84 10 330 Removing and installing the telematics control unit under the headlining

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

RISK OF DAMAGE

Fold the headlining.

If the headlining is folded, it may have to be replaced.

- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.

PRELIMINARY WORK

1 – Deactivating the 48 V electrical system

Prerequisite

Ignition is switched off.

WARNING

Deactivation of the 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no battery charger** is connected to the jump start terminal point in the engine compartment.
- For vehicles with additional electrical systems (48 V electrical system, high-voltage vehicle electrical system), it is mandatory to deactivate them **before** disconnecting the vehicle battery.

WARNING

Deactivation of the 48 V electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no charger** is connected to the jump start support point in the engine compartment.

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RISK OF DAMAGE

Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.

TECHNICAL INFORMATION

Follow notes for 48-V battery. See further information 6120 ... Notes on 48-V battery.



- Deactivate the 48V electrical system by opening the bonnet.

  The deactivation takes place automatically.



Check

TECHNICAL INFORMATION

Zero voltage (48V electrical system is switched off) is displayed only in PAD mode.

- Press the START-STOP button quickly 3 times without stepping on the brake pedal to establish the PAD mode.
- Check isolation from the supply in the instrument cluster in PAD mode.

desired state

- The Check Control message "48V electrical system switched off." (1) is displayed.

Result

» **The absence of voltage** cannot be determined by means of the Check Control message "48V electrical system switched off:" (1). Work is not permitted to be started.

Measure

- Carry out the service function "48 V electrical system deactivation".
  - Vehicle management > Service functions > Voltage supply > Deactivate 48 V electrical system

Only when the Check Control message “48 V electrical system switched off.” (1) is displayed in the instrument cluster is it permitted to disconnect the 12 V battery.

If the absence of voltage is not indicated clearly, contact Technical Support.

Result

» The Check Control message signals that the 48V electrical system has been switched off.

Measure

- Exit PAD mode by pressing the START-STOP button once without depressing the brake pedal.

  The work “Disconnecting the negative battery cable of the 48-V battery” can be started.



- Unlock and disconnect plug connection (1) of the CAN bus.
- Release the clip (2).



- Loosen nut (1).
- Pull off negative battery cable (2) of the 48-V battery from the negative battery terminal, set it aside and secure it.



WARNING

Unprotected battery terminals.

Risk of short circuits! Risk of fire!

- Cover the vehicle battery.

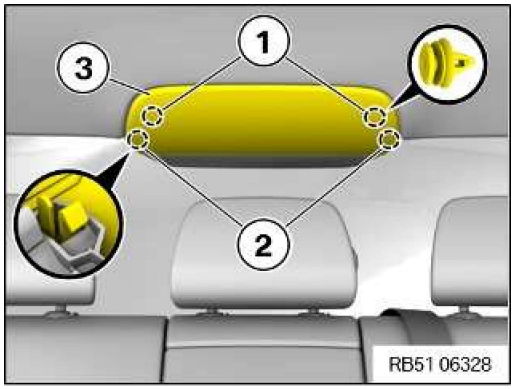
- Cover the vehicle battery with the special tool as shown.
- Position the battery earth lead (1) as shown.

2 – Disconnecting all battery earth leads



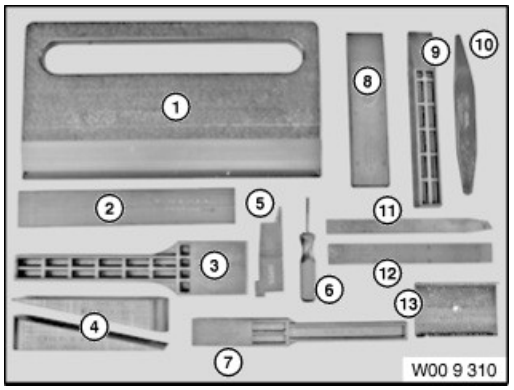
- See additional information.

3 – Removing the trim of the additional brake light

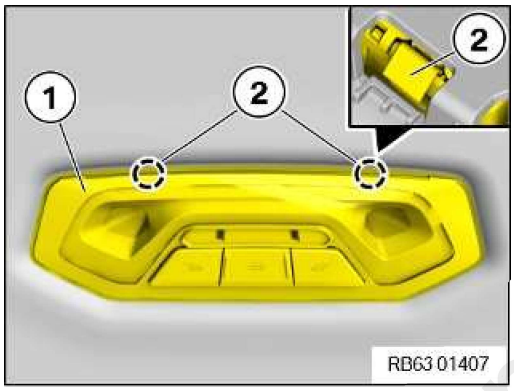


- Loosen the clips (1).
- Release the latch mechanisms (2) and remove the trim of the additional brake light (3).

4 – Remove interior roof light



- Have the set of special tools 0 493 752 (00 9 329) ready.



- Lever interior roof light (1) out of clamps (2) using a suitable tool.
- Unlock plug connection and disconnect.

5 – Removing the C-pillar trim panel on the left and right

NOTICE

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

▸ **Remove C-pillar trim panel**

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

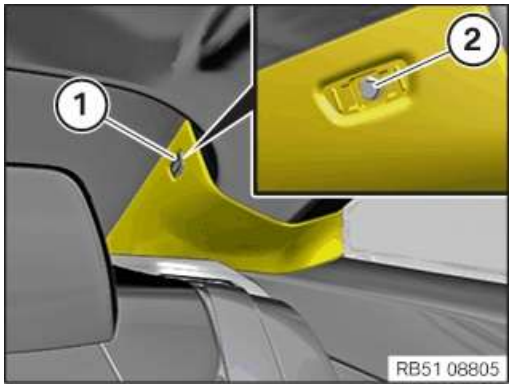
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RISK OF DAMAGE

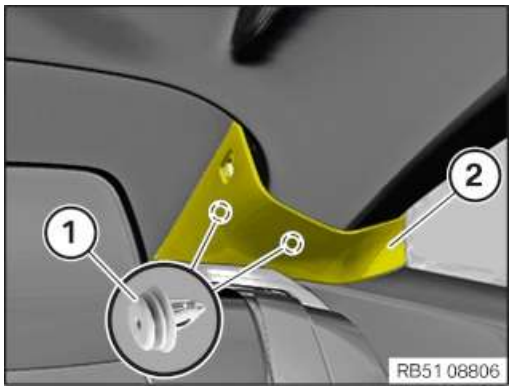
Damage to the head airbag.

Improper use of a tool when removing the trim panel may damage the head airbag.

- Do not use sharp-edged tools when removing the trim panel.



- Unclip cover (1) of the C-pillar trim panel.
- Release the screw (2).



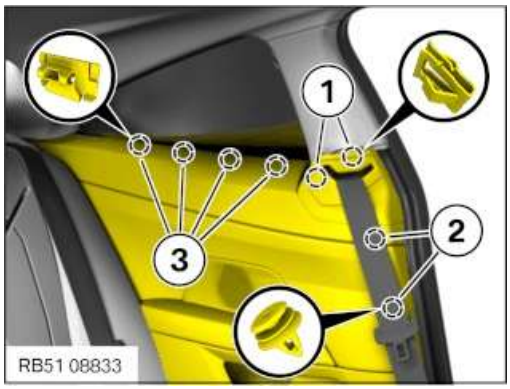
- Unclip C-pillar trim panel (2) from clips (1) and guide it out.

6 – Partially removing the front left and right side trim panels

NOTICE

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

▸ **Partially remove rear side trim panel**



- Release the side trim panel with a suitable special tool from the set of special tools 0 493 752 (00 9 329) at the clamps (1) and the clips (2).
- Feed out the side trim panel from the lip of edge protection and release it from the clamps (3).

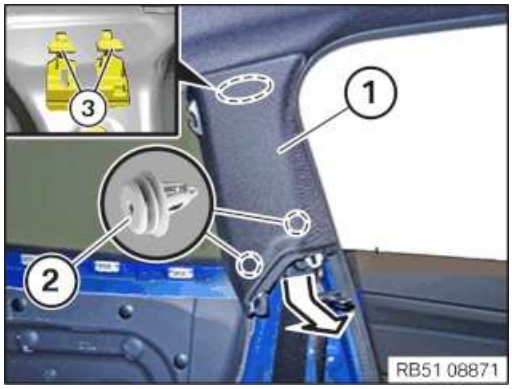
7 – Removing left and right B-pillar trim panel

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NOTICE

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

▸ **Remove the B-pillar trim panel**

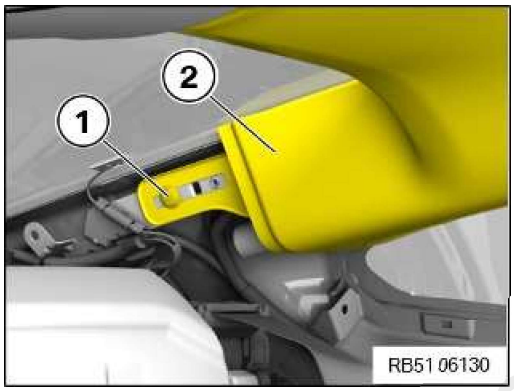


- Unclip the B-pillar trim panel (1) at the clips (2).
- Remove the B-pillar trim panel (1) from the lip of the edge protection and the guides (3) in the direction of the arrow.

8 – Partially lower rear headlining

Prerequisite

The rear seat backrest is folded down toward the front.



NOTICE

Perform the operations on the left and right side.

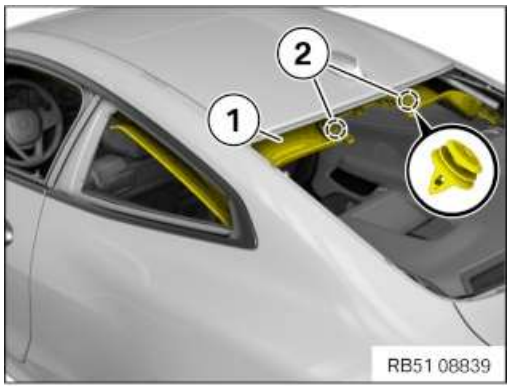
NOTICE

To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

Schematic diagram is for example purposes. Some parts may differ in certain details.

- Release the expanding rivet (1) on the headlining (2).

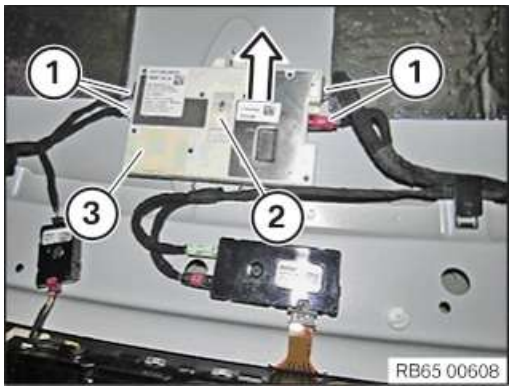


- Release the headlining (1) with the clips (2).
- Feed out the headlining (1) at the respective edge protection and place it down on the head rests of the front seat.

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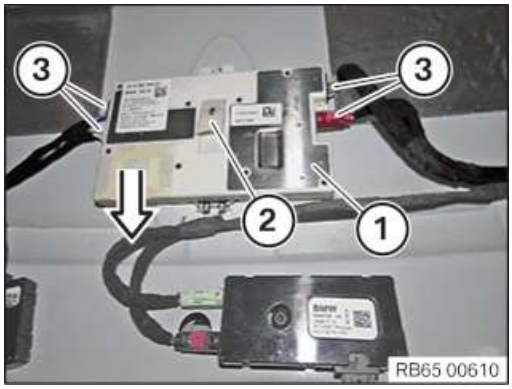
MAIN WORK

9 – Removing the telematics control unit



- Unlock plug connection (1) and disconnect.
- Unlock the lock (2) downward.
- Remove the telematics control unit (3) in the direction of arrow.

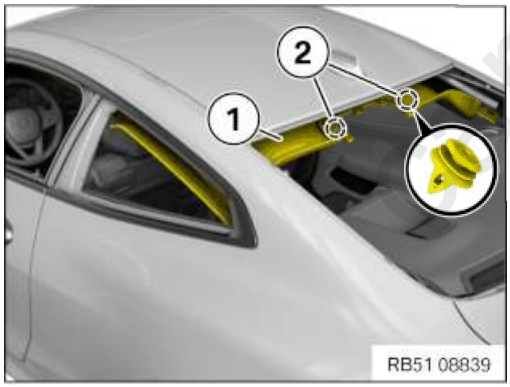
10 – Install the telematics control unit



- Correctly position the telematics control unit (1) and push it in the direction of the arrow until the lock (2) engages.
- Position and connect the connectors (3).

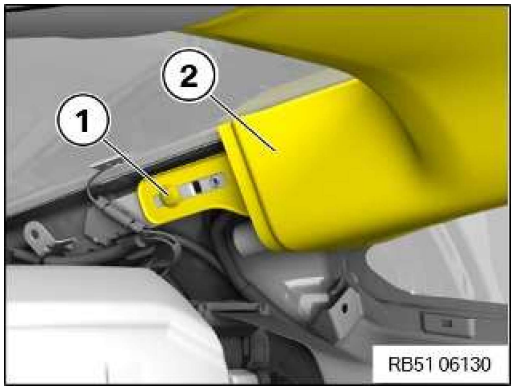
POSTPROCESSES

11 – Partially installing the rear headlining (lowered)



- Check the clips (2) on the headlining (1) for damage and renew if necessary.
- Position headlining (1) correctly and guide it in at the respective edge protection.
- Clip in headlining (1) with the clips (2).

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NOTICE

Perform the operations on the left and right side.

NOTICE

To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

Schematic diagram is for example purposes. Some parts may differ in certain details.

- Fasten expanding rivet (1) to headlining (2).

12 – Installing the left and right B-pillar trim panel

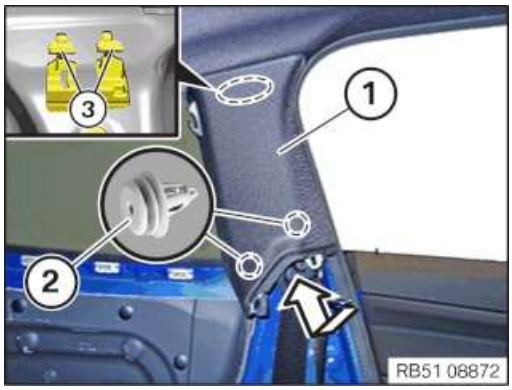
NOTICE

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

▸ **Install the B-pillar trim panel**



- Check clips (1) for damage and renew if necessary.



- Insert B-pillar trim panel (1) in direction of arrow into the guides (3) and under the lip of edge protection.
- Clip in the B-pillar trim panel (1) at the clips (2).

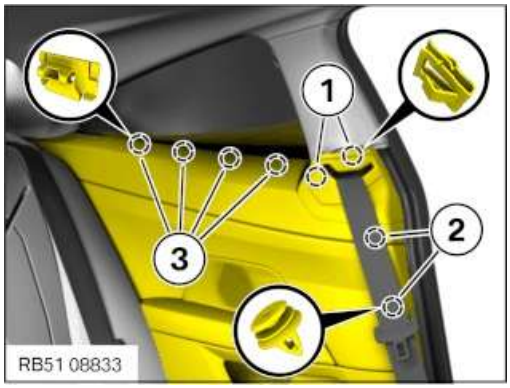
13 – Partially installing the rear side trim panel on the left and right

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NOTICE

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

▸ **Partially installing the rear side trim panel**



- Clip the side trim panel into clamps (3) and guide it in under the lip of edge protection.
- Clip in the side trim panel with the clips (2) and the clamps (1).

14 – Installing the C-pillar trim panel on the left and right

NOTICE

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

▸ **Installing C-pillar trim panel**

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

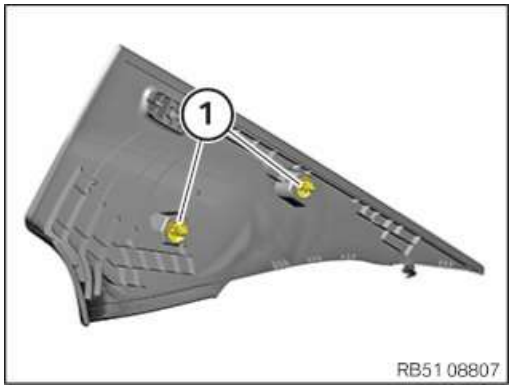
RISK OF DAMAGE

Damage to the head airbag.

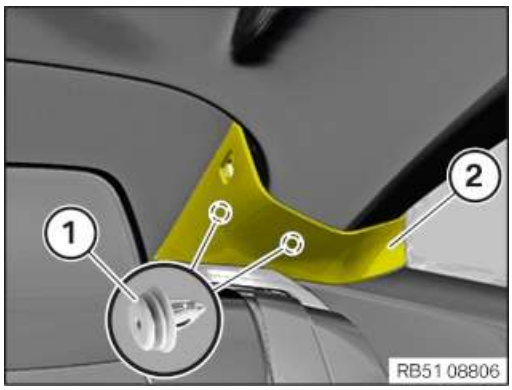
Improper use of a tool when removing the trim panel may damage the head airbag.

- Do not use sharp-edged tools when removing the trim panel.

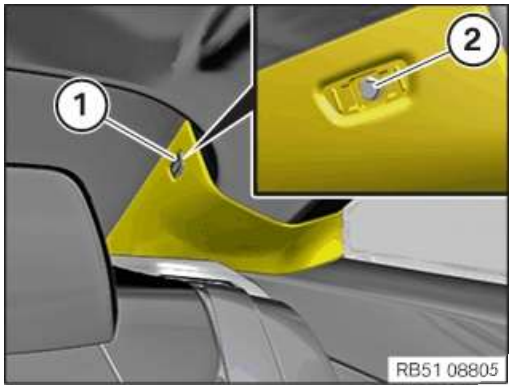
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- Check clips (1) for damage and, if necessary, renew them.



- Position C-pillar trim panel (2) and clip it onto clips (1).



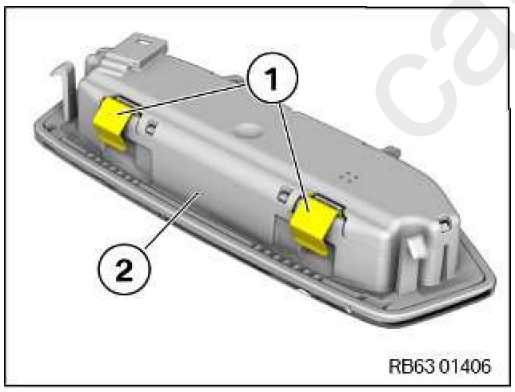
- Tighten down screw (2).

C-pillar trim panel to body

Screw		Tightening torque	2,6 Nm

- Clip in cover (1) of the C-pillar trim panel.

15 – Install interior roof light



Check

- Check the clamps (1) for damage.

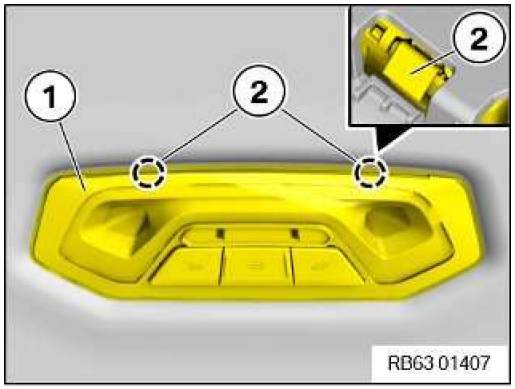
Result

» Clamps (1) are damaged.

Measure

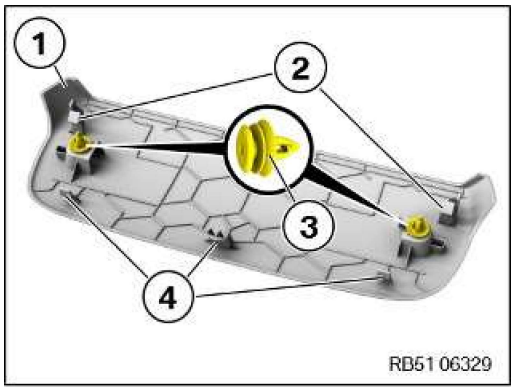
- Renew the interior roof light (2).

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- Connect connectors and lock.
- Clip in the interior roof light (1) with clamps (2).

16 – Installing trim for additional brake light



Check

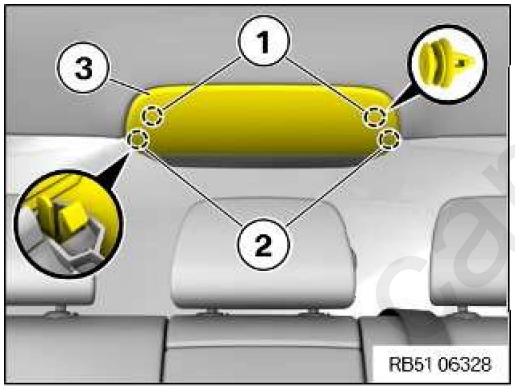
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

Measure

- Renew the trim for the additional brake light.



- Position trim for additional brake light (1) from the bottom and clip it in with latch mechanisms (2).
- Clip in clips (1).

17 – Connecting all battery earth leads



- See additional information.

18 – Activating the 48 V electrical system

Prerequisite

Ignition is switched off.

RISK OF DAMAGE

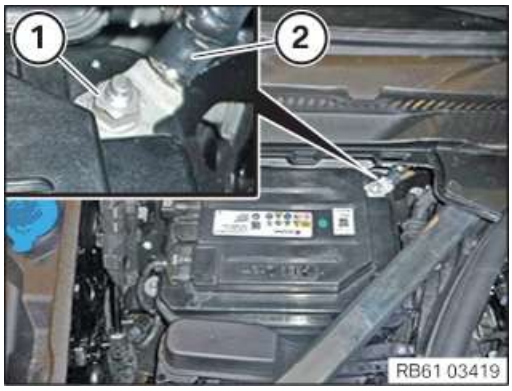
Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.



- Lift battery earth lead (1).
- Remove special tool .



- Release the negative battery cable (2) of the 48-V battery from the mounting.
- Position the negative battery cable (2) of the 48-V battery on the negative battery terminal.
- Tighten nut (1).

Negative battery cable to 48-V battery

Nut M8		Tightening torque	19 Nm



- Connect the connector (1) of the CAN bus and lock it.
- Clip in clip (2).



- Activate the 48V electrical system by closing the bonnet.

  The activation takes place automatically.

Additional Information

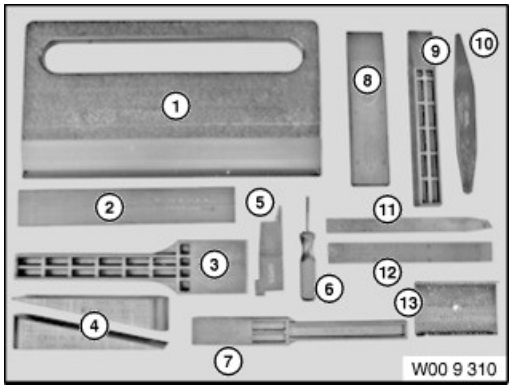
Overview of Tightening Torques

C-pillar trim panel to body			Used in step 14
Screw		Tightening torque	2,6 Nm

Negative battery cable to 48-V battery			Used in step 18
Nut M8		Tightening torque	19 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



Common	Used in step 46
Usage	(Case) with insert without mounting wedges, delivery while stocks last - as of 02/2019.
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

Links

Repair instructions (PRE)	Used in step
Notes on 48-V battery	118

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	

Repair instructions	Used in step
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	217
61 20 900 Disconnecting and connecting battery earth lead	217
61 20 900 Disconnecting and connecting battery earth lead	217
61 20 900 Disconnecting and connecting battery earth lead	217
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61 20 900 Disconnecting and connecting battery earth lead 217
61 20 900 Disconnecting and connecting battery earth lead 217
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads) 217
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads) 217
61 20 900 Disconnecting and connecting battery earth lead 217
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads) 217
61 20 900 Disconnecting and connecting battery earth lead (Plug-in Hybrid Electric Vehicle) 217
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61 20 900 Disconnecting and connecting battery earth lead 217

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84 10 331 Removing and installing the telematics control unit under the headlining

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

RISK OF DAMAGE

Fold the headlining.

If the headlining is folded, it may have to be replaced.

- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.

PRELIMINARY WORK

1 – Deactivating the 48 V electrical system

Prerequisite

Ignition is switched off.

WARNING

Deactivation of the 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no battery charger** is connected to the jump start terminal point in the engine compartment.
- For vehicles with additional electrical systems (48 V electrical system, high-voltage vehicle electrical system), it is mandatory to deactivate them **before** disconnecting the vehicle battery.

WARNING

Deactivation of the 48 V electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no charger** is connected to the jump start support point in the engine compartment.

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RISK OF DAMAGE

Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.

TECHNICAL INFORMATION

Follow notes for 48-V battery. See further information 6120 ... Notes on 48-V battery.



- Deactivate the 48V electrical system by opening the bonnet.

  The deactivation takes place automatically.



Check

TECHNICAL INFORMATION

Zero voltage (48V electrical system is switched off) is displayed only in PAD mode.

- Press the START-STOP button quickly 3 times without stepping on the brake pedal to establish the PAD mode.
- Check isolation from the supply in the instrument cluster in PAD mode.

desired state

- The Check Control message "48V electrical system switched off." (1) is displayed.

Result

» **The absence of voltage** cannot be determined by means of the Check Control message "48V electrical system switched off:" (1). Work is not permitted to be started.

Measure

- Carry out the service function "48 V electrical system deactivation".
  - Vehicle management > Service functions > Voltage supply > Deactivate 48 V electrical system

Only when the Check Control message “48 V electrical system switched off.” (1) is displayed in the instrument cluster is it permitted to disconnect the 12 V battery.

If the absence of voltage is not indicated clearly, contact Technical Support.

Result

» The Check Control message signals that the 48V electrical system has been switched off.

