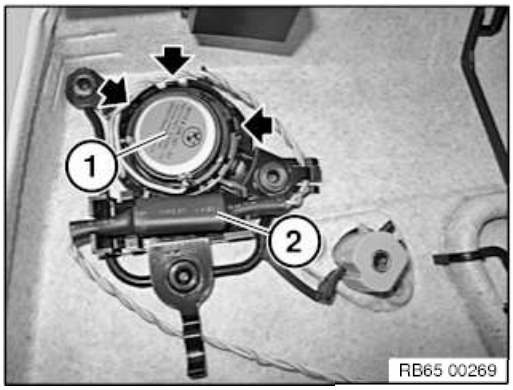
Installation note:
Latch mechanisms (2) must not be damaged.

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65 13 080 Removing and installing/replacing speaker (tweeter in rear door)

Necessary preliminary tasks:

- Remove rear door trim panel



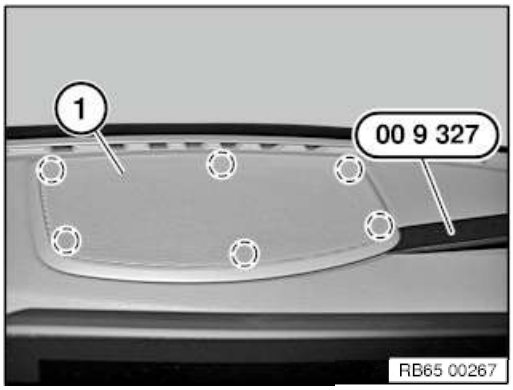
Unclip resistor (2).
Unlock retaining lugs.
Remove tweeterÂ (1).

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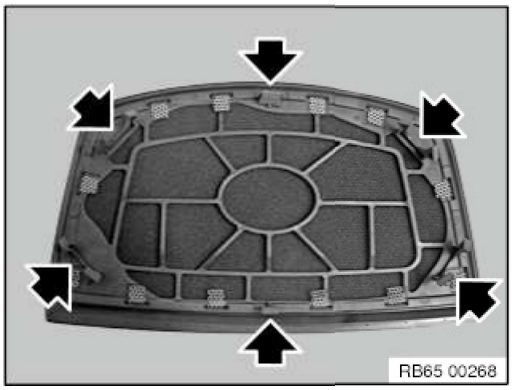
65 13 062 Removing and installing/replacing speaker (tweeter, in dashboard)

Special tools required:

- 00 9 327

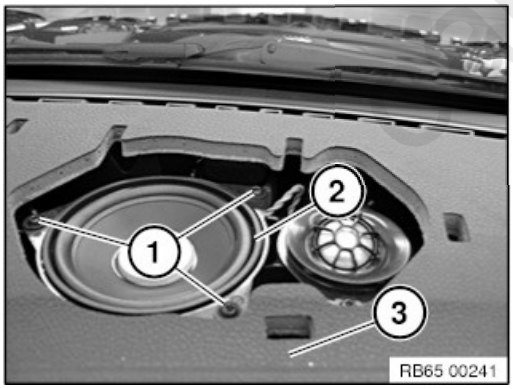


Unclip trim (1) with special tool 00 9 327 from latch mechanisms and remove upwards.



Installation note:

Retaining lugs and clamps at marked points must not be damaged.

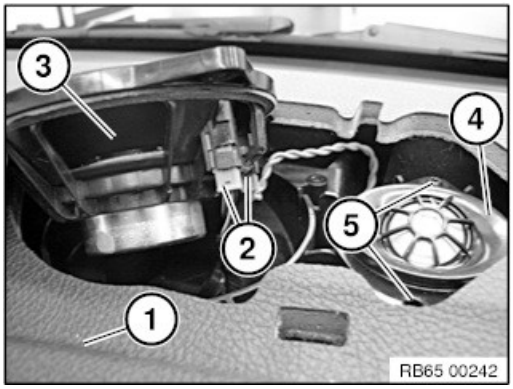


Release screws (1).

Tightening torque 65 13 06AZ.

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

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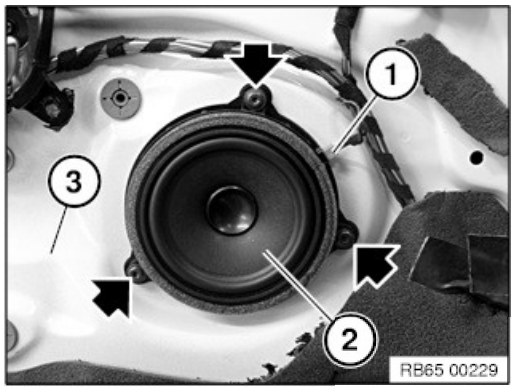
Disconnect plug connections (2) at mid-range speaker (3).
Release screws (5) on tweeter (4).
Pull out tweeter (4) upwards from dashboard (1).

cardiagn.com

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

Necessary preliminary tasks:

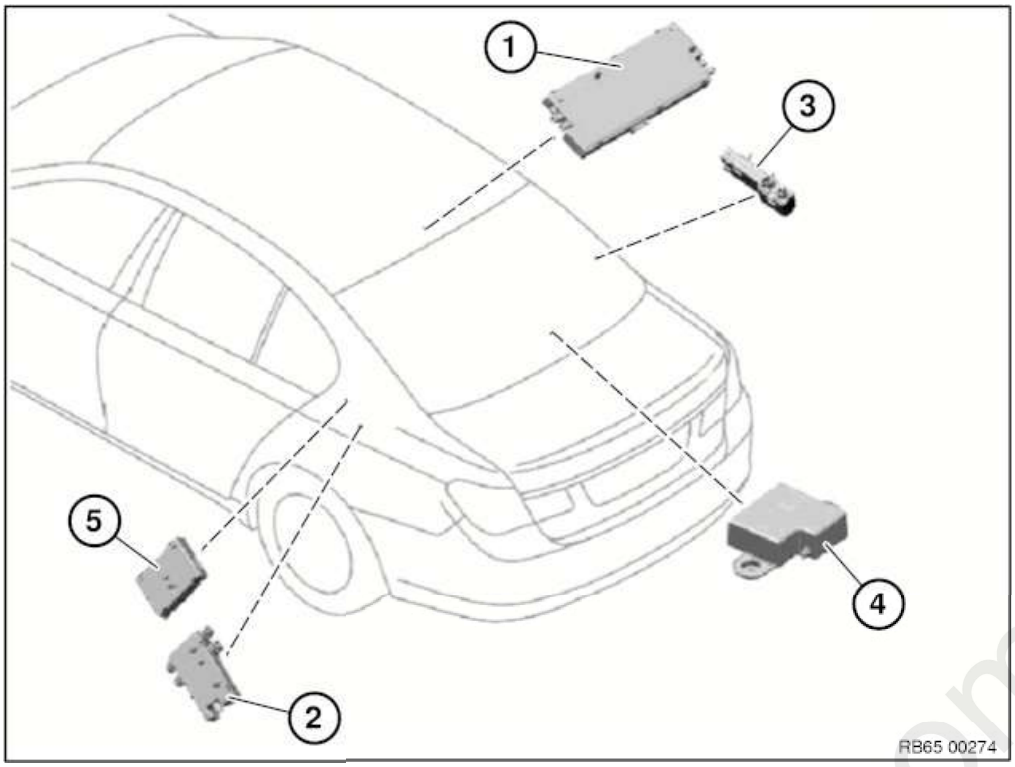
- Remove front door trim panel



Release screws at marked points.
Tightening torque 65 13 01AZ.
Unfasten plug connection (1) and disconnect.
Remove speakerÂ (2) from inner door panel (3).

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65 20 ... Overview of aerial diversity



1. Aerial amplifier
2. Wave trap, left
3. Wave trap, right
4. Back-up aerial
5. Interference suppression filter

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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:

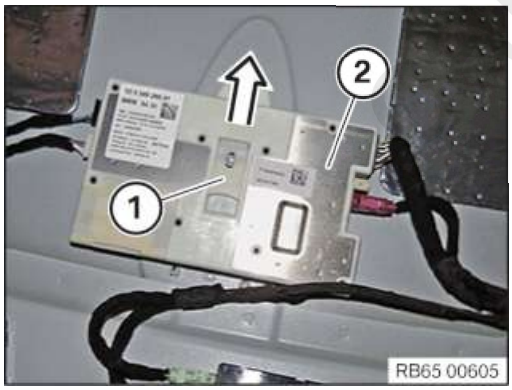
- Detach empty housing for roof-mounted aerial
- Removing headlining partially

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, ten the new parts is to be equipped with a new emergency battery (separate order, telematics control unit is shipped without an emergency battery!)

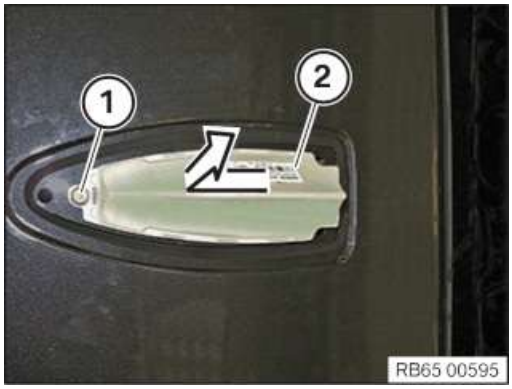
Removal:



Unlock the lock (1) downwards.

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

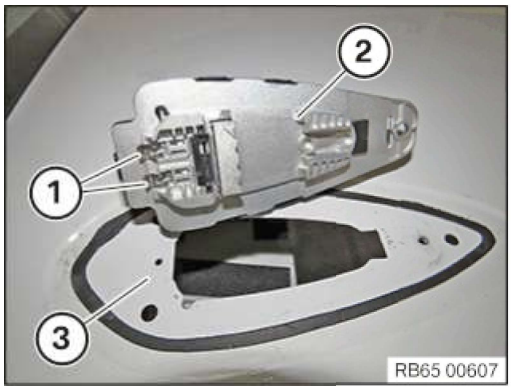
rdiagn.com



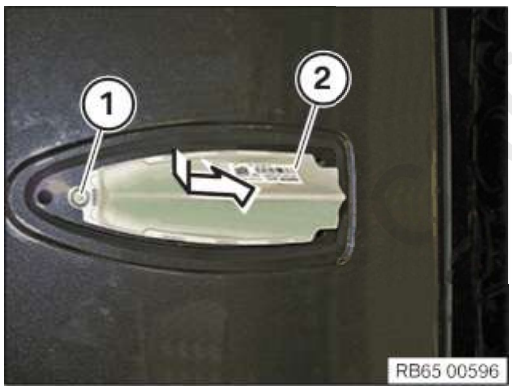
Release screw (1).

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

Installation:



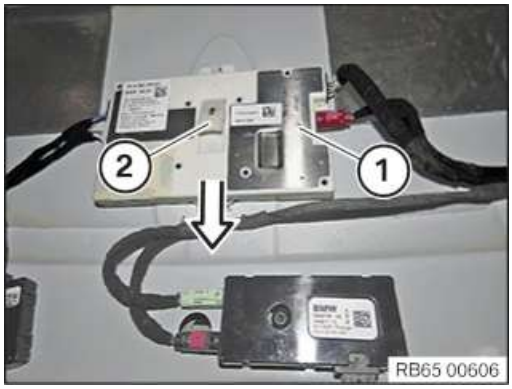
The lock (1) on the roof-mounted aerial (2) must have been inserted correctly underneath the roof (3).



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.

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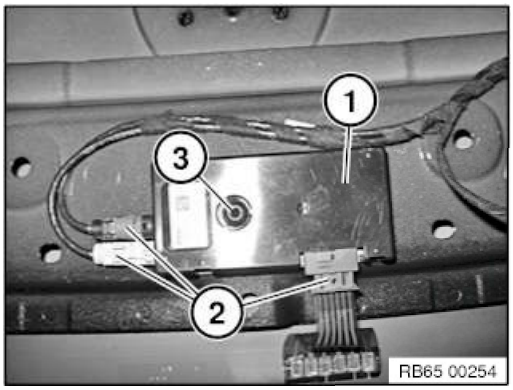
65 20 090 Removing and installing or replacing aerial amplifier

Important!

Observe instructions for the protection against electrostatic discharge (ESD protection)!

Necessary preliminary tasks:

- Remove auxiliary brake light



Release screw (3).

