

*Note:*

Depending on the vehicle and the equipment, programming/encoding has the following flat rate unit position:

- 61 00 710
- 61 00 720
- 61 00 730

*Notes:*

- In order to avoid incorrect programming procedures and Check Control message, it is essential to always use the most recent version when working with the ISTA/P programming system.
- Battery voltage must not drop below **13.0 V** during programming. Connect battery charger prior to programming.
Only use battery chargers* recommended by BMW for low voltage vehicle electrical system.

*Sourcing reference Workshop Equipment Catalogue

**Attention!**

No high-voltage switch off is required in electric vehicles or hybrid vehicles for programming/encoding.

The high-voltage system will be automatically switched off by the programming system.

Exception:

BMW I01: Observe PuMA measure 55176388!

programming routine via ISTA/P:

- Connect the battery charger to the vehicle.
- Connect the programming system with the vehicle.
- Determine the action plan.
- Accept action plan with the control units to be programmed/encoded and enabled, if necessary or work through.
- Observe the reworking list!
- If applicable, connect the workshop system to the vehicle, depending on the reworking list. Perform brief test and delete fault memory.

Note:

With the integration of the service functions and the "quick clearing" function in ISTA/P, it may not be necessary to change to the workshop system. Check the rework list accordingly!

- The information about programming the workshop system and the corresponding notes in the user documentation must be observed.





Note:

Initialisation is necessary:

- after replacing the windscreen
- after replacing the rain-light-solar-condensation sensor
- after removing and installing the rain-light-solar-condensation sensor



Note:

- Connect BMW diagnosis system
- Initialise the rain-light-solar-condensation sensor

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Note:

Initialisation is necessary:

- after replacing the windscreen
- after replacing the rain-light sensor
- after removing and installing the rain-light sensor



Note:

- Connect BMW diagnosis system
- Initializing rain/light sensor

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**Special tools required:**

- 12 7 060

*Note:*

Electrical components which are particularly sensitive to electrostatic discharge (electronic control units, sensors, etc.) are marked with the ESD warning symbol.

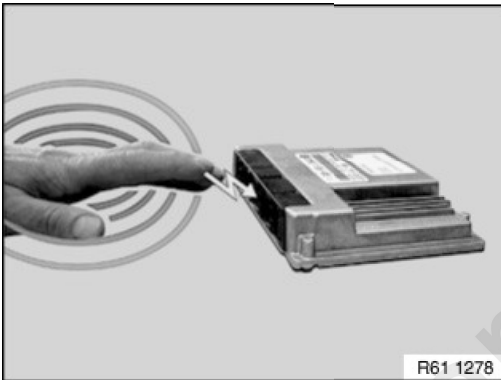
E-Electro

S-Static

D-Discharge

**Important!**

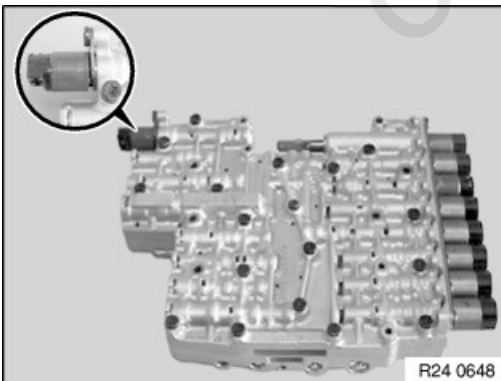
Read and comply without fail with the notes on this subject from Service Information **2 06 04 128**.



Statically charged persons can discharge themselves when they touch electrical components. *Note:*

Humans can only detect a discharge starting from a level of approx. 3000 V.

The danger threshold for electrical components already starts from a level of approx. 100 V.



Example:

Mechatronic control unit.





Important!

Do not touch pins and multi-pin connectors directly!

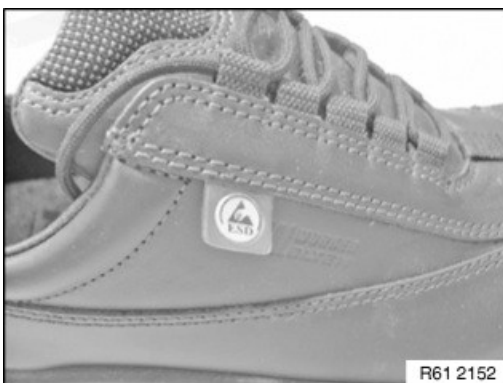
Touch electrical components by their housings only.



Important!

To avoid damaging or destroying electrical components as a result of electrostatic discharge, it is absolutely essential to observe the following instructions:

- When replacing electrical components, leave the replacement components in their original packaging until immediately before they are to be installed
- If necessary, always return a removed component in its original packaging (always pack the component away immediately)
- Read and comply with user information on using the associated special tool 12 7 060



Personal protective equipment:

Electrically conducting clothing (high wool content, antistatic shoes required).

These can primarily be identified by the logo on the side.



61 35 ... Overview of additional work for the removal and installation or replacement of electronic components in the body area/windscreen

Component	Removal and installation Calibration/Initialisation required (diagnosis system must be connected)	Removal and installation Use of the Special tool necessary	Replacement Programming/encoding Calibration/Initialisation required (diagnosis system must be connected)	Replacement Use of the Special tool necessary	Remarks
Front section: (including bumper panel)					
ACC sensor	Yes	Yes	Yes	Yes	
PDC ultrasonic sensor	No	No	No	No	
PMA ultrasonic sensor	No	No	No	No	
Side View camera	No	No	Yes	No	
Side section:					
Top view camera (in the exterior mirror)	No	No	Yes	No	
Rear area: (including bumper panel):					
reversing camera	No	No	Yes	No	
PDC ultrasonic sensor	No	No	No	No	
Sensor, lane change warning	no*	No	Yes	No	*Required after a body repair in the surrounding area of the sensor. Comply with the regulations for repainting!
Windscreen:					
Camera-based driver support systems camera	no*	No	no*	No	*Necessary after replacement of the windscreen
Rain sensor (separate document)					



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61 35 ... Overview, rain sensor (additional work when replacing the windscreen / sensor replacement)

- **1-Series:** E8x
- **3-Series:** E9x
- **5-Series:** E6x
- **6-Series:** E6x
- **X1:** E84
- **Z4:** E89

Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor/ Programming/encoding necessary	When replacing the sensor/ Initialisation required	Connecting the diagnosis system required
Condensation sensor square 30 x 20 mm	Yes	No	No	No

- **5-Series:** E6x
- **6-Series:** E6x
- **7-Series:** E6x

Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing substitute visuals Programming/encoding necessary	When replacing the sensor/ substitute visuals Initialisation required	Connecting the diagnosis system required
all types square 60 x 40 mm	No	Yes	-	Yes	Yes
RLS approximately ø 50 mm	No (new substitute visuals required, refer to Electronic Parts Catalogue)	-	No	Yes	Yes

- **X5:** E70
- **X6:** E7x



Sensor type/ Sensor shape	With windscreen replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing substitute visuals Programming/encoding necessary	When replacing the sensor/ substitute visuals Initialisation required	Connecting the diagnosis system required
RLPSS (Rain, light and precipitation solar sensor) (Designation is located on the back of the sensor) approximately ø 50 mm	Yes	Yes	-	Yes	Yes
RLS (vehicle with no HUD) (Designation is located on the back of the sensor) approximately ø 50 mm	No (new substitute visuals required, refer to Electronic Parts Catalogue)	-	No	Yes	Yes
RLSS (vehicle with HUD) (Designation is located on the back of the sensor) approximately ø 50 mm	Yes	Yes	-	Yes	Yes

- **1-Series:** E8x
- **3-Series:** E9x
- **X1:** E84
- **X3:** E83
- **Z4:** E89

Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing the sensor Initialisation required	Connecting the diagnosis system required
all types square 60 x 40 mm	No	Yes	Yes	Yes

- **5-Series:** F1x
- **5 Series GT:** F07



- **6-Series:** F06, F1x
- **7-Series:** F0x
- **X3:** F25
- **X4:** F26

Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing substitute visuals Programming/encoding necessary	When replacing the sensor/ substitute visuals Initialisation required	Connecting the diagnosis system required
all types approximately ø 35 mm	No	No	-	Yes	Yes
all types approximately ø 50 mm	Yes	Yes	-	Yes	Yes
Only for F25 : RLS approximately ø 50 mm	No (new substitute visuals required, refer to Electronic Parts Catalogue)	-	No	Yes	Yes

- **X5:** F15, F85
- **X6:** F16, F86

Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing the sensor Initialisation required	Connecting the diagnosis system required
all types approximately ø 35 mm	No	No	No	No