Measure

- Exit PAD mode by pressing the START-STOP button once without depressing the brake pedal.

  The work “Disconnecting the negative battery cable of the 48-V battery” can be started.



- Unlock and disconnect plug connection (1) of the CAN bus.
- Release the clip (2).



- Loosen nut (1).
- Pull off negative battery cable (2) of the 48-V battery from the negative battery terminal, set it aside and secure it.



WARNING

Unprotected battery terminals.

Risk of short circuits! Risk of fire!

- Cover the vehicle battery.

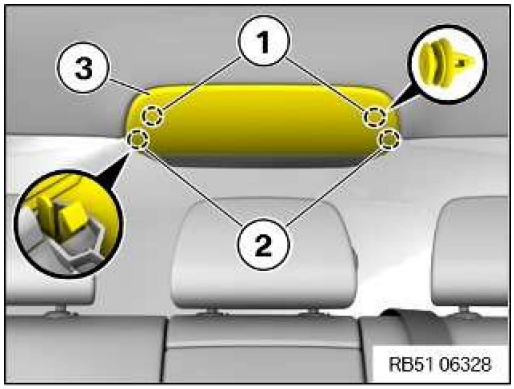
- Cover the vehicle battery with the special tool as shown.
- Position the battery earth lead (1) as shown.

2 – Disconnecting all battery earth leads



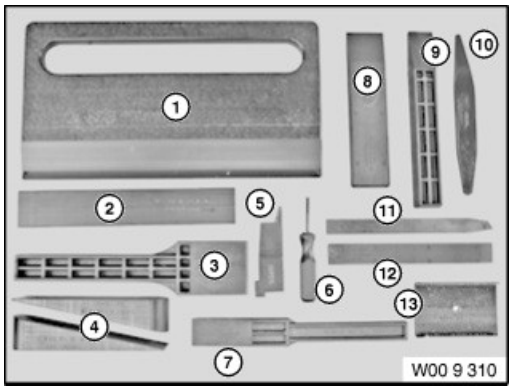
- See additional information.

3 – Removing the trim of the additional brake light

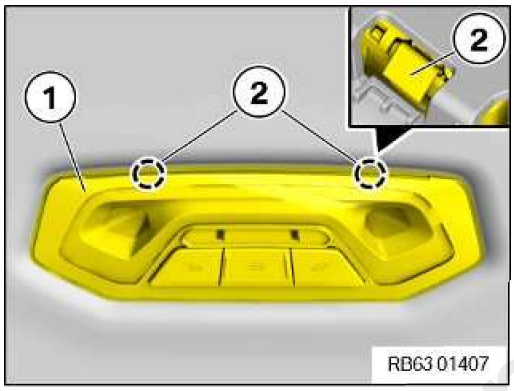


- Loosen the clips (1).
- Release the latch mechanisms (2) and remove the trim of the additional brake light (3).

4 – Remove interior roof light



- Have the set of special tools 0 493 752 (00 9 329) ready.



- Lever interior roof light (1) out of clamps (2) using a suitable tool.
- Unlock plug connection and disconnect.

5 – Removing the C-pillar trim panel on the left and right

NOTICE

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

▸ **Remove C-pillar trim panel**

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

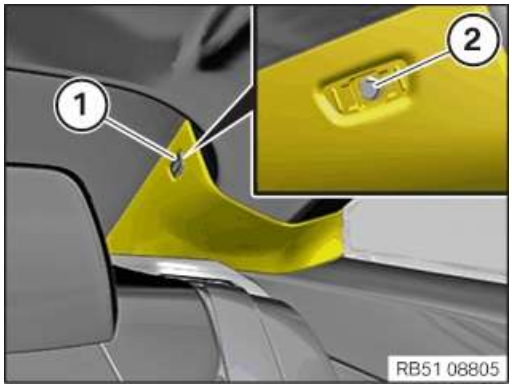
cardiagn.com

RISK OF DAMAGE

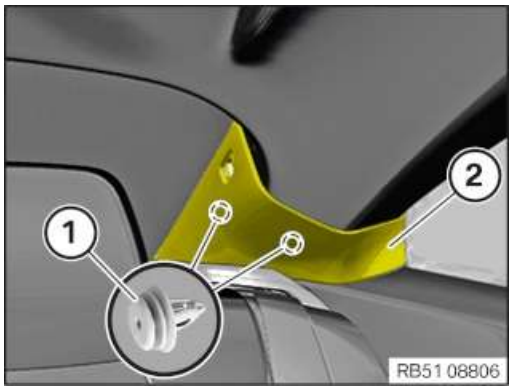
Damage to the head airbag.

Improper use of a tool when removing the trim panel may damage the head airbag.

- Do not use sharp-edged tools when removing the trim panel.



- Unclip cover (1) of the C-pillar trim panel.
- Release the screw (2).



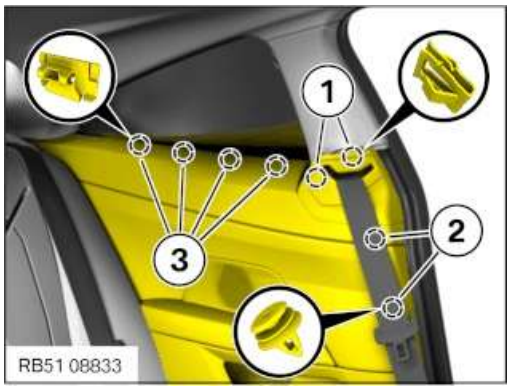
- Unclip C-pillar trim panel (2) from clips (1) and guide it out.

6 – Partially removing the front left and right side trim panels

NOTICE

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

▸ **Partially remove rear side trim panel**



- Release the side trim panel with a suitable special tool from the set of special tools 0 493 752 (00 9 329) at the clamps (1) and the clips (2).
- Feed out the side trim panel from the lip of edge protection and release it from the clamps (3).

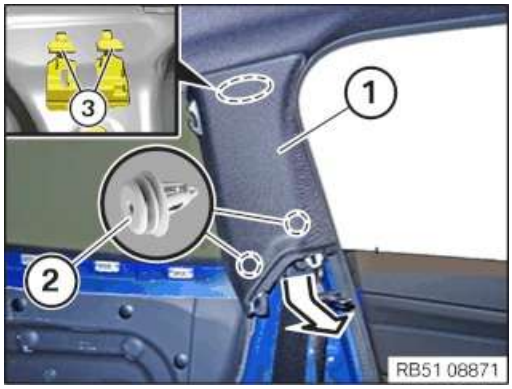
7 – Removing left and right B-pillar trim panel

cardiagn.com

NOTICE

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

▸ **Remove the B-pillar trim panel**

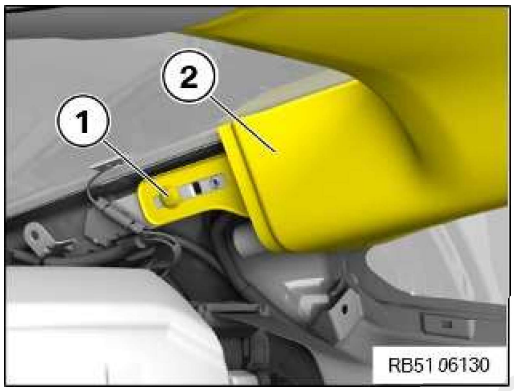


- Unclip the B-pillar trim panel (1) at the clips (2).
- Remove the B-pillar trim panel (1) from the lip of the edge protection and the guides (3) in the direction of the arrow.

8 – Partially lowering the headlining (with the slide/tilt sunroof) to the rear

Prerequisite

The rear seat backrest is folded down toward the front.



NOTICE

Perform the operations on the left and right side.

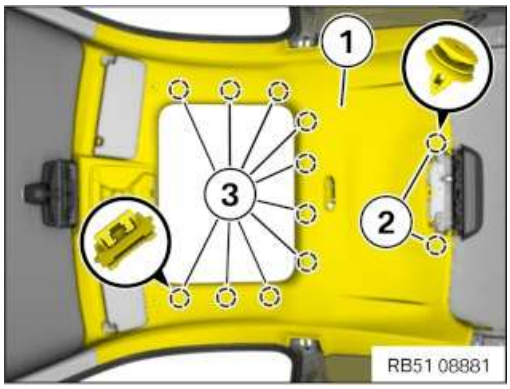
NOTICE

To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

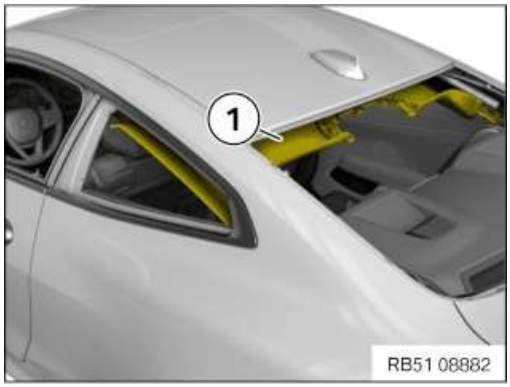
Schematic diagram is for example purposes. Some parts may differ in certain details.

- Release expanding rivet (1) on headlining (2).



- Release headlining (1) with clips (2).
- Release headlining (1) with clips (3) and guide it out from the respective edge protection.

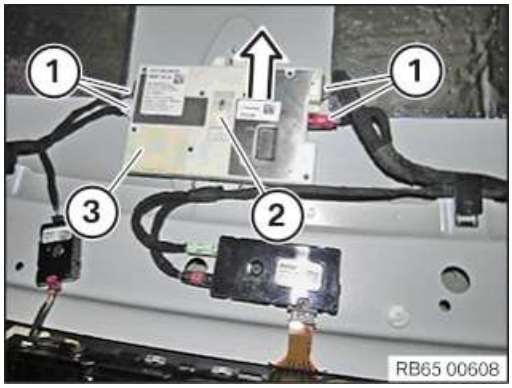
carmanuals.com



- Lower headlining (1) carefully in the rear area and place it on the head rest of the front seats.

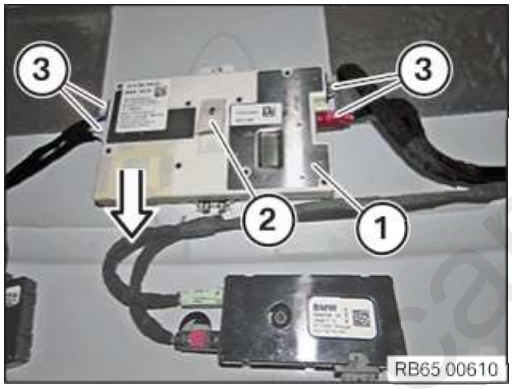
MAIN WORK

9 – Removing the telematics control unit



- Unlock plug connection (1) and disconnect.
- Unlock the lock (2) downward.
- Remove the telematics control unit (3) in the direction of arrow.

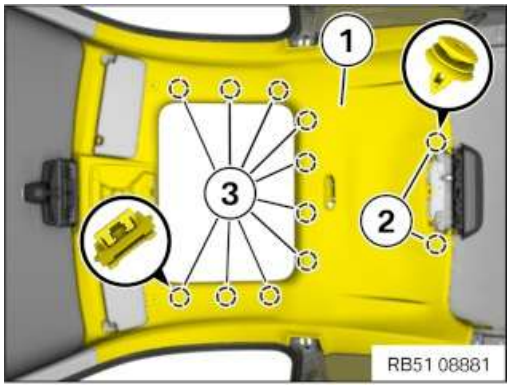
10 – Install the telematics control unit



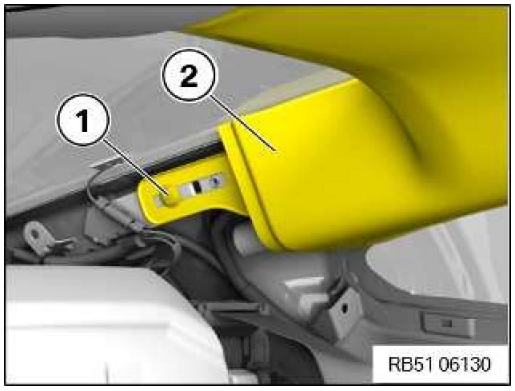
- Correctly position the telematics control unit (1) and push it in the direction of the arrow until the lock (2) engages.
- Position and connect the connectors (3).

POSTPROCESSES

11 – Partially installing the rear (lowered) headlining (with slide/tilt sunroof)



- Check the clips (2) and (3) headlining (1) for damage and renew if necessary.
- Position the headlining (1) correctly.
- Clip in the headlining (1) with the clips (3) and insert into the respective edge protection.
- Clip in headlining (1) with the clips (2).



NOTICE

Perform the operations on the left and right side.

NOTICE

To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

Schematic diagram is for example purposes. Some parts may differ in certain details.

- Fasten expanding rivet (1) to headlining (2).

12 – Installing the left and right B-pillar trim panel

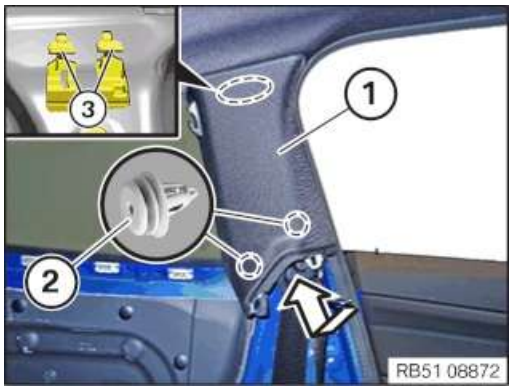
NOTICE

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

▸ **Install the B-pillar trim panel**



- Check clips (1) for damage and renew if necessary.



- Insert B-pillar trim panel (1) in direction of arrow into the guides (3) and under the lip of edge protection.
- Clip in the B-pillar trim panel (1) at the clips (2).

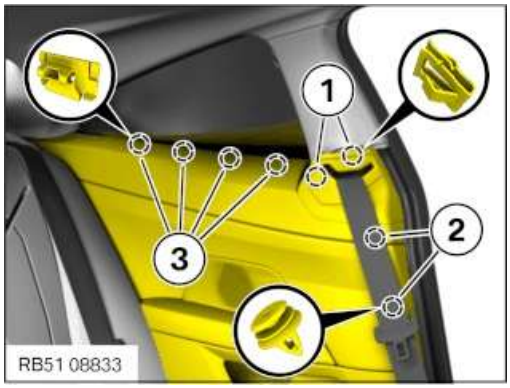
13 – Partially installing the rear side trim panel on the left and right

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NOTICE

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

▸ **Partially installing the rear side trim panel**



- Clip the side trim panel into clamps (3) and guide it in under the lip of edge protection.
- Clip in the side trim panel with the clips (2) and the clamps (1).

14 – Installing the C-pillar trim panel on the left and right

NOTICE

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

▸ **Installing C-pillar trim panel**

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

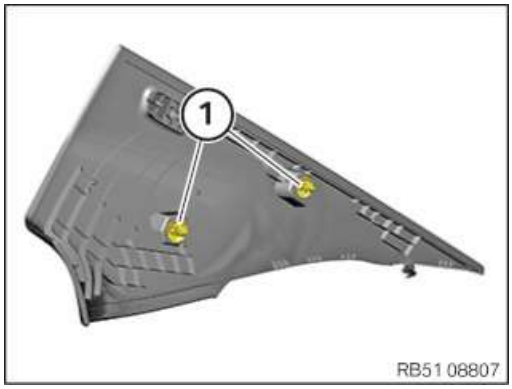
RISK OF DAMAGE

Damage to the head airbag.

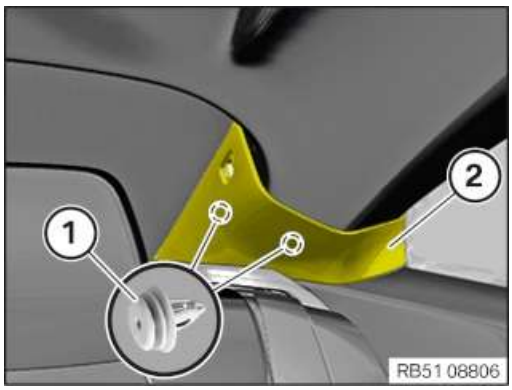
Improper use of a tool when removing the trim panel may damage the head airbag.

- Do not use sharp-edged tools when removing the trim panel.

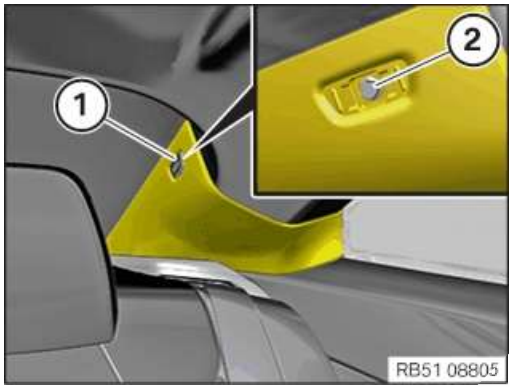
cardiagn.com



- Check clips (1) for damage and, if necessary, renew them.



- Position C-pillar trim panel (2) and clip it onto clips (1).



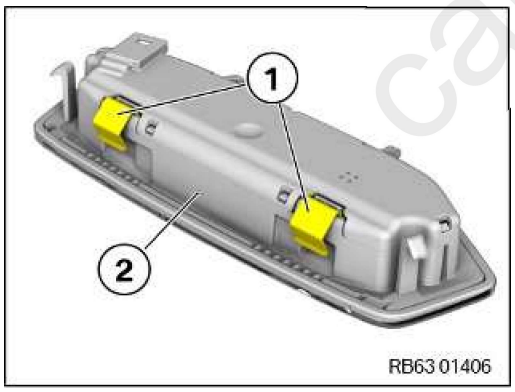
- Tighten down screw (2).

C-pillar trim panel to body

Screw		Tightening torque	2,6 Nm

- Clip in cover (1) of the C-pillar trim panel.

15 – Install interior roof light



Check

- Check the clamps (1) for damage.

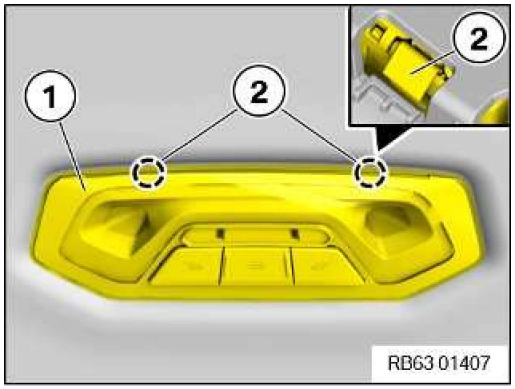
Result

» Clamps (1) are damaged.

Measure

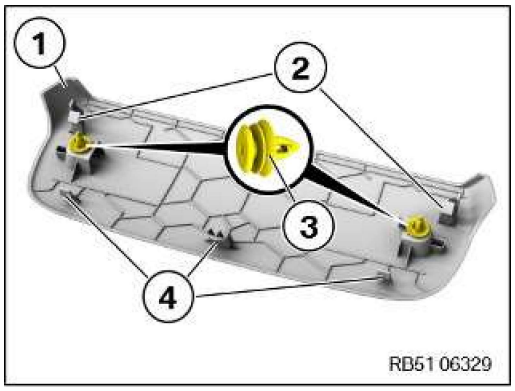
- Renew the interior roof light (2).

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- Connect connectors and lock.
- Clip in the interior roof light (1) with clamps (2).

16 – Installing trim for additional brake light



Check

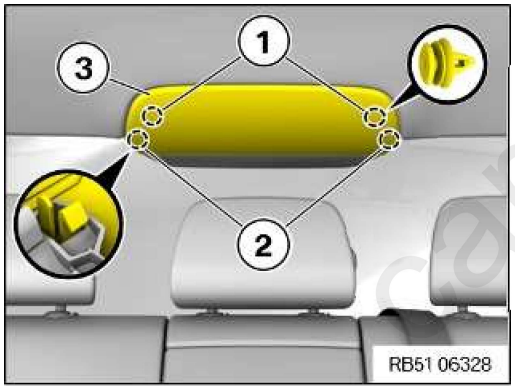
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

Measure

- Renew the trim for the additional brake light.



- Position trim for additional brake light (1) from the bottom and clip it in with latch mechanisms (2).
- Clip in clips (1).

17 – Connecting all battery earth leads



- See additional information.

18 – Activating the 48 V electrical system

Prerequisite

Ignition is switched off.

RISK OF DAMAGE

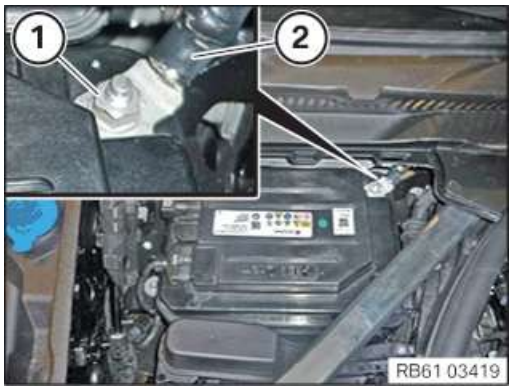
Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.



- Lift battery earth lead (1).
- Remove special tool .



- Release the negative battery cable (2) of the 48-V battery from the mounting.
- Position the negative battery cable (2) of the 48-V battery on the negative battery terminal.
- Tighten nut (1).

Negative battery cable to 48-V battery

Nut M8		Tightening torque	19 Nm



- Connect the connector (1) of the CAN bus and lock it.
- Clip in clip (2).



- Activate the 48V electrical system by closing the bonnet.

  The activation takes place automatically.

Additional Information

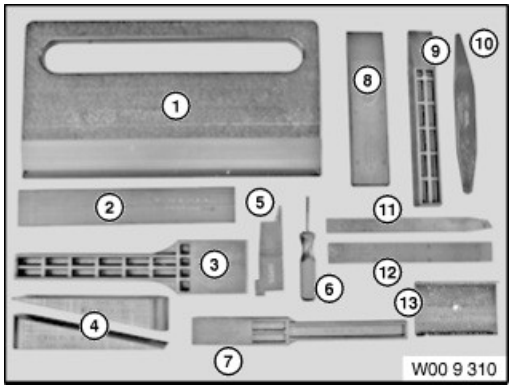
Overview of Tightening Torques

C-pillar trim panel to body			Used in step 14
Screw		Tightening torque	2,6 Nm

Negative battery cable to 48-V battery			Used in step 18
Nut M8		Tightening torque	19 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



Common	Used in step 46
Usage	(Case) with insert without mounting wedges, delivery while stocks last - as of 02/2019.
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

Links

Repair instructions (PRE)	Used in step
Notes on 48-V battery	118

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	

Repair instructions	Used in step
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	217
61 20 900 Disconnecting and connecting battery earth lead	217
61 20 900 Disconnecting and connecting battery earth lead	217
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61 20 900 Disconnecting and connecting battery earth lead 217
61 20 900 Disconnecting and connecting battery earth lead 217
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads) 217
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads) 217
61 20 900 Disconnecting and connecting battery earth lead 217
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads) 217
61 20 900 Disconnecting and connecting battery earth lead (Plug-in Hybrid Electric Vehicle) 217
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61 20 900 Disconnecting and connecting battery earth lead 217

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84 10 120 Removing and installing wireless charging station

Prerequisite

- The lid of the front storage compartment is open.

PRELIMINARY WORK

1 – Remove cupholder



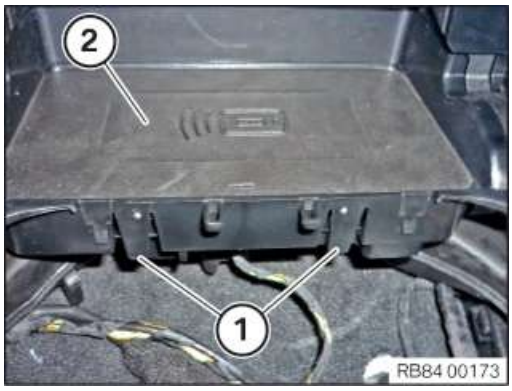
- Remove the insert (1).



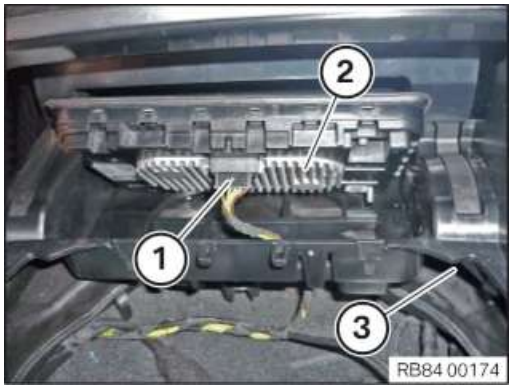
- Loosen screws (1).
- Feed the cup holder (2) out to the top.
- Unlock associated plug connections and disconnect.

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2 – Removing the wireless charging station

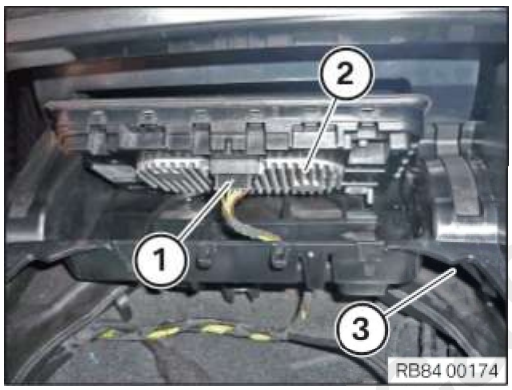


- Loosen the latch mechanisms (1) and push out the wireless charging station (2) upwards.