Unlock plug connections (2) and disconnect.

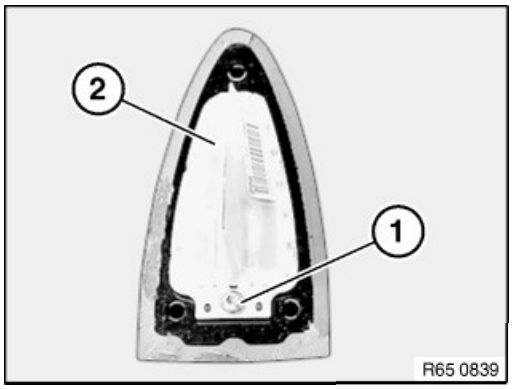
Remove aerial amplifierÂ (1).

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65 20 035 Removing and installing/renewing roof aerial

Necessary preliminary tasks:

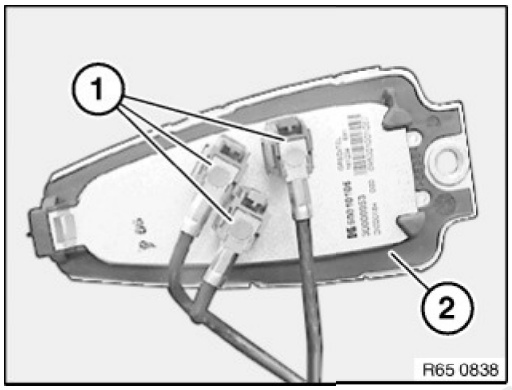
- Detach empty housing for roof-mounted aerial
- If necessary, remove the telematics control unit



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).

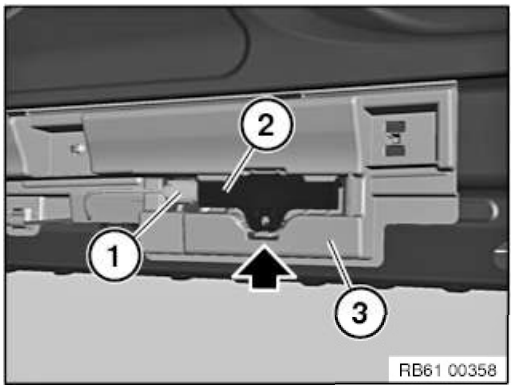
If necessary, tie back the remaining cable connection on the side of the vehicle so that rattling noise cannot occur.

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61 35 980 Removing and installing/replacing aerial for Comfort Access on left or right

Necessary preliminary tasks:

- Remove trim panel for cover on side member



Disconnect plug connection (1).

Unlock and remove aerial for Comfort Access (2) from bracket (3).

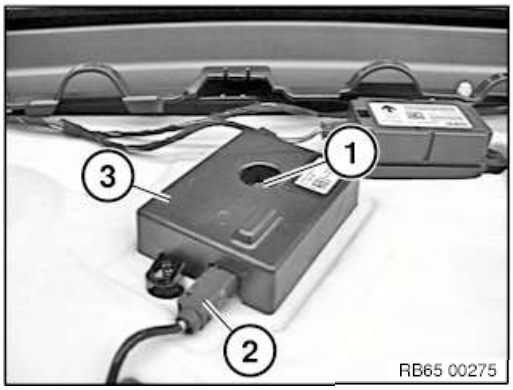
Installation note:
Make sure aerial for Comfort Access (2) is correctly seated on bracket (3).

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65 20 150 Removing and installing/replacing back-up aerial

Necessary preliminary tasks:

- Remove trim panel for storage shelf



Slacken nut (1).

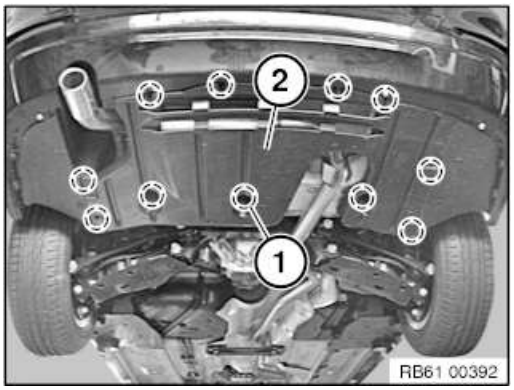
Unfasten plug connection (2) and disconnect.

Remove backup aerial (3).

Installation note:
Position back-up aerialÂ (3) so that positioning pin on back engages in associated bore hole.

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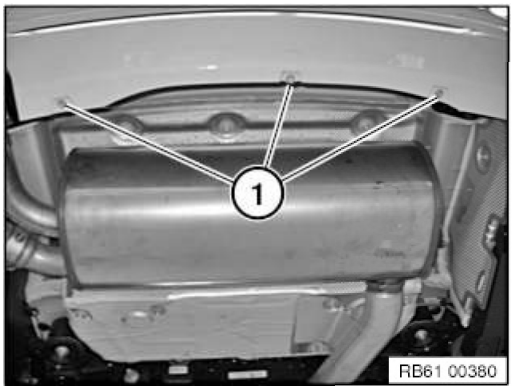
61 35 975 Removing and installing/replacing bumper aerial for Comfort Access



Note:
Work shown on the F30 by way of example, deviations in detail are possible in other models.

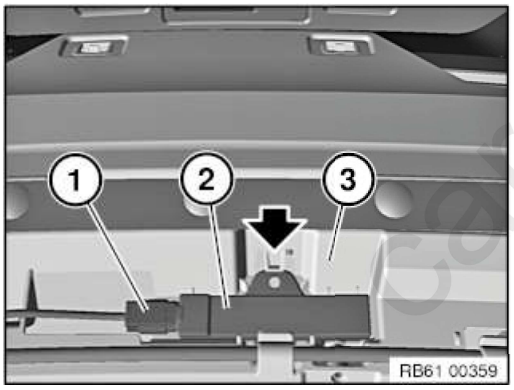
Depending on the engine version:

If necessary, release screws (1) on cover (2) and remove cover (2).



Note:
Bumper aerial is located on reinforcement of rear bumper panel.

Release screws (1) on bumper panel at bottom rear.



Note:
Shown with bumper panel removed for purposes of clarity.

Disconnect plug connection (1).

Reach between reinforcement and bumper panel.

Release latch mechanism (arrow) on reinforcement (3) and feed out bumper aerial (2).

Installation note:
Make sure bumper aerial (2) is correctly fitted on reinforcement (3).

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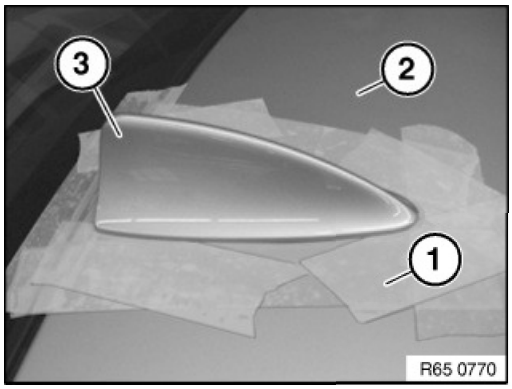
65 20 030 Removing and installing/replacing empty housing for roof-mounted aerial

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.



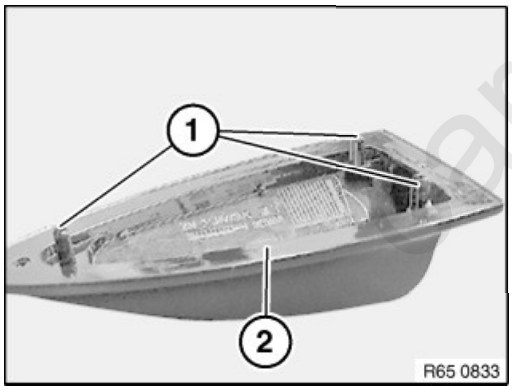
Note:
Clean roof.

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).

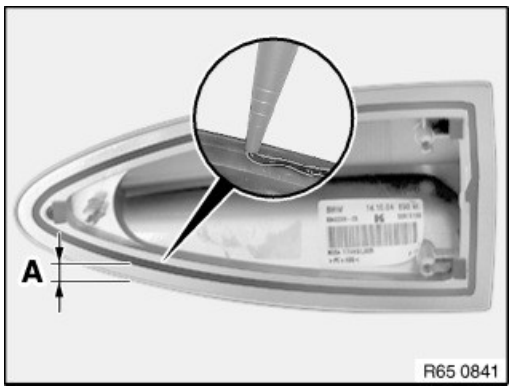
Installation:

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 ±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.

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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.

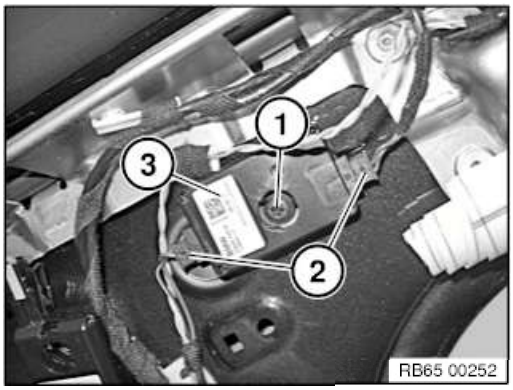
After bonding, leave vehicle to stand for at least 3 hours at room temperature.

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65 20 350 Removing and installing/replacing interference suppression filter

Necessary preliminary tasks:

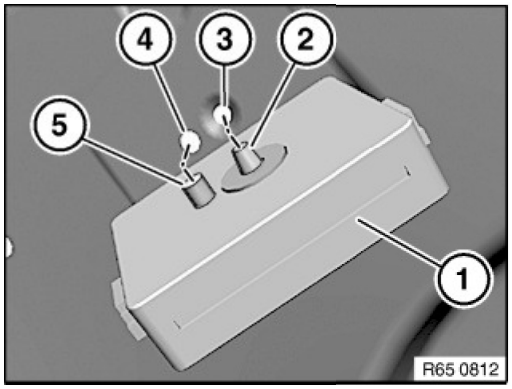
- Remove trim panel for roof pillar at rear left



Release screw (1).

Unlock plug connections (2) and disconnect.

Remove interference suppression filter (3) from C-pillar.



Installation note:
Fit interference suppression filter (1) so that screw (2) engages thread (3) and locating pin (4) engages in bore hole (5).

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61 35 953 Removing and installing/replacing interior aerial for Comfort Access (front storage compartment)

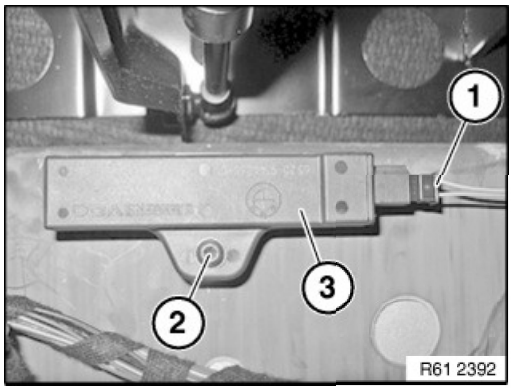
Necessary preliminary tasks:

For version with automatic transmission:

- Remove centre console trim

For version with manual gearbox:

- Partially remove gearshift lever gaiter



Note:
Similar to graphic.

Disconnect plug connection (1).

Release screw (2).

Remove interior aerial (3).

Installation note:
Make sure interior aerial (3) is correctly fitted.

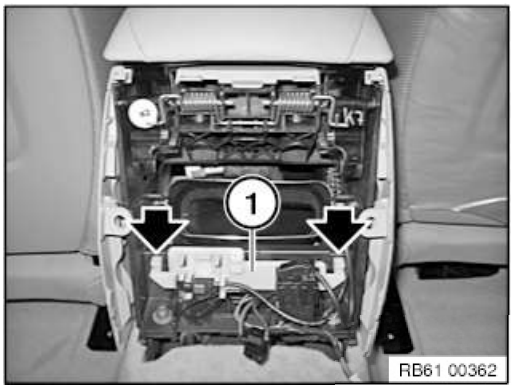
Make sure plug connection (1) is correctly seated.