- **1-Series:** F2x
- **2-Series:** F2x
- **3-Series:** F3x, F8x
- **3 Series GT:** F34
- **4-Series:** F3x, F8x

Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing the sensor Initialisation required	Connecting the diagnosis system required
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all up to 03/2014 except SBS (01) (Designation is located on the back of the sensor) approximately $\varnothing$ 35 mm	No	No	Yes	Yes
SBS (01) (Designation is located on the back of the sensor) approximately $\varnothing$ 35 mm	No	No	No	No
All as from 03/2014 approximately $\varnothing$ 35 mm	No	No	No	No

- **2-Series: F4x**

Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing the sensor Initialisation required	Connecting the diagnosis system required
all types	No	No	No	No

BMW i:

Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing the sensor Initialisation required	Connecting the diagnosis system required
all types approximately $\varnothing$ 35 mm	No	No	No	No

BMW from G series

Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing the sensor Initialisation required	Connecting the diagnosis system required
all types	No	No	No	No

MINI (all):

Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing the sensor Initialisation required	Connecting the diagnosis system required
all types square 60 x 40 mm	No	Yes	Yes	Yes



all types approximately ø 35 mm	No	No	No	No
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Rolls-Royce:

- RR1
- RR2
- RR3
- RR4
- RR5
- RR6

Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing the sensor Initialisation required	Connecting the diagnosis system required
all types square 60 x 40 mm	No	Yes	Yes	Yes
all types approximately ø 35 mm	No	No	Yes	Yes
all types approximately ø 50 mm	Yes	Yes	Yes	Yes

Rolls-Royce:

- RR11
- RR12

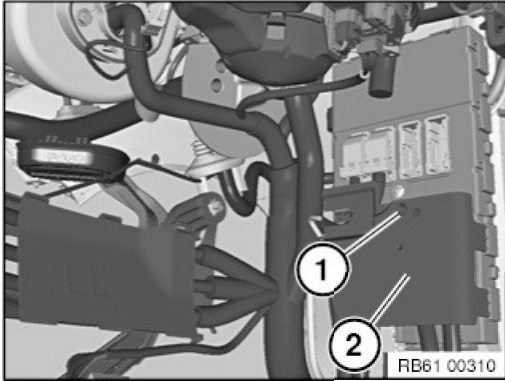
Sensor type/ Sensor shape	With windscreen replacement replacement sensor required	When replacing the sensor Programming/encoding necessary	When replacing the sensor Initialisation required	Connecting the diagnosis system required
all types approximately ø 35 mm	No	No	No	No



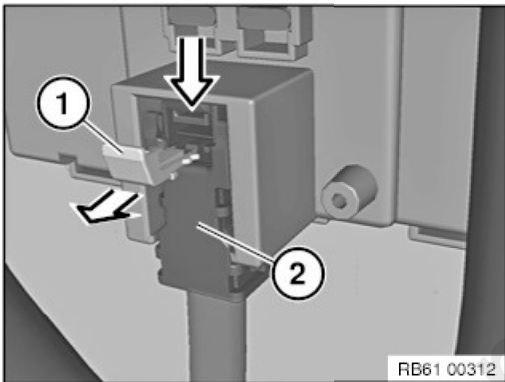


Necessary preliminary tasks:

- Clamp off battery lead from negative connection point
- Remove side trim panel from footwell on right A-pillar



Release screw (1) and remove cover (2).

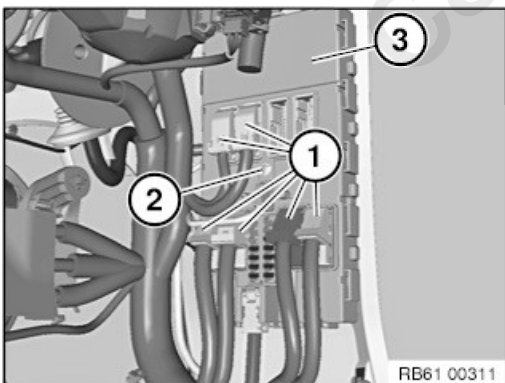


Attention!

Risk of damage to positive battery cable connector!

Unlock the positive battery cable connector:

1. Loosen lock (1) in direction of arrow.
2. Unlock top positive battery cable connector (2) in direction of arrow.
3. Disconnect battery positive lead (2).



Unlock plug connections (1) and disconnect.

Release bolt (2) and remove control unit (3).

Tightening torque 61 35 5AZ.

Installation note:

Make sure all plug connections are correctly latched.



Replacement:

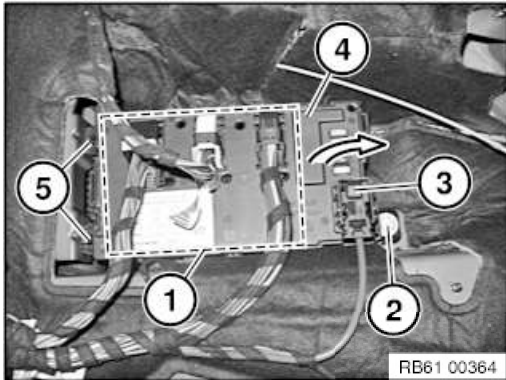
Carry out programming/encoding.





Necessary preliminary tasks:

- Disconnect the negative battery cable



Unlock and disconnect all plug connections in area (1).

Unlock and disconnect positive battery cable (3). (Note removal instructions below)

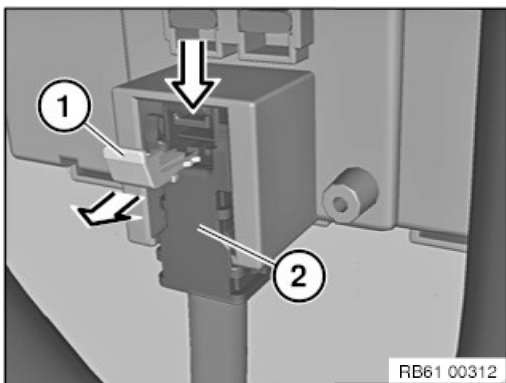
Release screw (2).

Tightening torque 61 35 4AZ.

Remove control unit (4) from guides (5) in direction of arrow.

Installation note:

Make sure all plug connections are correctly latched.



Important!

Risk of damage to positive battery cable connector!

Unlock the positive battery cable connector:

1. Loosen lock (1) in direction of arrow.
2. Unlock top positive battery cable connector (2) in direction of arrow.
3. Disconnect battery positive lead (2).



Replacement:

Carry out vehicle programming/coding.





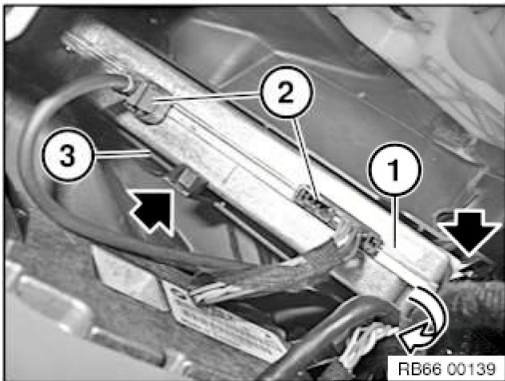
Important!

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



Necessary preliminary tasks:

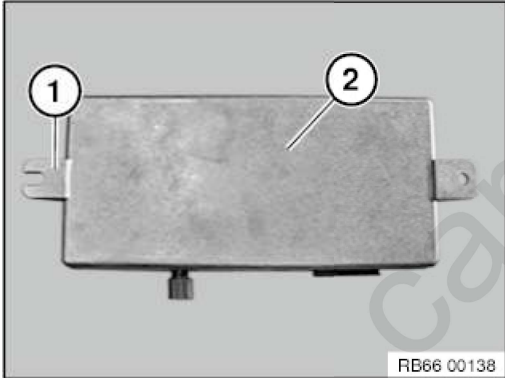
- Remove trim panel for pedal mechanism



Unlock plug connections (2) and disconnect.

Unlock latches at marked points.

Remove control unit (1) from holder (3) in direction of arrow.



Installation note:

Guide (1) on control unit (2) must be inserted in corresponding recess on counter support.

Make sure control unit (2) is securely seated.



Replacement:

- Carry out programming/encoding.
- Calibrate reversing camera





Operation is described in:

Removing solar rain/light sensor and condensation sensor

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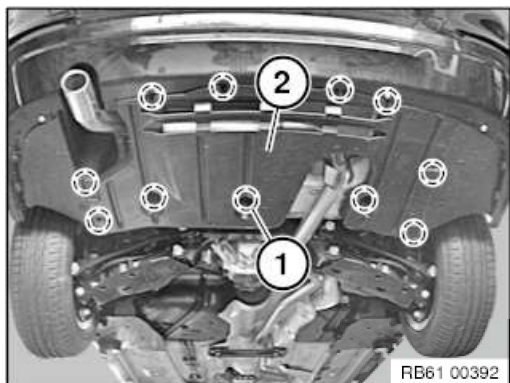


61 35 245 Removing and installing (replacing) Smart Opener bottom sensor line (non-contact rear lid opening)



Important!