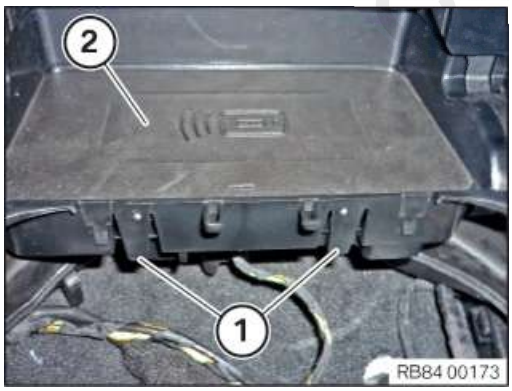


- Unlock and disconnect the plug connection (1) and remove the wireless charging tray (2) from the centre console (3).

3 – Installing the wireless charging station



- Connect connectors (1) and lock.
- Position the wireless charging station (2) in the centre console (3).



- Push the wireless charging tray (2) down.

  The latch mechanisms (1) must engage correctly.

rdiag.com

4 – Install the cup holder



- Fix the cup holder (2) and the belonging connectors.
- Correctly position the cup holder (2).
- Tighten the screws (1).

Cup holder to centre console

Oval-head screw		Tightening torque	1,8 Nm



- Insert the insert (1).

Additional Information

Overview of Tightening Torques

Cup holder to centre console Used in step 4

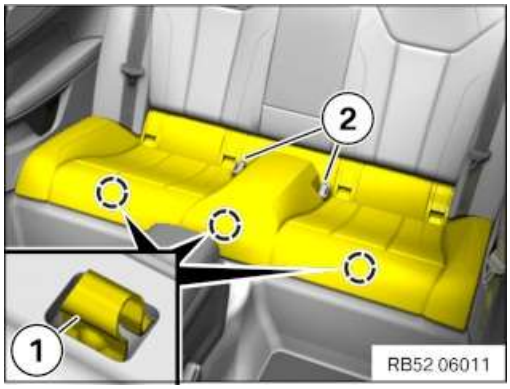
Oval-head screw		Tightening torque	1,8 Nm

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84 10 590 Removing and installing/replacing LTE line compensator

PRELIMINARY WORK

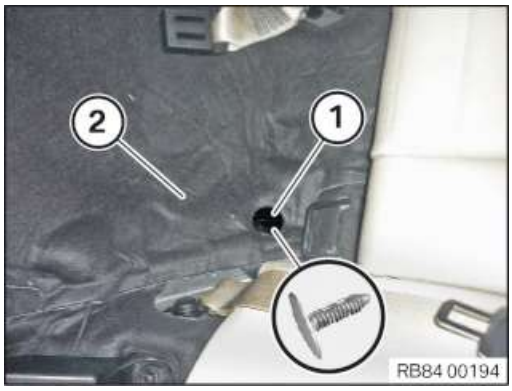
1 – Remove rear seat bench



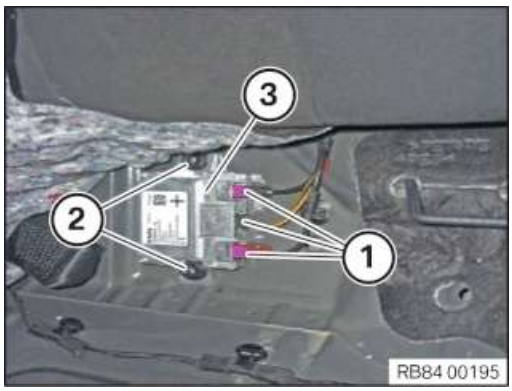
- Unclip the rear seat bench upwards from clamps (1) and guide out seat belt buckles (2).
- Remove the rear seat bench.

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2 – Removing the LTE compensator

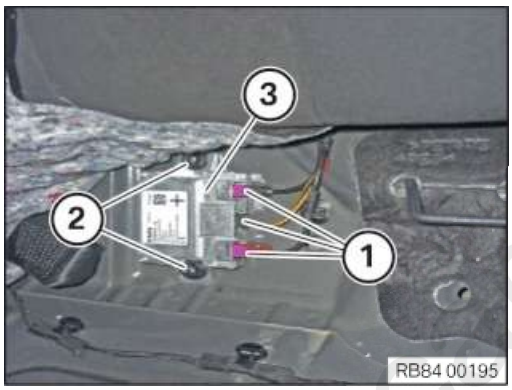


- Release clip (1) and flip up the sound insulation (2).



- Unlock plug connection (1) and disconnect.
- Loosen nuts (2).
- Remove the LTE compensator (3).

3 – Installing the LET compensator



- Position the LTE compensator (3).
- Tighten nuts (2).

Nut to LTE compensator

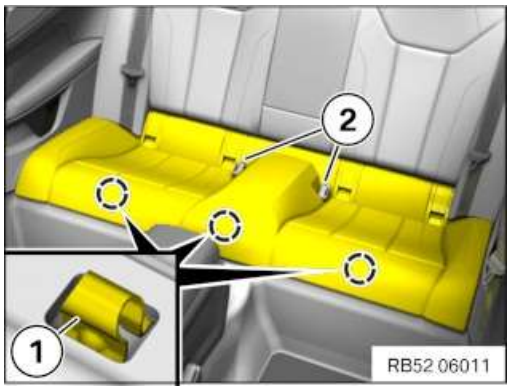
Plastic nut			3 Nm

- Connect connectors (1) and lock.



- Position sound insulation (2) and install the clip (1).

4 – Installing the rear seat bench



- Feed in the seat belt buckles (2).
- Position the rear seat bench and clip into the clamps (1).

Additional Information

Overview of Tightening Torques

Nut to LTE compensator		Used in step 3
Plastic nut		3 Nm

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84 10 059 Removing and installing/replacing USB port in centre console storage compartment

Prerequisite

- The lid of the centre armrest is open.

RISK OF DAMAGE

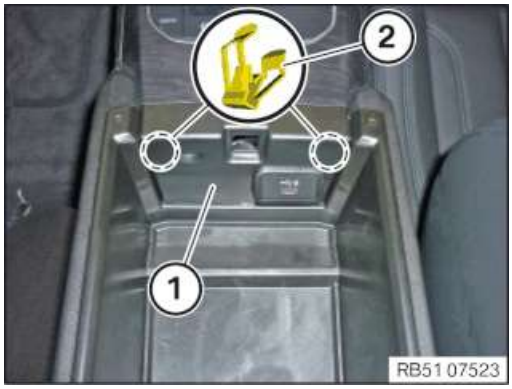
Damage of high-quality surfaces.

Plastic wedges can damage high-quality surfaces.

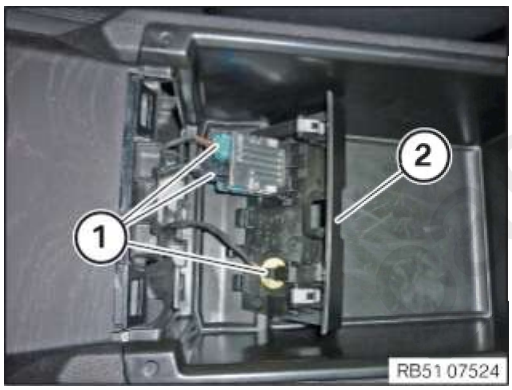
- Protect surfaces from damage.

PRELIMINARY WORK

1 – Removing the trim in the storage compartment on the centre armrest



- Lever out the trim (1) with the special tool (2) toward the rear from the clamps 2 298 505.

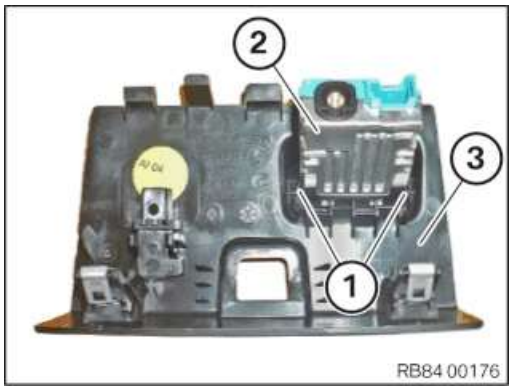


- Unlock and disconnect the plug connections (1) and remove the trim (2) .

partdiagn.com

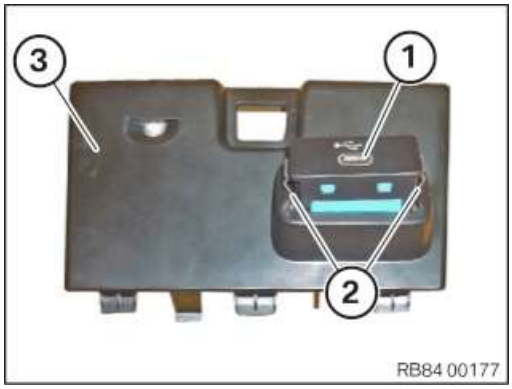
MAIN WORK

2 – Removing the USB port from the storage compartment in the centre console



- Loosen the latch mechanisms (1).
- Remove the USB port (2) from the trim (3).

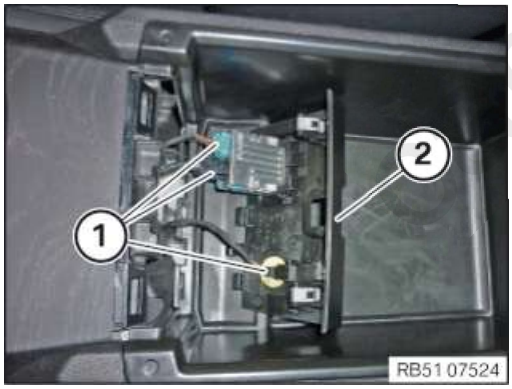
3 – Installing the USB port in the storage compartment of the centre console



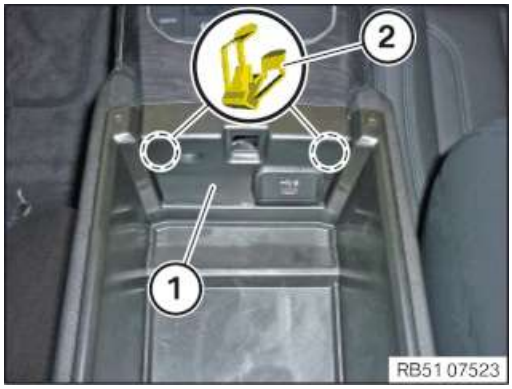
- Position USB port (1) and install it in trim (3).
- Engage latch mechanisms (2) correctly.

POSTPROCESSES

4 – Installing the trim in the storage compartment of the centre armrest



- Mount the trim (2) and connect connector (1) and lock.

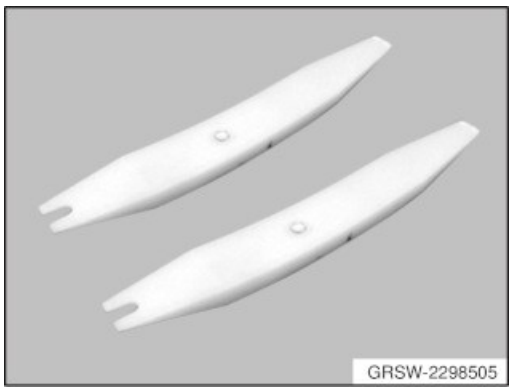


- Correctly position trim (1) and snap into the clamps (2).

Additional Information

Overview of Special Tools

2 298 505 Wedge



Common Used in step 1

Usage	Set (delivery of 2 pieces)
Included in the tool or work	
Storage location	C34
Replaced by	
In connection with	
SI-Number	01 03 12 (792)

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84 10 060 Removing and installing/replacing USB port in the centre console

Prerequisite

- The lid of the front storage compartment is open.

PRELIMINARY WORK

1 – Remove cupholder



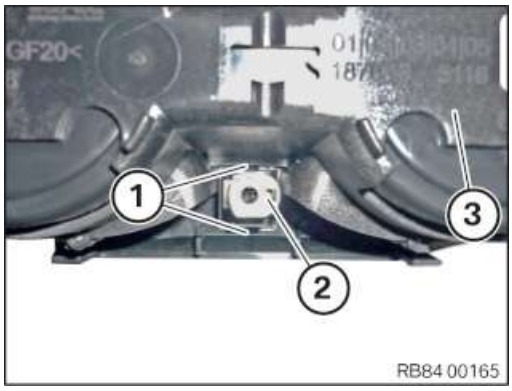
- Remove the insert (1).



- Loosen screws (1).
- Feed the cup holder (2) out to the top.
- Unlock associated plug connections and disconnect.

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2 – Removing the connecting socket of the USB audio interface in the cup holder



- Loosen the latch mechanisms (1).
- Remove the connecting socket (2) from the cup holder (3) in a forwards direction.

3 – Installing the connecting socket of the USB audio interface in the cup holder



- Position the connecting socket of the USB audio interface (1) and insert it in the cup holder (2).

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4 – Install the cup holder



- Fix the cup holder (2) and the belonging connectors.
- Correctly position the cup holder (2).
- Tighten the screws (1).

Cup holder to centre console

Oval-head screw		Tightening torque	1,8 Nm



- Insert the insert (1).

Additional Information

Overview of Tightening Torques

Cup holder to centre console Used in step 4

Oval-head screw		Tightening torque	1,8 Nm

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84 10 058 Removing/installing/replacing USB port in rear centre console trim

RISK OF DAMAGE

Damage of high-quality surfaces.

Plastic wedges can damage high-quality surfaces.

- Protect surfaces from damage.

PRELIMINARY WORK

1 – Removing the rear centre console trim

RISK OF DAMAGE

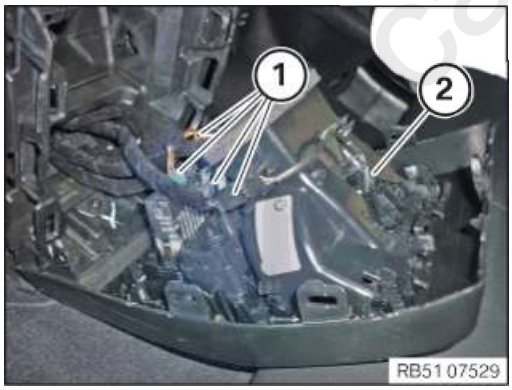
Careless handling of tools and sharp-edged components.

Scratch, surface damage.

- Protect working area.
- Handle tools and components carefully.



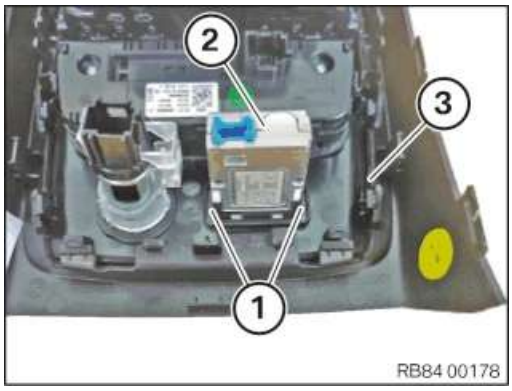
- Release centre console trim (1) backwards from the latch mechanisms at the side and remove it slightly at the back.



- Unlock and disconnect plug connections (1).
- Remove the centre console trim (2).

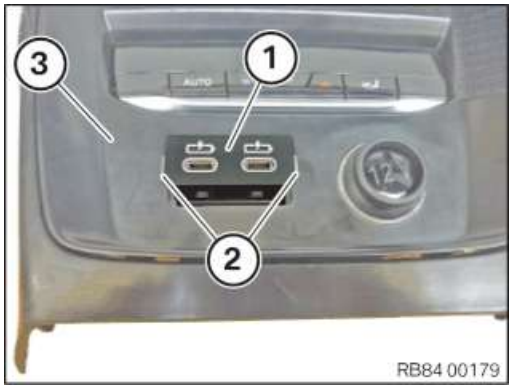
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2 – Removing the USB port from the rear centre console trim



- Loosen the latch mechanisms (1).
- Remove the USB port (2) from the centre console trim (3).

3 – Installing the USB port in the rear centre console trim

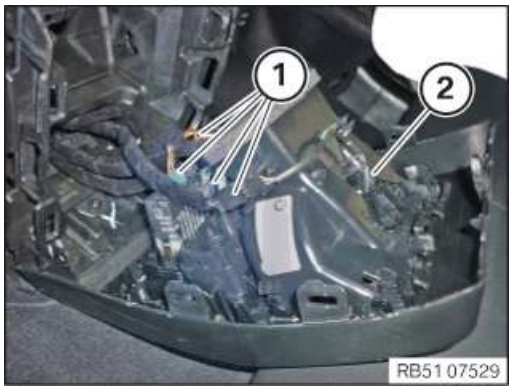


- Position USB port (1) and install it in centre console trim (3).

  The latch mechanisms (2) must engage correctly.

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4 – Installing the rear centre console trim



- Install the centre console trim (2).
- Connect connectors (1) and lock.



- Position centre console trim (1) and engage at the latch mechanisms at the side.

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84 10 521 Replacing the emergency battery for the telematics control unit under the headlining

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

RISK OF DAMAGE

Fold the headlining.

If the headlining is folded, it may have to be replaced.

- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.

PRELIMINARY WORK

1 – Deactivating the 48 V electrical system

Prerequisite

Ignition is switched off.

WARNING

Deactivation of the 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no battery charger** is connected to the jump start terminal point in the engine compartment.
- For vehicles with additional electrical systems (48 V electrical system, high-voltage vehicle electrical system), it is mandatory to deactivate them **before** disconnecting the vehicle battery.

WARNING

Deactivation of the 48 V electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no charger** is connected to the jump start support point in the engine compartment.

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RISK OF DAMAGE

Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.

TECHNICAL INFORMATION

Follow notes for 48-V battery. See further information 6120 ... Notes on 48-V battery.



- Deactivate the 48V electrical system by opening the bonnet.

  The deactivation takes place automatically.



Check

TECHNICAL INFORMATION

Zero voltage (48V electrical system is switched off) is displayed only in PAD mode.

- Press the START-STOP button quickly 3 times without stepping on the brake pedal to establish the PAD mode.
- Check isolation from the supply in the instrument cluster in PAD mode.

desired state

- The Check Control message "48V electrical system switched off." (1) is displayed.

Result

» **The absence of voltage** cannot be determined by means of the Check Control message "48V electrical system switched off:" (1). Work is not permitted to be started.

Measure

- Carry out the service function "48 V electrical system deactivation".
  - Vehicle management > Service functions > Voltage supply > Deactivate 48 V electrical system

Only when the Check Control message “48 V electrical system switched off.” (1) is displayed in the instrument cluster is it permitted to disconnect the 12 V battery.

If the absence of voltage is not indicated clearly, contact Technical Support.

Result

» The Check Control message signals that the 48V electrical system has been switched off.

Measure

- Exit PAD mode by pressing the START-STOP button once without depressing the brake pedal.

  The work “Disconnecting the negative battery cable of the 48-V battery” can be started.



- Unlock and disconnect plug connection (1) of the CAN bus.
- Release the clip (2).



- Loosen nut (1).
- Pull off negative battery cable (2) of the 48-V battery from the negative battery terminal, set it aside and secure it.



WARNING

Unprotected battery terminals.

Risk of short circuits! Risk of fire!

- Cover the vehicle battery.

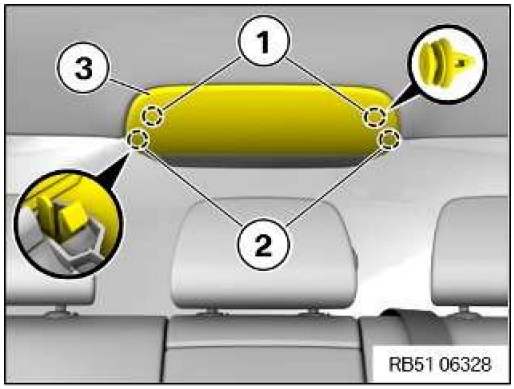
- Cover the vehicle battery with the special tool as shown.
- Position the battery earth lead (1) as shown.

2 – Disconnecting all battery earth leads



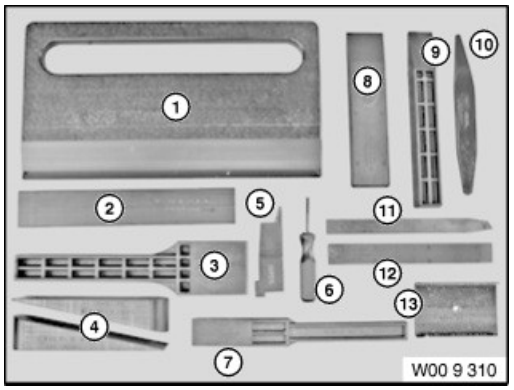
- See additional information.

3 – Removing the trim of the additional brake light

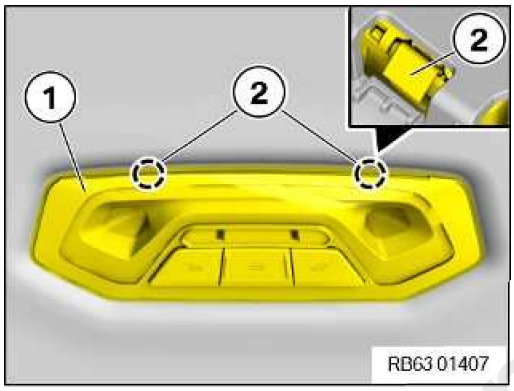


- Loosen the clips (1).
- Release the latch mechanisms (2) and remove the trim of the additional brake light (3).

4 – Remove interior roof light



- Have the set of special tools 0 493 752 (00 9 329) ready.



- Lever interior roof light (1) out of clamps (2) using a suitable tool.
- Unlock plug connection and disconnect.

5 – Removing the C-pillar trim panel on the left and right

NOTICE

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

▸ **Remove C-pillar trim panel**

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

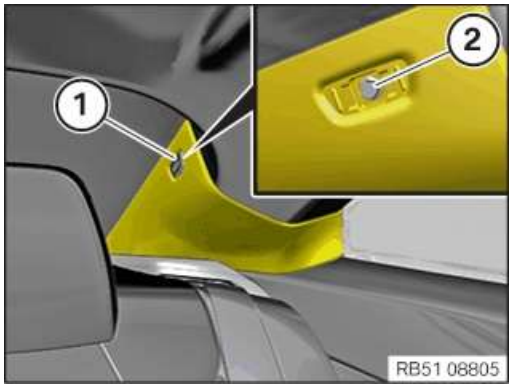
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RISK OF DAMAGE

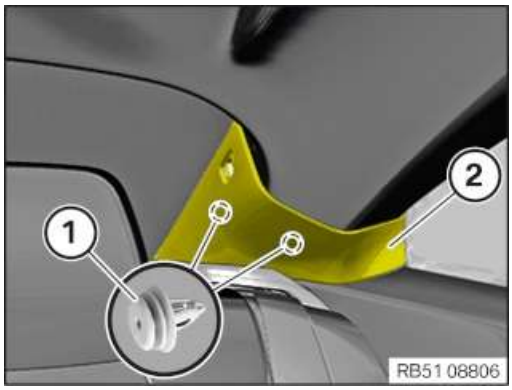
Damage to the head airbag.

Improper use of a tool when removing the trim panel may damage the head airbag.

- Do not use sharp-edged tools when removing the trim panel.



- Unclip cover (1) of the C-pillar trim panel.
- Release the screw (2).



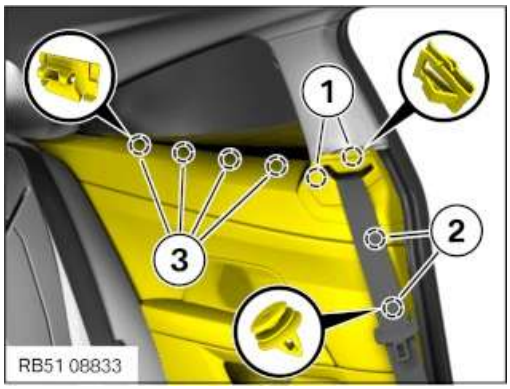
- Unclip C-pillar trim panel (2) from clips (1) and guide it out.

6 – Partially removing the front left and right side trim panels

NOTICE

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

▸ **Partially remove rear side trim panel**



- Release the side trim panel with a suitable special tool from the set of special tools 0 493 752 (00 9 329) at the clamps (1) and the clips (2).
- Feed out the side trim panel from the lip of edge protection and release it from the clamps (3).

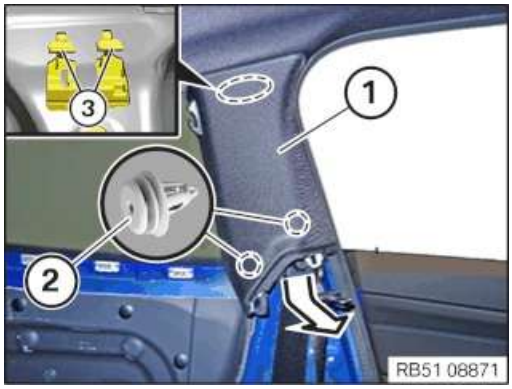
7 – Removing left and right B-pillar trim panel

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NOTICE

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

▸ **Remove the B-pillar trim panel**

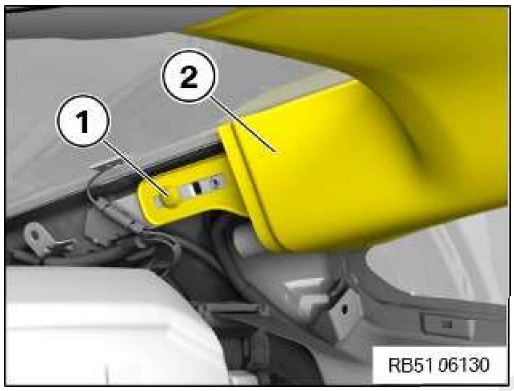


- Unclip the B-pillar trim panel (1) at the clips (2).
- Remove the B-pillar trim panel (1) from the lip of the edge protection and the guides (3) in the direction of the arrow.

8 – Partially lowering the headlining (with the slide/tilt sunroof) to the rear

Prerequisite

The rear seat backrest is folded down toward the front.



NOTICE

Perform the operations on the left and right side.