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

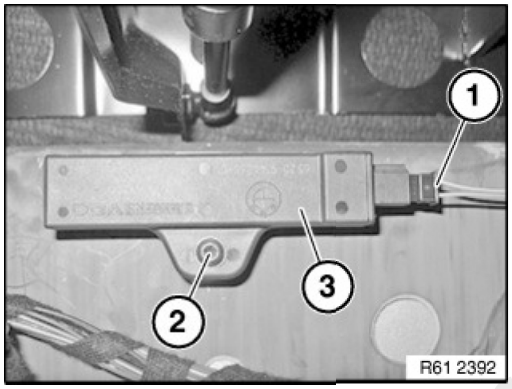
Necessary preliminary tasks:

- Remove rear centre console trim



Note:
Work shown on the F30 by way of example, deviations in detail are possible in other models.

Depending on the equipment specification, if necessary release cable clips (1) at latches (arrow) and set down.*Installation note:*
Make sure cable clip (1) is correctly seated.



Note:
Similar to graphic.

Unfasten plug connection (1) and disconnect.

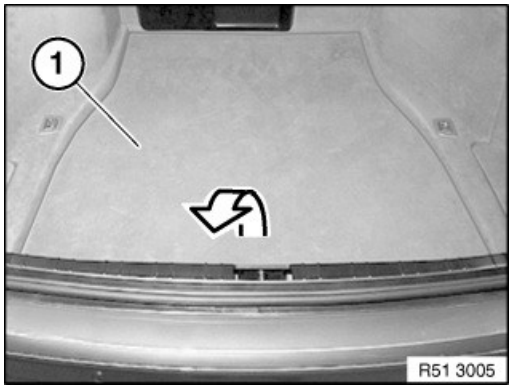
Release screw (2) and remove interior aerial (3).

Tightening torque 61 35 7AZ.

Installation note:
Make sure plug connection (1) and interior aerial (3) are correctly seated.

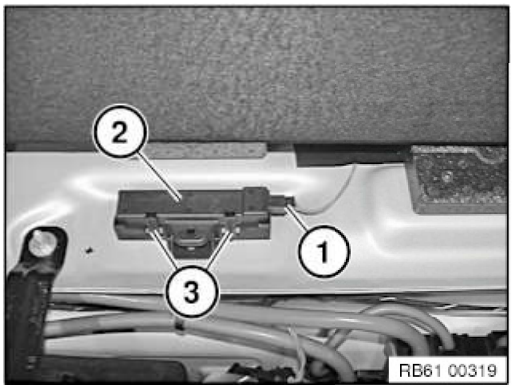
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61 35 970 Removing and installing/replacing luggage compartment aerial for Comfort Access



Note:
Work shown on the F30 by way of example, deviations in detail are possible in other models.

Remove luggage compartment floor trim panel (1) in direction of arrow.



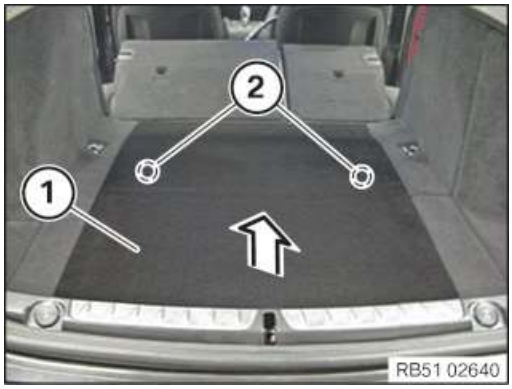
Disconnect plug connection (1).

Unlock and remove luggage compartment aerial (2) from bracket (3).

Installation note:
Make sure luggage compartment aerial (2) is seated correctly in bracket (3).

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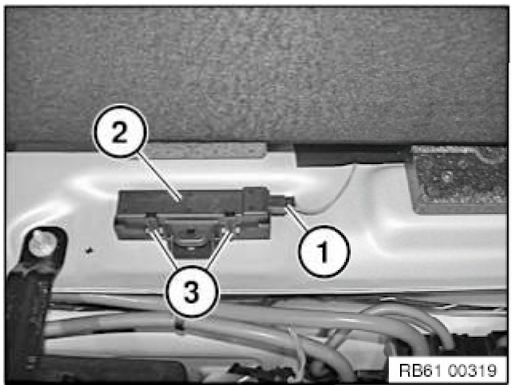
61 35 970 Removing and installing/replacing luggage compartment aerial for Comfort Access



Raise luggage compartment floor trim panel (1) at rear in direction of arrow.

Raise and release Velcro fasteners (2).

Remove luggage compartment floor trim panel (1) to rear.



Disconnect plug connection (1).

Unlock and remove luggage compartment aerial (2) from bracket (3).

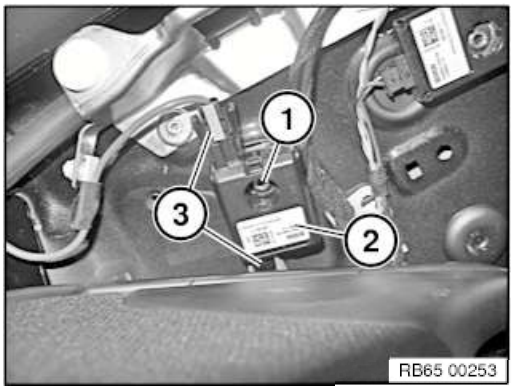
Installation note:
Make sure luggage compartment aerial (2) is seated correctly in bracket (3).

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65 24 016 Removing and installing/replacing left wave trap

Necessary preliminary tasks:

- Remove trim panel for roof pillar at rear left.

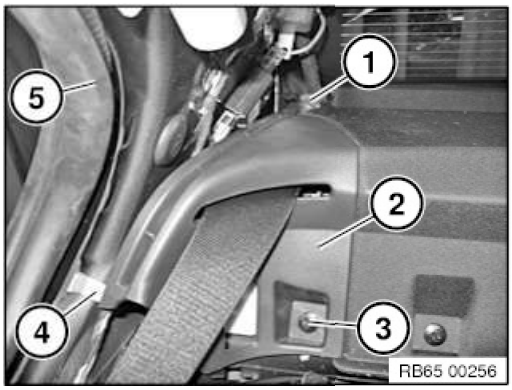


Release screw (1).

Unlock plug connections (3) and disconnect.

Remove wave trap (2) from C-pillar.

Installation note:
Position wave trap (2) so that positioning pin on back engages in associated bore hole.



Note:
Version with TV module:

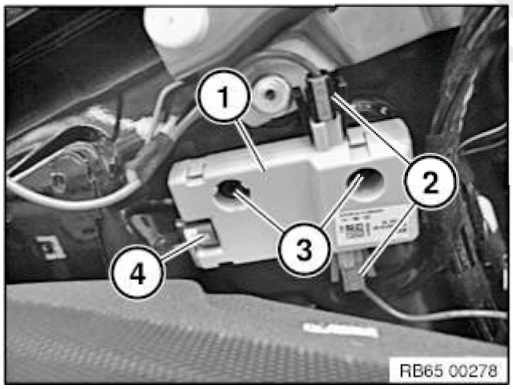
Release screw (1).

Lift out expanding rivet (3).

Remove door seal (5) as pictured.

Remove belt feed cover (2) towards front.

Installation note:
Retaining clip (4) must not be damaged or bent, replace if necessary.



Release screws (3).

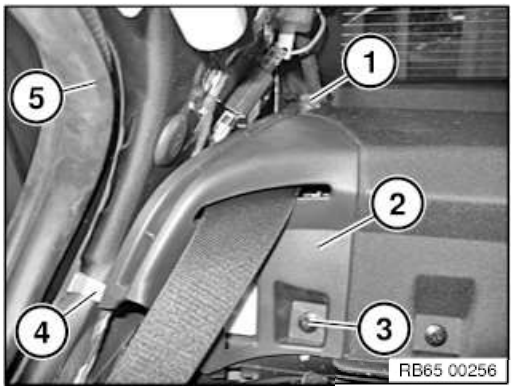
Unlock plug connections (2) and (4) and disconnect.

Remove wave trap (1).

65 24 017 Removing and installing/replacing right wave trap

Necessary preliminary tasks:

- Remove trim panel for roof pillar, rear right.



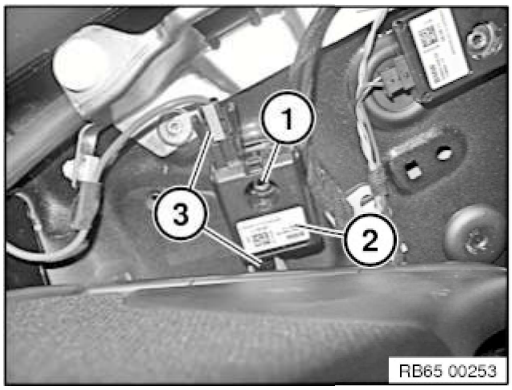
Release screw (1).

Lift out expanding rivet (3).

Remove door seal (5) as pictured.

Remove belt feed cover (2) towards front.

Installation note:
Retaining clip (4) must not be damaged or bent, replace if necessary.

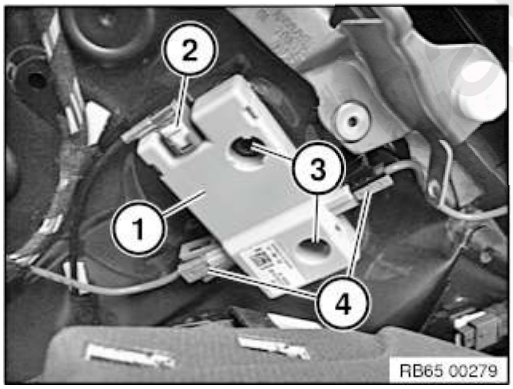


Release screw (1).

Unlock plug connections (3) and disconnect.

Remove wave trap (2) from C-pillar.

Installation note:
Position wave trap (2) so that positioning pin on back engages in associated bore hole.



Note:
Version with TV module:

Release screws (3).

Unlock plug connections (2) and (4) and disconnect.

Remove wave trap (1).

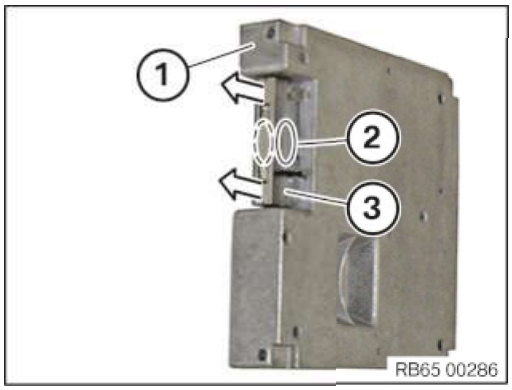
65 50 250 Install subscription TV card

Important!

Before installing the Pay TV card the customer must be informed that the Pay TV card has been developed for use at home and is not designed for use in the vehicle. Possible high temperatures that may occur in the vehicle can damage the Pay TV card. BMW AG does not accept any claims for this kind of damage.

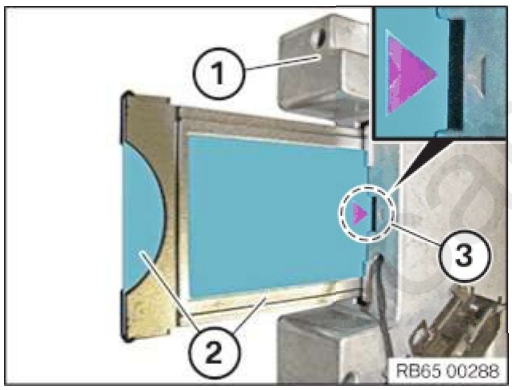
Necessary preliminary work:

- Carry out the required preliminary work analog to removing the TV module. Do **not** disconnect the battery earth lead. Do **not** remove the TV module.



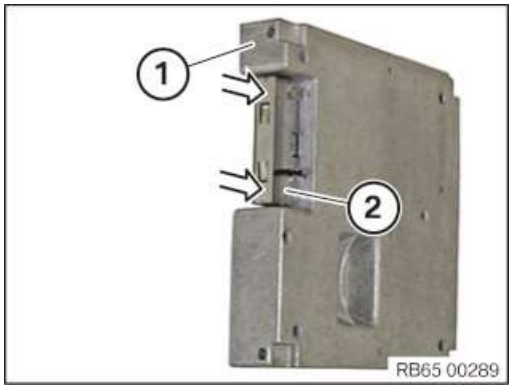
Press cover (3) at point (2) together.