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

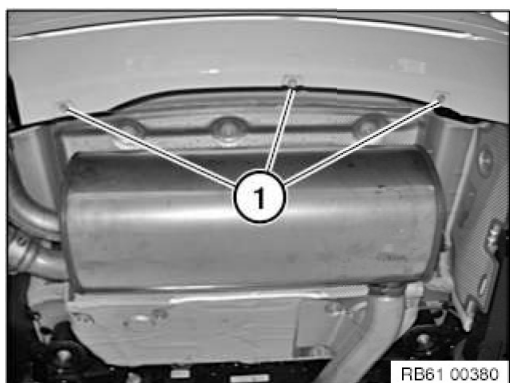


Note:

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

Depending on the engine version:

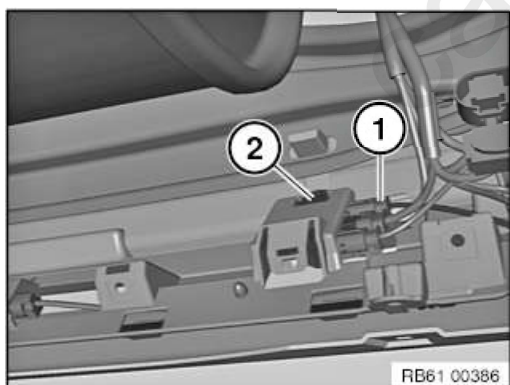
If necessary, release screws (1) on cover (2) and remove cover (2).



Note:

Control unit and sensor strip are located on reinforcement of rear bumper panel.

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

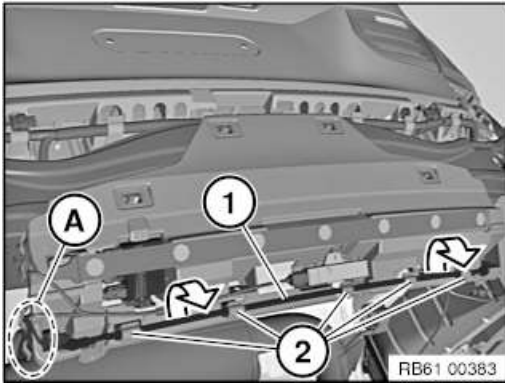


Unlock associated plug connection (1) on control unit (2) and disconnect.

Installation note:

Make sure plug connection (1) is correctly seated.





Note:

Shown with bumper panel removed for purposes of clarity.

Important!

Risk of damage, do not kink sensor line!

Feed out associated connecting line in area (A).

Reach between reinforcement and bumper panel.

Release sensor line (1) from holder (2) in direction of arrow and feed out.

Installation note:

Make sure sensor line (1) is correctly fitted.

Holders (2) must not be missing or damaged.

Make sure connecting line is correctly laid.

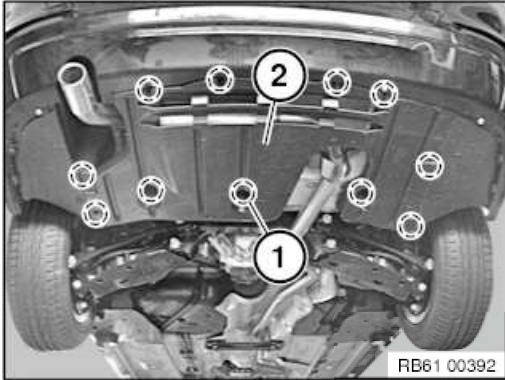


61 35 240 Removing and installing (replacing) Smart Opener control unit (non-contact rear lid opening)



Important!

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

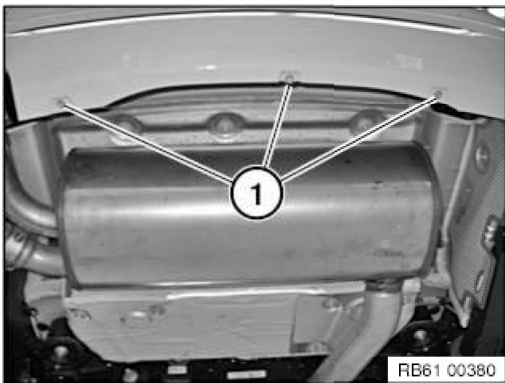


Note:

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

Depending on the engine version:

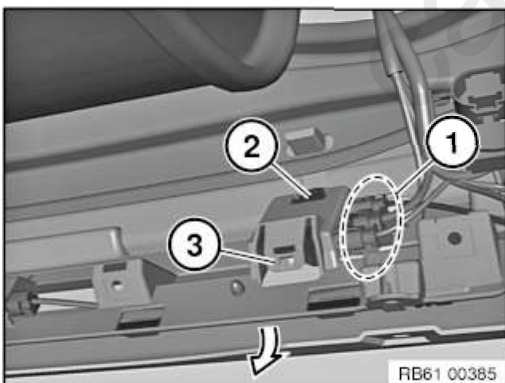
If necessary, release screws (1) on cover (2) and remove cover (2).



Note:

Control unit is located on rear reinforcement of bumper panel.

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



Unlock plug connections (1) and disconnect.

Reach between reinforcement and bumper panel.

Release control unit (2) at latch mechanism (3) and feed out in direction of arrow.

Installation note:

Make sure all plug connections (1) are correctly seated.

Make sure control unit (2) is correctly seated on latch mechanism (3).

Make sure connecting lines are correctly routed.



61 35 243 Removing and installing (replacing) Smart Opener top sensor line (non-contact rear lid opening)



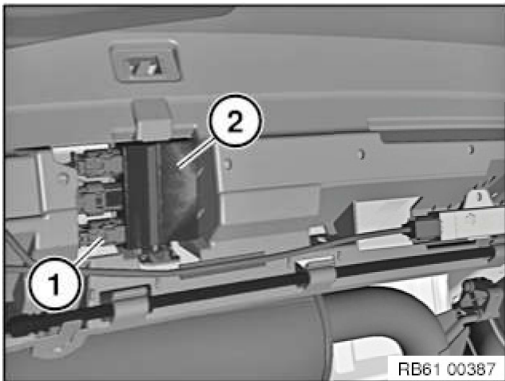
Important!

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



Necessary preliminary tasks:

- Remove rear bumper trim



Note:

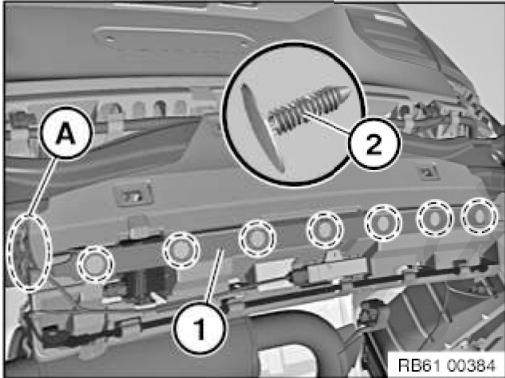
Work shown on the F30 by way of example, deviations in detail are possible in other models.

Unlock associated plug connection (1) on control unit (2) and disconnect.

Installation note:

Make sure plug connection (1) and control unit (2) are correctly fitted.

Make sure connecting line is correctly laid.



Important!

Risk of damage, do not kink sensor line!

Feed out associated connecting line in area A.

Release sensor line (1) at clips (2) and remove.

Installation note:

Make sure sensor line (1) is correctly fitted.

Make sure connecting line is correctly laid.

Clips (2) must not be missing or damaged.



61 35 270 Removing and installing (replacing) the FEM control unit \PREMIUM

Prerequisite

- Ignition is switched off.



WARNING

Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.
- For additional batteries: Detach all battery earth leads from additional batteries.



TECHNICAL INFORMATION

For additional information see:

- 61 00 ... Safety information on handling the vehicle battery
- 61 00 / 12 00 ... Notes on disconnecting and connecting the vehicle battery
- 61 12 ... Notes on the intelligent battery sensor (IBS)



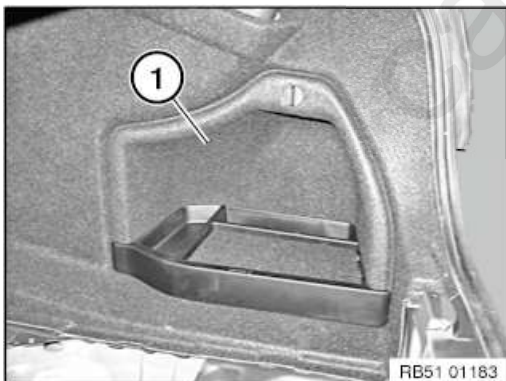
TECHNICAL INFORMATION

Vehicle programming/coding must be performed after installation.