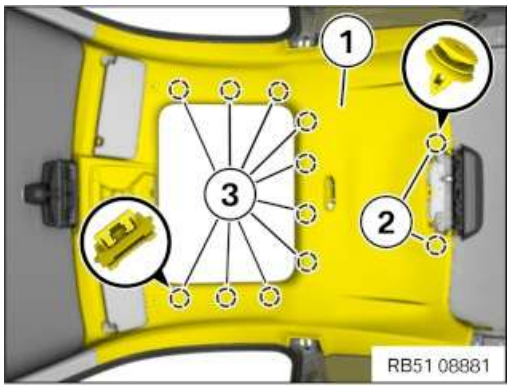
NOTICE

To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

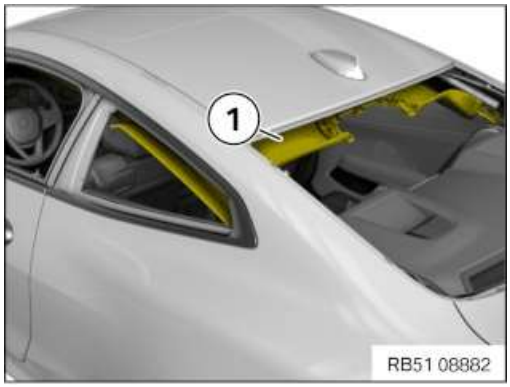
Schematic diagram is for example purposes. Some parts may differ in certain details.

- Release expanding rivet (1) on headlining (2).



- Release headlining (1) with clips (2).
- Release headlining (1) with clips (3) and guide it out from the respective edge protection.

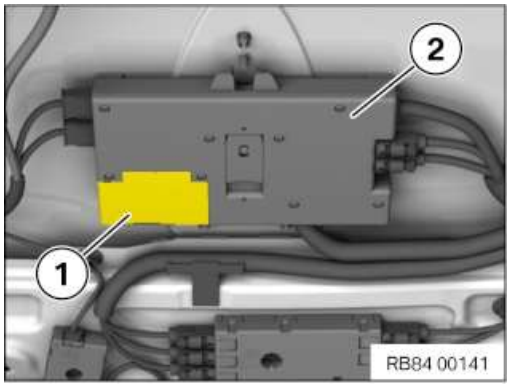
carmanuals.com



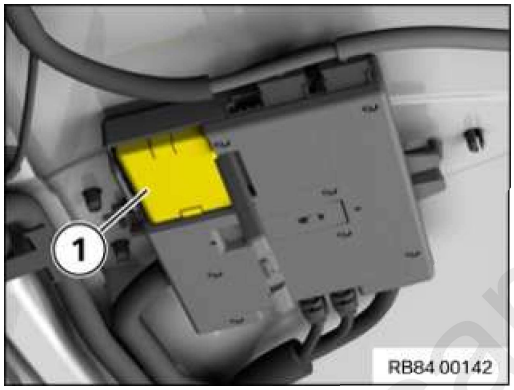
- Lower headlining (1) carefully in the rear area and place it on the head rest of the front seats.

MAIN WORK

9 – Replacing the emergency battery for the telematics control unit

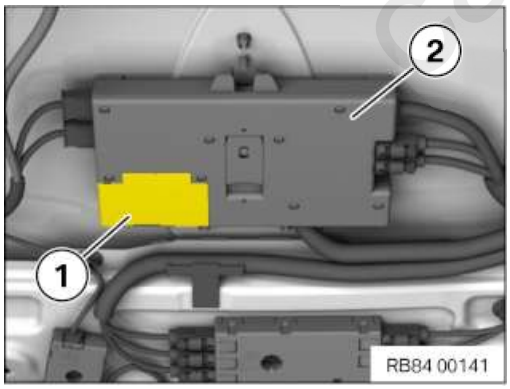


- Unlock and open battery compartment (1) on telematic control unit (2).



- Guide the emergency battery (1) out of the battery compartment and renew it.

  Parts: Emergency battery

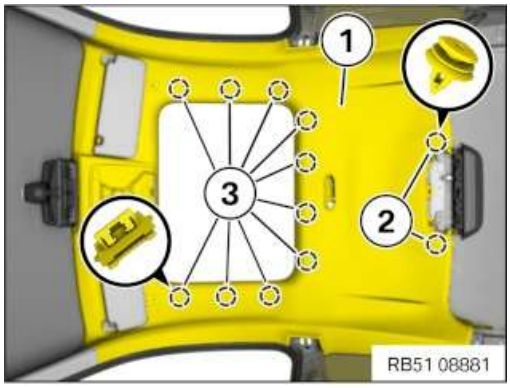


- Shut battery compartment (1) on telematics control unit (2) and lock.

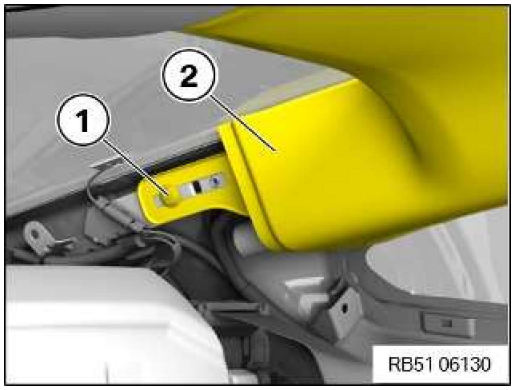
POSTPROCESSES

10 – Partially installing the rear (lowered) headlining (with slide/tilt sunroof)

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- Check the clips (2) and (3) headlining (1) for damage and renew if necessary.
- Position the headlining (1) correctly.
- Clip in the headlining (1) with the clips (3) and insert into the respective edge protection.
- Clip in headlining (1) with the clips (2).



NOTICE

Perform the operations on the left and right side.

NOTICE

To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

Schematic diagram is for example purposes. Some parts may differ in certain details.

- Fasten expanding rivet (1) to headlining (2).

11 – Installing the left and right B-pillar trim panel

NOTICE

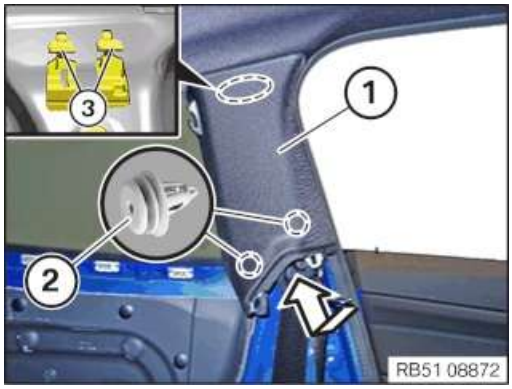
Description is for left component only. Procedure on the right side is identical.

▸ **Install the B-pillar trim panel**



- Check clips (1) for damage and renew if necessary.

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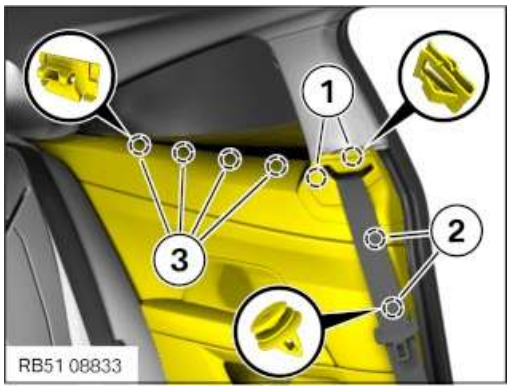
- Insert B-pillar trim panel (1) in direction of arrow into the guides (3) and under the lip of edge protection.
- Clip in the B-pillar trim panel (1) at the clips (2).

12 – Partially installing the rear side trim panel on the left and right

NOTICE

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

▸ Partially installing the rear side trim panel



- Clip the side trim panel into clamps (3) and guide it in under the lip of edge protection.
- Clip in the side trim panel with the clips (2) and the clamps (1).

13 – Installing the C-pillar trim panel on the left and right

NOTICE

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

▸ Installing C-pillar trim panel

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

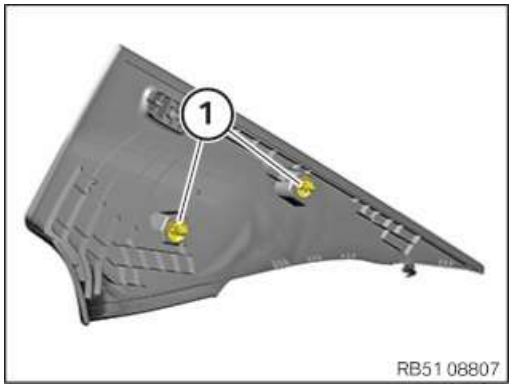
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RISK OF DAMAGE

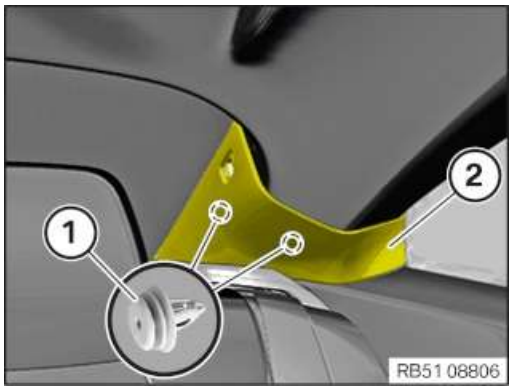
Damage to the head airbag.

Improper use of a tool when removing the trim panel may damage the head airbag.

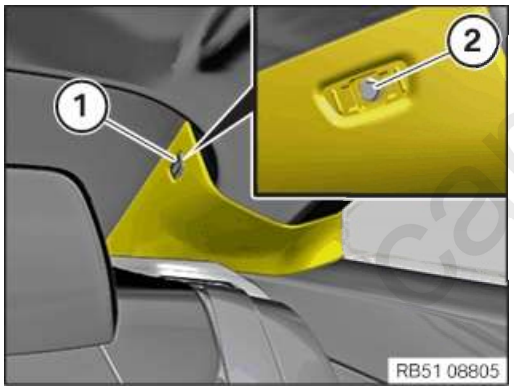
- Do not use sharp-edged tools when removing the trim panel.



- Check clips (1) for damage and, if necessary, renew them.



- Position C-pillar trim panel (2) and clip it onto clips (1).



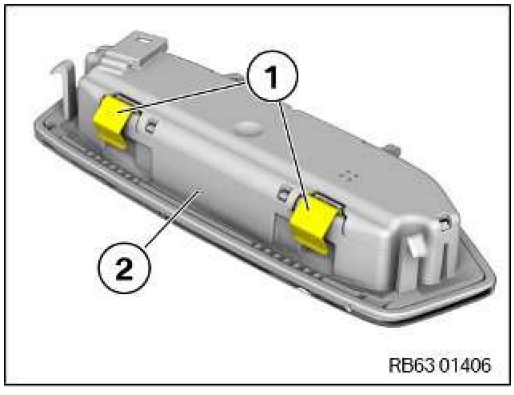
- Tighten down screw (2).

C-pillar trim panel to body

Screw		Tightening torque	2,6 Nm

- Clip in cover (1) of the C-pillar trim panel.

14 – Install interior roof light



Check

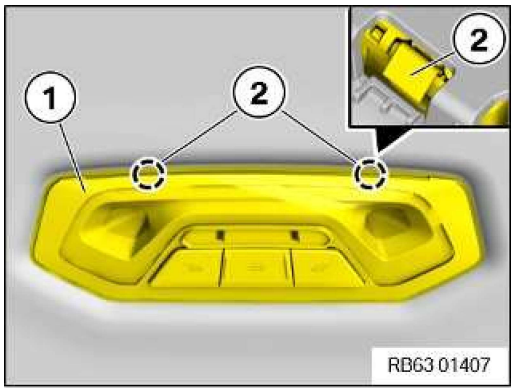
- Check the clamps (1) for damage.

Result

» Clamps (1) are damaged.

Measure

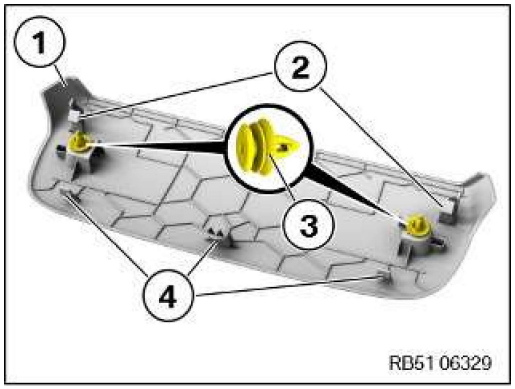
- Renew the interior roof light (2).



- Connect connectors and lock.
- Clip in the interior roof light (1) with clamps (2).

15 – Installing trim for additional brake light

Check



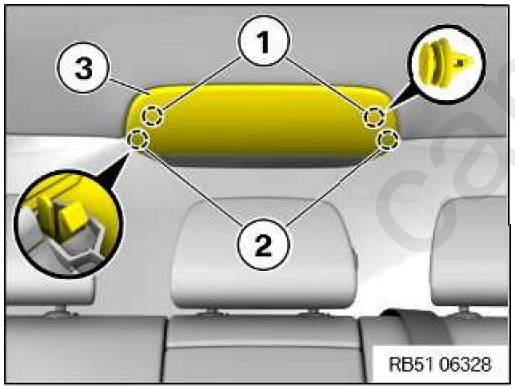
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

Measure

- Renew the trim for the additional brake light.



- Position trim for additional brake light (1) from the bottom and clip it in with latch mechanisms (2).
- Clip in clips (1).

16 – Connecting all battery earth leads



- See additional information.

17 – Activating the 48 V electrical system

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Prerequisite

Ignition is switched off.

RISK OF DAMAGE

Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.



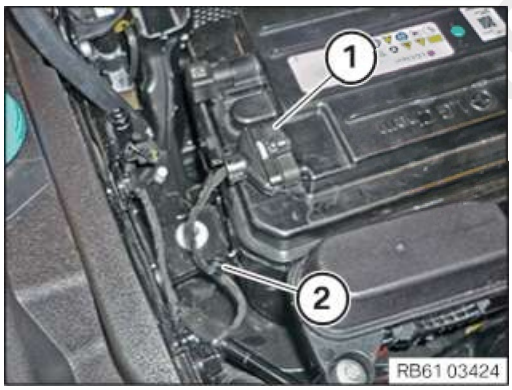
- Lift battery earth lead (1).
- Remove special tool .



- Release the negative battery cable (2) of the 48-V battery from the mounting.
- Position the negative battery cable (2) of the 48-V battery on the negative battery terminal.
- Tighten nut (1).

Negative battery cable to 48-V battery

Nut M8	Tightening torque	19 Nm



- Connect the connector (1) of the CAN bus and lock it.
- Clip in clip (2).



- Activate the 48V electrical system by closing the bonnet.

  The activation takes place automatically.

Additional Information

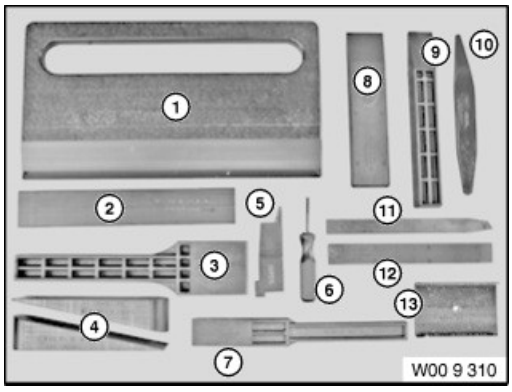
Overview of Tightening Torques

C-pillar trim panel to body			Used in step 13
Screw		Tightening torque	2,6 Nm

Negative battery cable to 48-V battery			Used in step 17
Nut M8		Tightening torque	19 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



Common	Used in step 46
Usage	(Case) with insert without mounting wedges, delivery while stocks last - as of 02/2019.
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

Links

Repair instructions (PRE)	Used in step
Notes on 48-V battery	117

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	

Repair instructions	Used in step
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	216
61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting battery earth lead	216
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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	216
61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting battery earth lead	216

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84 10 520 Replacing the emergency battery for the telematics control unit under the headlining

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

RISK OF DAMAGE

Fold the headlining.

If the headlining is folded, it may have to be replaced.

- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.

PRELIMINARY WORK

1 – Deactivating the 48 V electrical system

Prerequisite

Ignition is switched off.

WARNING

Deactivation of the 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no battery charger** is connected to the jump start terminal point in the engine compartment.
- For vehicles with additional electrical systems (48 V electrical system, high-voltage vehicle electrical system), it is mandatory to deactivate them **before** disconnecting the vehicle battery.

WARNING

Deactivation of the 48 V electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no charger** is connected to the jump start support point in the engine compartment.

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RISK OF DAMAGE

Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.

TECHNICAL INFORMATION

Follow notes for 48-V battery. See further information 6120 ... Notes on 48-V battery.



- Deactivate the 48V electrical system by opening the bonnet.

  The deactivation takes place automatically.



Check

TECHNICAL INFORMATION

Zero voltage (48V electrical system is switched off) is displayed only in PAD mode.

- Press the START-STOP button quickly 3 times without stepping on the brake pedal to establish the PAD mode.
- Check isolation from the supply in the instrument cluster in PAD mode.

desired state

- The Check Control message "48V electrical system switched off." (1) is displayed.

Result

» **The absence of voltage** cannot be determined by means of the Check Control message "48V electrical system switched off:" (1). Work is not permitted to be started.

Measure

- Carry out the service function "48 V electrical system deactivation".
  - Vehicle management > Service functions > Voltage supply > Deactivate 48 V electrical system

Only when the Check Control message “48 V electrical system switched off.” (1) is displayed in the instrument cluster is it permitted to disconnect the 12 V battery.

If the absence of voltage is not indicated clearly, contact Technical Support.

Result

» The Check Control message signals that the 48V electrical system has been switched off.

Measure

- Exit PAD mode by pressing the START-STOP button once without depressing the brake pedal.

  The work “Disconnecting the negative battery cable of the 48-V battery” can be started.



- Unlock and disconnect plug connection (1) of the CAN bus.
- Release the clip (2).



- Loosen nut (1).
- Pull off negative battery cable (2) of the 48-V battery from the negative battery terminal, set it aside and secure it.



WARNING

Unprotected battery terminals.

Risk of short circuits! Risk of fire!

- Cover the vehicle battery.

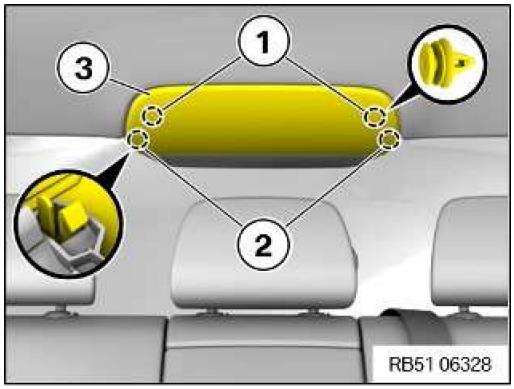
- Cover the vehicle battery with the special tool as shown.
- Position the battery earth lead (1) as shown.

2 – Disconnecting all battery earth leads



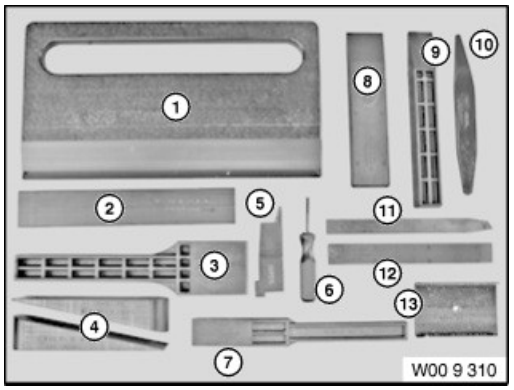
- See additional information.

3 – Removing the trim of the additional brake light

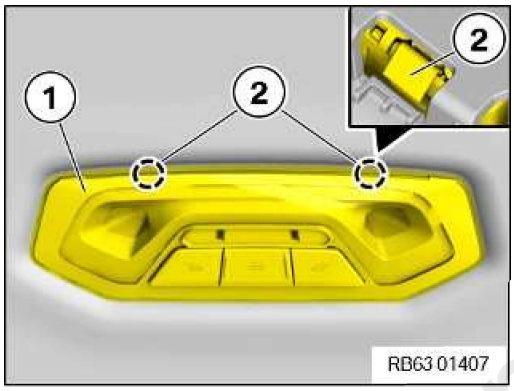


- Loosen the clips (1).
- Release the latch mechanisms (2) and remove the trim of the additional brake light (3).

4 – Remove interior roof light



- Have the set of special tools 0 493 752 (00 9 329) ready.



- Lever interior roof light (1) out of clamps (2) using a suitable tool.
- Unlock plug connection and disconnect.

5 – Removing the C-pillar trim panel on the left and right

NOTICE

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

▸ **Remove C-pillar trim panel**

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

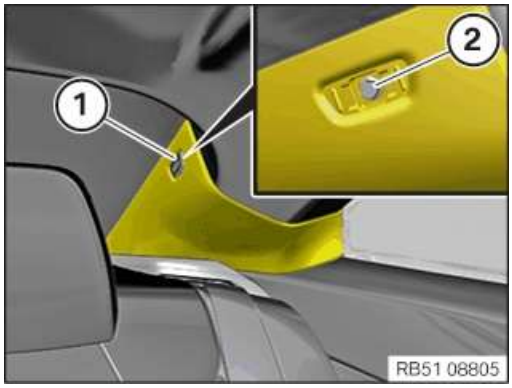
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RISK OF DAMAGE

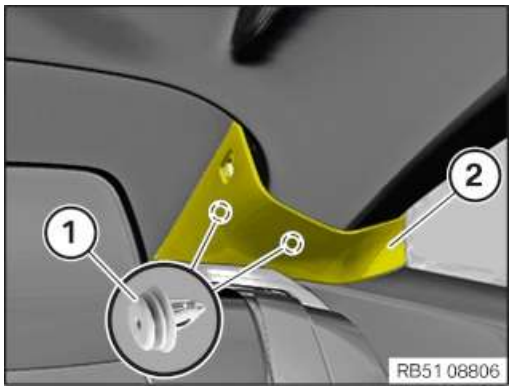
Damage to the head airbag.

Improper use of a tool when removing the trim panel may damage the head airbag.

- Do not use sharp-edged tools when removing the trim panel.



- Unclip cover (1) of the C-pillar trim panel.
- Release the screw (2).



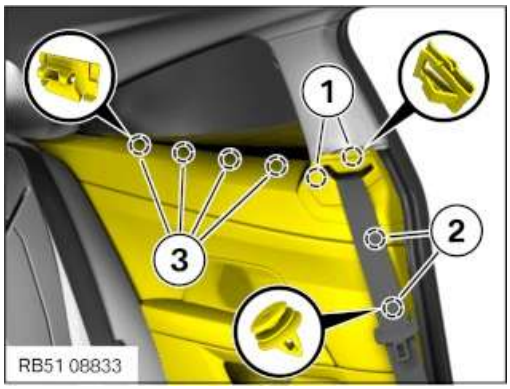
- Unclip C-pillar trim panel (2) from clips (1) and guide it out.

6 – Partially removing the front left and right side trim panels

NOTICE

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

▸ **Partially remove rear side trim panel**



- Release the side trim panel with a suitable special tool from the set of special tools 0 493 752 (00 9 329) at the clamps (1) and the clips (2).
- Feed out the side trim panel from the lip of edge protection and release it from the clamps (3).

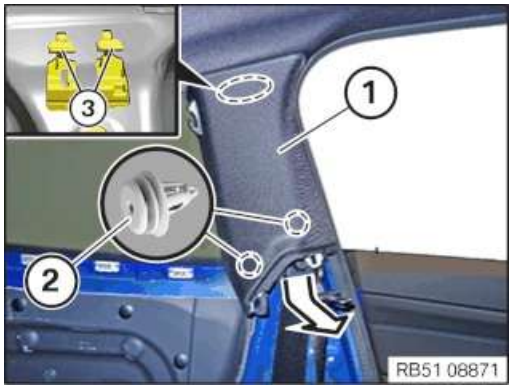
7 – Removing left and right B-pillar trim panel

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NOTICE

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

▸ **Remove the B-pillar trim panel**

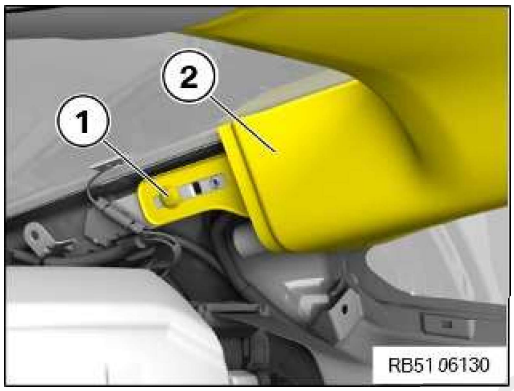


- Unclip the B-pillar trim panel (1) at the clips (2).
- Remove the B-pillar trim panel (1) from the lip of the edge protection and the guides (3) in the direction of the arrow.

8 – Partially lower rear headlining

Prerequisite

The rear seat backrest is folded down toward the front.



NOTICE

Perform the operations on the left and right side.

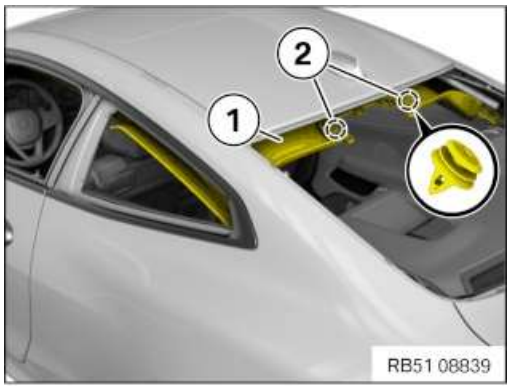
NOTICE

To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

Schematic diagram is for example purposes. Some parts may differ in certain details.

- Release the expanding rivet (1) on the headlining (2).