Remove cover (3) of TV module (1) in the direction of the arrow.



Position the Pay TV card with slot (2) as shown (3).

Insert Pay TV card with slot (2) in TV module (1).



Install lid (2) into TV module (1) in the direction of the arrow.

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Required follow-up work:

- Add final details to vehicle

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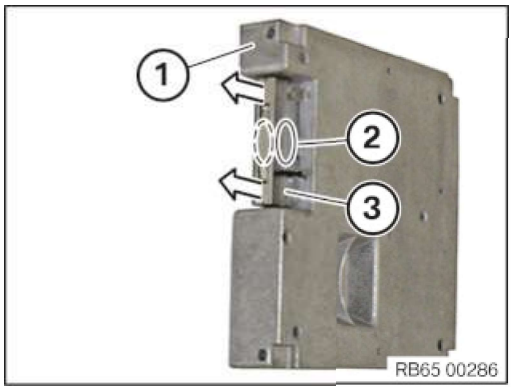
65 50 251 Remove subscription TV card

Important!

Before installing the Pay TV card the customer must be informed that the Pay TV card has been developed for use at home and is not designed for use in the vehicle. Possible high temperatures that may occur in the vehicle can damage the Pay TV card. BMW AG does not accept any claims for this kind of damage.

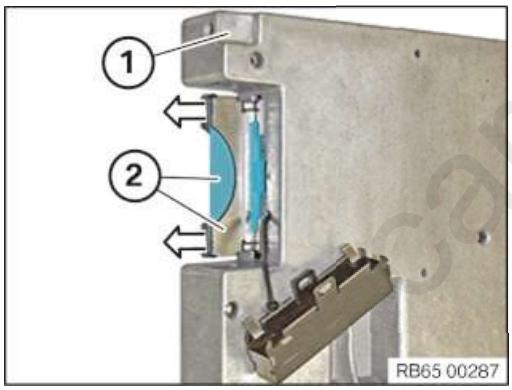
Necessary preliminary work:

- Carry out the required preliminary work analog to removing the TV module. Do **not** disconnect the battery earth lead. Do **not** remove the TV module.

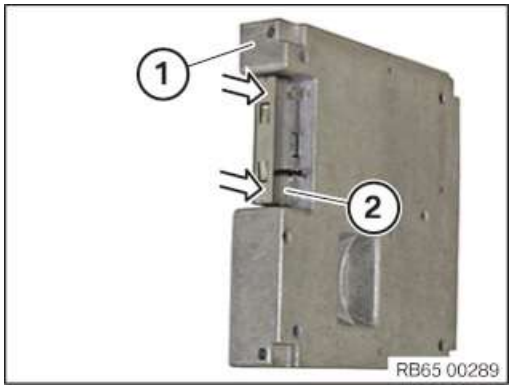


Press cover (3) at point (2) together.

Remove cover (3) of TV module (1) in the direction of the arrow.



Pull out Pay TV card with slot (2) from TV module (1) in the direction of the arrow.



Install lid (2) into TV module (1) in the direction of the arrow.

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Required follow-up work:

- Add final details to vehicle

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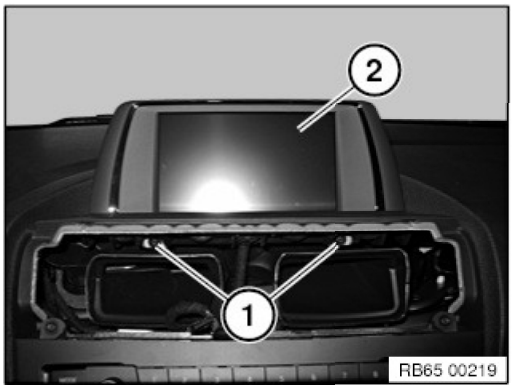
65 50 057 Removing and installing/replacing Central Information Display (CID)

Attention!

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

Necessary preliminary tasks:

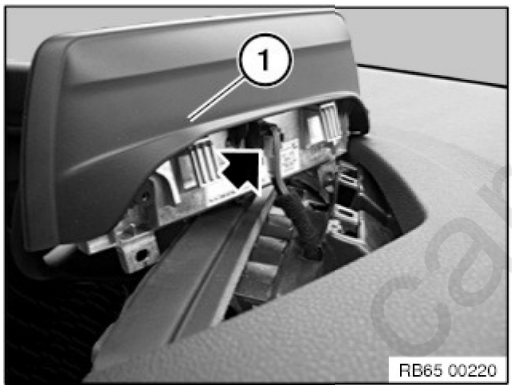
- Remove decorative strip on dashboard on right



Release screws (1).

Tightening torque 65 50 1AZ.

Remove CID (2) towards top.



Unlock plug connection and disconnect.

Remove CID (1).

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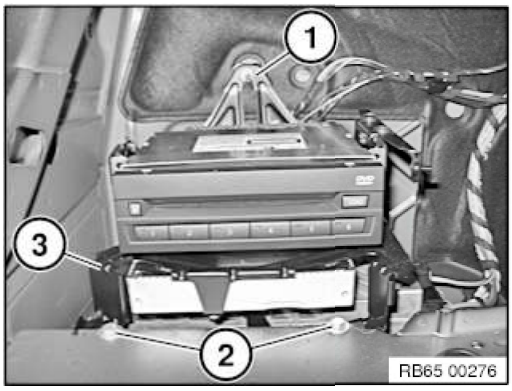
65 50 030 Removing and installing/replacing TV module

Important!
Read and comply with notes on protection against electrostatic discharge (ESD protection).

Note:
Follow notes for handling optical fibres.

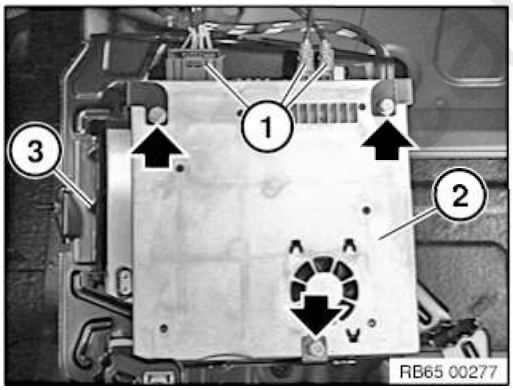
Necessary preliminary tasks:

- Disconnect battery earth lead
- Partially remove luggage compartment wheel arch panel on left



Unscrew nut (1) and bolts (2).

Take off holder (3).



Unlock plug connections (1) and disconnect.

Release screws at marked points.

Remove TV module (2) from holder (3).

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65 50 252 Replace Pay-TV card

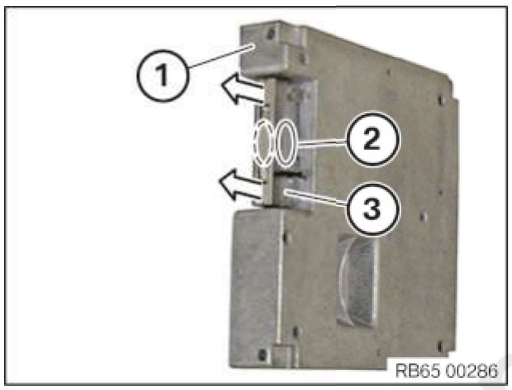
Important!

Before installing the Pay TV card the customer must be informed that the Pay TV card has been developed for use at home and is not designed for use in the vehicle. Possible high temperatures that may occur in the vehicle can damage the Pay TV card. BMW AG does not accept any claims for this kind of damage.

Necessary preliminary work:

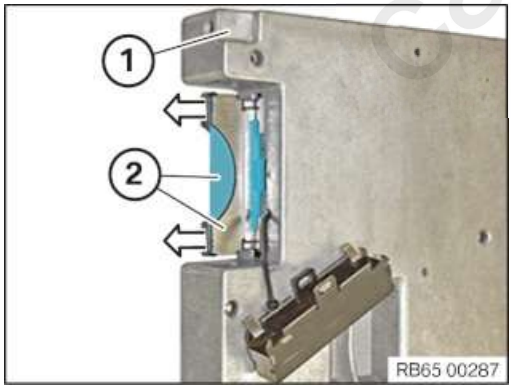
- Carry out the required preliminary work analog to removing the TV module. Do **not** disconnect the battery earth lead. Do **not** remove the TV module.

Removal:



Press cover (3) at point (2) together.

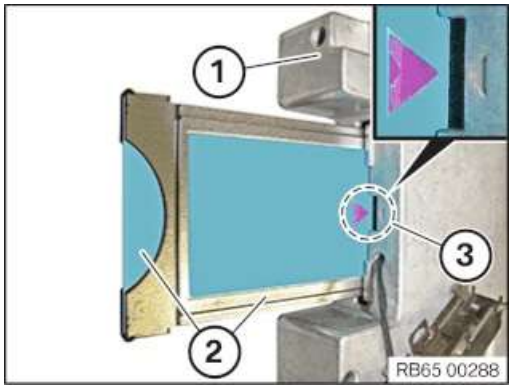
Remove cover (3) of TV module (1) in the direction of the arrow.



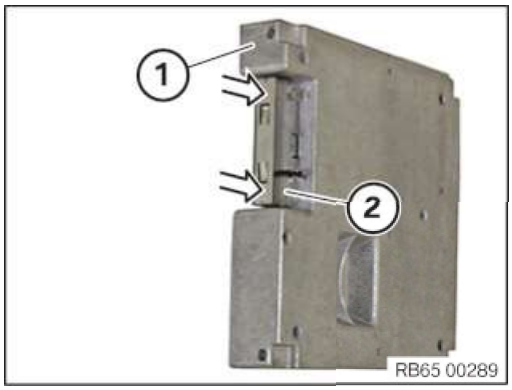
Pull out Pay TV card with slot (2) from TV module (1) in the direction of the arrow.

Installation:

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Position the Pay TV card with slot (2) as shown (3).
Insert Pay TV card with slot (2) in TV module (1).



Install lid (2) into TV module (1) in the direction of the arrow.

Required follow-up work:

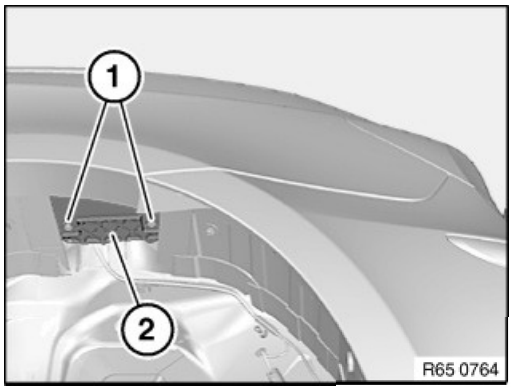
- Add final details to vehicle

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65 75 055 Removing and installation/replacing emergency power siren with tilt sensor

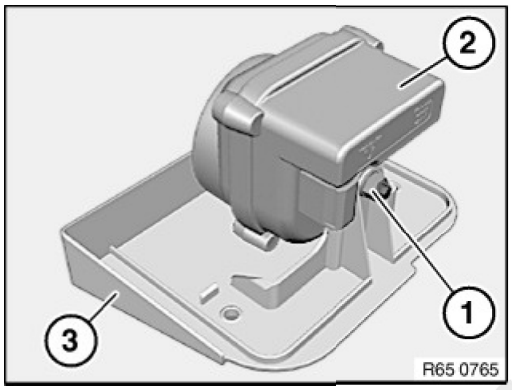
Necessary preliminary tasks:

- Remove rear left wheel arch cover



Loosen the screws or clips (1) and lower the mounting plate completely (2).

Unlock and disconnect associated plug connection, remove complete mounting plate (2).



Release nut (1) and remove emergency power siren with tilt sensor (2) from mounting plate (3).

Replacement:

Carry out vehicle programming/encoding.