For additional information see: 61 00 ... Programming/encoding control unit(s)

PRELIMINARY WORK

1 – Remove right luggage compartment trim panel



- Remove right luggage compartment trim panel (1).

2 – Disconnecting the battery earth lead

Prerequisite

Ignition is switched off.



TECHNICAL INFORMATION

For additional information see:

61 00 ... Safety information on handling the vehicle battery

61 00 / 12 00 ... Notes on disconnecting and connecting the vehicle battery

61 12 ... Notes on the intelligent battery sensor (IBS)



RISK OF DAMAGE

Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

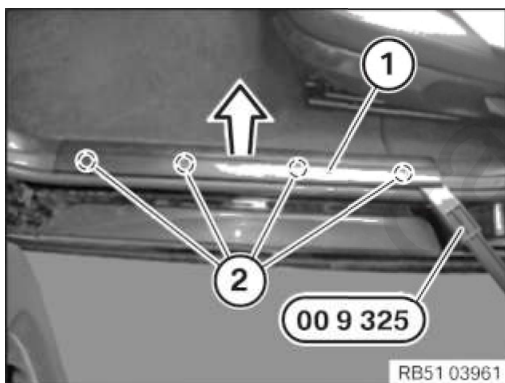
- Slacken nut (1).
- Pull off the battery earth lead including intelligent battery sensor (IBS) (2) upwards, put to one side and secure the components.

3 – Remove front entrance cover strip



NOTICE

Description is for left component only. Procedure on the right side is identical.



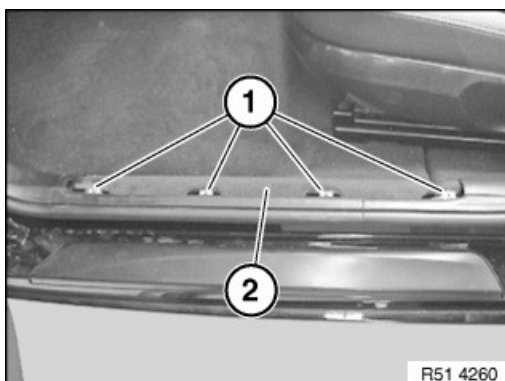
RISK OF DAMAGE

Bending of plastic parts.

Application of too much force can lead to bending of plastic parts.

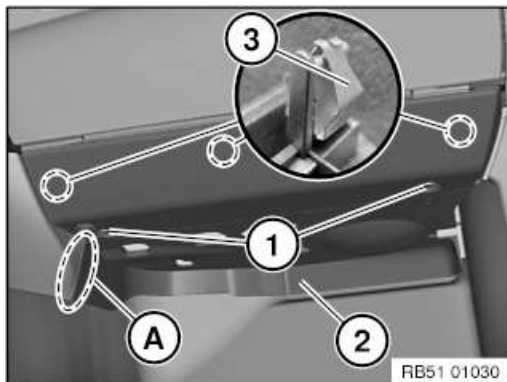
- Place special tool directly beside the mounting clip.
- Continue unclipping the part without using the tool if possible.

- Unclip the front door sill cover strip (1) at the clips (2) using the special tool [0 496 569 \(00 9 325\)](#) in the direction of arrow starting from the rear.
- If applicable, unclip the clips (1) from the floor panel (2).



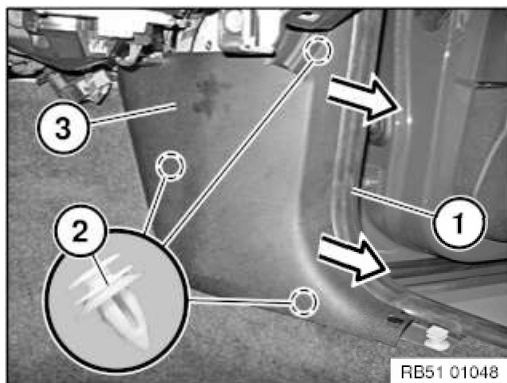
4 – Removing the bottom left instrument panel trim





- Loosen screw connections (1).
- Loosen the instrument panel trim (2) using the clips (3) and remove towards the bottom in this area (A).
- Slightly lower the instrument panel trim (2) and disconnect the plug connection behind it.
- Remove the instrument panel trim (2) and put to one side.

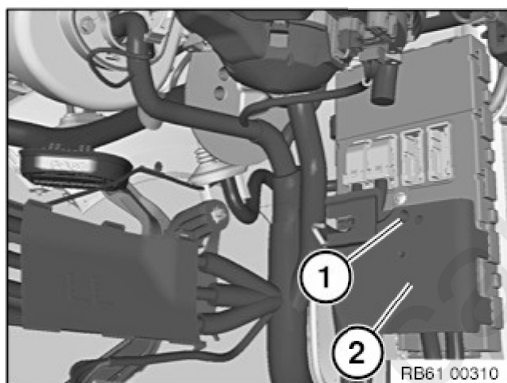
5 – Removing the side trim panel in the footwell at the right-hand A-pillar



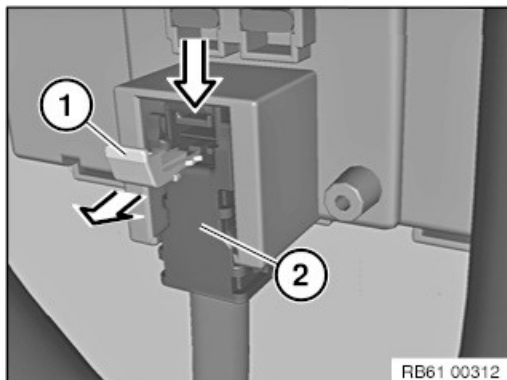
- Loosen the edge protection (1) around the side trim panel (3).
- Pull off the side trim panel (3) from the clips (2) in the direction of the arrow.
- Loosen the clips (2) from the body.

MAIN WORK

6 – Remove the Front Electronic Module (FEM)

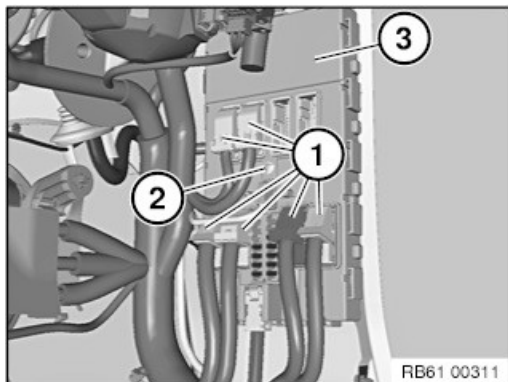


- Unscrew the bolt (1) and remove the cover (2).



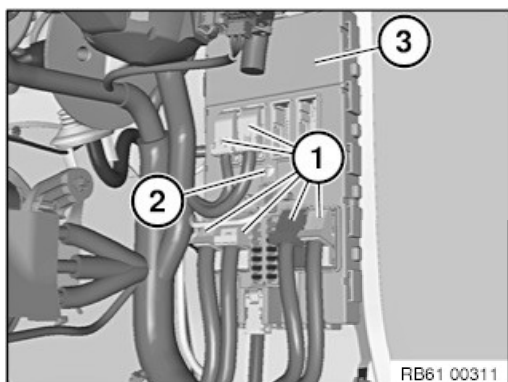
- Loosen the lock (1) in the direction of the arrow.
- Unlock the positive battery cable connector (2) at the top in the direction of the arrow.
- Remove the positive battery cable (2).





- Unlock and disconnect all plug connections (1).
- Unscrew the bolt (2) and remove the front electronic module (FEM) (3).

7 – Install the front electronic module (FEM)

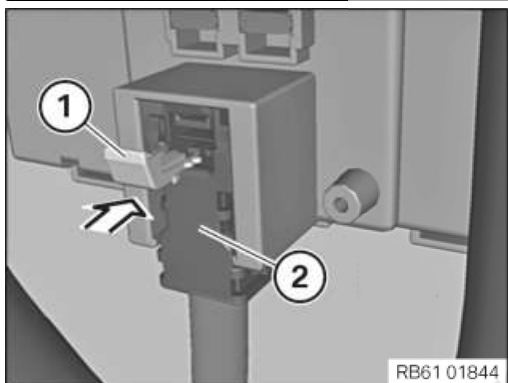


- Insert the front electronic module (FEM) (3) and tighten the bolt (2).