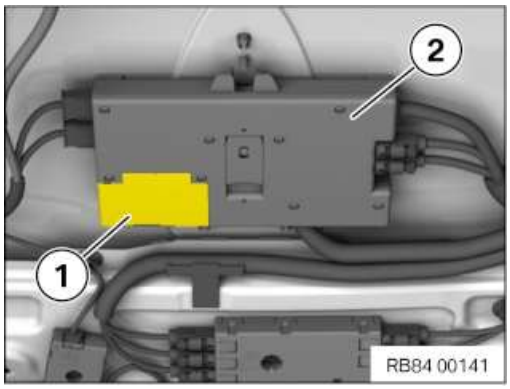


- Release the headlining (1) with the clips (2).
- Feed out the headlining (1) at the respective edge protection and place it down on the head rests of the front seat.

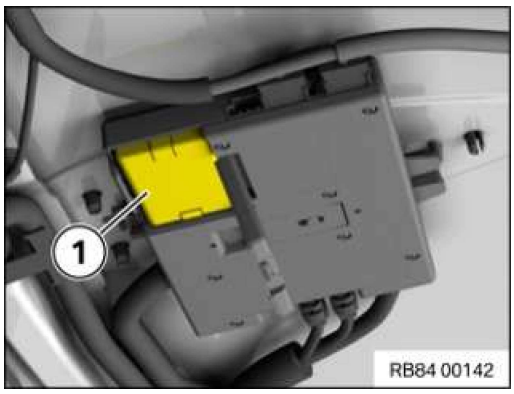
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MAIN WORK

9 – Replacing the emergency battery for the telematics control unit

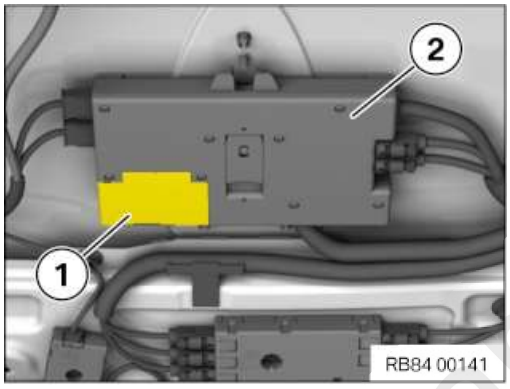


- Unlock and open battery compartment (1) on telematic control unit (2).



- Guide the emergency battery (1) out of the battery compartment and renew it.

  Parts: Emergency battery

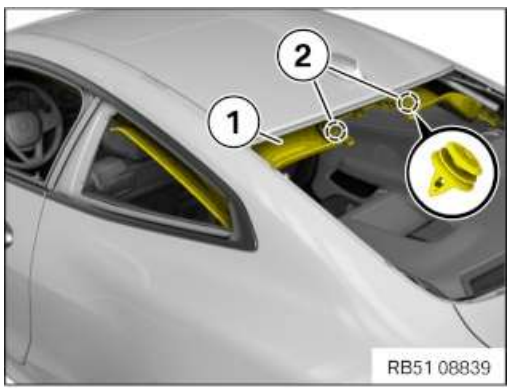


- Shut battery compartment (1) on telematics control unit (2) and lock.

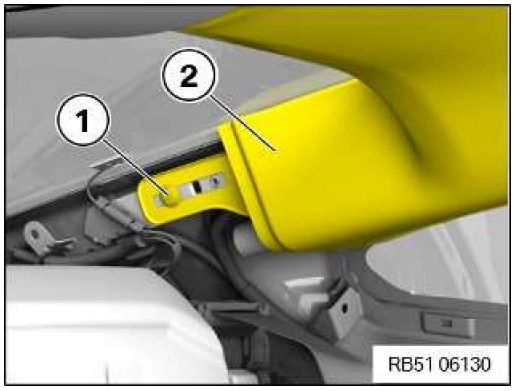
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POSTPROCESSES

10 – Partially installing the rear headlining (lowered)



- Check the clips (2) on the headlining (1) for damage and renew if necessary.
- Position headlining (1) correctly and guide it in at the respective edge protection.
- Clip in headlining (1) with the clips (2).



NOTICE

Perform the operations on the left and right side.

NOTICE

To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

Schematic diagram is for example purposes. Some parts may differ in certain details.

- Fasten expanding rivet (1) to headlining (2).

11 – Installing the left and right B-pillar trim panel

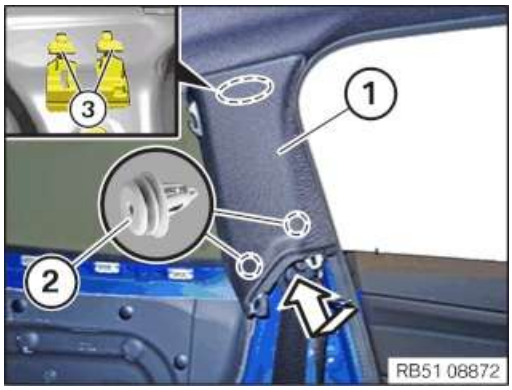
NOTICE

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

▸ **Install the B-pillar trim panel**



- Check clips (1) for damage and renew if necessary.



- Insert B-pillar trim panel (1) in direction of arrow into the guides (3) and under the lip of edge protection.
- Clip in the B-pillar trim panel (1) at the clips (2).

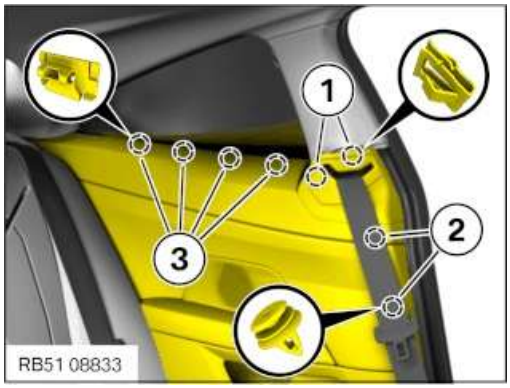
12 – Partially installing the rear side trim panel on the left and right

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NOTICE

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

▸ **Partially installing the rear side trim panel**



- Clip the side trim panel into clamps (3) and guide it in under the lip of edge protection.
- Clip in the side trim panel with the clips (2) and the clamps (1).

13 – Installing the C-pillar trim panel on the left and right

NOTICE

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

▸ **Installing C-pillar trim panel**

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

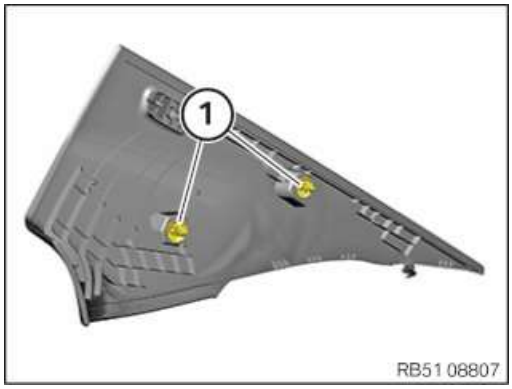
RISK OF DAMAGE

Damage to the head airbag.

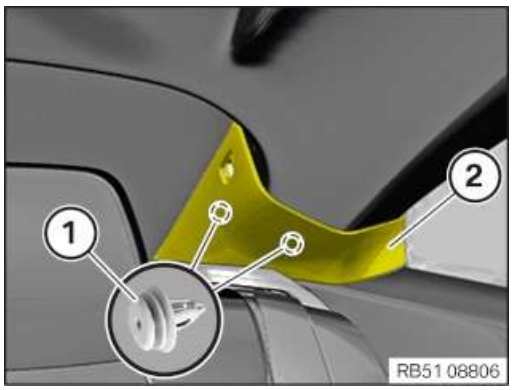
Improper use of a tool when removing the trim panel may damage the head airbag.

- Do not use sharp-edged tools when removing the trim panel.

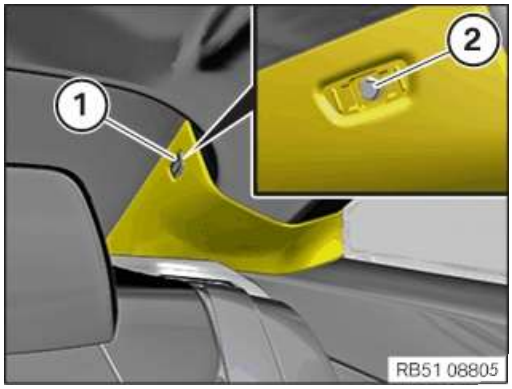
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- Check clips (1) for damage and, if necessary, renew them.



- Position C-pillar trim panel (2) and clip it onto clips (1).



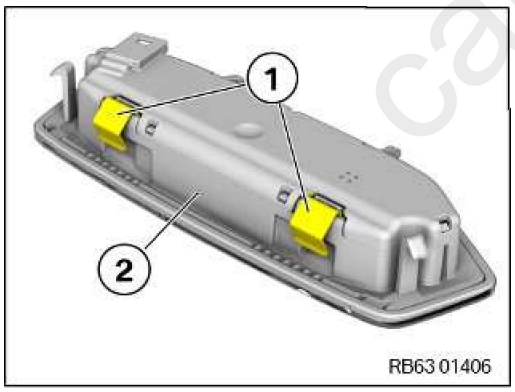
- Tighten down screw (2).

C-pillar trim panel to body

Screw		Tightening torque	2,6 Nm

- Clip in cover (1) of the C-pillar trim panel.

14 – Install interior roof light



Check

- Check the clamps (1) for damage.

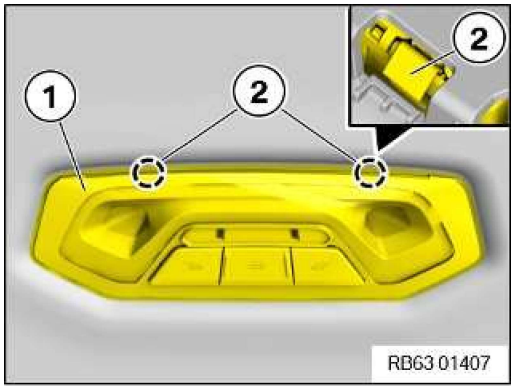
Result

» Clamps (1) are damaged.

Measure

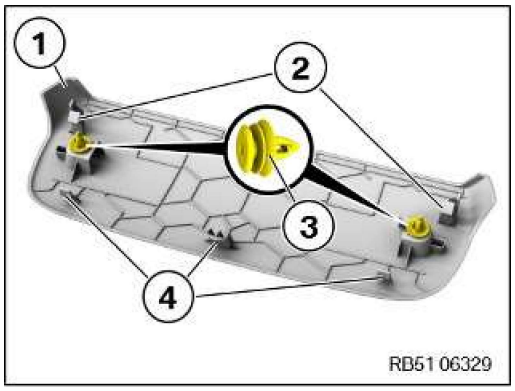
- Renew the interior roof light (2).

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- Connect connectors and lock.
- Clip in the interior roof light (1) with clamps (2).

15 – Installing trim for additional brake light



Check

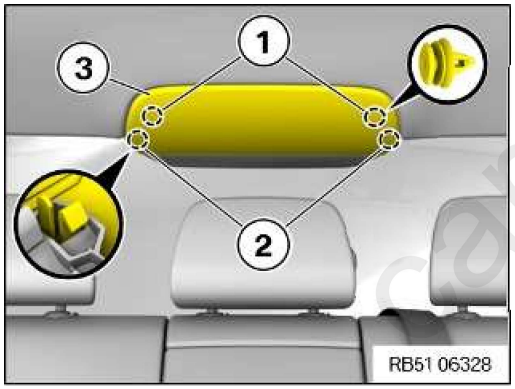
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

Measure

- Renew the trim for the additional brake light.



- Position trim for additional brake light (1) from the bottom and clip it in with latch mechanisms (2).
- Clip in clips (1).

16 – Connecting all battery earth leads



- See additional information.

17 – Activating the 48 V electrical system

Prerequisite

Ignition is switched off.

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RISK OF DAMAGE

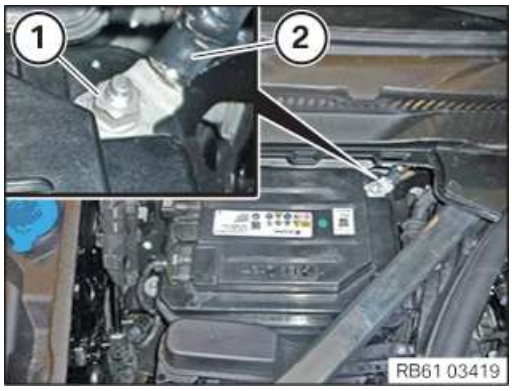
Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.



- Lift battery earth lead (1).
- Remove special tool .



- Release the negative battery cable (2) of the 48-V battery from the mounting.
- Position the negative battery cable (2) of the 48-V battery on the negative battery terminal.
- Tighten nut (1).

Negative battery cable to 48-V battery

Nut M8		Tightening torque	19 Nm



- Connect the connector (1) of the CAN bus and lock it.
- Clip in clip (2).



- Activate the 48V electrical system by closing the bonnet.

  The activation takes place automatically.

Additional Information

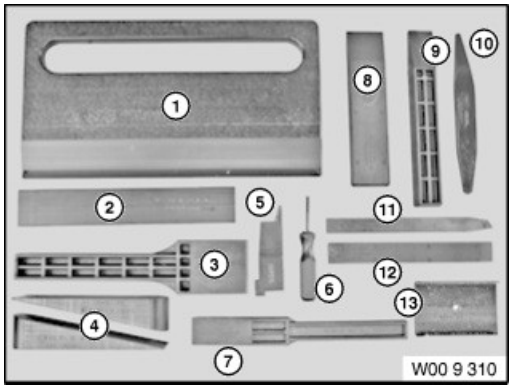
Overview of Tightening Torques

C-pillar trim panel to body			Used in step 13
Screw		Tightening torque	2,6 Nm

Negative battery cable to 48-V battery			Used in step 17
Nut M8		Tightening torque	19 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



Common	Used in step 46
Usage	(Case) with insert without mounting wedges, delivery while stocks last - as of 02/2019.
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

Links

Repair instructions (PRE)	Used in step
Notes on 48-V battery	117

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	

Repair instructions	Used in step
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61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	216
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	216
61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	216
61 20 900 Disconnecting and connecting battery earth lead (Plug-in Hybrid Electric Vehicle)	216
61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting battery earth lead	216
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61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	216
61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting battery earth lead	216
61 20 900 Disconnecting and connecting battery earth lead	216

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84 10 851 Replacing the telematics control unit under the headlining

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

RISK OF DAMAGE

Fold the headlining.

If the headlining is folded, it may have to be replaced.

- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.

PRELIMINARY WORK

1 – Carry out system check of the emergency battery of telematics control unit

Prerequisite

Negative battery cables are disconnected.

- Start the following test module:
  - "AT8400_SYSTEL2 - Check of telecommunications system"
- Run a system test.
- If necessary, remount and replace the emergency battery according to the test module instructions before installing the new telematics control unit.

  Replacement:

  Parts: Emergency battery

2 – Deactivating the 48 V electrical system

Prerequisite

Ignition is switched off.

WARNING

Deactivation of the 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no battery charger** is connected to the jump start terminal point in the engine compartment.
- For vehicles with additional electrical systems (48 V electrical system, high-voltage vehicle electrical system), it is mandatory to deactivate them **before** disconnecting the vehicle battery.

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WARNING

Deactivation of the 48 V electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no charger** is connected to the jump start support point in the engine compartment.

RISK OF DAMAGE

Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.

TECHNICAL INFORMATION

Follow notes for 48-V battery. See further information 6120 ... Notes on 48-V battery.



- Deactivate the 48V electrical system by opening the bonnet.

  The deactivation takes place automatically.

Check



TECHNICAL INFORMATION

Zero voltage (48V electrical system is switched off) is displayed only in PAD mode.

- Press the START-STOP button quickly 3 times without stepping on the brake pedal to establish the PAD mode.
- Check isolation from the supply in the instrument cluster in PAD mode.

desired state

- The Check Control message "48V electrical system switched off." (1) is displayed.

Result

» **The absence of voltage** cannot be determined by means of the Check Control message "48V electrical system switched off:" (1). Work is not permitted to be started.

ardiagn.com

Measure

- Carry out the service function "48 V electrical system deactivation".
  - Vehicle management > Service functions > Voltage supply > Deactivate 48 V electrical system

  Only when the Check Control message “48 V electrical system switched off.” (1) is displayed in the instrument cluster is it permitted to disconnect the 12 V battery.

  If the absence of voltage is not indicated clearly, contact Technical Support.

Result

» The Check Control message signals that the 48V electrical system has been switched off.

Measure

- Exit PAD mode by pressing the START-STOP button once without depressing the brake pedal.

  The work “Disconnecting the negative battery cable of the 48-V battery” can be started.



- Unlock and disconnect plug connection (1) of the CAN bus.
- Release the clip (2).



- Loosen nut (1).
- Pull off negative battery cable (2) of the 48-V battery from the negative battery terminal, set it aside and secure it.



WARNING

Unprotected battery terminals.

Risk of short circuits! Risk of fire!

- Cover the vehicle battery.

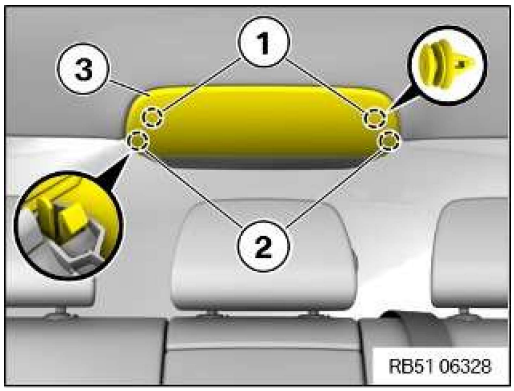
- Cover the vehicle battery with the special tool as shown.
- Position the battery earth lead (1) as shown.

3 – Disconnecting all battery earth leads



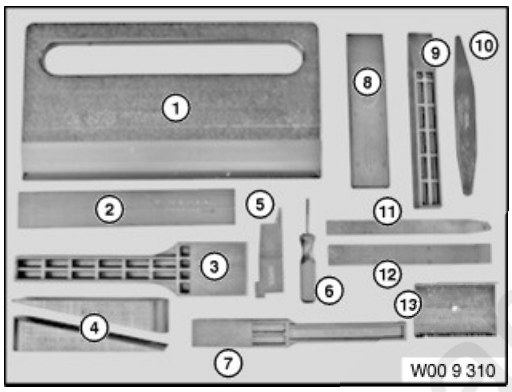
- See additional information.

4 – Removing the trim of the additional brake light

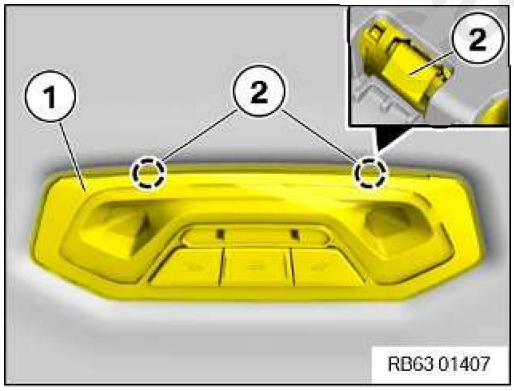


- Loosen the clips (1).
- Release the latch mechanisms (2) and remove the trim of the additional brake light (3).

5 – Remove interior roof light



- Have the set of special tools 0 493 752 (00 9 329) ready.



- Lever interior roof light (1) out of clamps (2) using a suitable tool.
- Unlock plug connection and disconnect.

6 – Removing the C-pillar trim panel on the left and right

NOTICE

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

▸ **Remove C-pillar trim panel**

erdiagn.com

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

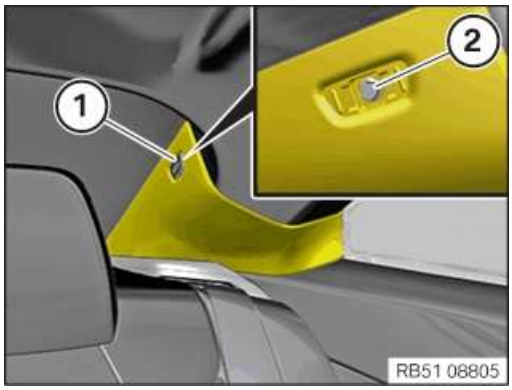
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

RISK OF DAMAGE

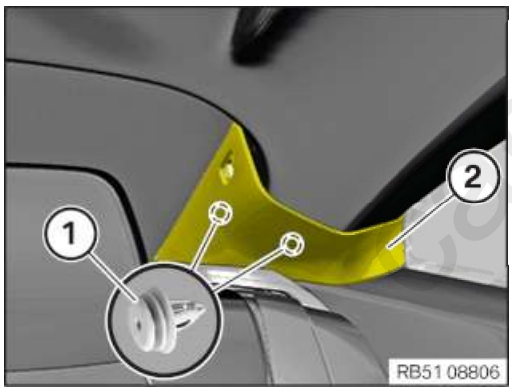
Damage to the head airbag.

Improper use of a tool when removing the trim panel may damage the head airbag.

- Do not use sharp-edged tools when removing the trim panel.



- Unclip cover (1) of the C-pillar trim panel.
- Release the screw (2).



- Unclip C-pillar trim panel (2) from clips (1) and guide it out.

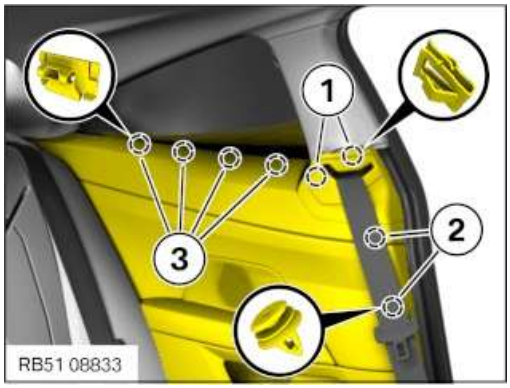
7 – Partially removing the front left and right side trim panels

NOTICE

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

▸ **Partially remove rear side trim panel**

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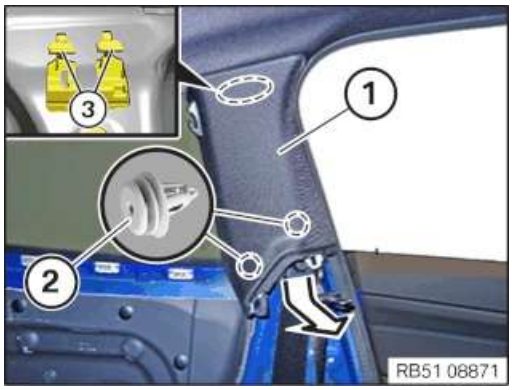


- Release the side trim panel with a suitable special tool from the set of special tools 0 493 752 (00 9 329) at the clamps (1) and the clips (2).
- Feed out the side trim panel from the lip of edge protection and release it from the clamps (3).

8 – Removing left and right B-pillar trim panel

NOTICE

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



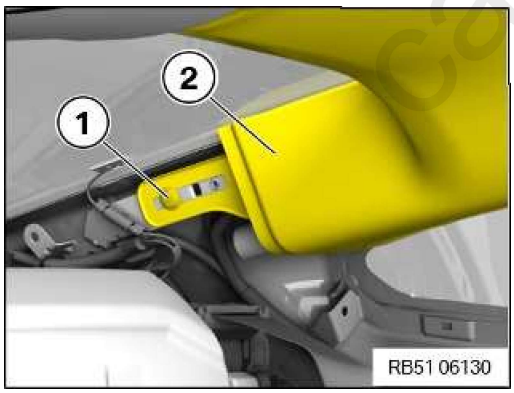
▸ **Remove the B-pillar trim panel**

- Unclip the B-pillar trim panel (1) at the clips (2).
- Remove the B-pillar trim panel (1) from the lip of the edge protection and the guides (3) in the direction of the arrow.

9 – Partially lowering the headlining (with the slide/tilt sunroof) to the rear

Prerequisite

The rear seat backrest is folded down toward the front.



NOTICE

Perform the operations on the left and right side.

NOTICE

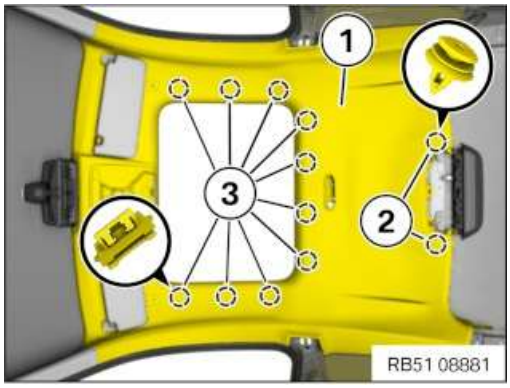
To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

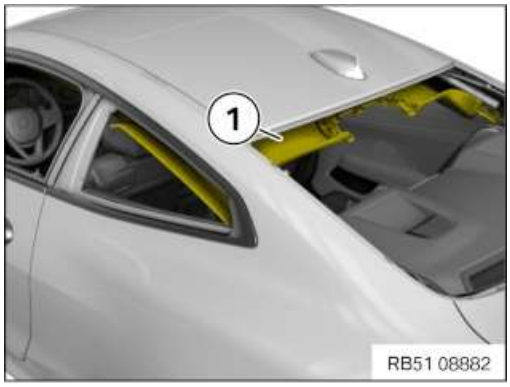
Schematic diagram is for example purposes. Some parts may differ in certain details.

- Release expanding rivet (1) on headlining (2).

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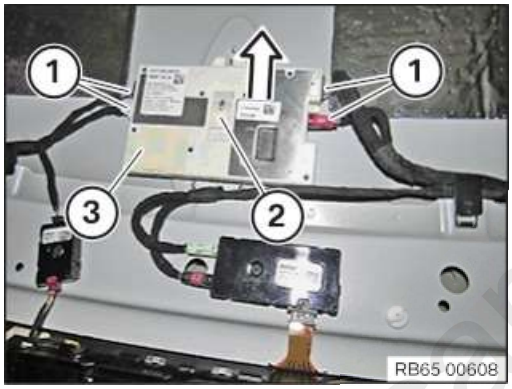
- Release headlining (1) with clips (2).
- Release headlining (1) with clips (3) and guide it out from the respective edge protection.