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65 75 071 Removing and installing (replacing) module for interior movement detector

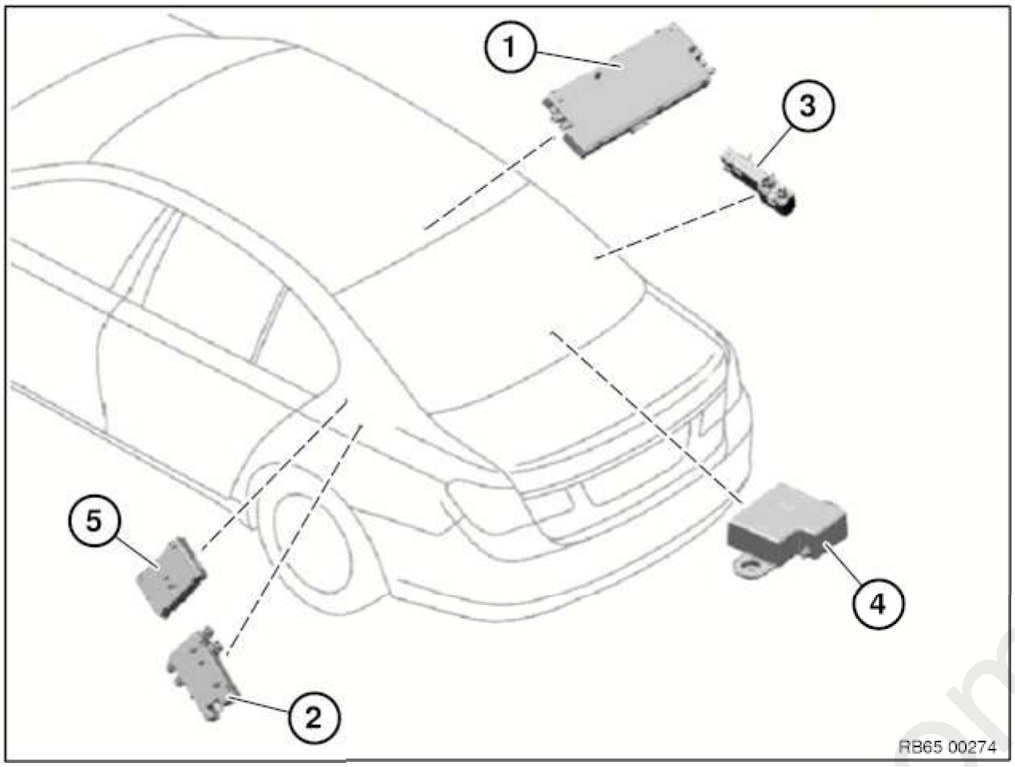
Note:
Module for interior movement detector is integrated in roof switch cluster.

This operation is described in:

Removing and installing or replacing roof switch cluster

cardiagn.com

65 20 ... Overview of aerial diversity



1. Aerial amplifier
2. Wave trap, left
3. Wave trap, right
4. Back-up aerial
5. Interference suppression filter

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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

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65 77 750 Removing and installing (replacing) driver's seat sensor

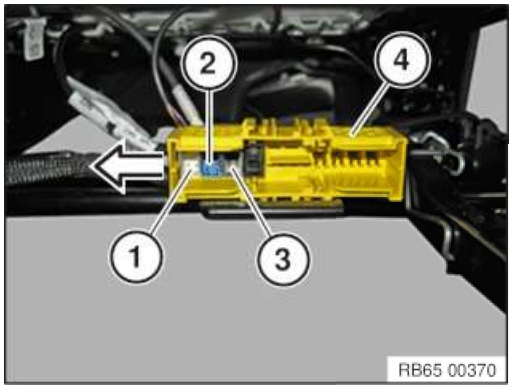
Warning!

Note airbag safety regulations!

Incorrect handling can activate airbag and cause injury.

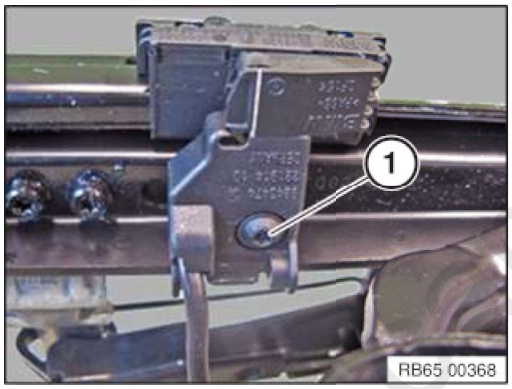
Necessary preliminary tasks:

- Remove front seat

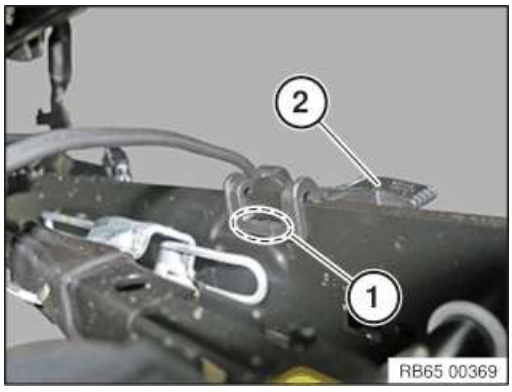


Unlock connector housing (1 to 3) and pull out of connector housing (4) in direction of arrow.*Installation note:*
Connectors are encoded against incorrect assembly.

Make sure installation sequence of connector housing (1 to 3) is correct.



Release screw (1).



Release latch mechanism (1) in marked area.

Remove sensor (2).

Installation note:
Make sure sensor (2) is correctly fitted.

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65 77 755 Removing and installing (replacing) front passenger seat sensor

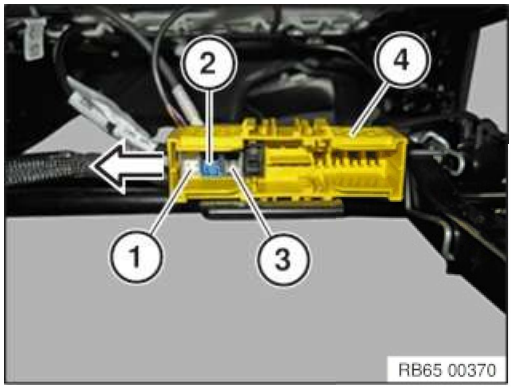
Warning!

Note airbag safety regulations!

Incorrect handling can activate airbag and cause injury.

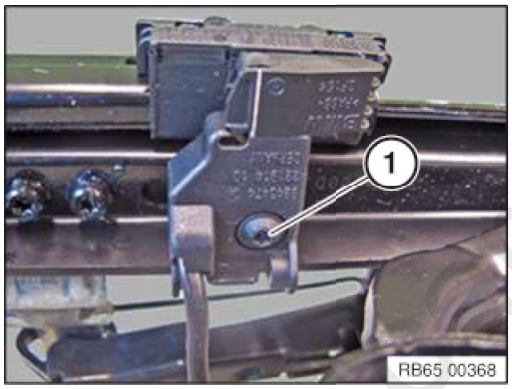
Necessary preliminary tasks:

- Remove front seat

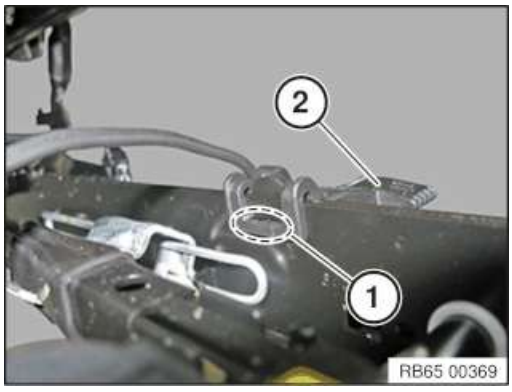


Unlock connector housing (1 to 3) and pull out of connector housing (4) in direction of arrow.*Installation note:*
Connectors are encoded against incorrect assembly.

Make sure installation sequence of connector housing (1 to 3) is correct.



Release screw (1).



Release latch mechanism (1) in marked area.

Remove sensor (2).

Installation note:
Make sure sensor (2) is correctly fitted.

65 77 580 Removing and installing (replacing) front seat position sensor on left or right

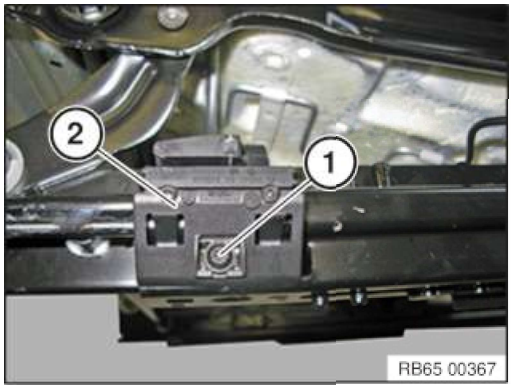
Warning!

Note airbag safety regulations!

Incorrect handling can activate airbag and cause injury.

Necessary preliminary tasks:

- Remove front seat



Release screw (1).

Take off position sensor (2).

Installation note:
Make sure position sensor (2) is correctly fitted.

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65 77 720 Removing and installing (replacing) left B-pillar sensor

Attention!

Read and comply with notes on protection against electrostatic discharge (ESD protection)!

Warning!

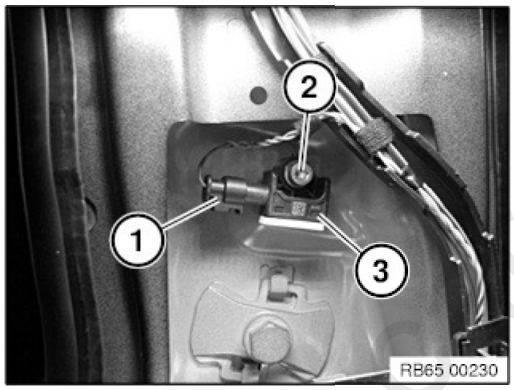
Observe airbag safety regulations!

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:

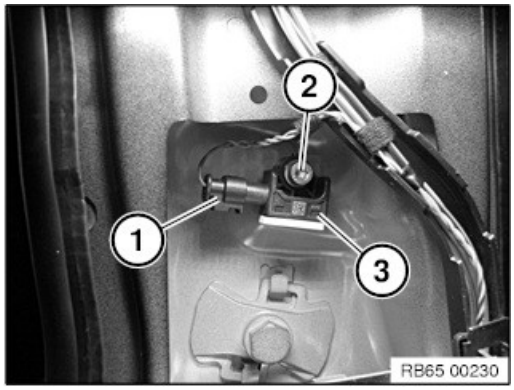


Unfasten plug connection (1) and disconnect.

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)

cardiagn.com

65 77 740 Removing and installing (replacing) left front door sensor (US version)

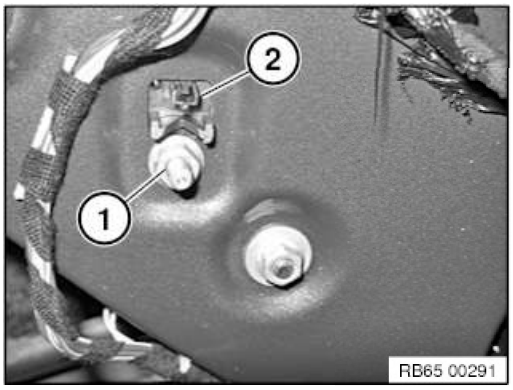
Warning!

Note airbag safety regulations!

Incorrect handling can activate airbag and cause injury.

Necessary preliminary tasks:

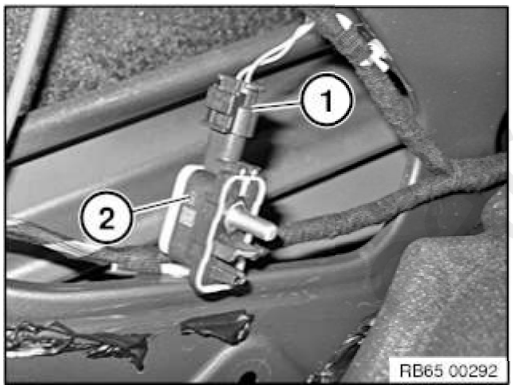
- Partly remove sound insulation at front door.



Slacken nut (1).

Tightening torque 65 77 4AZ.

Feed out sensor (2) towards bottom.



Unfasten plug connection (1) and disconnect.

Remove sensor (2).

65 77 016 Removing and installing/replacing airbag control unit

Warning!

Note airbag safety regulations!

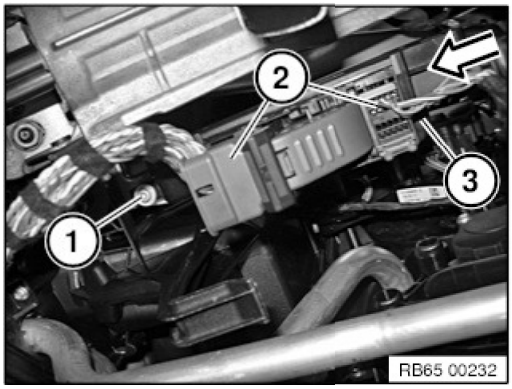
Incorrect handling can activate airbag and cause injury.