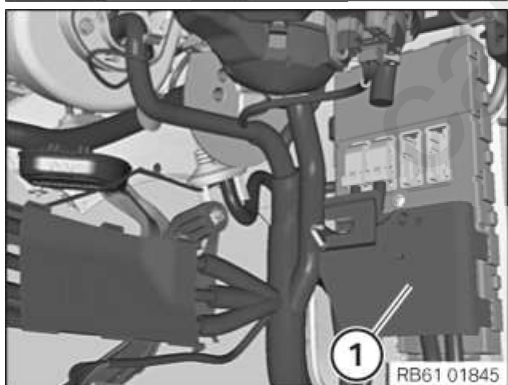
Front electronic module (FEM) on the A-pillar

			1,7 Nm
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- Connect all connectors (1) and lock.



- Insert positive battery cable (2).
- Close lock (1) in direction of arrow.

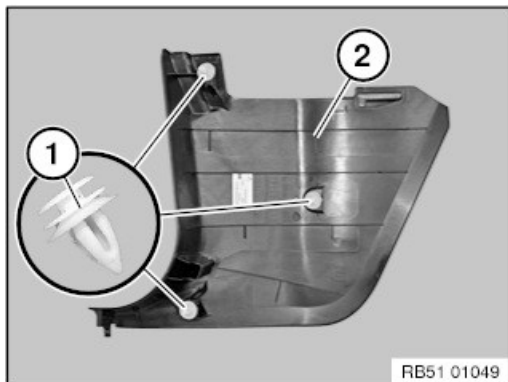


- Secure cover (1).

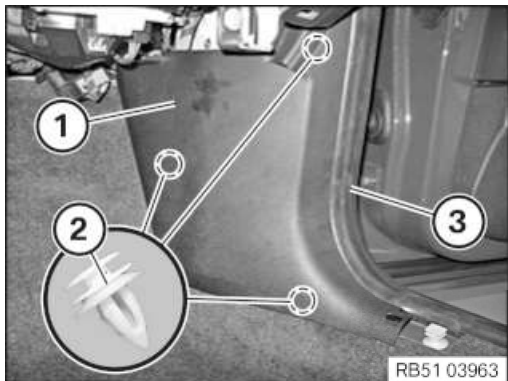
POSTPROCESSES

8 – Installing side trim panel in footwell on right A-pillar





- Check clips (1) on side trim panel (2) for damage and replace if necessary.



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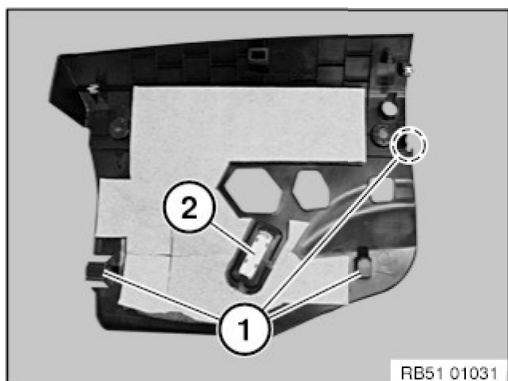
TECHNICAL INFORMATION

Notes on sealing are a fundamental requirement for these repair instructions and must be complied with at all times.

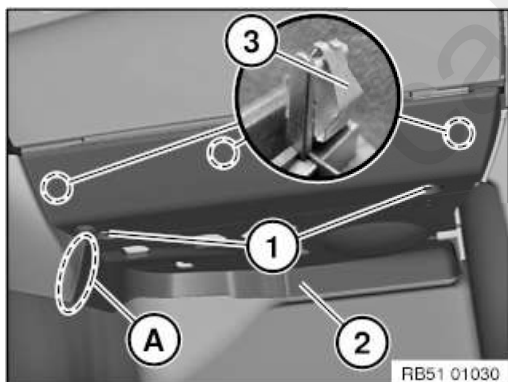
For more information, see: 51 72 ... Sealing installation

- Secure side trim panel (1) with the clips (2).
- Mount edge protection (3) in area of the side trim panel (1).

9 – Installing the botto right instrument panel trim



- Check the guides (1) for damage, if necessary, replace the instrument panel trim (2).
- Connect the footwell light connector (2).



- Insert the instrument panel trim (2) in this area (A) behind the centre console.
- Clip in the clips (3) at the instrument panel towards the top.
- Tighten the screw connections (1).

Dashboard trim panel at bottom on support

			4,6 Nm
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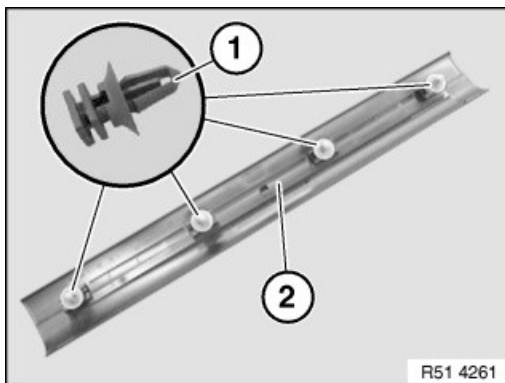
10 – Install the front door sill cover strip



NOTICE

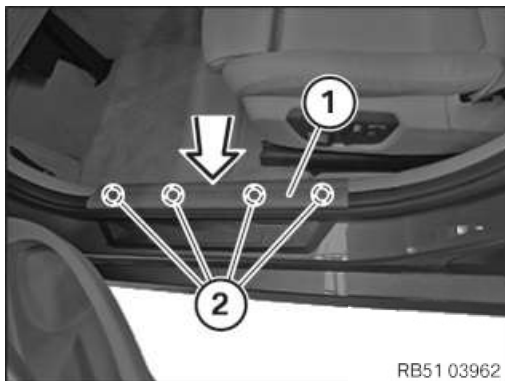
Description is for left component only. Procedure on the right side is identical.





- Renew faulty clips (1) on the front door sill cover strip (2).

Parts: Clips



- Install and engage the front door sill cover strip (1) with the clips (2) in the direction of the arrow.

11 – Connecting the battery earth lead



TECHNICAL INFORMATION

For additional information see:

61 00 ... Safety information on handling the vehicle battery

61 00 / 12 00 ... Notes on disconnecting and connecting the vehicle battery

61 12 ... Notes on the intelligent battery sensor (IBS)



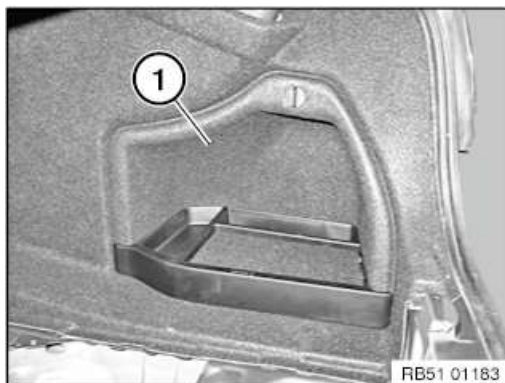
- Connect battery earth lead with intelligent battery sensor (IBS) (2) to negative battery terminal.
- Tighten nut (1).

Battery cable on the battery

M6

5 Nm

12 – Install right luggage compartment trim panel



- Insert right luggage compartment trim panel (1).

13 – Encode/program control unit(s)



Prerequisite

Replacement of the control unit.



TECHNICAL INFORMATION

Use the most recent software version to prevent faults during programming/encoding.

The battery voltage must not fall below 13.0 V during programming.

Use only chargers for a low volt-vehicle electrical system that are recommended by BMW.



TECHNICAL INFORMATION

No high-voltage switch off is required in electric vehicles or hybrid vehicles for programming/encoding.

The high-voltage system will be automatically switched off by the programming system.

Exception:

BMW I01: Note Product and Measures Management Aftersales measure 55176388.

- Connect the battery charger to the vehicle.
- Connect the programming system with the vehicle.
- Determine the action plan.
- Accept and fully process the measures plan.
- If applicable, connect the workshop system to the vehicle, depending on the reworking list.
- Carry out vehicle test.
- Delete the fault memory.
- The information about programming the workshop system and the corresponding notes in the user documentation must be observed.
- Wait until programming/encoding has been completed.
- Disconnect the programming system from the vehicle.
- Disconnect the battery charger from the vehicle.