- Lower headlining (1) carefully in the rear area and place it on the head rest of the front seats.

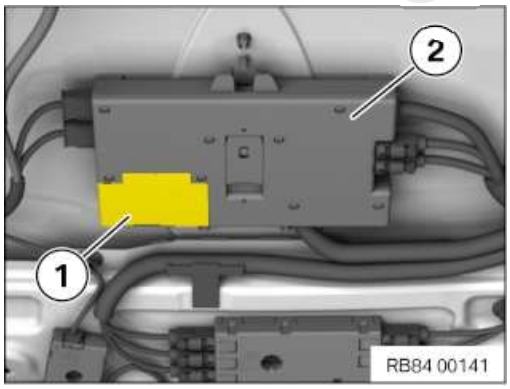
MAIN WORK

10 – Removing the telematics control unit



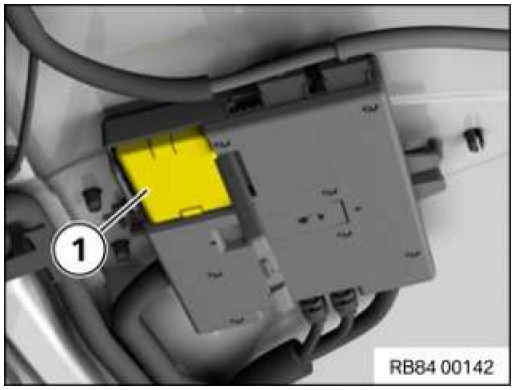
- Unlock plug connection (1) and disconnect.
- Unlock the lock (2) downward.
- Remove the telematics control unit (3) in the direction of arrow.

11 – Remounting or replacing the emergency battery for the telematics control unit



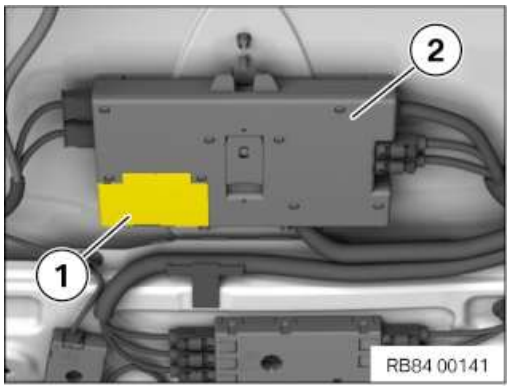
- Unlock and open battery compartment (1) on telematic control unit (2).

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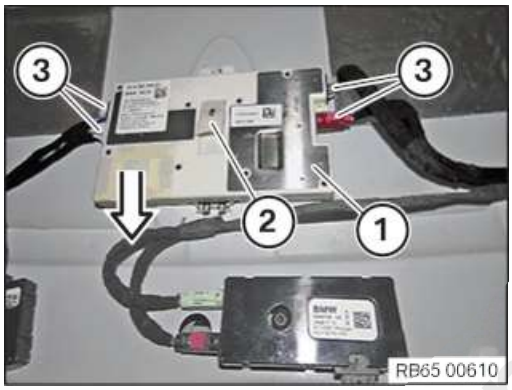
- Feed the emergency battery (1) out of the battery compartment and remount or replace it according to the test module instructions.

  Parts: Emergency battery



- Shut battery compartment (1) on telematics control unit (2) and lock.

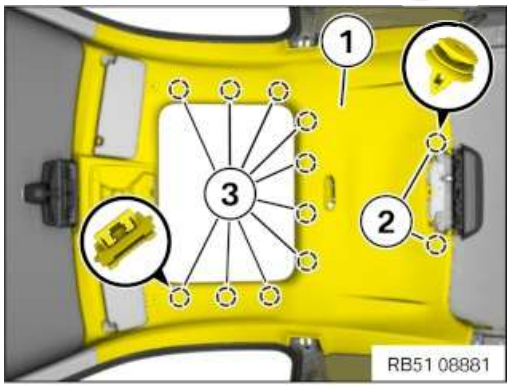
12 – Install the telematics control unit



- Correctly position the telematics control unit (1) and push it in the direction of the arrow until the lock (2) engages.
- Position and connect the connectors (3).

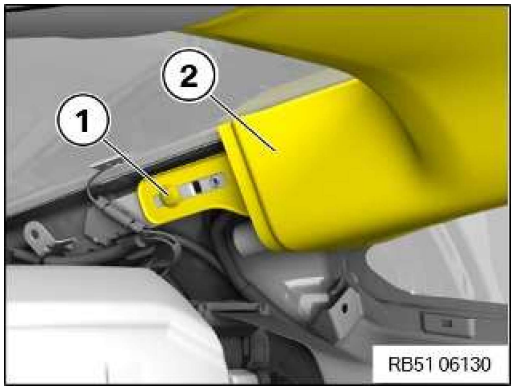
POSTPROCESSES

13 – Partially installing the rear (lowered) headlining (with slide/tilt sunroof)



- Check the clips (2) and (3) headlining (1) for damage and renew if necessary.
- Position the headlining (1) correctly.
- Clip in the headlining (1) with the clips (3) and insert into the respective edge protection.
- Clip in headlining (1) with the clips (2).

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NOTICE

Perform the operations on the left and right side.

NOTICE

To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

Schematic diagram is for example purposes. Some parts may differ in certain details.

- Fasten expanding rivet (1) to headlining (2).

14 – Installing the left and right B-pillar trim panel

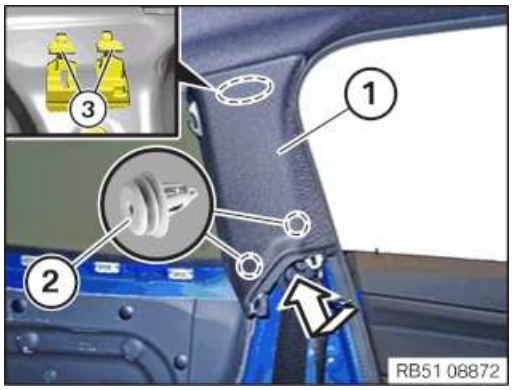
NOTICE

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

▸ **Install the B-pillar trim panel**



- Check clips (1) for damage and renew if necessary.



- Insert B-pillar trim panel (1) in direction of arrow into the guides (3) and under the lip of edge protection.
- Clip in the B-pillar trim panel (1) at the clips (2).

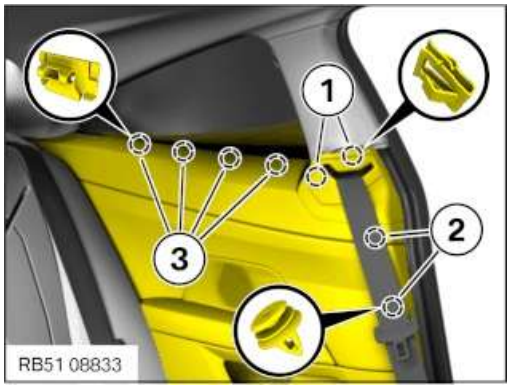
15 – Partially installing the rear side trim panel on the left and right

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NOTICE

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

▸ **Partially installing the rear side trim panel**



- Clip the side trim panel into clamps (3) and guide it in under the lip of edge protection.
- Clip in the side trim panel with the clips (2) and the clamps (1).

16 – Installing the C-pillar trim panel on the left and right

NOTICE

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

▸ **Installing C-pillar trim panel**

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

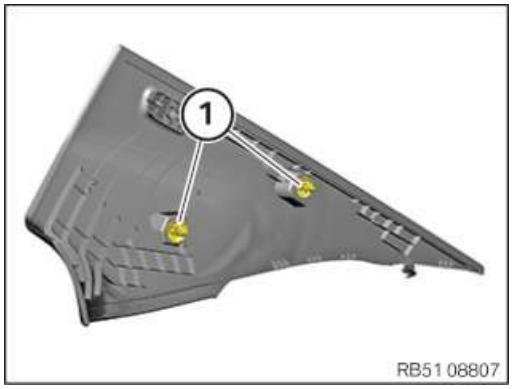
RISK OF DAMAGE

Damage to the head airbag.

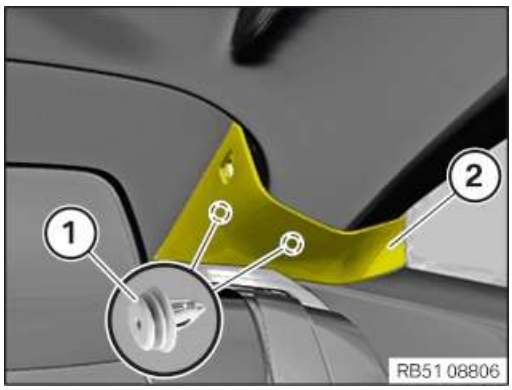
Improper use of a tool when removing the trim panel may damage the head airbag.

- Do not use sharp-edged tools when removing the trim panel.

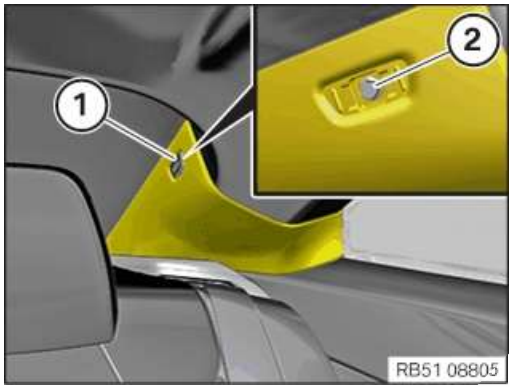
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- Check clips (1) for damage and, if necessary, renew them.



- Position C-pillar trim panel (2) and clip it onto clips (1).



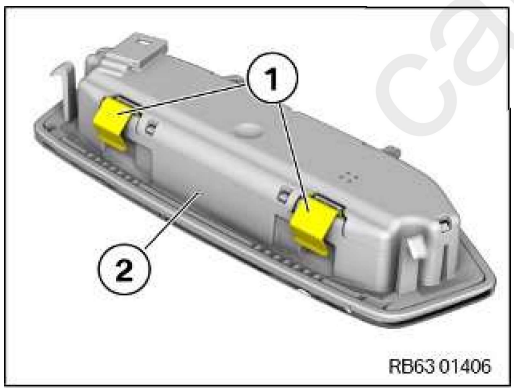
- Tighten down screw (2).

C-pillar trim panel to body

Screw		Tightening torque	2,6 Nm

- Clip in cover (1) of the C-pillar trim panel.

17 – Install interior roof light



Check

- Check the clamps (1) for damage.

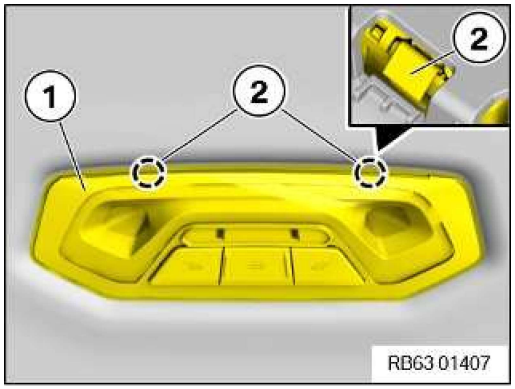
Result

» Clamps (1) are damaged.

Measure

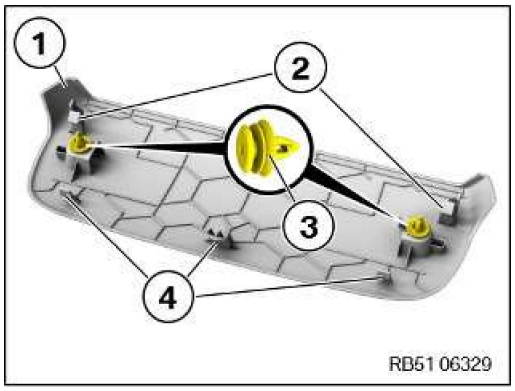
- Renew the interior roof light (2).

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- Connect connectors and lock.
- Clip in the interior roof light (1) with clamps (2).

18 – Installing trim for additional brake light



Check

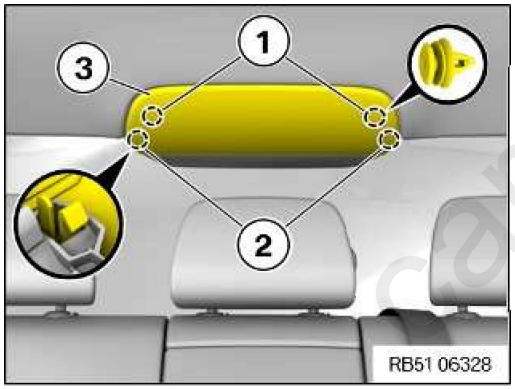
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

Measure

- Renew the trim for the additional brake light.



- Position trim for additional brake light (1) from the bottom and clip it in with latch mechanisms (2).
- Clip in clips (1).

19 – Connecting all battery earth leads



- See additional information.

20 – Activating the 48 V electrical system

Prerequisite

Ignition is switched off.

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RISK OF DAMAGE

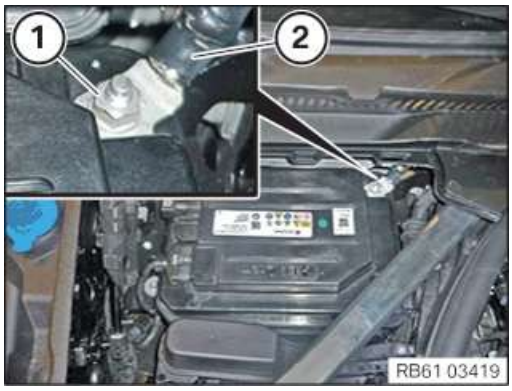
Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.



- Lift battery earth lead (1).
- Remove special tool .



- Release the negative battery cable (2) of the 48-V battery from the mounting.
- Position the negative battery cable (2) of the 48-V battery on the negative battery terminal.
- Tighten nut (1).

Negative battery cable to 48-V battery

Nut M8		Tightening torque	19 Nm



- Connect the connector (1) of the CAN bus and lock it.
- Clip in clip (2).



- Activate the 48V electrical system by closing the bonnet.

  The activation takes place automatically.

21 – Encode/program control unit(s)

Prerequisite

Component has been replaced.

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.

- 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

C-pillar trim panel to body — Used in step 16

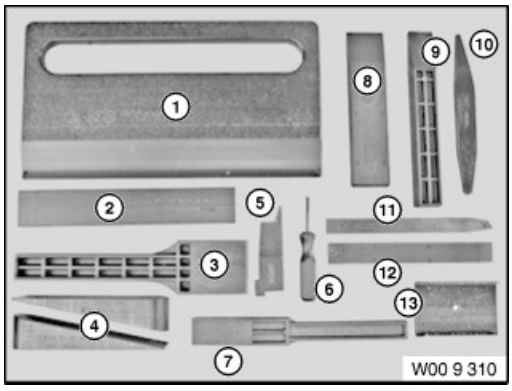
Screw		Tightening torque	2,6 Nm

Negative battery cable to 48-V battery — Used in step 20

Nut M8		Tightening torque	19 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



Common — Used in step 57

Usage	(Case) with insert without mounting wedges, delivery while stocks last - as of 02/2019.
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

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Links

Repair instructions (PRE)	Used in step
Notes on 48-V battery	220

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	

Repair instructions	Used in step
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	319
61 20 900 Disconnecting and connecting battery earth lead	319
61 20 900 Disconnecting and connecting battery earth lead	319
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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	319
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	319
61 20 900 Disconnecting and connecting battery earth lead	319
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	319
61 20 900 Disconnecting and connecting battery earth lead (Plug-in Hybrid Electric Vehicle)	319
61 20 900 Disconnecting and connecting battery earth lead	319
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61 20 900 Disconnecting and connecting battery earth lead	319
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61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	319
61 20 900 Disconnecting and connecting battery earth lead	319
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61 20 900 Disconnecting and connecting battery earth lead	319

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84 10 850 Replacing the telematics control unit under the headlining

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

RISK OF DAMAGE

Fold the headlining.

If the headlining is folded, it may have to be replaced.

- Carry out tasks with a second person to assist.
- Support the headlining at the front and back.

PRELIMINARY WORK

1 – Carry out system check of the emergency battery of telematics control unit

Prerequisite

Negative battery cables are disconnected.

- Start the following test module:
  - "AT8400_SYSTEL2 - Check of telecommunications system"
- Run a system test.
- If necessary, remount and replace the emergency battery according to the test module instructions before installing the new telematics control unit.

  Replacement:

  Parts: Emergency battery

2 – Deactivating the 48 V electrical system

Prerequisite

Ignition is switched off.

WARNING

Deactivation of the 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no battery charger** is connected to the jump start terminal point in the engine compartment.
- For vehicles with additional electrical systems (48 V electrical system, high-voltage vehicle electrical system), it is mandatory to deactivate them **before** disconnecting the vehicle battery.

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WARNING

Deactivation of the 48 V electrical system.

Risk of short circuits! Risk of fire!

- Make sure that **no charger** is connected to the jump start support point in the engine compartment.

RISK OF DAMAGE

Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.

TECHNICAL INFORMATION

Follow notes for 48-V battery. See further information 6120 ... Notes on 48-V battery.



- Deactivate the 48V electrical system by opening the bonnet.

  The deactivation takes place automatically.

Check



TECHNICAL INFORMATION

Zero voltage (48V electrical system is switched off) is displayed only in PAD mode.

- Press the START-STOP button quickly 3 times without stepping on the brake pedal to establish the PAD mode.
- Check isolation from the supply in the instrument cluster in PAD mode.

desired state

- The Check Control message "48V electrical system switched off." (1) is displayed.

Result

» **The absence of voltage** cannot be determined by means of the Check Control message "48V electrical system switched off:" (1). Work is not permitted to be started.

ardiagn.com

Measure

- Carry out the service function "48 V electrical system deactivation".
  - Vehicle management > Service functions > Voltage supply > Deactivate 48 V electrical system

  Only when the Check Control message “48 V electrical system switched off.” (1) is displayed in the instrument cluster is it permitted to disconnect the 12 V battery.

  If the absence of voltage is not indicated clearly, contact Technical Support.

Result

» The Check Control message signals that the 48V electrical system has been switched off.

Measure

- Exit PAD mode by pressing the START-STOP button once without depressing the brake pedal.

  The work “Disconnecting the negative battery cable of the 48-V battery” can be started.



- Unlock and disconnect plug connection (1) of the CAN bus.
- Release the clip (2).



- Loosen nut (1).
- Pull off negative battery cable (2) of the 48-V battery from the negative battery terminal, set it aside and secure it.



WARNING

Unprotected battery terminals.

Risk of short circuits! Risk of fire!

- Cover the vehicle battery.

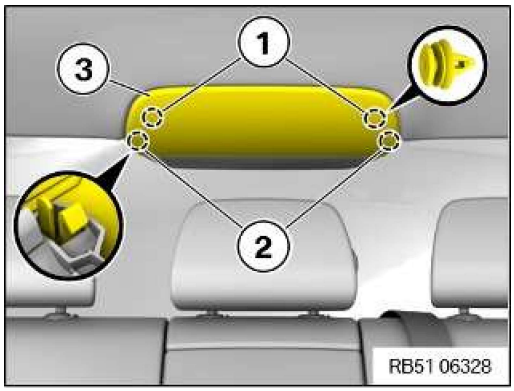
- Cover the vehicle battery with the special tool as shown.
- Position the battery earth lead (1) as shown.

3 – Disconnecting all battery earth leads



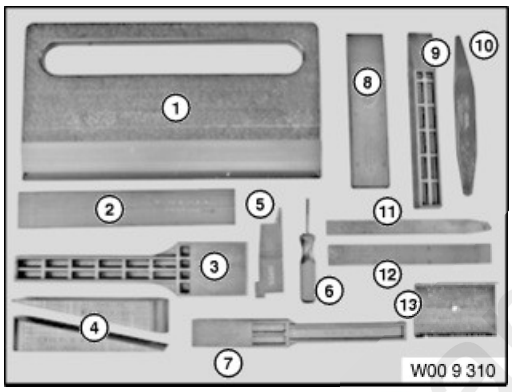
- See additional information.

4 – Removing the trim of the additional brake light

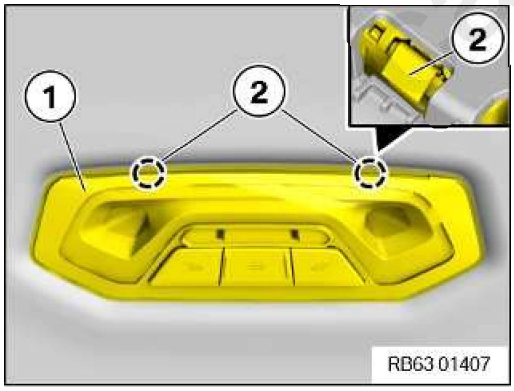


- Loosen the clips (1).
- Release the latch mechanisms (2) and remove the trim of the additional brake light (3).

5 – Remove interior roof light



- Have the set of special tools 0 493 752 (00 9 329) ready.



- Lever interior roof light (1) out of clamps (2) using a suitable tool.
- Unlock plug connection and disconnect.

6 – Removing the C-pillar trim panel on the left and right

NOTICE

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

▸ **Remove C-pillar trim panel**

erdiagn.com

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

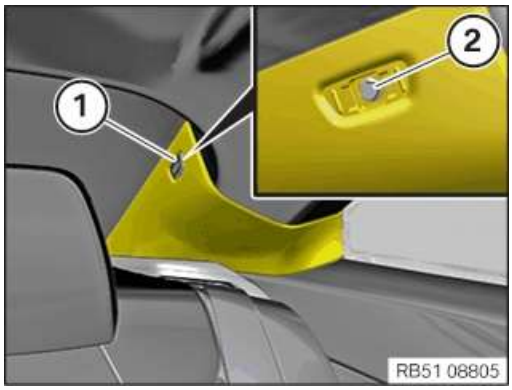
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

RISK OF DAMAGE

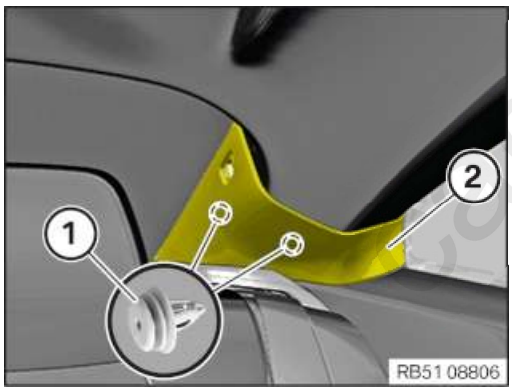
Damage to the head airbag.

Improper use of a tool when removing the trim panel may damage the head airbag.

- Do not use sharp-edged tools when removing the trim panel.



- Unclip cover (1) of the C-pillar trim panel.
- Release the screw (2).



- Unclip C-pillar trim panel (2) from clips (1) and guide it out.

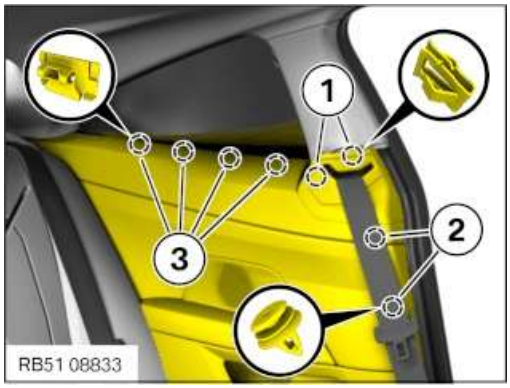
7 – Partially removing the front left and right side trim panels

NOTICE

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

▸ **Partially remove rear side trim panel**

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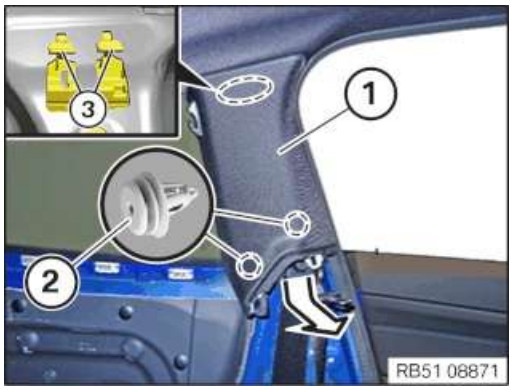


- Release the side trim panel with a suitable special tool from the set of special tools 0 493 752 (00 9 329) at the clamps (1) and the clips (2).
- Feed out the side trim panel from the lip of edge protection and release it from the clamps (3).

8 – Removing left and right B-pillar trim panel

NOTICE

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



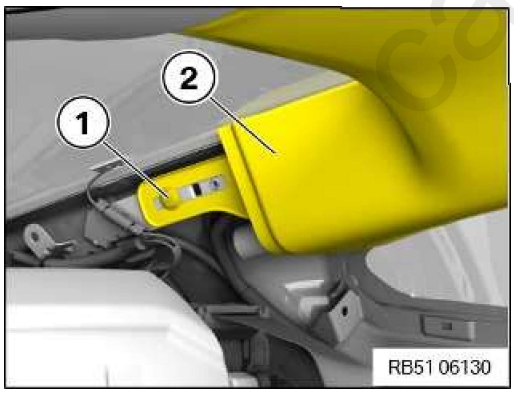
▸ **Remove the B-pillar trim panel**

- Unclip the B-pillar trim panel (1) at the clips (2).
- Remove the B-pillar trim panel (1) from the lip of the edge protection and the guides (3) in the direction of the arrow.

9 – Partially lower rear headlining

Prerequisite

The rear seat backrest is folded down toward the front.



NOTICE

Perform the operations on the left and right side.