Important!

Read and comply with notes on protection against electrostatic discharge (ESD protection).

Necessary preliminary tasks:

- Disconnect battery earth lead
- Remove trim panel for pedal mechanism



Release screw (1).

Tightening torque 65 77 1AZ.

Unlock plug connections (2) and disconnect.

Pull airbag control unit (3) out of holder in direction of arrow.

<u>Replacement:</u>

Carry out vehicle programming/encoding.

cardiagn.com

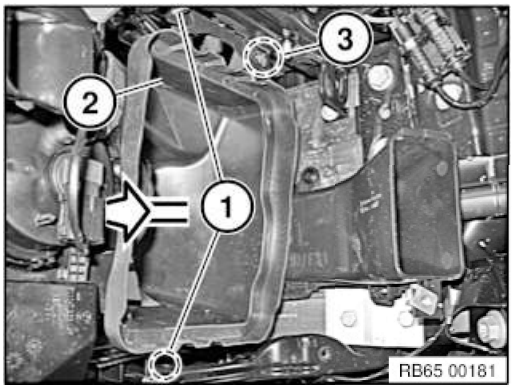
65 77 532 Removing and installing/replacing front left sensor (US version only)

Necessary preliminary tasks:

- Disconnect battery earth lead
- Remove front left wheel arch cover

Version with external radiator

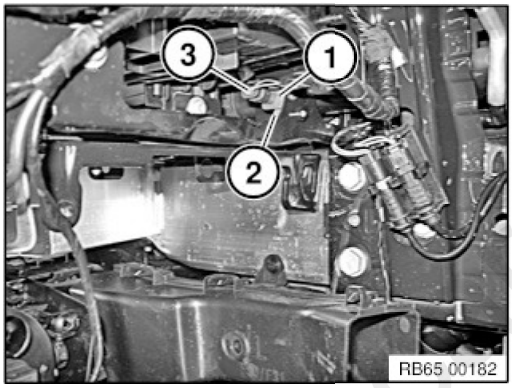
- Remove external radiator partially



Release expansion rivet (1).

Remove air duct (2) in direction of arrow.

Installation note:
Make sure air duct (2) is correctly fitted in recess (3).



Unfasten plug connection (3) and disconnect.

Release screw (2).

Tightening torque 65 77 2AZ.

Remove sensor (1).

Installation note:
Make sure sensor (1) is in correct installation position.

ecdiagn.com

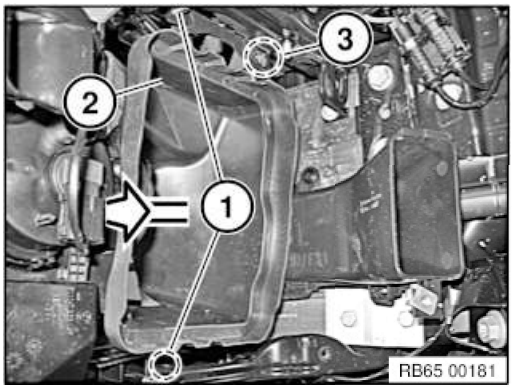
65 77 534 Removing and installing/replacing front right sensor (US version only)

Necessary preliminary tasks:

- Disconnect battery earth lead
- Remove front wheel arch cover on right

Version with auxiliary oil cooler

- Partially remove auxiliary oil cooler

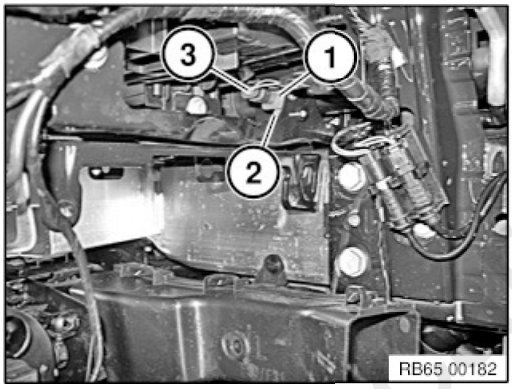


Note:
Figure on the left.

Release expansion rivet (1).

Remove air duct (2) in direction of arrow.

Installation note:
Make sure air duct (2) is correctly fitted in recess (3).



Note:
Figure on the left.

Unfasten plug connection (3) and disconnect.

Release screw (2).

Tightening torque 65 77 2AZ.

Remove sensor (1).

Installation note:
Make sure sensor (1) is in correct installation position.

ondiagn.com

65 77 725 Removing and installing/replacing right B-pillar sensor



Operation is identical to:

Removing and installing left B-pillar sensor

cardiagn.com

65 77 604 Replacing sensor mat (CIS mat) for front passenger seat occupancy detector

Warning!

Note airbag safety regulations!

Incorrect handling can activate airbag and cause injury.

Warning!

<u>Only US and Canadian version of front passenger seat (with CIS mat):</u>

The CIS mat is bonded to the entire surface of the facing and can only be removed in conjunction with the padding from the seat cover.

If CIS mat or padding is defective, both parts may only be replaced together.

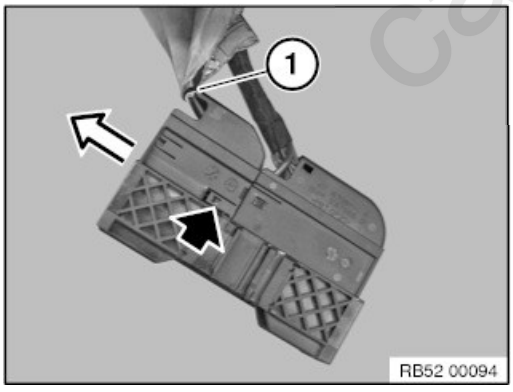
Full functional capability can only be guaranteed with original BMW spare parts.

After installation, the CIS mat must be enabled with the BMW programming system.

<u>Procedure for replacing the CIS mat together with the upholstery is described in:</u>

- Replacing upholstery for front seat

The work scope with CIS mat is different for the following work steps:



Cut open cable strap (1).

Lift locking tab and pull the connector out of the side of the connector housing.

Installation note:
Replace cable tieÂ (1).

Connector is encoded against incorrect assembly.

Installation note:
<u>Enabling seat occupancy detector (CIS mat):</u>

- Connect BMW programming system
- Encode airbag control unit
- Delete fault memory if necessary

cardiagn.com

65 77 602 Replacing sensor mat for front passenger seat occupancy detector

Necessary preliminary tasks:

- Remove front passenger seat

Important!

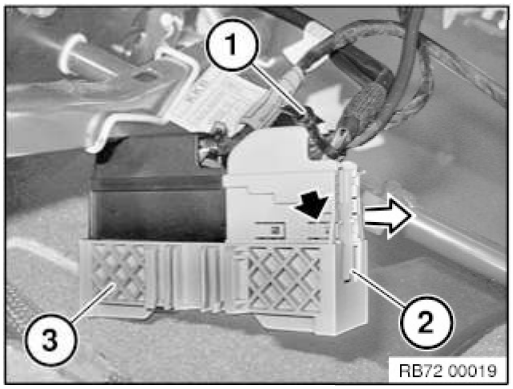
Risk of damage on sharp-edged seat mechanism.

Guide all cables carefully through seat and backrest mechanism.

Make sure cable is routed without kinks and tension.

Make sure plug connections are correctly locked.

Make sure connectors are correctly seated in latch mechanisms.

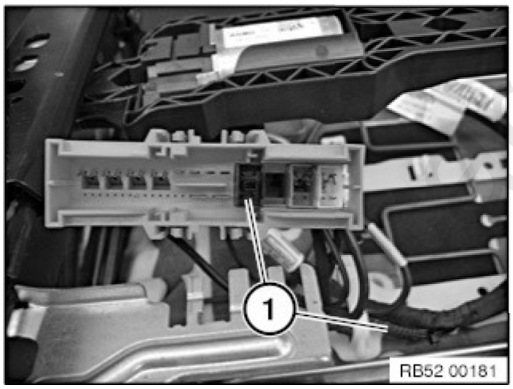


Remove the central plug from the mounting.

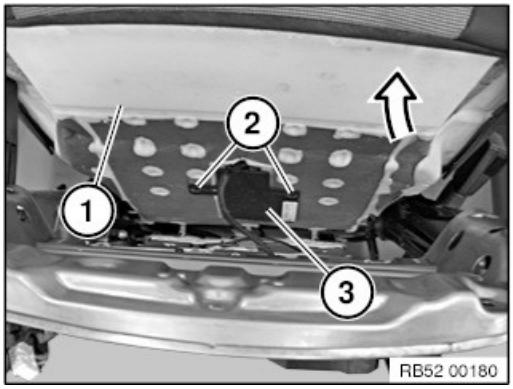
Cut open cable strap (1).

Installation note:
Replace cable tie (1) at central plug.

Raise the tab and pull connector (2) out through the side of the connector housing (3).



Detach cable for seat occupancy detection (1) from cable clip.



Lift the front seat cover with upholstery (1) and unclip the mounting (2) for the seat occupancy detection (3).

Remove the seat occupancy detection (3) from upholstery front passenger seat (1) and feed out connector with cable.

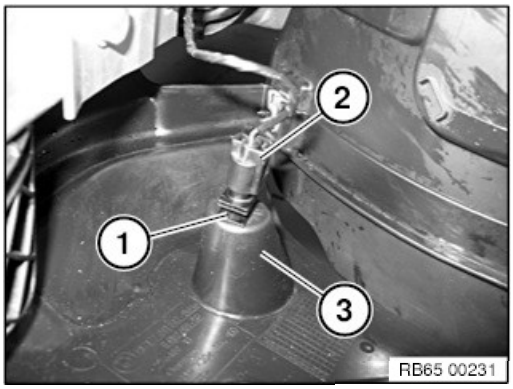
Installation note:
Plug connections are coded against incorrect assembly.

- To avoid malfunctions, make sure seat occupancy mat (3) is cleanly laid:
  - Insert the seat occupancy detection (3) in the provided recess and clip in mounting.
  - Install the cables and connectors for the seat occupancy detection clean and without kinks.
  - Slide and lock connector in central connector housing.

cardiagn.com

65 81 060 Removing and installing/replacing outside temperature sensor

- Partially remove front wheel arch cover



Pull outside temperature sensor (1) upward out of fixture (3).
Unfasten plug connection (2) and disconnect.
Remove the outside temperature sensor (1).

cardiagn.com

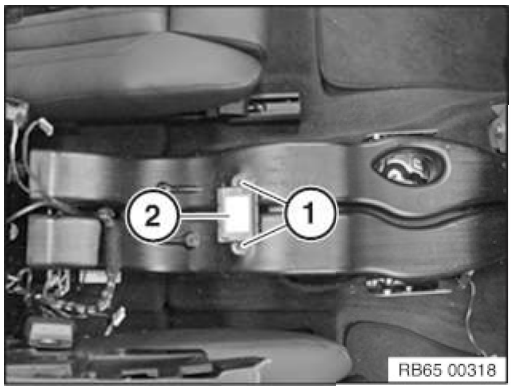
65 82 300 Removing and installing (replacing) Touchbox controller control unit

Important!

Read and comply with notes on protection against electrostatic discharge (ESD protection).

Necessary preliminary tasks:

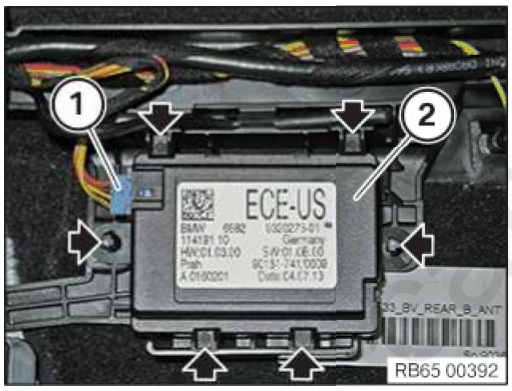
- Remove complete centre console



Version with air duct:

Loosen the screws (1).

Remove Touchbox (2).



Version without air duct:

Unfasten plug connection (1) and disconnect.

Release latch mechanisms at marked points.