Additional Information

Overview of Tightening Torques

Front electronic module (FEM) on the A-pillar

Used in step 7

			1,7 Nm
--	--	--	--------

Dashboard trim panel at bottom on support

Used in step 9

			4,6 Nm
--	--	--	--------

Battery cable on the battery

Used in step 11

M6			5 Nm
----	--	--	------

Overview of Special Tools



0 496 569 (00 9 325) Wedge



Common

Used in step 3

Usage	(Panel wedge) From 11/2008 this special tool replaces panel wedge 00 9 317 (different material)
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	41 01 09 (507)

Links

General repair instructions

Used in step

61 20 ... Notes on AGM battery	211
61 12 ... Notes on intelligent battery sensor (IBS)	211
61 00 ... Notes for disconnecting and connecting battery	211

Repair instructions

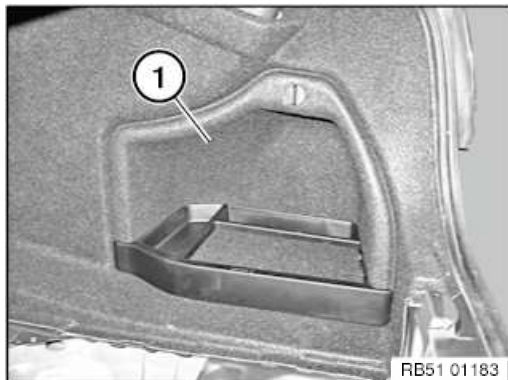
Used in step

51 72 ... Sealing installation	8
61 00 ... Program / encode the control unit(s)	

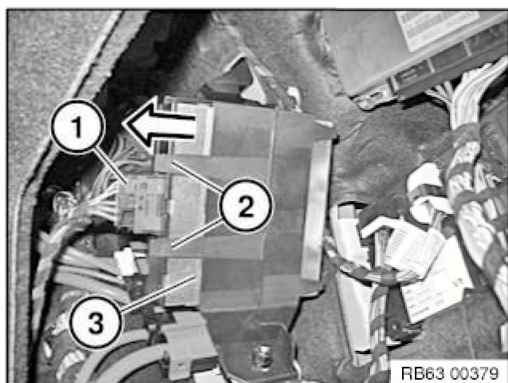


**Important!**

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



Remove flap (1). *Installation note:*
Make sure flap (1) is correctly seated.

**Version with voltage transformer:**

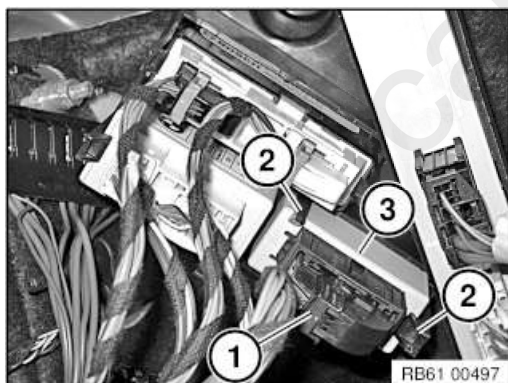
Disconnect plug connection (1).

Lever out latches (2) and pull voltage transformer (3) out of bracket.

Installation note:

Make sure plug connection (1) is correctly seated.

Make sure voltage transformer (3) is correctly seated in bracket.



Unfasten plug connection (1) and disconnect.

Unlock retaining lugs (2).

Pull trailer module (3) out of holder.

Installation note:

Make sure trailer module (3) is correctly engaged in holder.

**Replacement:**

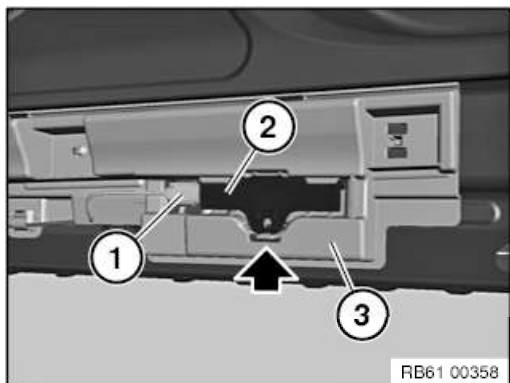
Carry out vehicle programming/encoding.





Necessary preliminary tasks:

- Remove trim panel for cover on side member



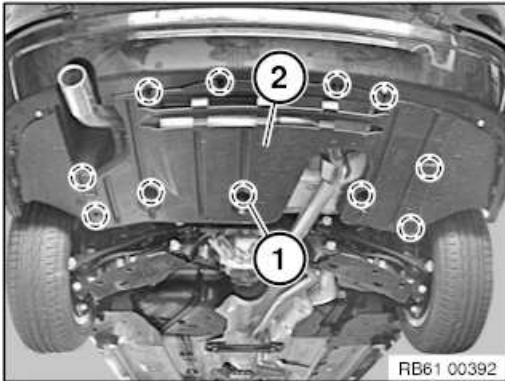
Disconnect plug connection (1).

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).



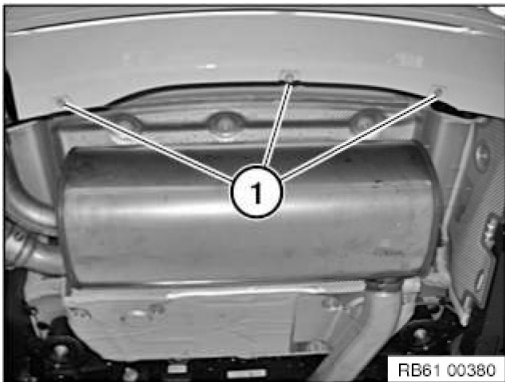


Note:

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

Depending on the engine version:

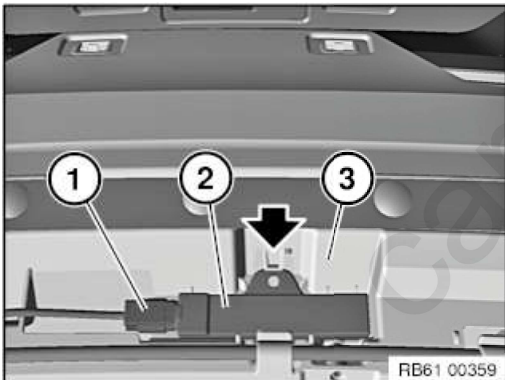
If necessary, release screws (1) on cover (2) and remove cover (2).



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).



61 35 360 Removing and installing/replacing control unit for camera-based driver support systems (KAFAS)



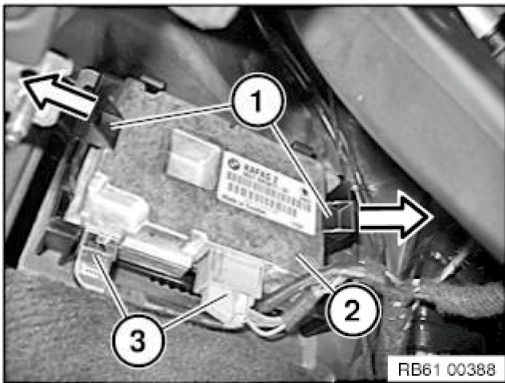
Important!

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



Necessary preliminary tasks:

- Clamp off battery lead from negative connection point
- Remove trim panel for pedal mechanism



Note:

For purposes of clarity, schematic diagram shows footwell side trim panel removed.

Release latch mechanisms on equipment holder (1) in direction of arrow.
Feed out control unit (2) from equipment holder towards top.
Disconnect plug connections (3) and remove control unit (2).

Installation note:

Make sure control unit (2) is correctly installed in equipment holder.



Replacement:

Carry out programming/coding.

Carry out calibration:

- Service function
- Body
- Display and information functions
- Camera-based driver support systems
- Calibration of lane departure warning



66 53 170 Removing and installing/replacing control unit for Top-/Rear-/Side-View Camera



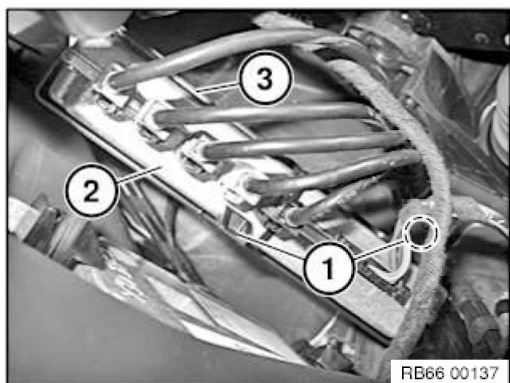
Important!