NOTICE

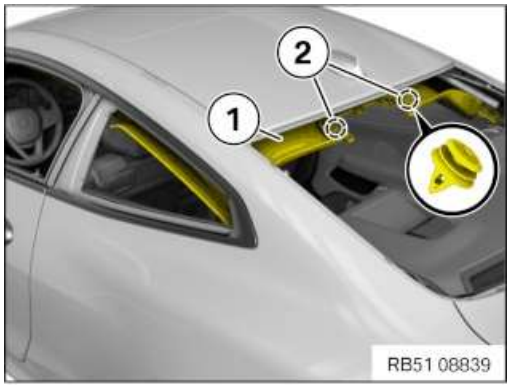
To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

Schematic diagram is for example purposes. Some parts may differ in certain details.

- Release the expanding rivet (1) on the headlining (2).

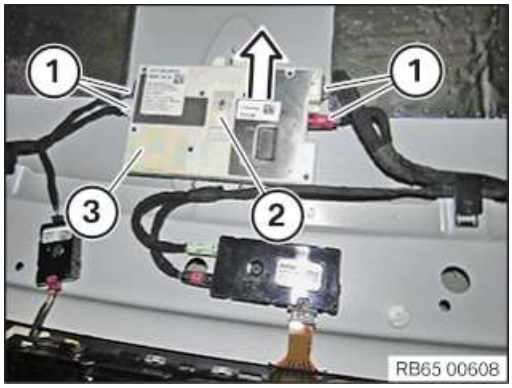
cardiagn.com



- Release the headlining (1) with the clips (2).
- Feed out the headlining (1) at the respective edge protection and place it down on the head rests of the front seat.

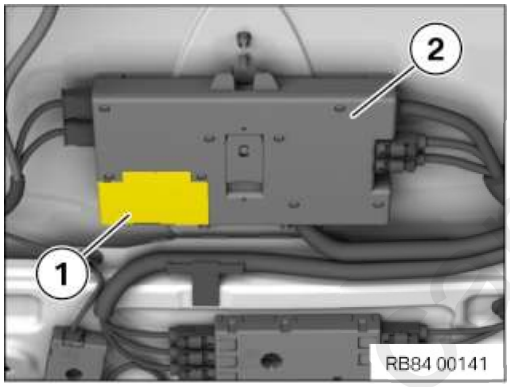
MAIN WORK

10 – Removing the telematics control unit

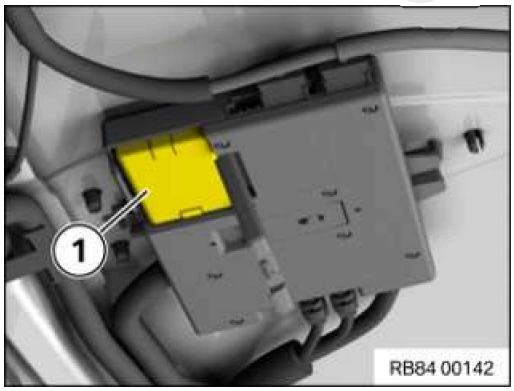


- Unlock plug connection (1) and disconnect.
- Unlock the lock (2) downward.
- Remove the telematics control unit (3) in the direction of arrow.

11 – Remounting or replacing the emergency battery for the telematics control unit

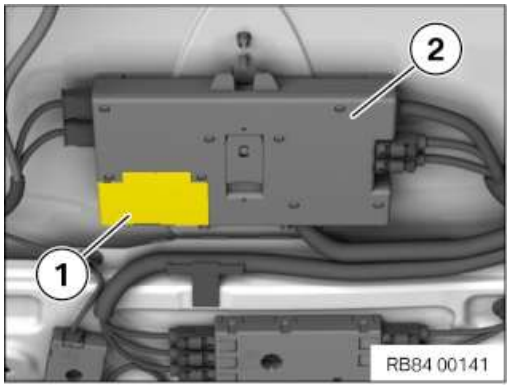


- Unlock and open battery compartment (1) on telematic control unit (2).



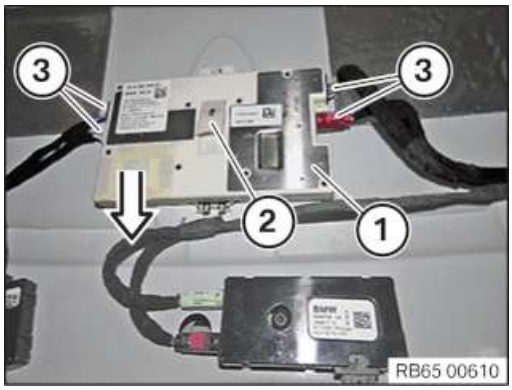
- Feed the emergency battery (1) out of the battery compartment and remount or replace it according to the test module instructions.

  Parts: Emergency battery



- Shut battery compartment (1) on telematics control unit (2) and lock.

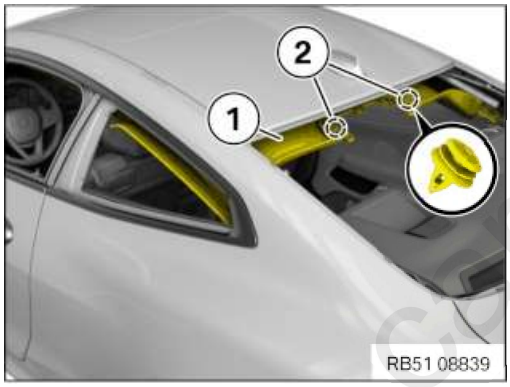
12 – Install the telematics control unit



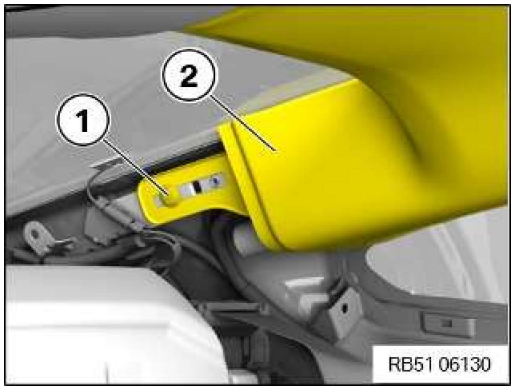
- Correctly position the telematics control unit (1) and push it in the direction of the arrow until the lock (2) engages.
- Position and connect the connectors (3).

POSTPROCESSES

13 – Partially installing the rear headlining (lowered)



- Check the clips (2) on the headlining (1) for damage and renew if necessary.
- Position headlining (1) correctly and guide it in at the respective edge protection.
- Clip in headlining (1) with the clips (2).



NOTICE

Perform the operations on the left and right side.

NOTICE

To provide a better overview: Schematic diagram with partially hidden components.

NOTICE

Schematic diagram is for example purposes. Some parts may differ in certain details.

- Fasten expanding rivet (1) to headlining (2).

14 – Installing the left and right B-pillar trim panel

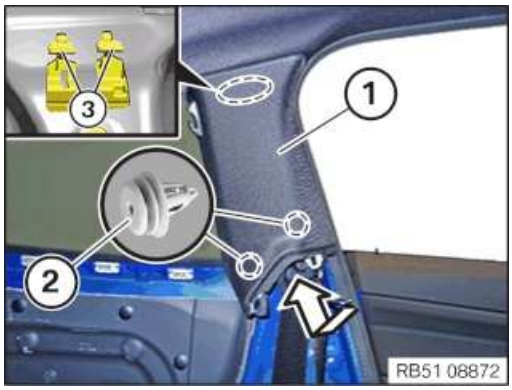
NOTICE

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

▸ **Install the B-pillar trim panel**



- Check clips (1) for damage and renew if necessary.



- Insert B-pillar trim panel (1) in direction of arrow into the guides (3) and under the lip of edge protection.
- Clip in the B-pillar trim panel (1) at the clips (2).

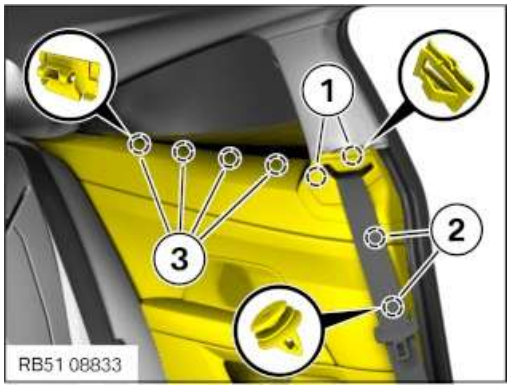
15 – Partially installing the rear side trim panel on the left and right

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NOTICE

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

▸ **Partially installing the rear side trim panel**



- Clip the side trim panel into clamps (3) and guide it in under the lip of edge protection.
- Clip in the side trim panel with the clips (2) and the clamps (1).

16 – Installing the C-pillar trim panel on the left and right

NOTICE

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

▸ **Installing C-pillar trim panel**

WARNING

Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: 72 00 Safety regulations on handling components with gas generators.

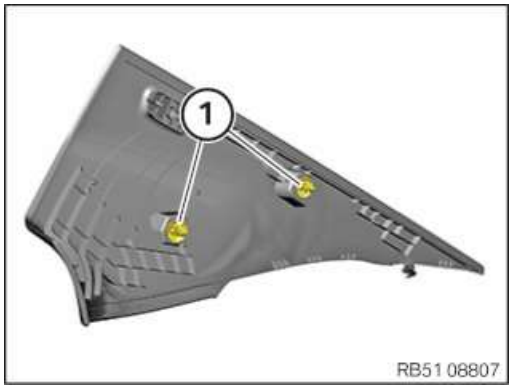
RISK OF DAMAGE

Damage to the head airbag.

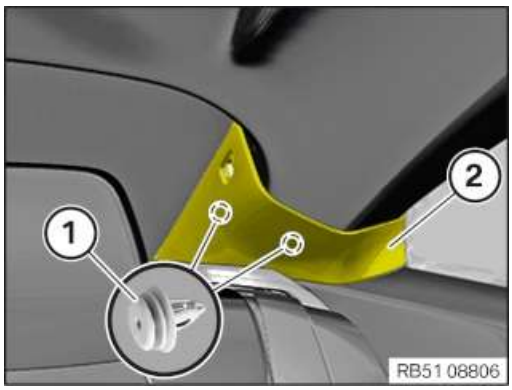
Improper use of a tool when removing the trim panel may damage the head airbag.

- Do not use sharp-edged tools when removing the trim panel.

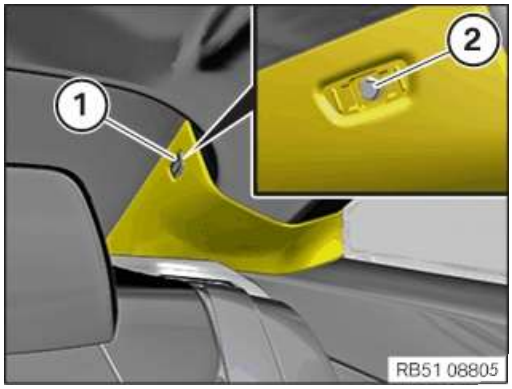
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- Check clips (1) for damage and, if necessary, renew them.



- Position C-pillar trim panel (2) and clip it onto clips (1).



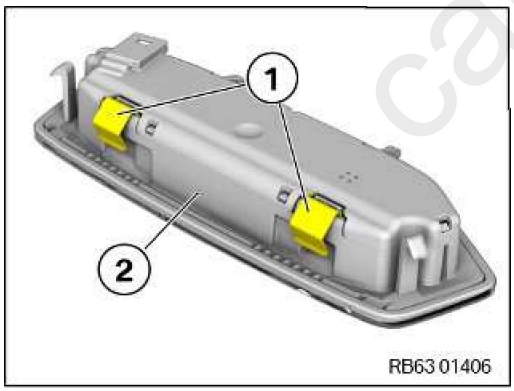
- Tighten down screw (2).

C-pillar trim panel to body

Screw		Tightening torque	2,6 Nm

- Clip in cover (1) of the C-pillar trim panel.

17 – Install interior roof light



Check

- Check the clamps (1) for damage.

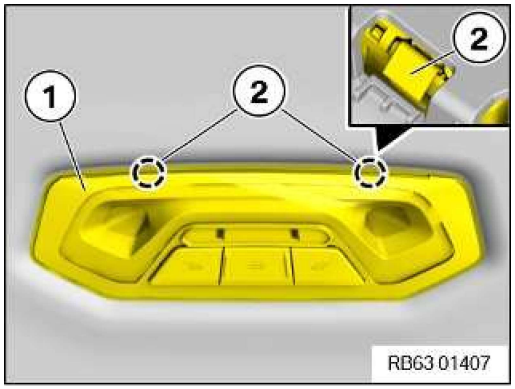
Result

» Clamps (1) are damaged.

Measure

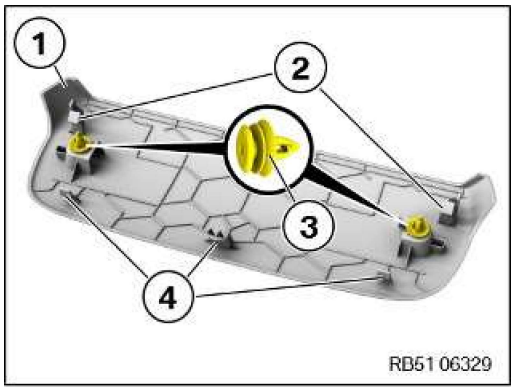
- Renew the interior roof light (2).

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- Connect connectors and lock.
- Clip in the interior roof light (1) with clamps (2).

18 – Installing trim for additional brake light



Check

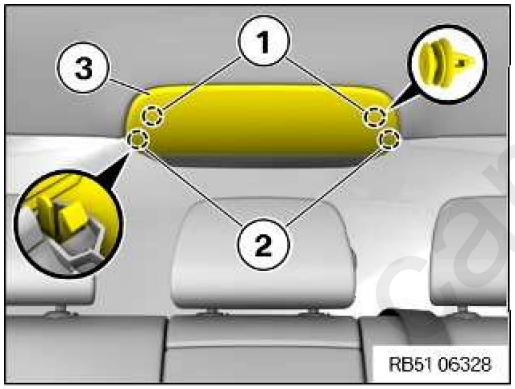
- Check the clips (3) for damage and renew if necessary.
- Check latch mechanisms (2) and guides (4) for damage.

Result

» The latch mechanism or the guide is damaged.

Measure

- Renew the trim for the additional brake light.



- Position trim for additional brake light (1) from the bottom and clip it in with latch mechanisms (2).
- Clip in clips (1).

19 – Connecting all battery earth leads



- See additional information.

20 – Activating the 48 V electrical system

Prerequisite

Ignition is switched off.

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RISK OF DAMAGE

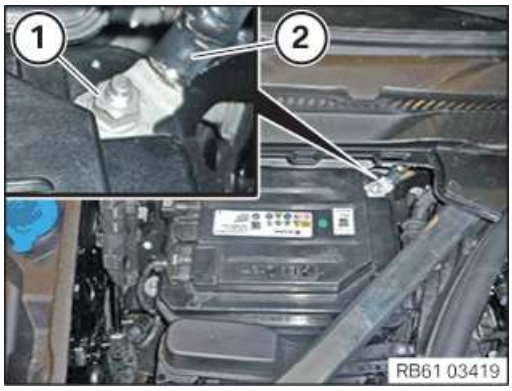
Damage to 48-V battery

If a 48-V battery that is disconnected from the electrical system is activated, the battery electronics will be damaged.

- Only carry out activation of the 48V electrical system with a completely connected 48-V battery.



- Lift battery earth lead (1).
- Remove special tool .



- Release the negative battery cable (2) of the 48-V battery from the mounting.
- Position the negative battery cable (2) of the 48-V battery on the negative battery terminal.
- Tighten nut (1).

Negative battery cable to 48-V battery

Nut M8		Tightening torque	19 Nm



- Connect the connector (1) of the CAN bus and lock it.
- Clip in clip (2).



- Activate the 48V electrical system by closing the bonnet.

  The activation takes place automatically.

21 – Encode/program control unit(s)

Prerequisite

Component has been replaced.

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.

- 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

C-pillar trim panel to body — Used in step 16

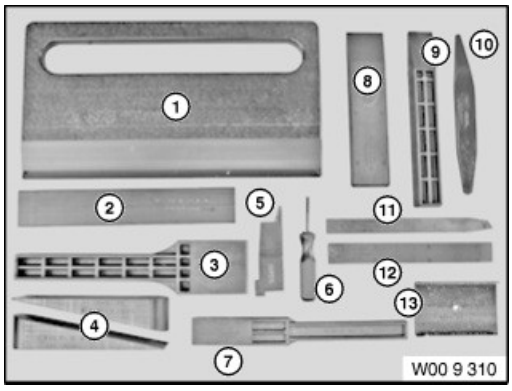
Screw		Tightening torque	2,6 Nm

Negative battery cable to 48-V battery — Used in step 20

Nut M8		Tightening torque	19 Nm

Overview of Special Tools

0 493 752 (00 9 329) Case



Common — Used in step 57

Usage	(Case) with insert without mounting wedges, delivery while stocks last - as of 02/2019.
Included in the tool or work	0 490 527
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 07 09 (530)

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Links

Repair instructions (PRE)	Used in step
Notes on 48-V battery	220

General repair instructions	Used in step
72 00 ... Safety regulations for handling components with gas generators	

Repair instructions	Used in step
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	319
61 20 900 Disconnecting and connecting battery earth lead	319
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61 20 900 Disconnecting and connecting battery earth lead	319

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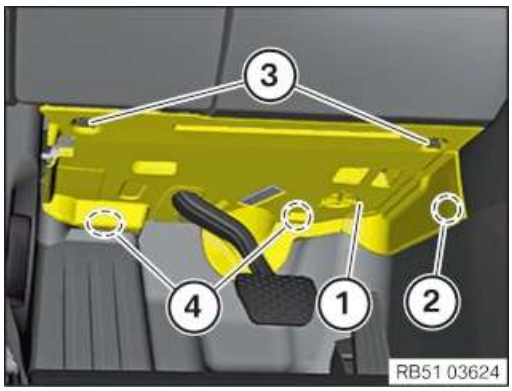
61 20 900 Disconnecting and connecting battery earth lead	319
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61 20 900 Disconnecting and connecting battery earth lead	319
61 20 900 Disconnecting and connecting battery earth lead	319
61 20 900 Disconnecting and connecting battery earth lead	319
61 20 900 Disconnecting and connecting the battery earth lead (all battery earth leads)	319
61 20 900 Disconnecting and connecting battery earth lead	319
61 20 900 Disconnecting and connecting battery earth lead	319
61 20 900 Disconnecting and connecting battery earth lead	319

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84 31 020 Removing and installing emergency loudspeaker of hands-free system

PRELIMINARY WORK

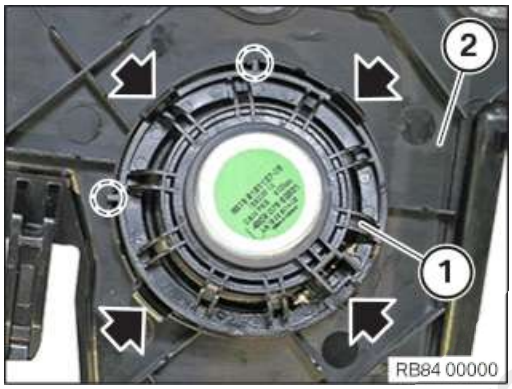
1 – Removing the trim panel for pedal mechanism



- Unclip the trim panel for the pedal mechanism (1) towards the inside in this area (2).
- Turn the locks (3) by 90°.
- Detach the trim panel for the pedal mechanism (1) inwards out of the guides (4).
- Unlock associated plug connection and disconnect.

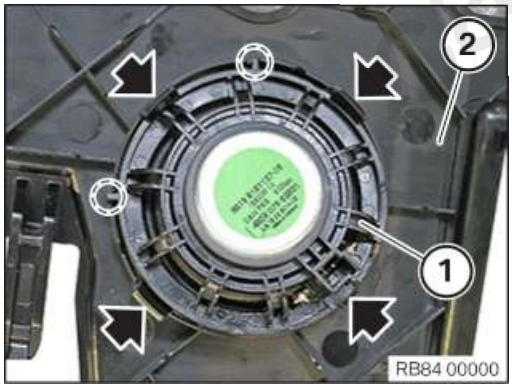
MAIN WORK

2 – Remove emergency loudspeaker



- Unclip the emergency loudspeaker (1) from the trim panel for pedal mechanism (2).

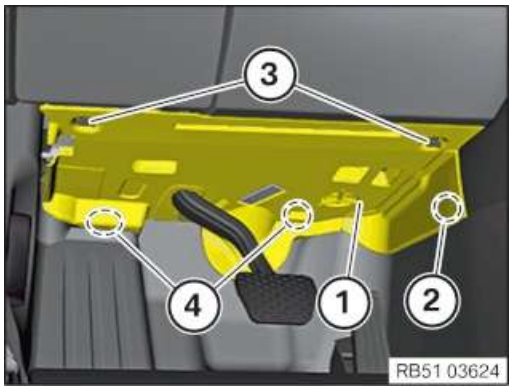
3 – Install emergency loudspeaker



- Clip in the emergency loudspeaker (1) in the trim panel for pedal mechanism (2).
- Check that the emergency loudspeaker (1)is engaged correctly (arrows).

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4 – Installing the trim panel for the pedal mechanism



- Connect associated connector.
- Attach the trim panel for the pedal mechanism (1) in the guides (4) and fold it up.
- Clip the trim panel for the pedal mechanism (1) into the centre console in this area (2).

TECHNICAL INFORMATION

It is **imperative** that the screws caps of the trim panel be correctly locked. This is the only way to ensure that the trim panel does not come loose and potentially tilt into the pedal area.

- Insert screw caps (3) correctly and turn by 90° to lock.

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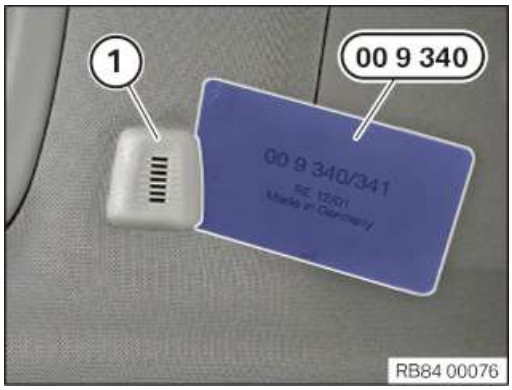
84 31 552 Removing and installing/replacing both hands-free microphones on the driver's and passenger's side

1 – Remove left and right hands-free microphone

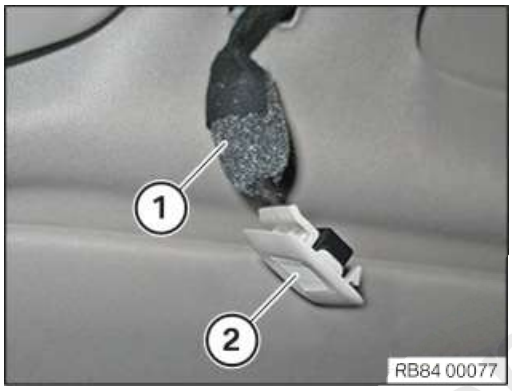
NOTICE

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

▶ **Removing hands-free microphone**



- Lever out the hands-free microphone (1) with the special tool 0 493 687 (00 9 340).



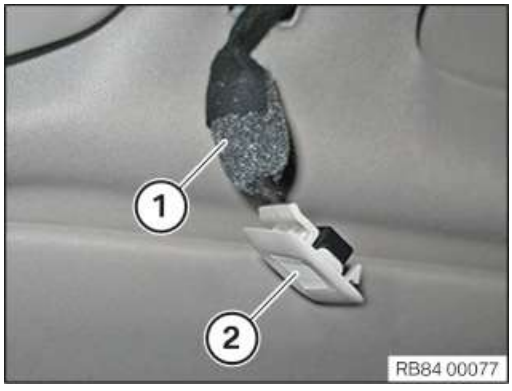
- Open insulation (1).
- Disconnect plug connection.
- Remove hands-free microphone (2).

2 – Installing the hands-free microphone on the left and right

NOTICE

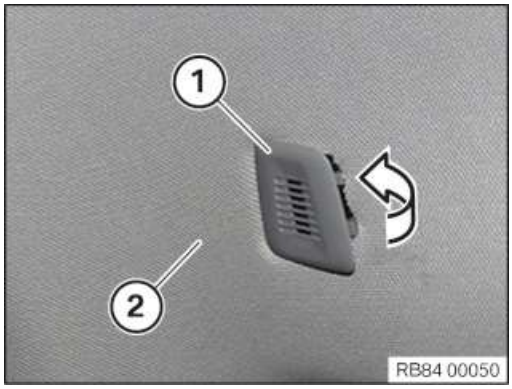
Description is for left component only. Procedure on the right side is identical.

▶ **Installing the hands-free microphone**



- Connect the connector to the hands-free microphone (2).
- Close the insulation (1).

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- Insert the hands-free microphone (1) in the direction of arrow in the headlining (2).

3 – Remove left and right hands-free microphone

NOTICE

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

4 – Install left and right hands-free microphone

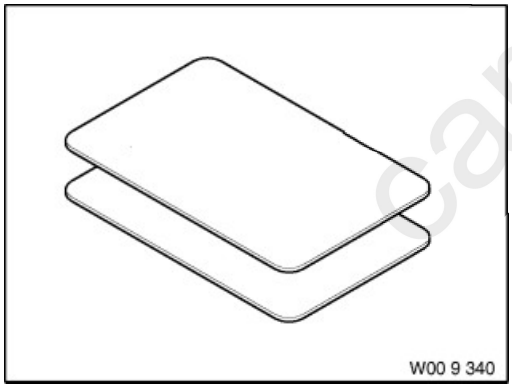
NOTICE

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

Additional Information

Overview of Special Tools

0 493 687 (00 9 340) Removal aid



Common		Used in step 13
Usage	(Dismantling aid (2 pieces))	
Included in the tool or work		
Storage location	C2	
Replaced by		
In connection with		
SI-Number	01 15 99 (483)	

Consisting of

Pos	BMW Order number	Replaced by	Designation	In Connection with
1	0 496 289 (00 9 341)		**Removal aid** Only available as a set (2 tools) under 00 9 340 (= 83 30 0 493 687).	