Remove Touchbox (2).

Replacement:

Carry out vehicle programming and encoding.

65 82 300 Removing and installing (replacing) Touchbox controller control unit

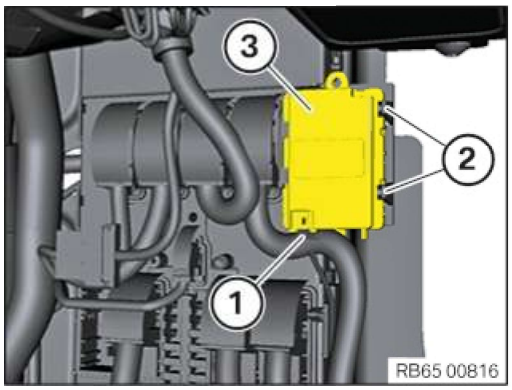
Attention!

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

Necessary preliminary tasks:

- Remove footwell side trim panel, right

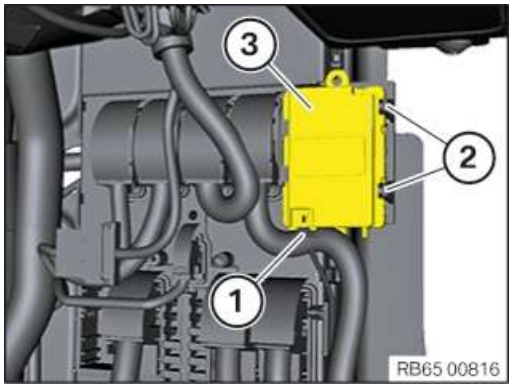
Removal:



Unfasten plug connection (1) and disconnect.

Release Touchbox (3) from the latch mechanisms (2) and feed out from the holder.

Installation:



Note:
Latch mechanisms (2) must not be damaged or missing.

Feed in Touchbox (3) correctly on the holder and engage it to the latch mechanisms (2).

Connect and lock plug connection (1).

carDiagn.com

Required reworking:

- Install the side trim panel in the right-hand footwell



Replacement:

Carry out programming.

cardiagn.com

65 83 020 Removing and installing (replacing) Car Information Computer (CIC)

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.

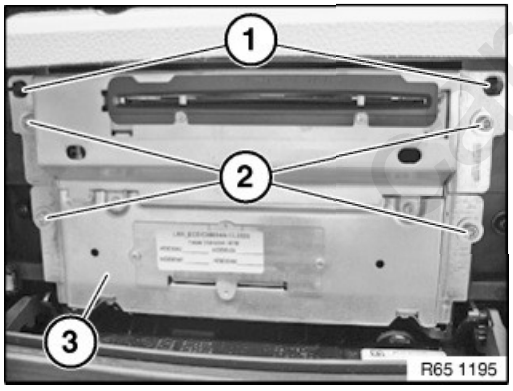
Avoid subjecting the CIC to vibration / shocks.

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

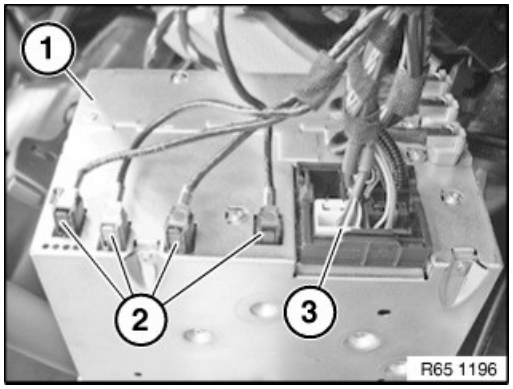


Note:
Picture for example purposes only!

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

cardiagn.com

65 12 320 Removing and installing (replacing) Headunit Basis

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.

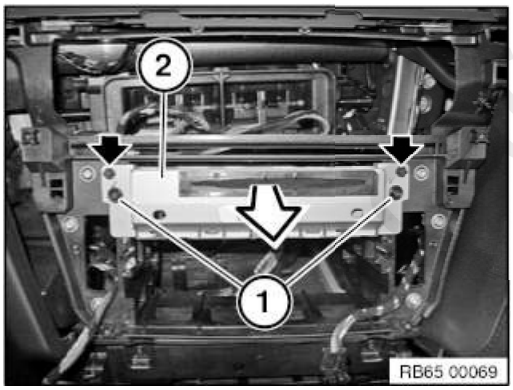
Avoid subjecting the headunit to vibration/shocks.

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 tasks:

- Remove radio and IHKA control panel
- Disconnect battery earth lead (F03: Disconnect both battery earth leads).

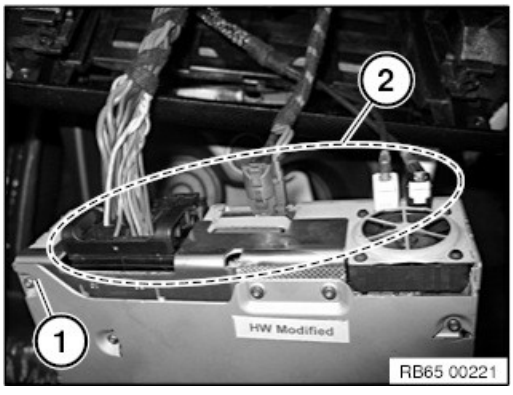


Note:
Picture for example purposes only!

Release screws (1).

Pull head unit (2) forward.

Installation note:
Check head unit (2) is correctly seated on retaining lug at marked points.



Unlock and disconnect all plug connections (2) in the marked area.

Remove headunit (1).

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.



Replacement:

Carry out programming/encoding.

Install correct navigation map in vehicles with production date starting from 07/2015.

Additionally load service history for the following vehicles:

- 1 series and 2 series F2x, 3 series and 4 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

Importing the Service history:

- 05 Maintenance and Pre-Delivery Check
- Service history

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65 12 315 Removing and installing (replacing) HU-H)

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.

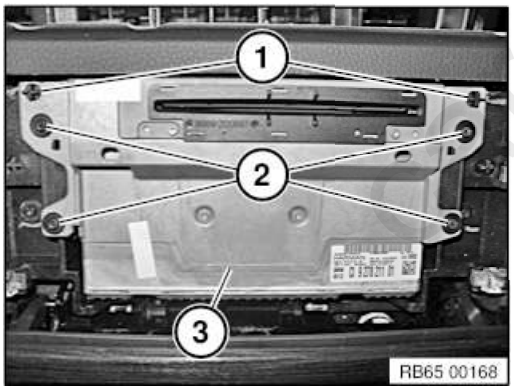
Avoid subjecting the head unit to vibration/shocks.

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 radio and A/C control panel
- Disconnect battery earth lead (F03: Disconnect both battery earth leads).



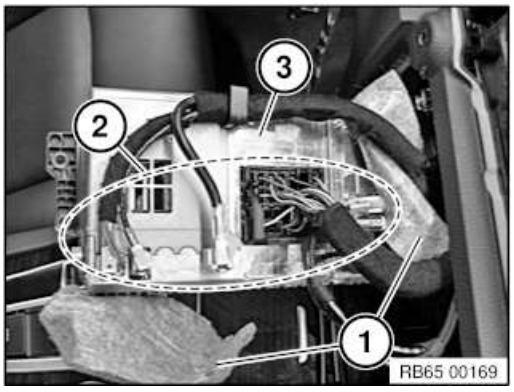
Note:
Picture for example purposes only!

Unfasten screws (2).

Tightening torque 65 12 3AZ.

Pull headunit (3) out of guide.

Installation note:
Make sure head unit (3) is *correctly seated* in guide lugs (1).



Set the protective nonwoven material (1) aside as shown.

Unlock plug connections·(2) and disconnect.

Remove headunit (3).

diag.com

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.



Replacement:

Carry out programming/encoding.

Install correct navigation map in vehicles with production date starting from 07/2015.

Additionally load service history for the following vehicles:

- 1 series and 2 series F2x, 3 series and 4 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

Importing the Service history:

- 05 Maintenance and Pre-Delivery Check
- Service history



Initialise component protection (only F15, F16, F85, F86):

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!

cardiagn.com

65 12 315 Removing and installing (replacing) HU-H)

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.

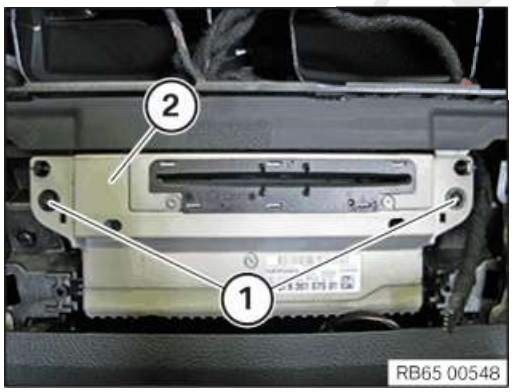
Attention!
Read and comply with notes on protection against electrostatic damage (ESD protection).

Note:
Comply with notes and notes on handling optical fibres.

Necessary preliminary tasks:

- Remove radio and IHKA control panel
- Disconnect battery earth lead

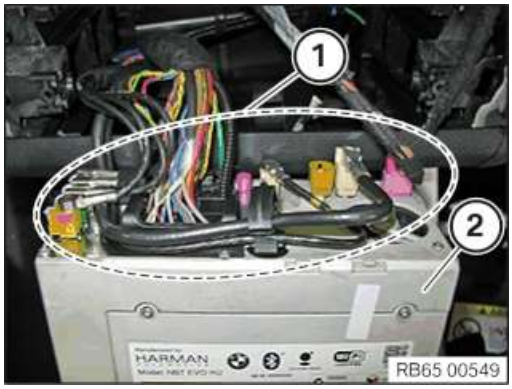
Removal:



Release screws (1).

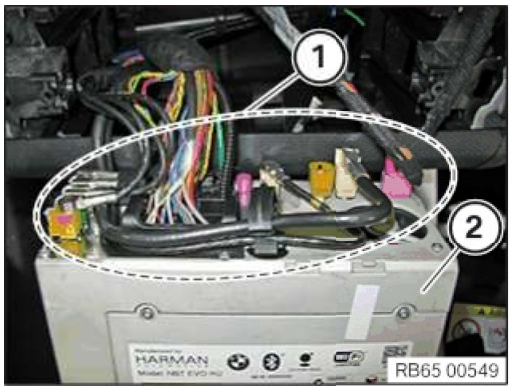
Pull the HU-H (2) out forward.

cardiagn.com

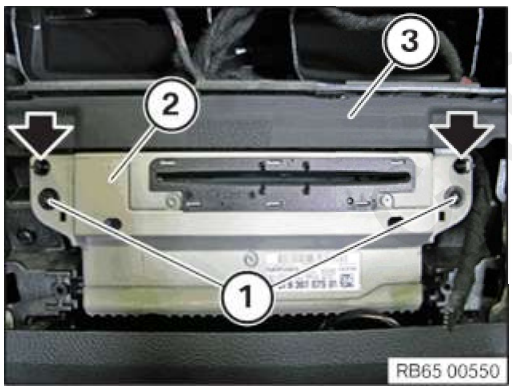


Unlock and disconnect all connectors (1) in marked area.
Remove HU-H (2).

Installation:



Position HU-H (2).
Connect and lock all the connectors (1) in the marked area.



Slide the HU-H (2) toward the back into the instrument panel (3).
Tighten down screws (1).

Note:
Make sure the HU-H (2) is correctly seated on the retaining lugs at the marked points.

Required reworking:

- Install the radio and IHKA control panel
- Connect battery earth lead

<u>Only for US models with satellite radio:</u>

Additional work is required when replacing the headunit!

- Refer to document Replacing satellite tuner, as of 09/2009.