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



Necessary preliminary tasks:

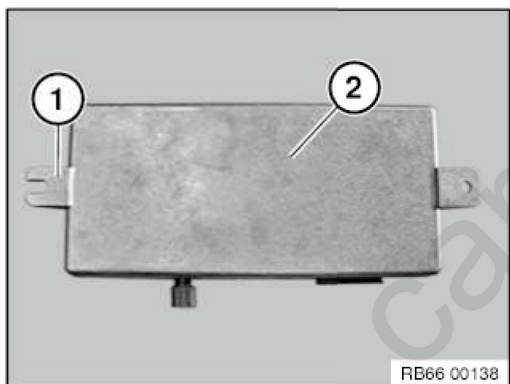
- Remove trim panel for pedal mechanism



Unlock all plug connections and disconnect.

Unlock latch mechanisms (1).

Remove control unit (2) from holder (3) downwards.



Installation note:

Guide (1) on control unit (2) must be correctly inserted in corresponding recess on counter support.

Make sure control unit (2) is securely seated.



Replacement:

- Carry out programming/encoding.
- Calibrate reversing camera



61 35 080 Removing and installing/replacing control unit/module for left or right seat adjustment



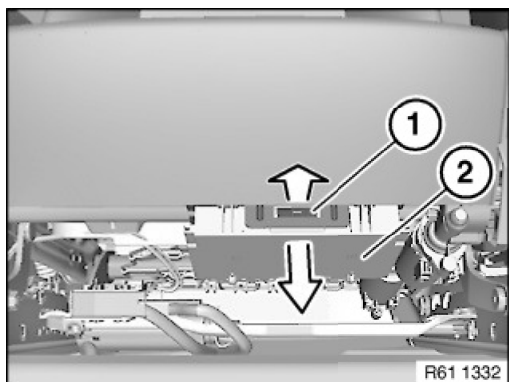
Important!

Observe notes on protection from electrostatic discharge.



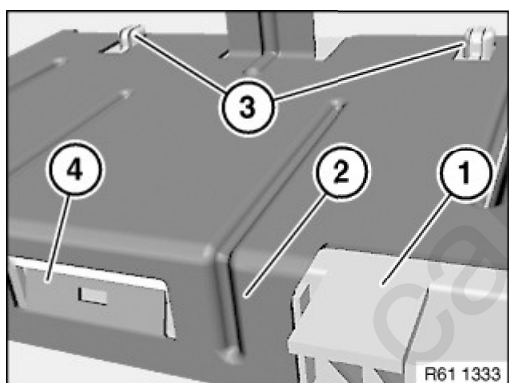
Note:

To facilitate installation/removal of control unit, move seat upwards and to the rear fully.



Unlock metal tab (1) towards front and remove control unit for seat adjustment (2) towards bottom.

Unlock and disconnect all associated plug connections.



Installation note:

Make sure control unit for seat adjustment (1) is correctly seated in bracket (2).

Guides (3) and metal tab (4) must not be damaged.



Replacement:

Carry out programming/encoding.





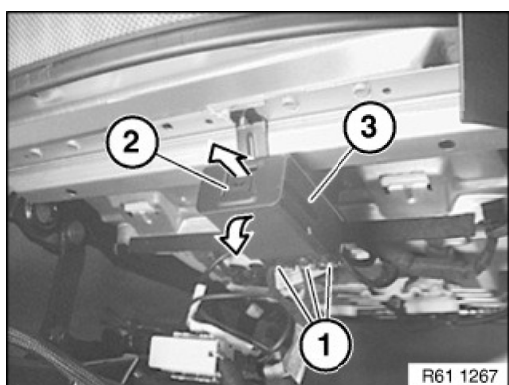
Important!

Follow notes on protection from electrostatic discharge!



Note:

To facilitate installation/removal of control unit, move seat upwards and to the rear fully.



Disconnect plug connection (1).

Open lock (2) in direction of arrow.

Remove control unit/module for seat heating (3) downwards.

Installation note:

Make sure control unit/module for seat heating (3) is correctly engaged.



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



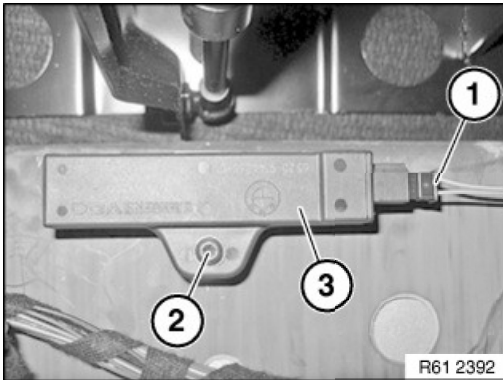
Necessary preliminary tasks:

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.

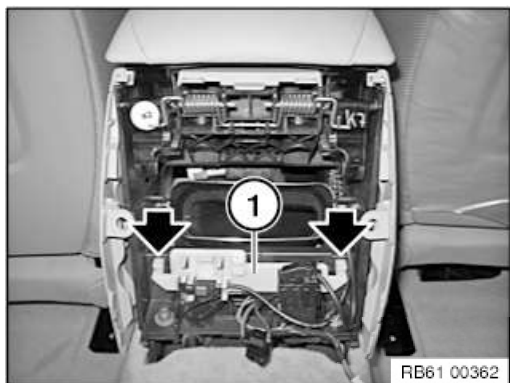


61 35 954 Removing and installing/replacing interior aerial for Comfort Access (rear centre console)



Necessary preliminary tasks:

- Remove rear centre console trim



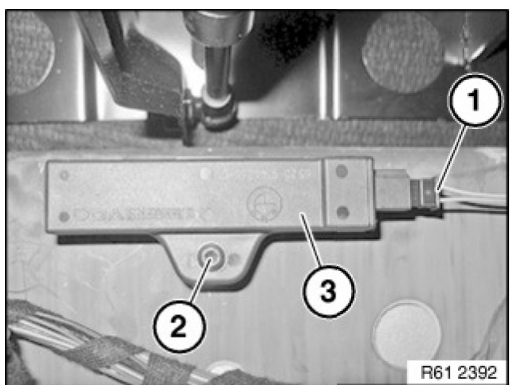
Note:

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).

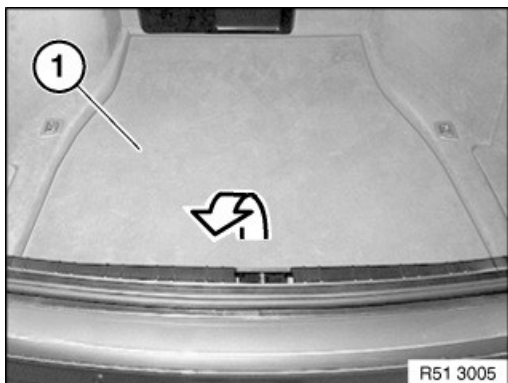
Tightening torque 61 35 7AZ.

Installation note:

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



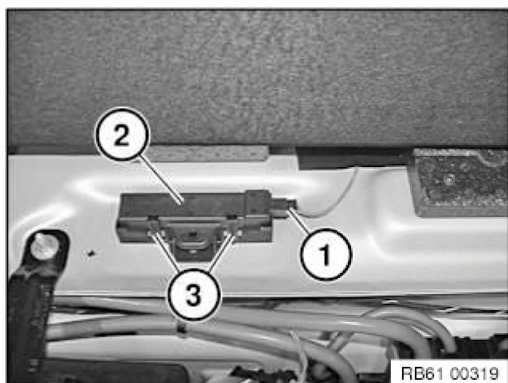
61 35 970 Removing and installing/replacing luggage compartment aerial for Comfort Access



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).

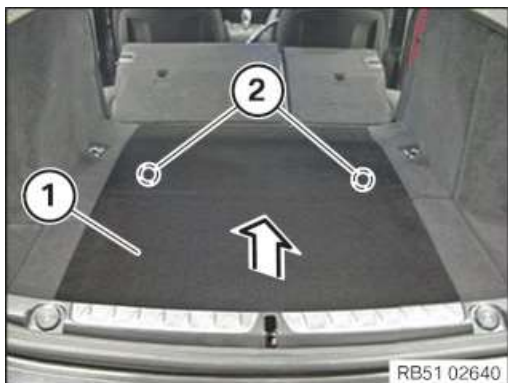
Unlock and remove luggage compartment aerial (2) from bracket (3).

Installation note:

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



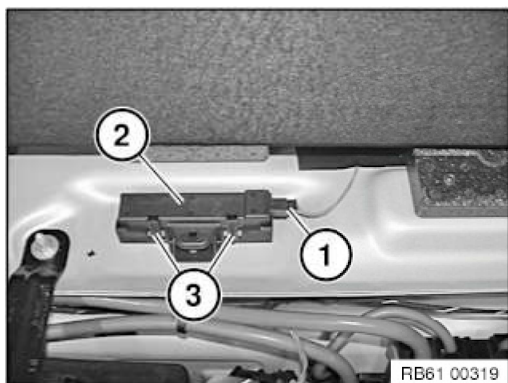
61 35 970 Removing and installing/replacing luggage compartment aerial for Comfort Access



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).