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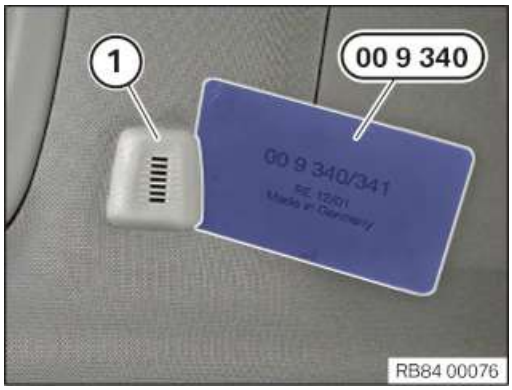
84 31 552 Removing and installing/replacing both hands-free microphones on the driver's and passenger's side

1 – Remove left and right hands-free microphone

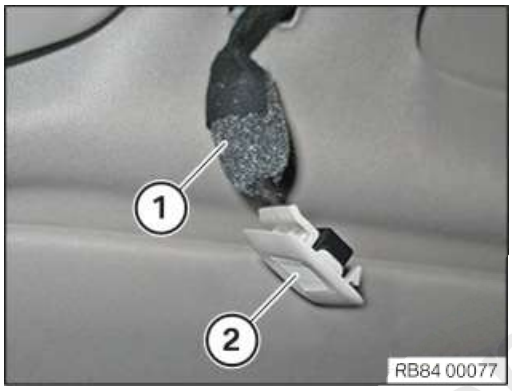
NOTICE

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

▶ **Removing hands-free microphone**



- Lever out the hands-free microphone (1) with the special tool 0 493 687 (00 9 340).



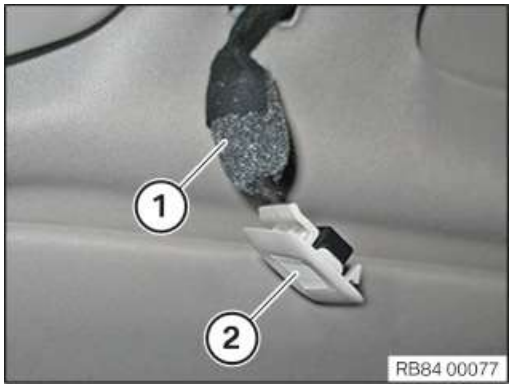
- Open insulation (1).
- Disconnect plug connection.
- Remove hands-free microphone (2).

2 – Installing the hands-free microphone on the left and right

NOTICE

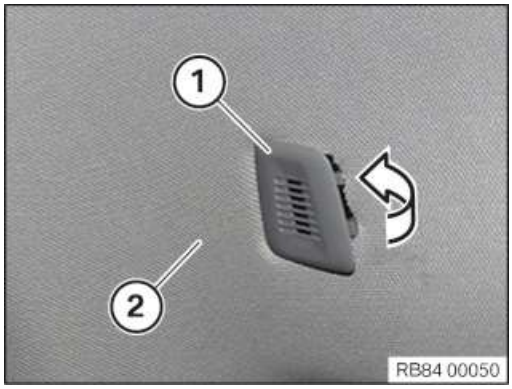
Description is for left component only. Procedure on the right side is identical.

▶ **Installing the hands-free microphone**



- Connect the connector to the hands-free microphone (2).
- Close the insulation (1).

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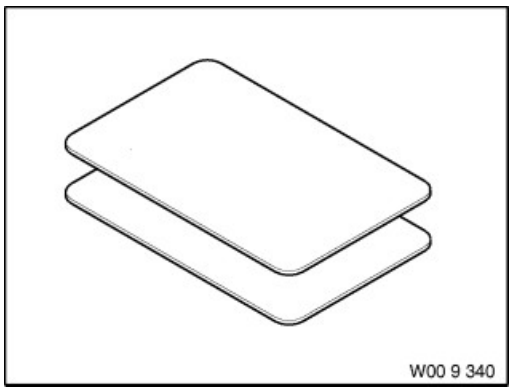


- Insert the hands-free microphone (1) in the direction of arrow in the headlining (2).

Additional Information

Overview of Special Tools

0 493 687 (00 9 340) Removal aid



Common		Used in step 1
Usage	(Dismantling aid (2 pieces))	
Included in the tool or work		
Storage location	C2	
Replaced by		
In connection with		
SI-Number	01 15 99 (483)	

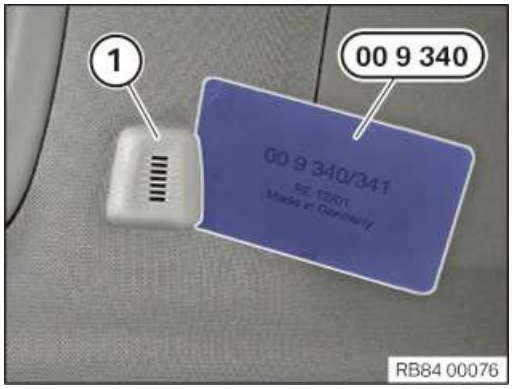
Consisting of

Pos	BMW Order number	Replaced by	Designation	In Connection with
1	0 496 289 (00 9 341)		**Removal aid** Only available as a set (2 tools) under 00 9 340 (= 83 30 0 493 687).	

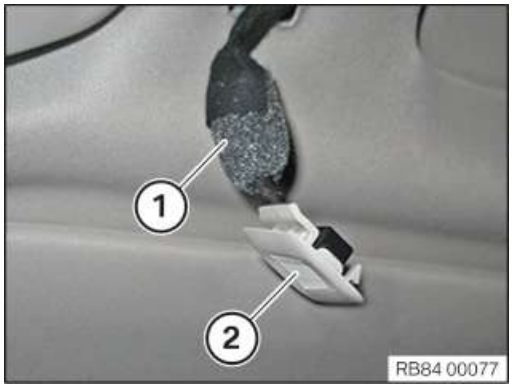
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84 31 550 Removing and installing/replacing microphone on the driver's side

1 – Removing hands-free microphone

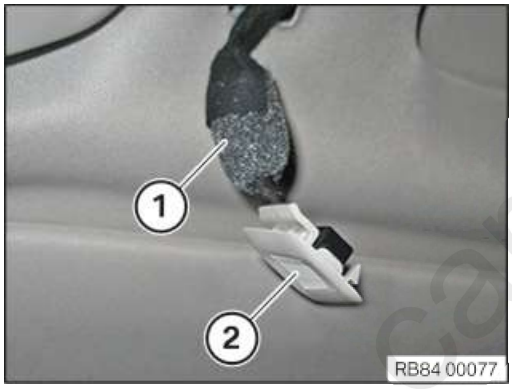


- Lever out the hands-free microphone (1) with the special tool 0 493 687 (00 9 340).

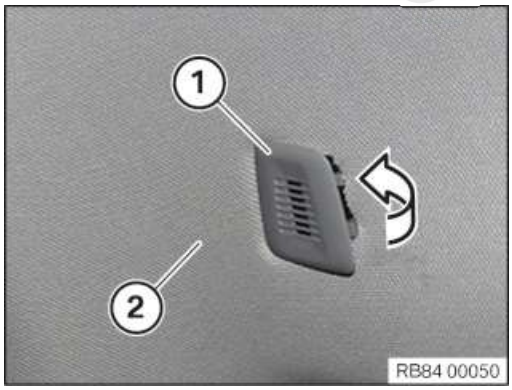


- Open insulation (1).
- Disconnect plug connection.
- Remove hands-free microphone (2).

2 – Installing the hands-free microphone



- Connect the connector to the hands-free microphone (2).
- Close the insulation (1).



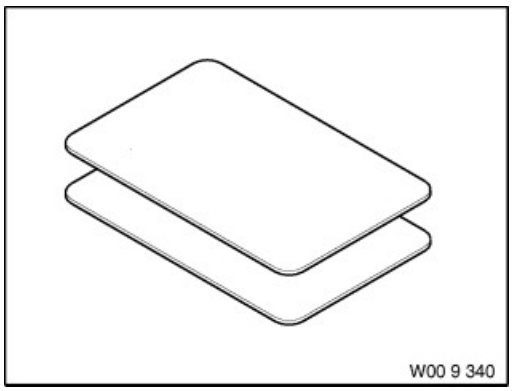
- Insert the hands-free microphone (1) in the direction of arrow in the headlining (2).

Additional Information

Overview of Special Tools

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0 493 687 (00 9 340) Removal aid



Common Used in step 1

Usage	(Dismantling aid (2 pieces))
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

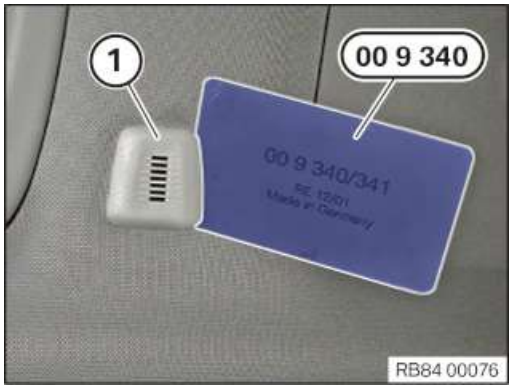
Consisting of

Pos	BMW Order number	Replaced by	Designation	In Connection with
1	0 496 289 (00 9 341)		**Removal aid** Only available as a set (2 tools) under 00 9 340 (= 83 30 0 493 687).	

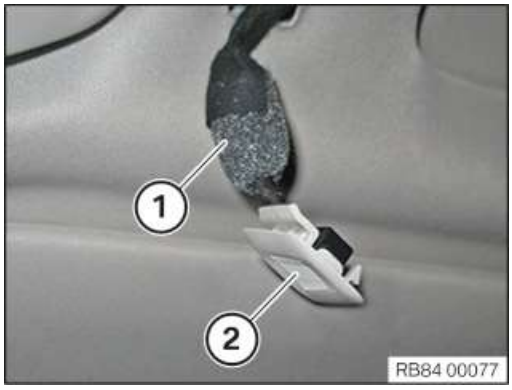
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84 31 551 Removing and installing/replacing microphone on the passenger's side

1 – Removing the right hands-free microphone

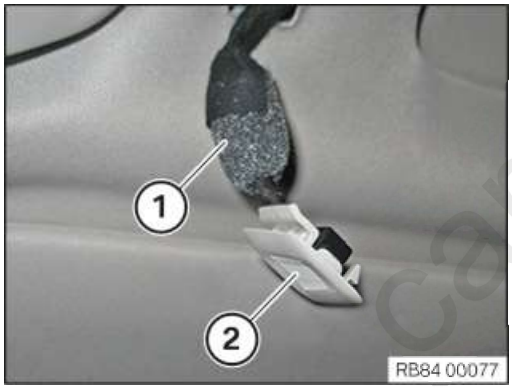


- Lever out the hands-free microphone (1) with the special tool 0 493 687 (00 9 340).

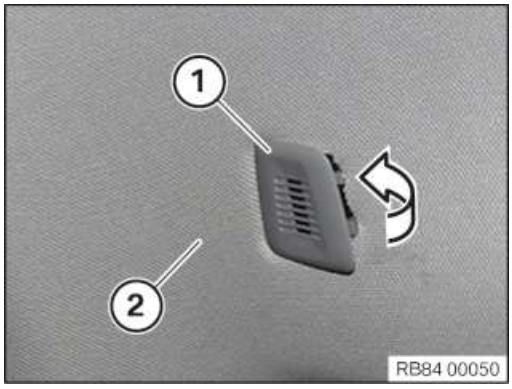


- Open insulation (1).
- Unlock plug connection and disconnect.
- Remove hands-free microphone (2).

2 – Installing the right hands-free microphone



- Connect the connector to the hands-free microphone (2).
- Close the insulation (1).



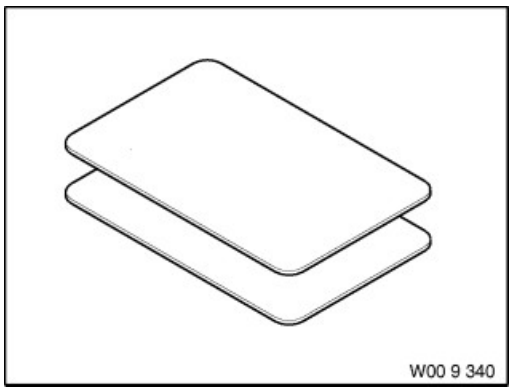
- Position hands-free microphone (1) in headlining in the direction of the arrow (2).

Additional Information

Overview of Special Tools

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0 493 687 (00 9 340) Removal aid



Common Used in step 1

Usage	(Dismantling aid (2 pieces))
Included in the tool or work	
Storage location	C2
Replaced by	
In connection with	
SI-Number	01 15 99 (483)

Consisting of

Pos	BMW Order number	Replaced by	Designation	In Connection with
1	0 496 289 (00 9 341)		**Removal aid** Only available as a set (2 tools) under 00 9 340 (= 83 30 0 493 687).	

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84 50 040 Remove and install/replace the electronic toll collection device

1 – Remove and install / replace electronic toll collection device

TECHNICAL INFORMATION

When replacing the toll collection device "Electronic toll collection device", it is **imperative** to install a new part.
Installation and removal must be carried out in accordance with the installation instructions accompanying the device.

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



The following applies in general:

To avoid damage, observe the following notes:

- 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 components; 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 cable

- 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 cables

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

HSD cables

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

Fibre-optic cables:

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

Caution!

- 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 optical fibres

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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61 00 ... Parking-residing-driving

Vehicles of the G series feature a new type of terminal control:

Functional description of the parking-residing-driving terminal control

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64 00 ... Information on using cleaning agent/paints (personal protection equipment)



Warning!

Use of cleaning agents/paints not compliant with instructions can cause serious injuries or burns!

Handling cleaning agents/paints can trigger allergic skin and respiratory reactions!



Important!

Observe following instructions:

- Store cleaning agents/paints only in a secure cabinet.
- Keep cleaning agents/paints away from naked flames and other sources of ignition.
- Protect cleaning agents/paints from high temperatures and direct sunlight.
- Always keep an eye douche on hand, change the water regularly (once a month).



Important!

Observe following instructions before use:

- Manufacturer's instructions (on container/packaging)
- Hazard warnings (on container/packaging)
- Manufacturer's instructions on package insert
- Material safety data sheet of manufacturer
- Product information in EPC
- National market regulations



Important!

Observe following instructions during use:

- Do not eat, drink or smoke while working with these products.
- Avoid direct contact with skin and eyes.
- Wear personal protective clothing/equipment.
- Ensure that all enclosed areas are well ventilated or extract fumes directly.
- Immediately change working clothes soiled with cleaning agent/paint.
- After finishing work, wash your hands and apply protective skin cream.



Important!

Follow hazard warnings and wear personal protection equipment!

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First Aid:

- If product comes in contact with eyes, immediately flush with running water for about 10 - 15 minutes. Seek the advice of eye specialist.
- In the event of skin contact and where applicable an allergic skin reaction, clean the affected areas immediately with soap and water and then apply silicone-free skin cream. Seek advice of physician.
- If an adhesive product is swallowed, rinse mouth/parts of mouth thoroughly with running water. Drink 1-2 glasses of water. Do not induce vomiting. Consult a doctor.
- After inhaling vapours ensure ample supply of fresh air. Keep calm, keep respiratory tracks clear and call doctor.



Recycling:

Dispose of cleaning agents/paints in a professional manner!

Observe national/country-specific disposal regulations.

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99 00 ... General instructions on paintwork

General instructions and classification of paint stages are described on the KSD CD (under Notes, General information on flat rate unit data, Passenger car explanation for FRU specifications for paintwork).

The marked area shows the basis of area calculation for creating the flat rate unit. The marked area does not show the area actually to be painted. If touching up is required, the painter defines the precise position as he sees fit.

Special procedure for matte paintwork:

Matte paintwork cannot be touched up since the painted surface cannot be polished.

For further information, see also the BMW painting handbook in the S-Gate dealer portal.

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64 00 ... Information on using cleaning agent/paints (personal protection equipment)



Warning!

Use of cleaning agents/paints not compliant with instructions can cause serious injuries or burns!

Handling cleaning agents/paints can trigger allergic skin and respiratory reactions!



Important!

Observe following instructions:

- Store cleaning agents/paints only in a secure cabinet.
- Keep cleaning agents/paints away from naked flames and other sources of ignition.
- Protect cleaning agents/paints from high temperatures and direct sunlight.
- Always keep an eye douche on hand, change the water regularly (once a month).



Important!

Observe following instructions before use:

- Manufacturer's instructions (on container/packaging)
- Hazard warnings (on container/packaging)
- Manufacturer's instructions on package insert
- Material safety data sheet of manufacturer
- Product information in EPC
- National market regulations



Important!

Observe following instructions during use:

- Do not eat, drink or smoke while working with these products.
- Avoid direct contact with skin and eyes.
- Wear personal protective clothing/equipment.
- Ensure that all enclosed areas are well ventilated or extract fumes directly.
- Immediately change working clothes soiled with cleaning agent/paint.
- After finishing work, wash your hands and apply protective skin cream.



Important!

Follow hazard warnings and wear personal protection equipment!

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First Aid:

- If product comes in contact with eyes, immediately flush with running water for about 10 - 15 minutes. Seek the advice of eye specialist.
- In the event of skin contact and where applicable an allergic skin reaction, clean the affected areas immediately with soap and water and then apply silicone-free skin cream. Seek advice of physician.
- If an adhesive product is swallowed, rinse mouth/parts of mouth thoroughly with running water. Drink 1-2 glasses of water. Do not induce vomiting. Consult a doctor.
- After inhaling vapours ensure ample supply of fresh air. Keep calm, keep respiratory tracks clear and call doctor.



Recycling:

Dispose of cleaning agents/paints in a professional manner!

Observe national/country-specific disposal regulations.

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41 00 ... Information/warning labels

Missing or damaged labels (e. g. tyre pressure) must be replaced.

--> overview via the installation location

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61 00 ... Notes on handling the high pressure cleaner



Warning!

Only used a high pressure cleaner approved by BMW!

Only specially trained persons of 16 years of age or older may work with the high pressure cleaner.

Check the high pressure cleaner and electrical wiring for visible damage.

Only use at a suitable location.



Attention!

Pay attention to following hazard warnings:

- Danger of injury due to water jet
- Contact with hazardous substances in spray
- Risk of skidding on wet floor
- Risk of stumbling due to hoses and cables
- Comply with notes and instructions on handling cleaning agents !
- Risk of scalding when cleaning with hot water.
- On electric or hybrid cars, the safety instructions for handling with hybrid cars are to be complied with.



Warning!

The following personal protective equipment is to be used:

- Safety goggles/face guard
- Suitable gloves
- Apron
- Rubber boots
- Ear protectors
- Safety shoes



Attention!

Notes on washing a vehicle with a high pressure cleaner:

- Do not wash directly on gaskets and control units during engine washes.
- A minimum distance of 30 cm must be adhered to for tyres and tyre valves.
- A minimum distance of 30 cm must be adhered to for the soft top and painted parts.
- Do not use if engine is still hot.
- Do not exceed maximum water temperature of 60 degrees.
- Do not spray directly onto cameras/sensors.

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Attention!

- For your own safety, we recommend that you do not wash on the high-voltage components in electric or hybrid vehicles.

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99 Notes on using temperature-controlled infra-red radiators

When using temperature-controlled infrared radiators, damage to adhesive bonds, paint and vehicle components can occur when drying spatula and filler.

The temperature sensors in the infrared radiator only operate reliably on large, even surfaces.

On small surfaces such as C-pillars or sills, often only a colder, adjacent area is measured.

This leads to actual surface temperatures of up to 130°C, even if only 70°C is set on the infrared radiator.

When the rear side walls are partially replaced by bonding and riveting, these high temperatures can lead to a visible pattern in the area of the joint.

Remedy:

Check the surface temperatures on small component surfaces during the drying process with an external temperature sensor.

The general rule is: The surface temperatures must not exceed 85°C.

Important!

Do not use infrared radiators on carbon parts!

Risk of component destruction.

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99 00 ... Touching up paintwork damage

These notes apply to paintwork damage on the body aperture that occurred when detaching bonded window glass.

To ensure long-term corrosion protection, it is absolutely essential to touch up damage to paintwork!

The ”BMW Color System” painting handbook forms the basis of these repair instructions and must be observed without fail.

Ground down damage to paintwork on body aperture and touch up with BMW multibase filler.

Grind larger areas or damage down to the bare sheet metal and coat with BMW multibase filler (layer thickness 30 to 40 µm).

Hardening time:

- With infrared, at least 10 minutes
- Without infrared for at least 60 °C, at least 30 minutes
- Without infrared for at least 20 °C, at least 24 hours

If a complete build-up of paint is required in the visible area:

- Tape off primed adhesive flange before applying top coat

Important!

Observe hardening time of BMW multibase filler otherwise a perfect bond cannot be guaranteed!

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99 00 ... General instructions on paintwork

General instructions and classification of paint stages are described on the KSD CD (under Notes, General information on flat rate unit data, Passenger car explanation for FRU specifications for paintwork).

The marked area shows the basis of area calculation for creating the flat rate unit. The marked area does not show the area actually to be painted. If touching up is required, the painter defines the precise position as he sees fit.

Special procedure for matte paintwork:

Matte paintwork cannot be touched up since the painted surface cannot be polished.

For further information, see also the BMW painting handbook in the S-Gate dealer portal.

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64 00 ... Information on using cleaning agent/paints (personal protection equipment)



Warning!

Use of cleaning agents/paints not compliant with instructions can cause serious injuries or burns!

Handling cleaning agents/paints can trigger allergic skin and respiratory reactions!



Important!

Observe following instructions:

- Store cleaning agents/paints only in a secure cabinet.
- Keep cleaning agents/paints away from naked flames and other sources of ignition.
- Protect cleaning agents/paints from high temperatures and direct sunlight.
- Always keep an eye douche on hand, change the water regularly (once a month).



Important!

Observe following instructions before use:

- Manufacturer's instructions (on container/packaging)
- Hazard warnings (on container/packaging)
- Manufacturer's instructions on package insert
- Material safety data sheet of manufacturer
- Product information in EPC
- National market regulations



Important!

Observe following instructions during use:

- Do not eat, drink or smoke while working with these products.
- Avoid direct contact with skin and eyes.
- Wear personal protective clothing/equipment.
- Ensure that all enclosed areas are well ventilated or extract fumes directly.
- Immediately change working clothes soiled with cleaning agent/paint.
- After finishing work, wash your hands and apply protective skin cream.



Important!

Follow hazard warnings and wear personal protection equipment!

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First Aid:

- If product comes in contact with eyes, immediately flush with running water for about 10 - 15 minutes. Seek the advice of eye specialist.
- In the event of skin contact and where applicable an allergic skin reaction, clean the affected areas immediately with soap and water and then apply silicone-free skin cream. Seek advice of physician.
- If an adhesive product is swallowed, rinse mouth/parts of mouth thoroughly with running water. Drink 1-2 glasses of water. Do not induce vomiting. Consult a doctor.
- After inhaling vapours ensure ample supply of fresh air. Keep calm, keep respiratory tracks clear and call doctor.



Recycling:

Dispose of cleaning agents/paints in a professional manner!

Observe national/country-specific disposal regulations.

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41 00 ... Information/warning labels

Missing or damaged labels (e. g. tyre pressure) must be replaced.

--> overview via the installation location

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61 00 ... Notes on handling the high pressure cleaner



Warning!

Only used a high pressure cleaner approved by BMW!

Only specially trained persons of 16 years of age or older may work with the high pressure cleaner.

Check the high pressure cleaner and electrical wiring for visible damage.

Only use at a suitable location.



Attention!

Pay attention to following hazard warnings:

- Danger of injury due to water jet
- Contact with hazardous substances in spray
- Risk of skidding on wet floor
- Risk of stumbling due to hoses and cables
- Comply with notes and instructions on handling cleaning agents !
- Risk of scalding when cleaning with hot water.
- On electric or hybrid cars, the safety instructions for handling with hybrid cars are to be complied with.



Warning!

The following personal protective equipment is to be used:

- Safety goggles/face guard
- Suitable gloves
- Apron
- Rubber boots
- Ear protectors
- Safety shoes



Attention!

Notes on washing a vehicle with a high pressure cleaner:

- Do not wash directly on gaskets and control units during engine washes.
- A minimum distance of 30 cm must be adhered to for tyres and tyre valves.
- A minimum distance of 30 cm must be adhered to for the soft top and painted parts.
- Do not use if engine is still hot.
- Do not exceed maximum water temperature of 60 degrees.
- Do not spray directly onto cameras/sensors.

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Attention!

- For your own safety, we recommend that you do not wash on the high-voltage components in electric or hybrid vehicles.

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99 Notes on using temperature-controlled infra-red radiators

When using temperature-controlled infrared radiators, damage to adhesive bonds, paint and vehicle components can occur when drying spatula and filler.

The temperature sensors in the infrared radiator only operate reliably on large, even surfaces.

On small surfaces such as C-pillars or sills, often only a colder, adjacent area is measured.

This leads to actual surface temperatures of up to 130°C, even if only 70°C is set on the infrared radiator.

When the rear side walls are partially replaced by bonding and riveting, these high temperatures can lead to a visible pattern in the area of the joint.

Remedy:

Check the surface temperatures on small component surfaces during the drying process with an external temperature sensor.

The general rule is: The surface temperatures must not exceed 85°C.

Important!

Do not use infrared radiators on carbon parts!

Risk of component destruction.

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Important!

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