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

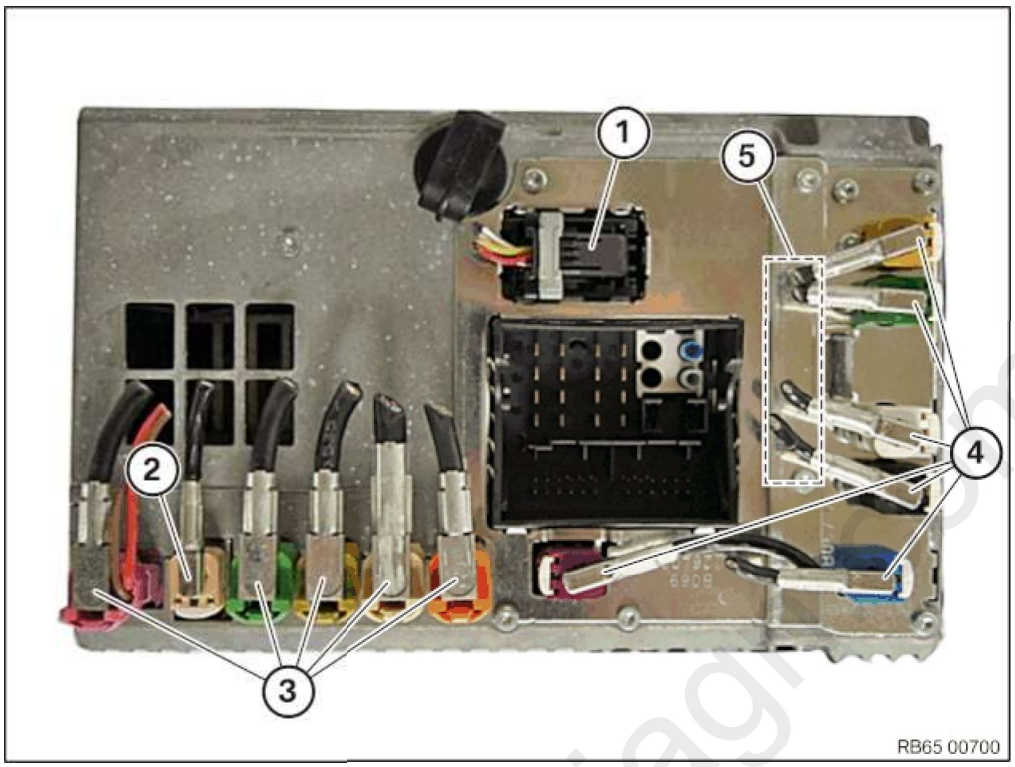
cardiagn.com

65 12 ... Repair instructions after theft of head unit

Attention!

If **lines are disconnected** in the vehicle interior during a theft of electronic components, the disconnected lines **are to be individually repaired or replaced**.

Replacement **of the complete audio wiring harness** is **not permitted**.



The figure shows a stolen head unit with connectors and disconnected line parts. Disconnected lines without a connector remain in the vehicle.

The number and arrangement of lines can vary according to the equipment.

All parts necessary for repair are available in the Electronics Parts Catalogue.

1. Repair connector with lines with the "TV module" repair kit.

2./4. If the (5) coaxial lines (aerial lines) are cut close to the connector, attach a new connector. Otherwise, completely replace coaxial lines (aerial lines) (line extension not possible).

Exception: The connector cannot be repaired on **RG174** lines.

3. Completely replace HSD lines (repair not possible).

61 00 ... Notes on handling wiring harnesses and cables



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 ≥ 85 °

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.

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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):

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- 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.**

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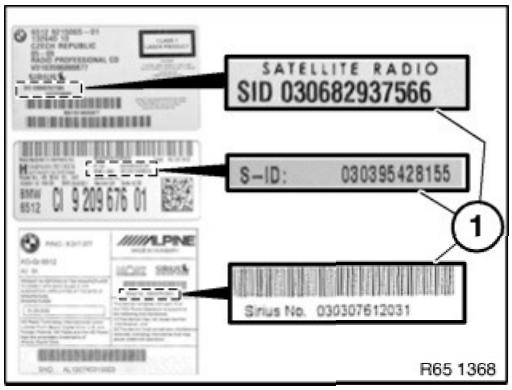
65 12 220 Remove and install (replace) the satellite radio (SDARS), (US version from 09/2009 only)

Necessary preliminary tasks:

- Remove Car Information Computer (CIC)

For equipment specification with head unit:

- Remove headunit



When replacing, please observe:

Note SID number (1) of the removed device.

Note:
The SID number (1) can be found on the label of the housing. Location may be different, depending on the equipment manufacturer.

Note SID number (1) of the new device in the same way.

Input the enabling code from the Aftersales Assistance Portal (ASAP).

Replacement:

Carry out programming/encoding.

Note:
Please contact Sirius. Use the SID number to cancel current device and register new one.

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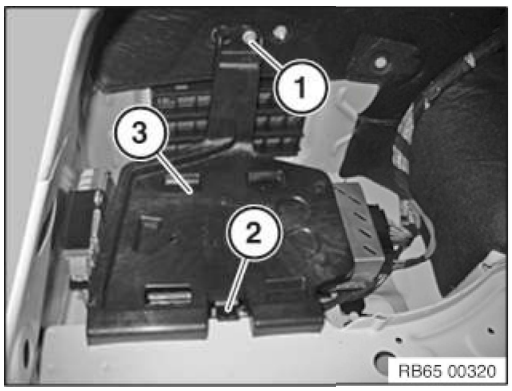
65 12 072 Removing and installing or replacing amplifier

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
- Partially remove luggage compartment wheel arch panel on left

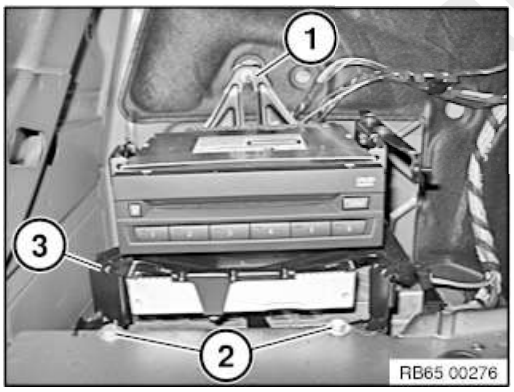


Slacken nut (1).

Unlock catch (2).

Remove cover (3).

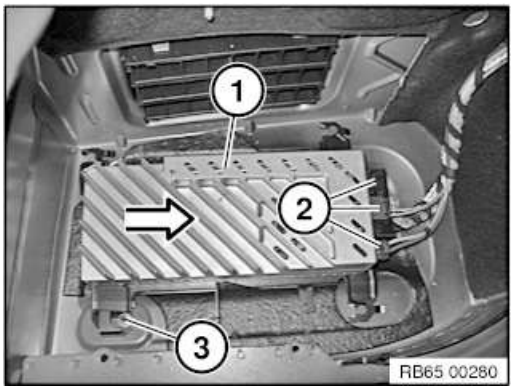
Installation note:
Make sure cover (3) is correctly seated.



<u>Version with TV module or DVD changer:</u>

Unscrew nut (1) and bolts (2).

Take off holder (3).

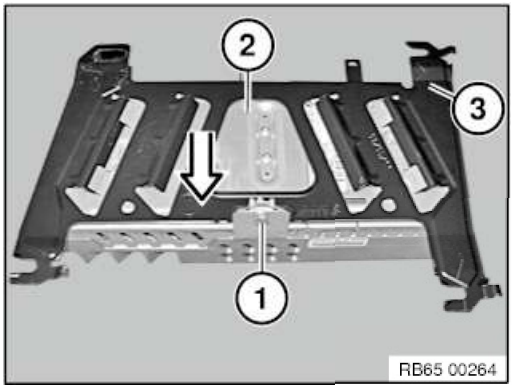


Unscrew nut (3).

Unlock plug connections (2) and disconnect.

Remove amplifier (1) with holder in direction of arrow.

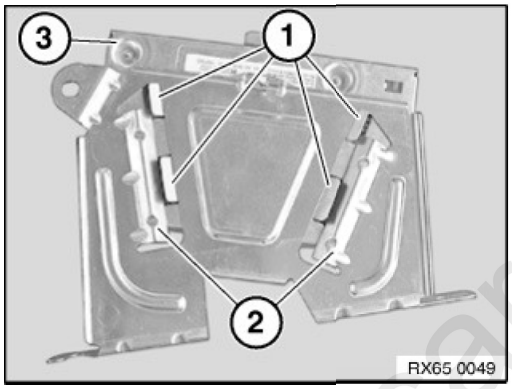
Installation note:
Make sure amplifier (1) is correctly seated.



Replacement:

Release screw (1).

Pull amplifier (2) out of holder (3) in direction of arrow.



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

Check that amplifier (3) is securely seated.

Replacement:

In Harman Kardon version, perform vehicle programming and encoding.

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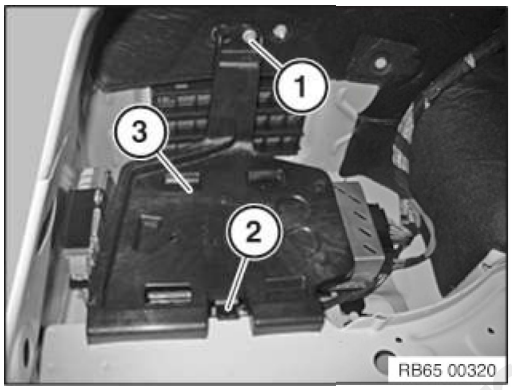
65 12 072 Removing and installing/replacing amplifier (hi-fi system/Harman Kardon)

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
- Partially remove luggage compartment wheel arch panel on left

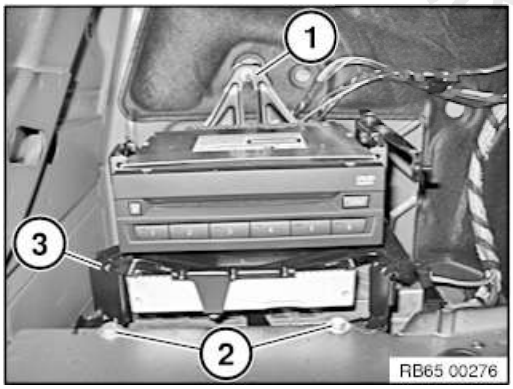


Slacken nut (1).

Unlock catch (2).

Remove cover (3).

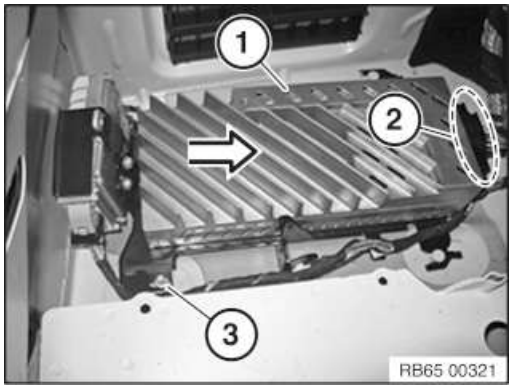
Installation note:
Make sure cover (3) is correctly seated.



<u>Version with TV module or DVD changer:</u>

Unscrew nut (1) and bolts (2).

Take off holder (3).

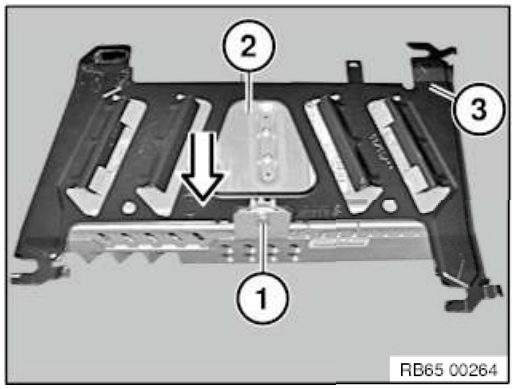


Unscrew nut (3).

Unlock plug connections (2) and disconnect.

Remove amplifier (1) with holder in direction of arrow.

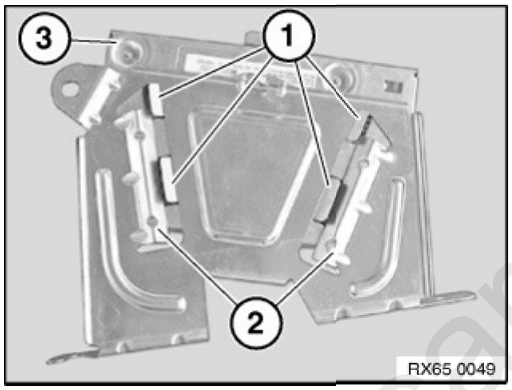
Installation note:
Make sure amplifier (1) is correctly seated.



Replacement:

Release screw (1).

Pull amplifier (2) out of holder (3) in direction of arrow.



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

Check that amplifier (3) is securely seated.

Replacement:

In Harman Kardon version, perform vehicle programming and encoding.

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