Operation is described in:

Removing solar rain/light sensor and condensation sensor

cardiagn.com



61 35 179 Replacing and installing (replacing) the solar rain/light sensor and condensation sensor



Caution!

Observe the information on protection from electrostatic discharge.

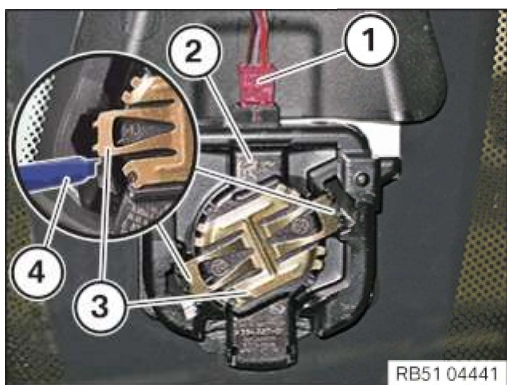


Necessary preliminary work:

- Remove inside mirror



Removal:



Disconnect connector (1).

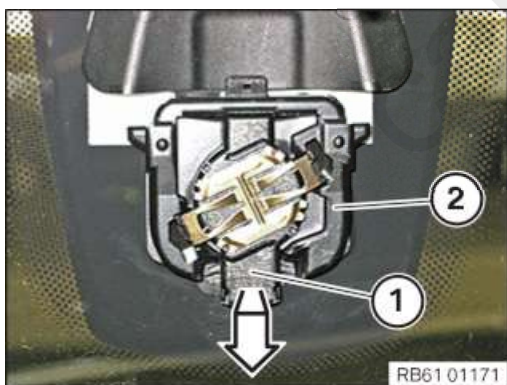
Unlock rain/light/solar and condensation sensor (2) at metal spring (3).

For this purpose, press both sides of the metal spring (3), insert the screwdriver (4) on the side and raise the latch mechanism.

Caution!

Risk of damage!

After loosening lock, wait approx. 30 min. at 20 °C for silicone surface to relax.



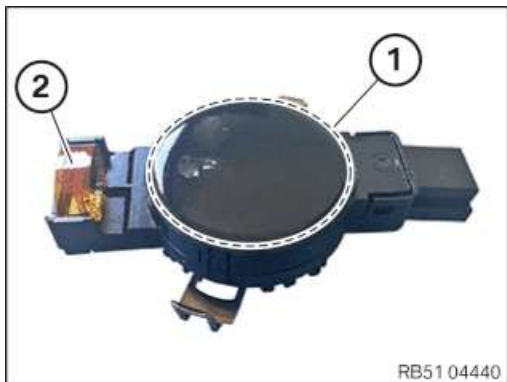
Pull the rain/light/solar and condensation sensor (1) slowly from holder (2) in direction of arrow. *Note:*

When replacing the windscreen, only remount the rain/light/solar and condensation sensor (1) after disassembly of the windscreen.

Pull off the rain/light/solar and condensation sensor (1) slowly while observing from outside the release of the silicone surface.

The silicone surface must evenly loosen from the windscreen, if applicable, pull off slower.





Caution!

Risk of damage!

The silicone-coated surface (1) and the printed circuit board (2) on the rain/light/solar and condensation sensor must not be touched or damaged!

Replace damaged gel pad.

When replacing the windscreen, immediately install the rain/light/solar and condensation sensor into the new windscreen following removal.



Caution!

Risk of damage!

The area (1) on the windscreen must not be touched or damaged!

The area (1) may have remnants of the separation oil of the rain/light/solar and condensation sensor that are easy to remove. This does not indicate that the rain/light/solar and condensation sensor is damaged.

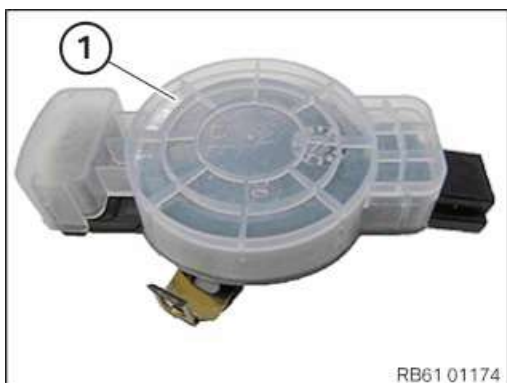
Remove all separating oil residue within and outside of the area (1).



Replacement:

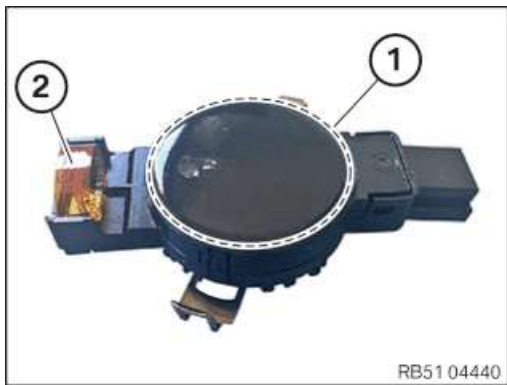


Carefully clean the windscreen at the contact area (1) with the rain/light/solar and condensation sensor! All silicone and separation oil residue must be removed!



Remove protective cover (1) from new rain/light/solar and condensation sensor.



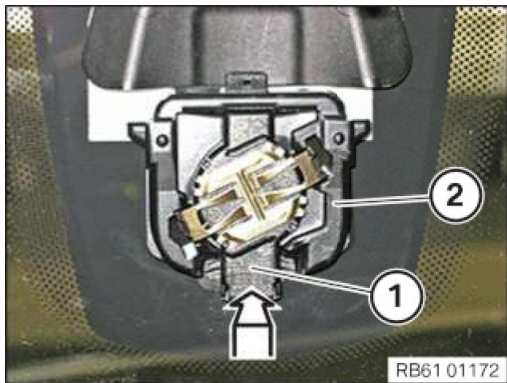


Caution!

The silicone-coated surface (1) and the printed circuit board (2) on the rain/light/solar and condensation sensor must not be touched or damaged!



Installation:

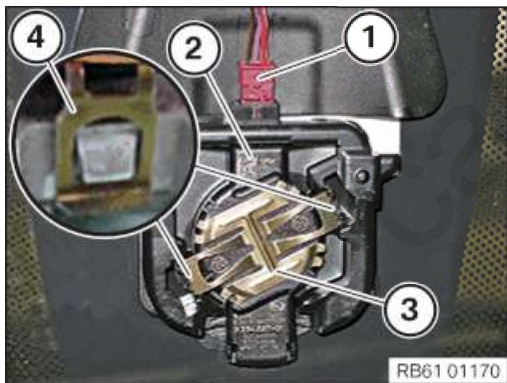


Caution!

Risk of damage!

The silicone-coated surface on the rain/light/solar and condensation sensor must not be touched or damaged.

Feed the rain/light/solar and condensation sensor (1) into holder (2) in direction of arrow.



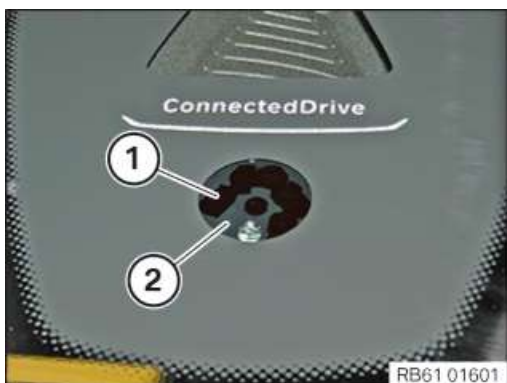
Installation note:

Connect connector (1) only after the rain/light/solar and condensation sensor has been locked.

Press on the rain/light/solar and condensation sensor (2) at the metal spring (3) in a centred position.

To lock, consecutively press down both sheet metal tabs (4) on each side.

Connect connector (1) with the rain/light/solar and condensation sensor (2).



Installation note:

Visible shades (1 and 2) do not have any air pockets, but show the optical element of the sensor.

Visible shades (1 and 2) do not represent any functional limitation.





For vehicles up to 03/2014:

Initialise sensor.

Note:

- For F2x; (not F25/F26); F3x and F80/F82/F83 the encoding is **automatically** implemented by **JBBFE**.
- For F25/F26 the encoding is implemented **automatically** with a terminal change (terminal 15) using the **junction box**.

For vehicles built after 03/2014 (except F25 / F26):

Initialisation and encoding are performed **automatically** by BDC control unit.



Required follow-up work:

- Install interior mirror

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